



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

October 17, 2014

APPLICANT: Tennessee Valley Authority

FACILITY: Watts Bar Nuclear Power Plant, Unit 2

SUBJECT: SUMMARY OF AUGUST 28, 2014, MEETING WITH TENNESSEE VALLEY
AUTHORITY REGARDING THE WATTS BAR NUCLEAR PLANT, UNIT 2
OPERATING LICENSE APPLICATION

On August 28, 2014, a Category 1 public teleconference was held between the U.S. Nuclear Regulatory Commission (NRC) and representatives of the Tennessee Valley Authority (TVA). The meeting notice dated July 21, 2014, is available in the NRC Agencywide Documents Access and Management System under Accession No. ML14234A063. The purpose of this teleconference was for TVA staff to discuss issues related to the operating license application review for Watts Bar Nuclear Plant (WBN), Unit 2. There were two points of discussion at this meeting. The first focused on TVA's presentation of proposed changes to Developmental Revision I of the Technical Specifications (TSs) to be included in a future submittal to the NRC as Developmental Revision J of the TSs, while the second focused on TVA's draft submittal of Section 2.2 of Part V of the Fire Protection Report. The NRC received TVA's partial submittal of the Fire Protection Report, which contained Parts II, III, IV, VIII, IX, and X, and TVA plans to submit the remainder of the Fire Protection Report by the end of September. A list of attendees for the teleconference is included in Enclosure 1. The talking points and draft document summarizing the changes proposed in Developmental Revision J of the TSs is included in Enclosure 2. The handout discussing TVA's draft write-up of Section 2.2 of Part V of the Fire Protection Report is included in Enclosure 3.

To start the discussion on the proposed changes to the WBN, Unit 2 TSs, the representatives from TVA described the history behind the formulation of the WBN, Unit 2 TSs. WBN, Unit 1 is an operating plant with its own set of TSs that have not yet been converted to match the NRC-approved Standard Technical Specifications. Because of this and the effort to keep the WBN, Unit 2 licensing basis as close to the WBN, Unit 1 licensing basis as possible, the WBN, Unit 2 TSs will generally match the WBN, Unit 1 TSs, except in those instances where physical or unit-specific differences make that impossible. With this context provided, TVA went on to explain that the proposed changes could be categorized in the following three ways: (1) changes to the WBN, Unit 2 TSs due to physical differences (i.e. obsolescence, upgraded instrumentation, etc.); (2) the need to update or adjust certain TSs due to dual-unit operation; (3) any differences that the NRC staff determined would be more appropriate than matching the WBN, Unit 1 TSs; and (4) corrections to updated references and/or licensee document citations. TVA plans for Developmental Revision J to be the final substantial revision to the WBN, Unit 2 TSs. The review of Revision J would be more of a confirmatory review to ensure that all of the staff's requested changes were made and to look for any typographical or administrative errors.

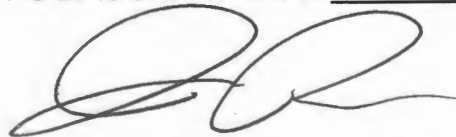
The NRC staff asked specific questions on certain changes, that TVA plans to address at the time of the submittal, but the staff also made it known that their preference is for the Developmental Revision I review to be complete prior to TVA preparing Developmental Revision J for official submittal and review. This would allow changes that need to be made as part of the Developmental Revision I review to be captured in Developmental Revision J. The staff also confirmed with TVA that any of the changes not previously reviewed or not considered to be administrative/editorial include the appropriate level of technical information so that the staff can perform an efficient review of Developmental Revision J. A final request of the staff was for TVA to provide all citations to previously submitted information that would justify changes included in Developmental Revision J. At this time there is no set submittal date for Developmental Revision J, but TVA and the NRC plan to meet and discuss it again prior to its official submittal.

The second portion of the meeting focused on TVA's draft submittal of Section 2.2 of Part V to the Fire Protection Report. The NRC staff provided comments and asked for clarification regarding this portion of the Fire Protection Report and TVA stated they would address these concerns in the official submittal. TVA stated that the only changes remaining to be made to the Fire Protection Report are administrative or editorial. TVA also stated that barring any unforeseen circumstances they would submit the remaining portions of the Fire Protection Report by the end of September.

Members of the public were in attendance. There were no public comments related to this portion of the meeting.

No regulatory decisions were made at this meeting.

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



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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. TVA Handouts related to Changes Made in Revision J of the TSs
3. TVA draft submittal of Section 2.2 of Part V of the Fire Protection Report

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MEETING ATTENDANCE LIST

Applicant: Tennessee Valley Authority

Plant: Watts Bar Nuclear Plant, Unit 2

Subject: Operating License Application Review

Date: August 28, 2014

Location: U.S. Nuclear Regulatory Commission
Headquarters, Room T-07A01

Time: 1:00 p.m. – 3:00 p.m.

NAME	TITLE	ORGANIZATION
Anthony Minarik	Project Manager	NRC/NRR/DORL/Watts Bar Special Projects Branch
Justin Poole	Sr. Project Manager, WBN 2	NRC/NRR/DORL/Watts Bar Special Projects Branch
Mike Miernicki	Project Manager	NRC/NRR/DORL/Watts Bar Special Projects Branch
Rob Elliot	Branch Chief	NRCNRR/DSS/Technical Specifications Branch
Pete Snyder	Reactor Systems Engineer	NRC/NRR/DSS/Technical Specifications Branch
Jerry Purciarello	Sr. Reactor Systems Engineer	NRC/NRR/DSS/Balance of Plant Branch
Andrew Johnson	Materials Engineer	NRC/NRR/DE/Steam Generator Tube Integrity and Chemistry Branch
Daniel Frumkin	Senior Fire Protection Engineer	NRC/NRR/DRA/AFP
Charles Moulton	Fire Protection Engineer	NRC/NRR/DRA/AFP

NAME	TITLE	ORGANIZATION
Scott Shaeffer*	Branch Chief	NRC/ Region II/DRS
Rusty Stroud*	Licensing	TVA
Bill Crouch*	Engineering	TVA
Bob Bryan*	Licensing	TVA
Chris Kougla*	Engineering	TVA
Charles Brush*	Fire Protection	EPM

*via teleconference

ENCLOSURE 2

TVA Talking Points
and
Draft Submittal of Changes Made in Revision J

WBN Unit 1 to WBN Unit 2 Technical Specification Fidelity

The fundamental assumption for NRC's review of the application for an Operating License on WBN Unit 2 was that Unit 2 would be designed, built, and licensed on the same basis that Unit 1 was granted an Operating License. This objective was captured in TVA's Framework Document and the NRC SECY 07-0096 on resumption of construction activities at WBN Unit 2.

The WBN Unit 2 Technical Specifications (TS), Technical Specification Bases (TS Bases), Technical Requirements Manual (TRM) and associated TRM Bases were developed to match the Unit 1 documents to the extent practical. Generally speaking that objective has been met. There are a limited number of cases where there are differences between the Unit 1 and Unit 2 Technical Specifications and Technical Requirements Manual. These differences fall into the following categories.

Physical Differences Between the Units

There are several physical differences between Unit 1 and Unit 2 that impact the Technical Specifications. Most of these were due to obsolescence of Instrument and Control Components where identical components for Unit 2 could not be obtained due to obsolescence. Several other examples follow. Unit 2 has the original Model D steam generators while Unit 1 replaced the SGs several year ago. Unit 2 has fixed in-core instrumentation while Unit 1 has moveable in-core detectors. Unit 1 is operated with Tritium producing rods. The Unit 2 license application does not include Tritium production.

Changes as a Result of Dual Unit Operation

The Unit 1 TS and TS Bases, while originally developed assuming a dual unit facility, have evolved and have been revised over the years based on the single unit operation of Unit 1. Several Unit 1 specifications have been revised and submitted to reflect a dual unit configuration. There are several others that need to be submitted or approved to support dual unit operation such as CSST and DG frequency. The Unit 2 TS were developed based on the assumption of dual unit operation. While most of the dual unit changes were captured early in the development process, there have been some instances where such changes have only been recently identified.

Revisions Specified by the NRC

There have been instances where the NRC has requested that TVA revise the Unit 2 TS. Examples include the following:

- The adoption of TSTF-510 wording in the Unit 2 Programs section of the Technical Specifications
- The Fuel Storage Section of the TS, and
- A new specification (TS 3.10.1) to address upward change in mode required by plant design basis without all normally required TS equipment available.

Corrections

During the process of implementing approved Unit 1 LARs into the Unit 2 TS, it was identified that some information that should have been removed based on the scope of the LAR was not removed from the Unit 1 TS and TS Bases. The Unit 2 TS incorporated the approved Unit 1

LAR in total and identified Unit 1 TS items that need to be updated. The subject Unit 1 items have been documented and are tracked to ensure closure of the Unit 1 items.

During the development of the TS Bases, TRM, and TRM Bases for Unit 2, text and references were enhanced to provide clarity, a more accurate description, or a more appropriate reference. These are generally administrative in nature.

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WBN Unit 2 Technical Specification Developmental Revision J Summary

Technical Specification	Section	WBN Unit 1 TS	WBN Unit 2 TS	Comment
3.0	LCO 3.0.8	Not applicable to WBN Unit 1.	When one or more required snubbers are unable to perform their associated support function(s), any affected supported LCO(s) are not required to be declared not met solely for this reason if risk is assessed and managed, and: a. the snubbers not able to perform their associated support function(s) are associated with only one train or subsystem of a multiple train or subsystem supported system or are associated with a single train or subsystem supported system and are able to perform their associated support function within 72 hours; or b. the snubbers not able to perform their associated support function(s) are associated with more than one train or subsystem of a multiple train or subsystem supported system and are able to perform their associated support function within 12 hours. At the end of the specified period the required snubbers must be able to perform their associated support function(s), or the affected supported system (LCOs) shall be declared not met.	Snubbers for both WBN Unit 1 and Unit 2 are currently addressed in the Technical Requirement Manual (TRM) 3.7.3. However, snubbers will be relocated from the TRM to the WBN program in accordance with 10 CFR 50.55a. The relocation is based on the fact that WBN Unit 2 will be utilizing the ASME OM code, WBN Unit 1 will be transitioning to the ASME OM code for the 3rd inspection interval, and the WBN site has the objective of aligning the WBN IST programs during the WBN Unit 1 3rd inspection interval as discussed with the staff.

	LCO 3.0.9	Not applicable to WBN Unit 1.	Special Operation LCO 3.10.1 allows specified TS requirements to be changed to permit performance of special operations. Unless otherwise specified, all other TS requirements remain unchanged. Compliance with Special Operations LCOs is optional. When a Special Operation LCO is desired to be met but is not met, the ACTIONS of the Special Operation LCO shall be met. When a Special Operation LCO is not desired to be met, entry into a MODE or other specified condition in the Applicability shall be made in accordance with the other applicable Specifications.	Special Operations LCO was added is to permit MODE changes normally precluded by LCO 3.0.4 for those plant conditions where the heat removal capacity of the Component Cooling Water System (CCS) is insufficient to maintain both units in cold shutdown or hot shutdown.
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WBN Unit 2 Technical Specification Developmental Revision J Summary (continued)

Technical Specification	Section	WBN Unit 1 TS	WBN Unit 2 TS	Comment
3.7.1	Required Action A.1	Reduce THERMAL POWER to ≤ 59 % RTP.	Reduce THERMAL POWER to ≤ 58 % RTP.	Revised based on Westinghouse specific analysis for WBN Unit 2.
	Table 3.7.1-1	MAXIMUM ALLOWABLE POWER (% RTP) ≤ 42 ≤ 26	MAXIMUM ALLOWABLE POWER (% RTP) ≤ 41 ≤ 25	Revised based on Westinghouse specific analysis for WBN Unit 2.
3.7.7	NOTE	Not applicable to WBN Unit 1.	NOTE was deleted.	Forthcoming WBN Unit 1 LAR, WBN.TS.14-004 will modify CCS operation including text to mimic ITS.
	SR 3.7.7.4	Verify each CCS pump starts automatically on an actual or simulated actuation signal.	-----NOTE----- Verification of CCS pump 2B-B automatic start on SI is not required when CCS pump 2B-B is supporting CCS Train 1B OPERABILITY. Verify each CCS pump starts automatically on an actual or simulated actuation signal.	Forthcoming WBN Unit 1 LAR, WBN.TS.14-004 will modify CCS operation including text to mimic ITS.
	SR 3.7.7.5	Not applicable to WBN Unit 1.	-----NOTE----- Only required to be met when CCS pump 2B-B is supporting CCS Train 1B OPERABILITY. Verify CCS pump 2B-B is aligned to CCS Train 1B and is in operation.	Forthcoming WBN Unit 1 LAR, WBN.TS.14-004 will modify CCS operation including text to mimic ITS.
3.8.1	SR 3.8.1.2	Verify each DG starts from standby conditions and achieves steady state voltage 6800 V and 7260 V, and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.	Verify each DG starts from standby conditions and achieves steady state voltage ≥ 6800 V and ≤ 7260 V, and frequency 60.0 Hz nominal.	WBN Unit 2 letter (T02 140203 001), "Watts Bar Nuclear Plant (WBN) Unit 2 – Diesel Generator Frequency - Response to NUREG 0847 Supplemental Evaluation Report (SSER) 27, Open Item 32," dated February 3, 2014 serves as the basis for revising the DG frequency.
	SR 3.8.1.2 & SR 3.8.1.3	FREQUENCY As specified in Table 3.8.1-1	FREQUENCY 31 days	Refer to comment for Table 3.1.1-1.

WBN Unit 2 Technical Specification Developmental Revision J Summary (continued)

Technical Specification	Section	WBN Unit 1 TS	WBN Unit 2 TS	Comment
3.8.1 (continued)	SR 3.8.1.7	Verify each DG starts from standby condition and achieves in ≤ 10 seconds, voltage ≥ 6800 V, and frequency ≥ 58.8 Hz. Verify after DG fast start from standby conditions that the DG achieves steady state voltage ≥ 6800 V and ≤ 7260 V, and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.	Verify each DG starts from standby condition and achieves in ≤ 10 seconds, voltage ≥ 6800 V, and frequency ≥ 58.8 Hz. Verify after DG fast start from standby conditions that the DG achieves steady state voltage ≥ 6800 V and ≤ 7260 V, and frequency ≥ 59.8 Hz and ≤ 60.1 Hz.	WBN Unit 2 letter (T02 140203 001), "Watts Bar Nuclear Plant (WBN) Unit 2 – Diesel Generator Frequency - Response to NUREG 0847 Supplemental Evaluation Report (SSER) 27, Open Item 32," dated February 3, 2014 serves as the basis for revising the DG frequency.
	SR 3.8.1.8	-----NOTE----- For the 1A-A and 1B-B Shutdown Boards, this Surveillance shall not be performed in MODE 1 or 2. However, credit may be taken for unplanned events that satisfy this SR.	-----NOTE----- For the 2A-A and 2B-B Shutdown Boards, this Surveillance shall not be performed in MODE 1 or 2. However, credit may be taken for unplanned events that satisfy this SR.	Revision made to be consistent with WBN Unit 1 format and differentiate WBN Unit 2 Shutdown Boards.
	SR 3.8.1.9	-----NOTES----- 1. For DGs 1A-A and 1B-B, this Surveillance shall not be performed in MODE 1 or 2. However, credit may be taken for unplanned events that satisfy this SR.	-----NOTES----- 1. For DGs 2A-A and 2B-B, this Surveillance shall not be performed in MODE 1 or 2. However, credit may be taken for unplanned events that satisfy this SR.	Revision made to be consistent with WBN Unit 1 format and differentiate WBN Unit 2 DGs.
	SR 3.8.1.10	-----NOTE----- For DGs 1A-A and 1B-B, this Surveillance shall not be performed in MODE 1 or 2. However, credit may be taken for unplanned events that satisfy this SR.	-----NOTE----- For DGs 2A-A and 2B-B, this Surveillance shall not be performed in MODE 1 or 2. However, credit may be taken for unplanned events that satisfy this SR.	Revision made to be consistent with WBN Unit 1 format and differentiate WBN Unit 2 DGs.

	SR 3.8.1.11	-----NOTE----- For DGs 1A-A and 1B-B, this Surveillance shall not be performed in MODE 1, 2, 3, or 4. However, credit may be taken for unplanned events that satisfy this SR. 4. maintains steady state frequency 58.8 Hz and 61.2 Hz, and	-----NOTE----- For DGs 2A-A and 2B-B, this Surveillance shall not be performed in MODE 1, 2, 3, or 4. However, credit may be taken for unplanned events that satisfy this SR. 4. maintains steady state frequency ≥ 59.8 Hz and ≤ 60.1 Hz, and	Revision made to be consistent with WBN Unit 1 format and differentiate WBN Unit 2 DGs. WBN Unit 2 letter (T02 140203 001), "Watts Bar Nuclear Plant (WBN) Unit 2 – Diesel Generator Frequency - Response to NUREG 0847 Supplemental Evaluation Report (SSER) 27, Open Item 32," dated February 3, 2014 serves as the basis for revising the DG frequency.
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WBN Unit 2 Technical Specification Developmental Revision J Summary (continued)

Technical Specification	Section	WBN Unit 1 TS	WBN Unit 2 TS	Comment
3.8.1 (continued)	SR 3.8.1.12	-----NOTE----- This Surveillance shall not be performed in MODE 1 or 2. However, credit may be taken for unplanned events that satisfy this SR. b. After DG fast start from standby conditions the DG achieves steady state voltage ≥ 6800 V and ≤ 7260 V, and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.	-----NOTE----- For DGs 2A-A and 2B-B, this Surveillance shall not be performed in MODE 1 or 2. However, credit may be taken for unplanned events that satisfy this SR. b. After DG fast start from standby conditions the DG achieves steady state voltage ≥ 6800 V and ≤ 7260 V, and frequency ≥ 59.8 Hz and ≤ 60.1 Hz.	Revision made to be consistent with WBN Unit 1 format and differentiate WBN Unit 2 DGs. WBN Unit 2 letter (T02 140203 001), "Watts Bar Nuclear Plant (WBN) Unit 2 – Diesel Generator Frequency - Response to NUREG 0847 Supplemental Evaluation Report (SSER) 27, Open Item 32," dated February 3, 2014 serves as the basis for revising the DG frequency.
	SR 3.8.1.13	-----NOTE----- For DGs 1A-A and 1B-B, this Surveillance shall not be performed in MODE 1 or 2. However, credit may be taken for unplanned events that satisfy this SR.	-----NOTE----- For DGs 2A-A and 2B-B, this Surveillance shall not be performed in MODE 1 or 2. However, credit may be taken for unplanned events that satisfy this SR.	Revision made to be consistent with WBN Unit 1 format and differentiate WBN Unit 2 DGs.
	SR 3.8.1.15	Verify each DG starts and achieves, in ≤ 10 seconds, voltage ≥ 6800 V, and frequency ≥ 58.8 Hz. Verify after DG fast start from standby conditions that the DG achieves steady state voltage ≥ 6800 V and ≤ 7260 V, and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.	Verify each DG starts and achieves, in ≤ 10 seconds, voltage ≥ 6800 V, and frequency ≥ 58.8 Hz. Verify after DG fast start from standby conditions that the DG achieves steady state voltage ≥ 6800 V and ≤ 7260 V, and frequency ≥ 59.8 Hz and ≤ 60.1 Hz.	WBN Unit 2 letter (T02 140203 001), "Watts Bar Nuclear Plant (WBN) Unit 2 – Diesel Generator Frequency - Response to NUREG 0847 Supplemental Evaluation Report (SSER) 27, Open Item 32," dated February 3, 2014 serves as the basis for revising the DG frequency.
	SR 3.8.1.16	-----NOTE----- For DGs 1A-A and 1B-B, this Surveillance shall not be performed in MODE 1, 2, 3, or 4. However, credit may be taken for unplanned events that satisfy this SR.	-----NOTE----- For DGs 2A-A and 2B-B, this Surveillance shall not be performed in MODE 1, 2, 3, or 4. However, credit may be taken for unplanned events that satisfy this SR.	Revision made to be consistent with WBN Unit 1 format and differentiate WBN Unit 2 DGs.

WBN Unit 2 Technical Specification Developmental Revision J Summary (continued)

Technical Specification	Section	WBN Unit 1 TS	WBN Unit 2 TS	Comment
3.8.1 (continued)	SR 3.8.1.17	-----NOTE----- This Surveillance shall not be performed in MODE 1, 2, 3, or 4. However, credit may be taken for unplanned events that satisfy this SR. Verify, with each Unit 1 DG operating in test mode and connected to its bus, an actual or simulated ESF actuation signal overrides the test mode by:	-----NOTE----- For DGs 2A-A and 2B-B, this Surveillance shall not be performed in MODE 1, 2, 3, or 4. However, credit may be taken for unplanned events that satisfy this SR. Verify, DG 2A-A and 2B-B operating in test mode and connected to its bus, an actual or simulated ESF actuation signal overrides the test mode by:	Revision made to be consistent with WBN Unit 1 format and differentiate WBN Unit 2 DGs.
	SR 3.8.1.18	-----NOTE----- For DGs 1A-A and 1B-B, this Surveillance shall not be performed in MODE 1, 2, 3, or 4. However, credit may be taken for unplanned events that satisfy this SR.	-----NOTE----- For DGs 2A-A and 2B-B, this Surveillance shall not be performed in MODE 1, 2, 3, or 4. However, credit may be taken for unplanned events that satisfy this SR.	Revision made to be consistent with WBN Unit 1 format and differentiate WBN Unit 2 DGs.
	SR 3.8.1.19	4. achieves steady state frequency ≥ 58.8 Hz and ≤ 61.2 Hz, and	4. achieves steady state frequency ≥ 59.8 Hz and ≤ 60.1 Hz, and	WBN Unit 2 letter (T02 140203 001), "Watts Bar Nuclear Plant (WBN) Unit 2 – Diesel Generator Frequency - Response to NUREG 0847 Supplemental Evaluation Report (SSER) 27, Open Item 32," dated February 3, 2014 serves as the basis for revising the DG frequency.
	SR 3.8.1.21	Verify when started simultaneously from standby condition, each DG achieves, in ≤ 10 seconds, voltage ≥ 6800 V and frequency ≥ 58.8 Hz. Verify after DG fast start from standby conditions that the DG achieves steady state voltage ≥ 6800 V and ≤ 7260 V, and frequency ≥ 58.8 Hz and ≤ 61.2 Hz.	Verify when started simultaneously from standby condition, each DG achieves, in ≤ 10 seconds, voltage ≥ 6800 V and frequency ≥ 58.8 Hz. Verify after DG fast start from standby conditions that the DG achieves steady state voltage ≥ 6800 V and ≤ 7260 V, and frequency ≥ 59.8 Hz and ≤ 60.1 Hz.	WBN Unit 2 letter (T02 140203 001), "Watts Bar Nuclear Plant (WBN) Unit 2 – Diesel Generator Frequency - Response to NUREG 0847 Supplemental Evaluation Report (SSER) 27, Open Item 32," dated February 3, 2014 serves as the basis for revising the DG frequency.

	Table 3.8.1-1	Table 3.8.1-1 & NOTES	Table and notes deleted.	Deleted table and notes implements the guidance and recommendations of GL 94-01, "Removal of Accelerated Testing and Reporting Requirements for Emergency Diesel Generators (EDG)." The DG accelerated testing requirements have been removed from the TSs in that Table 3.8.1-1 has been replaced by 31 days for the frequency in SRs 3.8.1.2 and 3.8.1.3, and the table has been deleted from the TSs.
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WBN Unit 2 Technical Specification Developmental Revision J Summary (continued)

Technical Specification	Section	WBN Unit 1 TS	WBN Unit 2 TS	Comment
3.8.4			TS 3.8.4 revised in its entirety.	TS Developmental Revision H was based on implementing TSTF-500 and included TS 5.7.2.21, "Battery Maintenance and Monitoring Program." TS Developmental Revision H was based on WBN Unit 1 pending LAR WBN-TS-12-07 which incorporated a modified version of TSTF-500. However, the subject LAR was subsequently withdrawn for WBN Unit 1. Therefore, WBN Unit 2 TS 3.8.4, 3.8.5, 3.8.6, and TS 5.7.2.21 were both revised by Developmental Revision I to delete Revision H changes associated with TSTF-500, and reverted back to the previous revision's wording for the subject TS sections.
3.8.5			TS 3.8.5 revised in its entirety.	TS Developmental Revision H was based on implementing TSTF-500 and included TS 5.7.2.21, "Battery Maintenance and Monitoring Program." TS Developmental Revision H was based on WBN Unit 1 pending LAR WBN-TS-12-07 which incorporated a modified version of TSTF-500. However, the subject LAR was subsequently withdrawn for WBN Unit 1. Therefore, WBN Unit 2 TS 3.8.4, 3.8.5, 3.8.6, and TS 5.7.2.21 were both revised by Developmental Revision I to delete Revision H changes associated with TSTF-500, and reverted back to the previous revision's wording for the subject TS sections.
3.8.6			TS 3.8.6 revised in its entirety.	TS Developmental Revision H was based on implementing TSTF-500 and included TS 5.7.2.21, "Battery Maintenance and Monitoring Program." TS Developmental Revision H was based on WBN Unit 1 pending LAR WBN-TS-12-07 which incorporated a modified version of TSTF-500. However, the subject LAR was subsequently withdrawn for WBN Unit 1. Therefore, WBN Unit 2 TS 3.8.4, 3.8.5, 3.8.6, and TS 5.7.2.21 were both revised by Developmental Revision I to delete Revision H changes associated with TSTF-500, and reverted back to the previous revision's wording for the subject TS sections.
3.10.1			Added TS 3.10.1	TS 3.10.1 was added to permit MODE changes normally precluded by LCO 3.0.4 for those plant conditions where the heat removal capacity of the Component Cooling Water System (CCS) is insufficient to maintain both units in cold shutdown or hot shutdown.

5.7.2.12			Deleted all discussion and/or reference to 'repair' associated with Steam Generator tubes.	WBN Unit 2 does not currently have a SG tube repair procedure. Therefore reference to 'repair' has been deleted.
5.7.2.14	5.7.2.14a – d, inclusive		Deleted reference/discussion associated with Reactor Building Purge in sub-sections 5.7.2.14a, 5.7.2.14b, 5.7.2.14c, and 5.7.2.14d.	Revised based on approved WBN Unit 1 LAR (Amendment 92) to utilize selective application of the Alternate Source Term (AST) for the Fuel Handling Accident (FHA).

WBN Unit 2 Technical Specification Developmental Revision J Summary (continued)

Technical Specification	Section	WBN Unit 1 TS	WBN Unit 2 TS	Comment
5.7.2.19			5.7.2.19 Containment Leakage Rate Testing Program A program shall be established to implement the leakage rate testing of the containment as required by 10 CFR 50.54(o) and 10 CFR 50 Appendix J, Option B, as modified by approved exemptions. This program shall be in accordance with the guidelines contained in Regulatory Guide (RG) 1.163, "Performance-Based Containment Leak-Test Program," dated September 1995. For containment leakage rate testing purposes, a value of 15.0 psig, which is equivalent to the maximum allowable internal containment pressure, is utilized for Pa to bound the peak calculated containment internal pressure for the design basis loss of coolant accident. The maximum allowable containment leakage rate, La, at Pa, is 0.25% of the primary containment air weight per day.	Revised to be consistent with the description of the leak rate test program in the FSAR and in the TS Bases 3.6 associated with leak rate testing.
5.7.2.21		Not applicable to WBN Unit 1.	TS 5.7.2.21 Battery Monitoring and Maintenance Program deleted in its entirety.	TS Developmental Revision H was based on implementing TSTF-500 and included TS 5.7.2.21, "Battery Maintenance and Monitoring Program." TS Developmental Revision H was based on WBN Unit 1 pending LAR WBN-TS-12-07 which incorporated a modified version of TSTF-500. However, the subject LAR was subsequently withdrawn for WBN Unit 1. Therefore, WBN Unit 2 TS 3.8.4, 3.8.5, 3.8.6, and TS 5.7.2.21 were both revised by Developmental Revision I to delete Revision H changes associated with TSTF-500, and reverted back to the previous revision's wording for the subject TS sections.

ENCLOSURE 3:

Draft Submittal of Section 2.2 of Part V
of the Fire Protection Report

2.2.2 Operator Locations Prior to Initiating Operator Manual Actions and $t=0$ Definition

For the purposes of developing the post fire safe shutdown procedures, assistant unit operators (AUOs) performing operator manual actions assemble at and are dispatched from the Main Control Room (MCR) for fires in most plant locations, or the Auxiliary Control Room for control building fires. The basis for dispatch locations is that the AUOs must obtain the operator-specific safe shutdown procedures from these locations. Upon detection of a fire either automatically or via observation, the MCR recalls AUOs to the assembly location from their normal duties in various plant locations. Based on AUO recall exercises, AUOs working near the MCR are available within three minutes and any AUOs at the most remote location (intake pumping station) are available within 8 minutes. The other AUO availability times would be expected to be between these two times.

The time requirements for completion of operator manual actions are based on defining the initial time ($t = 0$) as the time when the reactor is tripped. This definition of $t = 0$ is appropriate because the operator manual actions are required to stabilize the plant or maintain it in a stable condition after reactor trip. The operator manual actions are not required to maintain the operating status of plant equipment prior to tripping the reactor because the reactor is considered to be in a stable operating condition prior to reactor trip. Once the trip occurs, either automatically or manually, the preventive OMAs are performed to prevent spurious equipment operation and to ensure safe shutdown can be accomplished.

The following reactor trip scenarios are postulated and evaluated:

1. Manual trip by the MCR operator after evaluating fire significance and potential effects on plant operability.
2. Automatic reactor trip resulting from fire damage to multiple channels of reactor protection system (RPS) concurrent logic inputs.
3. Spurious reactor trip initiated by fire damage to the manual reactor trip circuit.

A robust fire detection system is provided in most areas to ensure that the MCR operators are alerted in the early stage of fire development. The robust fire detection system ensures that even for very small fires the MCR will be alerted to the fire before the fire can cause sufficient damage to prevent operator control of the plant. With this early notification, the decision to trip the reactor manually is reached prior to or about the same time as needed for the level of fire damage to develop sufficiently to cause an automatic reactor trip. Multiple concurrent RPS logic inputs are necessary to initiate an automatic reactor trip and these input circuits are physically separated in accordance with Regulatory Guide 1.75, "Physical Independence of Electrical Systems". Since the circuits are separated and there is detection in these areas, reactor trip is not the first observed indication of a fire or first observed circuit failure resulting from the fire. Automatic fire suppression and physical separation will delay fire development and automatic reactor trip thereby allowing time for the MCR to evaluate the fire and manually initiate reactor trip. Rooms which contain equipment capable of tripping the reactor do not have high concentrations of combustible material and thus a rapidly developing fire would not occur. Furthermore, a fire directly on a component capable of tripping the reactor would not develop into a fire that could challenge the safe shutdown capability since this type of equipment is contained within cabinets and the fire would not affect other nearby components (i.e., would not result in spurious operations or loss of control).

A spurious reactor trip due to fire damage to the manual trip circuits does not adversely affect OMA performance time because for most of the rooms where the reactor trip circuit is located the allowable time for the first OMA is 60 minutes. Even considering a fire induced reactor trip

prior to recalling the AUOs to the MCR there is more than adequate time for the AUOs to perform the needed local actions within the allowable time. The spurious manual reactor trip circuit is evaluated in calculation WBN-OSG4-031 (Ref. Part II, Section 4.28). The worst case is a fire in 772.0-A16 (480VAC Reactor MOV Board Room 2A). There are two 15-minute OMAs (operate switches on C&A Vent boards just outside the MCR) for a fire in this room. However, the basis for the 15 minute allowable time is not reactor trip, but rather spurious opening of a valve in the safety injection (BIT) path concurrent with spurious closure of a valve in the normal letdown path leading to possible pressurizer overfill. These three spurious operations occurring prior to two AUOs being available is similar to fire damage to multiple redundant logic inputs to the RPS discussed above and is considered incredible. Plant AUO recall exercises show that the first AUO will be available in about 3 minutes and can reliably complete the action within the allowable time.

Once reactor trip is initiated, either automatically or manually, the preventive OMAs are performed to prevent spurious equipment operation and to ensure safe shutdown can be accomplished. Since the actions are preventive rather than reactive, they are performed per procedure with virtually no lost time using process instrumentation or other indication to diagnose a need for the action.

There are very few situations where reactive action must be taken based upon fire damage to equipment or cables rather than reactor trip. In these situations the normal plant system operating procedure provides the reactive response while the FSSD procedure is preventive (action taken before fire damage causes a need for the action). For example:

1. Electrical power distribution board fire – The normal response and the safe shutdown action are the same; de-energize the board prior to extinguishing the fire.
2. Spurious start of a containment air return fan. The fan must be stopped. Existing system operating procedures require securing the fan (opening the breaker) which is the same action required for fire safe shutdown.

For rooms without automatic fire detection it is theoretically possible for a fire to develop slowly and affect cables and equipment before the MCR operators are aware of the fire. Each room without automatic fire detection was evaluated for potential adverse effects on OMA timing due to delayed notification of the fire. The evaluation determined that there are no OMAs needed to achieve and maintain hot shutdown for rooms without automatic fire detection. Therefore, Normal and emergency operating instructions are used to address equipment failures.

The NRC staff asked specific questions on certain changes, that TVA plans to address at the time of the submittal, but the staff also made it known that their preference is for the Developmental Revision I review to be complete prior to TVA preparing Developmental Revision J for official submittal and review. This would allow changes that need to be made as part of the Developmental Revision I review to be captured in Developmental Revision J. The staff also confirmed with TVA that any of the changes not previously reviewed or not considered to be administrative/editorial include the appropriate level of technical information so that the staff can perform an efficient review of Developmental Revision J. A final request of the staff was for TVA to provide all citations to previously submitted information that would justify changes included in Developmental Revision J. At this time there is no set submittal date for Developmental Revision J, but TVA and the NRC plan to meet and discuss it again prior to its official submittal.

The second portion of the meeting focused on TVA's draft submittal of Section 2.2 of Part V to the Fire Protection Report. The NRC staff provided comments and asked for clarification regarding this portion of the Fire Protection Report and TVA stated they would address these concerns in the official submittal. TVA stated that the only changes remaining to be made to the Fire Protection Report are administrative or editorial. TVA also stated that barring any unforeseen circumstances they would submit the remaining portions of the Fire Protection Report by the end of September.

Members of the public were in attendance. There were no public comments related to this portion of the meeting.

No regulatory decisions were made at this meeting.

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

/RA/

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Office of Nuclear Reactor Regulation

Docket No. 50-391

Enclosures:

1. List of Attendees
2. TVA Handouts related to Changes Made in Revision J of the TSs
3. TVA draft submittal of Section 2.2 of Part V of the Fire Protection Report

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