

June 26, 1995

APPLICANT: Tennessee Valley Authority (TVA)

FACILITY: Watts Bar Nuclear Plant, Unit 1

SUBJECT: MEETING SUMMARY - JUNE 20, 1995, MEETING WITH THE TENNESSEE VALLEY AUTHORITY REGARDING STATUS OF VARIOUS LICENSING ISSUES (TAC NOS. M72494, M72495, AND M90068)

REFERENCE: Meeting notice by P. S. Tam, June 2, 1995

On June 20, 1995, NRC and TVA representatives met at the Watts Bar site to discuss the status, needed actions, priorities and schedules of various licensing issues. These include all unresolved outstanding issues, confirmatory issues, proposed license conditions, corrective action programs (CAPs), special programs (SPs), and TVA's response to generic letters and bulletins. The discussion was based on the latest licensing status as published in the Watts Bar Safety Evaluation Report Supplement 14 (NUREG-0847, Supp. 14). The Office of Nuclear Reactor Regulation (NRR) issues the Safety Evaluation Report (NUREG-0847) and supplements (SSERs) as its principal licensing basis documents for Watts Bar. Section 1 of the latest SSER (SSER 13) officially documents the issues that NRR considers needing resolution before an operating license can be granted.

Schedular information regarding NRR reviews and other comments were exchanged with TVA personnel, agreed upon, and subsequently used to update the NRR staff's work control system, Workload Information and Scheduling Program (WISP). The output of WISP (Enclosure 2) records the staff's understanding of the status of each active NRR action. TVA accepted staff comments on portions of FSAR Amendment 89 (Enclosure 3) as self explanatory.

The staff provided its comments on the review status of all generic issues (Enclosure 4). Participants discussed the staff's comments, and TVA's comments which were provided by its letter of May 19, 1995.

Original signed by
Michael Bugg, Project Engineer
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Office of Nuclear Reactor Regulation

Docket Nos. 50-390 and 50-391

- Enclosures: 1. Participants list
- 2. WISP report (Condensed Project Manager Report 06/16/95)
- 3. Staff Comments on Portions of FSAR Amendment 89 (TAC M91523)
- 4. Disposition of All Generic Safety Issues Applicable to Watts Bar

cc w/o enclosures: See next page

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DATE	06/20/95	06/26/95	06/26/95	06/26/95	

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WATTS BAR NUCLEAR PLANT

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Enclosure 1

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LIST OF PARTICIPANTS
LICENSING STATUS MEETING
WATTS BAR NUCLEAR PLANT, OFFICE OF RESIDENT INSPECTORS
June 20, 1995

<u>Name</u>	<u>Affiliation</u>
Becky Mays	TVA Watts Bar Site Licensing
John Vorees	TVA Watts Bar Site Licensing
Everett Whitaker	TVA Watts Bar Site Licensing
Bruce Schofield	TVA Watts Bar Site Licensing
Peter Tam	NRC/NRR/Project Directorate II-3
Michael Bugg	NRC/NRR/Project Directorate II-3

TaskID	MPA Num	Age (Mon)	Rev Mth	Pri	Actyp	Title	Appl Date	RAI Issued	RAI Response	Licensing Action Complete	Licensee Impl.	Comments
***** Active Actions *****												
M63648		[40]	TS	2	RN	WATTS BAR 1 - CORRECTIVE ACTION PROGRAM: FIRE PROTECTION, OPEN ISSUE 12, CONF. ISSUE 38, LIC. COND 20	(02/05/92)	(01/18/95)	(03/26/95C)	(08/31/95T)	(09/30/95T)	Awaiting SSD revision. 3-hour Thermo-Lag under review.
M76742		[66]	TS	2	RN	WATTS BAR 1 - TECHNICAL SPECIFICATION REVIEW	(12/29/89)	(04/02/93)	(06/04/93C)	(08/31/95T)	(09/30/95T)	Final draft issued. TS/FSAR/SER audit ongoing.
M77543	F012	[12]	TS	2	RN	WATTS BAR 1 - PROCEDURE TO ESTIMATE CORE DAMAGE, (SECTION 9.3.2)	(06/10/94)	(.../.../...)	(05/25/95C)	(06/30/95T)	(.../.../...)	Revised procedure under review. Target 6/30/95.
M84429		[34]	TS	2	RN	WATTS BAR 1 - SOLID RAD. WASTE PROCESS CONTROL PROGRAM.	(08/27/92)	(02/16/93)	(02/17/95C)	(08/31/95T)	(.../.../...)	Comments of 6/20/95. Need TVA response.
M85622	L208	[26]	TS	1	RR	WATTS BAR 1 - THERMO LAG (GL 92-08)	(04/16/93)	(12/23/94)	(03/22/95C)	(12/31/95T)	(12/31/95T)	Reviewing response to 50.54(f) letter.
M87197		[22]	TS	2	RN	WATTS BAR UNIT 1 - FSAR AMENDMENT 77	(08/06/93)	(04/06/94)	(02/17/95C)	(06/30/95T)	(.../.../...)	Response to staff concerns under review. Target 6/30/95.
M87838		[0]	TS	3	SO	WATTS BAR - REVIEW OF INSPECTION PROGRAM	(.../.../...)	(.../.../...)	(.../.../...)	(08/31/95T)	(.../.../...)	NRC actions only. No TVA involvement.
M89048		[15]	TS	2	RN	WATTS BAR 1 - PRESSURE TEMPERATURE LIMITS REPORT	(03/10/94)	(.../.../...)	(03/29/95C)	(09/30/95T)	(.../.../...)	Will issue RAI on WCAPs. Target 9/30/95.
M89109		[15]	TS	2	RN	WATTS BAR UNIT 1 - FINAL RESOLUTION OF ELECTRICAL ISSUES IN THE FSAR.	(03/20/94)	(08/22/94)	(01/11/95C)	(06/30/95T)	(.../.../...)	Submittal on splices under review.
M89581		[15]	TS	2	LN	WATTS BAR 1 - FOLLOWUP REVIEW ON BULLETIN 88-08, THERMAL STRESS IN RCS PIPES.	(03/29/94)	(10/21/94)	(04/24/95C)	(06/30/95T)	(.../.../...)	4/24/95 response under review. Target 6/15/95.
M90068		[10]	TSK	1	RN	INDEPENDENT REVIEW OF SAFETY ISSUES AT WATTS BAR UNIT 1.	(08/01/94)	(.../.../...)	(.../.../...)	(08/31/95T)	(.../.../...)	Next meeting on 6/20/95, on site.
M90253		[9]	TS	2	RN	WATTS BAR UNIT 1 - FSAR AMENDMENT 88.	(09/19/94)	(.../.../...)	(.../.../...)	(06/30/95T)	(.../.../...)	Only Plant Systems Branch remaining (Chandrasekaran).
M90549		[8]	TS	2	RN	WATTS BAR UNIT 1 - FSAR CHAPTER 3 ISSUES.	(10/11/94)	(.../.../...)	(02/03/95C)	(07/31/95T)	(.../.../...)	Onsite review, 6/20/95. Target 7/31/95.
M91489		[5]	PM	2	RN	WATTS BAR UNIT 1 - PREPARATION OF THE OPERATING LICENSE, NPF-20	(01/15/95)	(.../.../...)	(.../.../...)	(09/30/95T)	(.../.../...)	Draft operating license and draft EA both issued.
M91522		[5]	PM	2	RN	WATTS BAR UNIT 1 - COMPLIANCE WITH 10 CFR 50.75, DECOMMISSIONING.	(01/30/95)	(.../.../...)	(.../.../...)	(07/31/95T)	(.../.../...)	Anticipate TVA submittal per 10 CFR 50.75 before fuel load.
M91523		[1]	TS	2	RN	WATTS BAR UNIT 1 - FSAR AMENDMENT 89	(05/16/95)	(.../.../...)	(.../.../...)	(07/31/95T)	(.../.../...)	Under review by 10 branches.
M91559		[4]	PM	2	RN	WATTS BAR UNIT 1 - ASSESSMENT OF QUALITY AND QUALITY ASSURANCE PROGRAM	(02/15/95)	(.../.../...)	(.../.../...)	(07/31/95T)	(.../.../...)	Meeting on 6/20/95 in Rockville, MD.
M91682		[11]	TS	2	RN	WATTS BAR UNIT 1 - RCS FLOW MEASUREMENT UNCERTAINTY ANALYSIS	(07/29/94)	(.../.../...)	(.../.../...)	(07/31/95T)	(.../.../...)	TVA submittal by end of June. Balukjian, reviewer.
M92297		[2]	TS	2	RN	WATTS BAR UNIT 1 - CABLE DAMAGE ISSUES, RING CUTS ETC.	(04/15/95)	(.../.../...)	(05/23/95L)	(07/15/95T)	(.../.../...)	5/23/95 response under review.
M92530		[1]	TS	2	RN	WATTS BAR UNIT 1 - LONG-TERM CABLE BAND RADIUS PROGRAM PLAN	(05/08/95)	(.../.../...)	(.../.../...)	(07/31/95T)	(.../.../...)	Under review, but not as part of Cable Issues CAP.

Staff Comments on Portions of FSAR Amendment 89
(TAC M91523)

Figure 6.2.4-1 sht 8

1. Valve 1-11 changed from Motor-Operated to Air-Operated. However, TVA did not change the actuator symbol in the sketch, which is inconsistent with "Valve Data."

Figure 6.2.4-1 sht 9

1. Valve 1-22 changed from Motor-Operated to Air-Operated. However, TVA did not change the actuator symbol in the sketch, which is inconsistent with "Valve Data."
2. Valve 1-29 changed from Motor-Operated to Air-Operated. However, TVA did not change the actuator symbol in the sketch, which is inconsistent with "Valve Data."

Draft dated 6/16/95, to be used in meeting of 6/20/95

DISPOSITION OF ALL GENERIC SAFETY ISSUES
APPLICABLE TO WATTS BAR

Reference: Letter, F. J. Hebdon to O. D. Kingsley, April 6, 1995
(TAC M90068)

The term "generic safety issues" is used to denote any of the following actions affecting multiple nuclear plants: NUREG-0737 issues (having designations such as I.A.1.1.1), Unresolved Safety Issues (USI), Generic Safety Issues (GSI), and Multiplant Actions (MPA). The staff's efforts were considerable, resulting in a Scientech, Inc. report detailing the licensing action (i.e., safety review), implementation, and verification status on each applicable generic safety issue. That report was transmitted to the applicant and made public by the above referenced letter.

Since the publication of the report, the staff has followed up on the licensing action of all applicable items. Results are as summarized in the following 8 tables. All issues whose licensing action were identified as "complete" are listed in Table H. All issues whose licensing action were identified as "open" are listed in Table A through G, as deemed appropriate.

Results will be entered into the the staff's agency-wide database, Regulatory Information Tracking System (RITS).

A. No Longer Applicable (interim, short term, superseded)

Issues listed in this table were interim or short-term issues for operating plants, or have been superseded by other actions. Therefore, for Watts Bar, these items ceased to exist as such:

- I.A.1.1.1 - Shift technical advisor (STA) program operability - Safety evaluation and implementation both complete; see TVA's 5/19/95 letter.
- I.A.1.1.2 - STA, training and qualifications - See I.A.1.1.1.
- I.A.1.1.3 - STA, long-term program - See I.A.1.1.1.
- I.A.2.1.1 - Immediate upgrading of reactor operator (RO) and senior reactor operator (SRO) training and qualification, SRO experience - This issue was superseded by NUREG-1021.

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- I.A.2.1.2 - Immediate upgrading of RO and SRO training and qualification, SRO applicants must have one year of RO experience - This issue was superseded by NUREG-1021.
- I.A.2.1.3 - Immediate upgrading of RO and SRO training and qualification, three months training on shift - This issued was superseded by NUREG-1021.
- I.A.2.1.4 (MPA F-004) - Immediate upgrading of RO and SRO training and qualification, modify training - This issue was superseded by NUREG-1021.
- I.A.2.1.5 - Immediate upgrading of RO and SRO training and qualifications, management certification of license applications - This issue was superseded by 10 CFR Part 55.
- I.A.3.1.1 - Revise scope and criteria for operator licensing examinations, increase scope - This issue was superseded by NUREG-1021 and 10 CFR Part 55.
- I.A.3.1.2 - Revise scope and criteria for operator licensing examinations, increase passing grade - This issue was superseded by NUREG-1021.
- I.A.3.1.3.A - Revise scope and criteria for operator licensing examinations, simulator examination for plants with simulators - This issue was superseded by NUREG-1021 and 10 CFR Part 55.
- I.C.1.1 - Upgrade emergency operating procedures, small-break LOCA - This issue was superseded by II.K.3.30.A, B & C.
- I.C.1.2.A (MPA F-004) - Upgrade emergency operating procedures, inadequate core cooling guidelines - This issue was superseded by Standard Review Plan (SRP), Rev. 2, July 1981.
- I.C.1.2.B (MPA F-005) - Upgrading emergency operating procedures, revise ICC emergency operating procedures - Section 13.5.2 of SSER 9 stated that the staff no longer

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review emergency operating procedures generation packages (PGPs), but that it has made the emergency operating procedures development program review part of the staff's ongoing inspection program under Inspection Procedure 42001. There will thus be no licensing review of this issue.

I.C.1.3.A (MPA F-004) -

Upgrade emergency response procedures, reanalyze guidelines for transients and accidents - This was superseded by Standard Review Plan, Rev. 2, July 1981.

I.C.1.3.B (MPA F-005) -

Upgrading emergency operating procedures, revise emergency operating procedures for transients and accidents - Section 13.5.2 of SSER 9 stated that the staff no longer review emergency operating procedures generation packages (PGPs), but that it has made the emergency operating procedures development program review part of the staff's ongoing inspection program under Inspection Procedure 42001. There will thus be no licensing review of this issue. This issue is closed.

II.F.1.2.A (MPA F-020) -

Accident monitoring, install instruments (noble gas) - This issue was superseded by Regulatory Guide (RG) 1.97, Rev. 3, May 1983.

II.F.1.2.B (MPA F-021) -

Accident monitoring, install instruments (iodine/particulate sample) - This issue was superseded by RG 1.97, Rev. 3., May 1983.

II.F.1.2.C (MPA F-022) -

Accident monitoring, install instruments (containment high radiation) - This issue was superseded by RG 1.97, May 1983.

II.F.1.2.D (MPA F-023) -

Accident monitoring, install instruments (containment pressure) - This issue was superseded by RG 1.97, May 1983.

II.F.1.2.E (MPA F-024) -

Accident monitoring, install instruments (containment hydrogen level) - This issue was superseded by RG 1.97, May 1983.

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II.F.1.2.F (MPA F-025) -

Accident monitoring, install instrument (containment hydrogen concentration) - This issue was superseded by R.G.1.97, May 1983.

MPA A-49 (MPA A-021) -

Pressurized Thermal Shock - In Section 5.2.5 of SSER 11, the staff found that Watts Bar Unit 1 reactor vessel met the requirements of 10 CFR 50.61. The applicant's 1/28/93 request for exemption from 10 CFR 50, Appendix G, was obviated by a revision to the regulation such that no exemption will be needed; the staff's review and finding of acceptance of the technical issue is documented in Section 5.3.1.1 of SSER 14.

B. NUREG-0737 Issues Not Addressed to Subtier Levels

Issues listed in this table are addressed as indicated.

I.D.2.1 (MPA F-074) -

Plant safety parameter display system (SPDS), basis for parameter selection - Review completed in SSER 5, 6 and 15. This issue is closed.

II.B.3.1 - Post-accident sampling system (PASS) design review - The staff completed design review in Section 9.3.2 of the SER, SSER 3, SSER 5, and SSER 14. While none of these documents specifically mentioned "II.B.3.1", it is obvious that the design review has been completed, and this issue is closed.

II.B.3.2 (MPA F-076) -

Post-accident sampling corrective actions - The staff completed design review in Section 9.3.2 of the SER, SSER 3, SSER 5, and SSER 14. While none of these documents specifically mentioned "II.B.3.2", it is obvious that the design review has been completed, and this issue is closed.

II.B.3.3 (MPA F-077) -

Post-accident sampling procedures - By letter dated 6/10/94 and 5/25/95, the applicant submitted the post-accident core damage estimate procedure. This was acknowledged in Section 9.3.2 of SSER 14. Staff review of the procedure is ongoing under TAC M77543, and results will be reported in Section 9.3.2 of a future SSER. On the basis of the staff's receipt of the

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is closed.

II.B.4.1 - Training for mitigating core damage, development of a training program - Subsumed by NUREG-1021, and 10 CFR 55, "Operator's Licenses". This issue is closed in the SER, even though "II.B.4.1" is not explicitly mentioned.

II.B.4.2 (MPA F-013) -
Training for mitigating core damage, completion of training - In Section 13.2.2 of the SER, the staff stated that the mitigating core damage training program was acceptable. Item II.B.4.2 is specifically concerned with implementation of the program, and is not a licensing review issue. This issue is thus considered closed.

II.F.1.1 (MPA F-081) -
Accident monitoring procedures - Item II.F.1, accident monitoring instrumentation was evaluated and found complete in various sections of the SER (see Table 1.1 of the SER) and SSERs. II.F.1.1 is concerned with development of procedures to use those instruments. There is no requirement for the staff to review those procedure, except to verify their existence by inspection. This issue is thus closed without additional documentation.

II.F.2.2 (MPA F-082) -
Instrumentation for detection of inadequate core cooling, install primary coolant saturation meter - Section 4.4 of SSER 10 accepted design, but stated that final acceptance is contingent upon the staff's review of the implementation letter. Implementation is scheduled to be before fuel load.....

II.F.2.3 (MPA F-083) -
Instrumentation for detection of inadequate core cooling, describe other instrumentation, install reactor vessel level instrumentation - Section 4.4 of SSER 10 accepted design, but stated that final acceptance is contingent upon the staff's review of the implementation letter. Implementation is scheduled to be before fuel load.....

II.K.1.5 - I&E bulletins, assure proper ESF functioning - Section 7.3.5 of SSER 3 accepts, but made no explicit reference to II.K.1.5. The SER was

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written per Standard Review Plan guidance, which includes TMI issues since 1981 (Revision 1). Since the technical information was in SSER 3 and found acceptable, II.K.1.5 is closed.

II.K.1.10 -

I&E bulletins, operability of safety-related systems - Inspection report 85-08 closed this issue, but there was no safety evaluation. In this period of time, bulletins were issued by the Office of Inspection and Enforcement; there was no requirement for NRR to issue safety evaluation on utilities' responses. The absence of explicit safety evaluation does not preclude this issue be considered closed.

II.K.1.17 -

I&E bulletins, low pressurizer pressure reactor trip - Neither II.K.1 nor II.K.1.17 was mentioned in the SER. However, Sections 7.2.1 clearly addressed the pressurizer low pressure signal as one of the reactor trips, and 7.3.1 addressed the same as a safety injection signal. Hence the substance of II.K.1 and II.K.1.17 is present in the SER, even though the issues are not explicitly mentioned. The issue is thus closed.

II.K.3.5.A (MPA F-039) -

Final recommendations, B&O Task Force, propose modifications for auto trip of reactor coolant pumps - SSER 4 (Section 15.5.4) and letter, P. S. Tam to O. D. Kingsley, 6/8/90, approve item II.K.3.5, but do not specifically mention II.K.3.5.A.....

II.K.3.5.B (MPA F-039) -

Final recommendations, B&O Task Force, perform modifications for auto trip of reactor coolant pumps - SSER 4 (Section 15.5.4) and letter, P. S. Tam to O. D. Kingsley, 6/8/90, approve item II.K.3.5, but do not specifically mention II.K.3.5.B.....

II.K.3.30.A -

Final recommendations, B&O Task Force, program outline and schedule for small-break LOCA (SBLOCA) model - Model approved in where?. Program and schedule not addressed. However, TVA has submitted SBLOCA analyses, and the staff has completed review (SSER 15, Chapter 15).

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This issue is closed.

II.K.3.30.B (MPA F-057) -

Final recommendations, B&O Task Force, revise SBLOCA analysis model - TVA has submitted SBLOCA analysis using the staff-approved NOTRUMP code, and the staff has completed review (SSER 15, Chapter 15). This issue is closed.

II.K.3.30.C -

Final recommendations, B&O Task Force, plant-specific SBLOCA analysis - TVA has submitted SBLOCA analysis using the staff-approved NOTRUMP code, and the staff has completed review (SSER 15, Chapter 15). This issue is closed.

III.D.3.4.1 -

Control room habitability, identify and evaluate potential hazards - Section 6.4 of the SER concludes that the applicant has satisfied the requirements of Item II.D.3.4 and 10 CFR 50, Appendix A, General Design Criterion 19. This could not have occurred if the staff was not also satisfied that the applicant has identified and evaluated potential hazards. This issue is thus closed.

III.D.3.4.2 -

Control room habitability, propose modifications -- Section 6.4 of the SER concludes that protection was acceptable, and that no modification was necessary. While III.D.3.4.2 was not explicitly mentioned, it is obvious that no proposal for modification need be forthcoming. This issue is closed.

C. Approved With Conditions

II.B.1.2 (MPA F-010) -

Reactor coolant system vents, install the vents - SSER 12, Section 5.4.5, approved design, but stated that TVA should submit a letter upon implementation (before fuel load), which would address several issues. None of the issues will require staff review nor will they change the staff's conclusion in SSER 12 provided implementation is satisfactory. TAC M84776 will track implementation.

D. Licensing Action (Safety Review) Not Applicable Because They

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Are Implementation Issues Only

Since the following issues are concerned only with implementation, no licensing action are needed nor was done:

I.D.2.2 (MPA F-075) -

Safety parameter display system (SPDS), install the SPDS - See SSER 15, Chapter 18, for SPDS installation (implementation) audit. Since the console was installed, this issue is closed.

II.B.3.4 - Post-accident sampling, complete actions - SSER 3, Section 9.3.2, the staff stated that TVA met all 11 criteria, but needed to submit a procedure to estimate core damage. SSER 14, Section 9.3.2 acknowledged TVA's submittal of a procedure to estimate core damage, and deleted proposed license condition 19. Review of that procedure is ongoing under TAC M77543; item II.B.3.4 is considered closed since its scope does not include review of the procedure.

II.E.1.1.2 (MPA F-015) -

Auxiliary feedwater system evaluation, modifications - Section 10.4.9 of the SER concluded that the system reliability was reliable. TVA supply status

II.F.2.4 (MPA F-026) -

Instrumentation for detection of inadequate core cooling, install instrumentation - Staff review complete in Section 4.2.3 of SSER 10. TVA to supply implementation status....

III.D.3.4.3 (MPA F-070) -

Control room habitability, install modifications - Section 6.4 of the SER concludes that protection was acceptable, and that no modification was necessary. While III.D.3.4.2 was not explicitly mentioned, it is obvious that no installation of modification need be forthcoming. This issue is closed.

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E. Technical Specification Issues

Watts Bar Technical Specifications (TS) follows the new Standard Westinghouse Technical Specification. As of this time, Watts Bar Unit 1 TS only exists in draft form, as transmitted to TVA by letter, F. J. Hebdon to O. D. Kingsley, 1/18/95). As a result, requirements will exist as entries in the TS, in the Technical Requirements Manual (TRM), or have been eliminated generically through the Standard Westinghouse TS. All the following issues are considered complete since pertinent requirements will be imposed.

- I.A.1.3.1 (MPA F-002) -
Shift manning, overtime limit - Requirement will be imposed in Technical Specifications Section 5.2.2.
- I.A.1.3.2 (MPA F-002) -
Shift manning, minimum shift crew - This issue was superseded by plant technical specifications and 10 CFR 50.54(m)(2)(i). Requirement will be imposed in Technical Specifications 5.1.2 and 5.2.2.
- USI A-09 - Anticipated transient without scram - This issue was resolved for Watts Bar (see SSER 9, Appendix W, "Safety Evaluation Report, Watts Bar Nuclear Plant, Units 1 and 2, Compliance With ATWS Rule, 10 CFR 50.62"). There is currently no existing guidance on ATWS equipment technical specifications. When the guidance is developed, Watts Bar Technical Specifications will be modified accordingly. This issue is closed.
- GSI B-63 - Isolation of low-pressure systems from reactor coolant system - Requirement imposed in Technical Specifications Section 3.4.14.
- GSI 70 - PORV and block valve reliability - Review completed in letter, P. S. Tam to O. D. Kingsley, 1/9/91 (TAC M77469). Requirement imposed as Technical Specifications Section 3.4.11.
- GSI-94 (MPA B-115) -
Additional low-temperature overpressure protection for light water reactors - Review completed in letter, P. S. Tam to O. D. Kingsley, 1/9/91. Requirement imposed as Technical Specifications Section 3.4.12.

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GSI A-13 (MPA B-017) -

Snubber operability assurance, hydraulic snubbers - Generic Letter 84-13 informed licensees that the T.S. can be deleted. Requirement has been relocated to the TRM, Section 3.7.3.

GSI A-13 (MPA B-022) -

Snubber operability assurance, mechanical snubbers - Generic Letter 84-13 informed licensees that the technical specification can be deleted. Requirement has been relocated to the TRM, Section 3.7.3.

MPA A-023 -

Reg. Guide 1.99, Revision 2 (pressurized thermal shock rule) (Generic Letter 88-11) - The applicant proposed pressure temperature limits on 12/23/94 and 3/29/95. These are currently under review, TAC M89048. Technical Specifications Section 3.4.3 addressed pressure/temperature limits. This issue is closed.

MPA B-24 - Containment purging and venting during normal operation, guidelines for valve operability (Generic Letter 79-46) - Review was completed in Section 6.2.4 of SSER 5. Requirement imposed in Technical Specifications Section 3.6.3.7.

F. To Be Accomplished After OL

I.D.2.3 (MPA F-009) -

Safety parameter display system (SPDS), implement the system - Review of SPDS completed by SSER 5, 6, 15. By letter dated 7/11/89, the applicant committed to have the SPDS operational, meeting guidance of Generic Letter 89-06, NUREG-0737, and NUREG-1342, by start up from the first refueling outage. As stated in SSER 5, the staff will impose a license condition to assure acceptable implementation. The initial fuel load, and throughout the first fuel cycle, the applicant committed to have the SPDS "functional".

MPA B-118 -

Individual plant examination, external events (IPEEE) (Generic Letter 88-20, Supplement 4) - By letter dated 3/24/94, the staff accepted IPEEE submittal 120 days after 1st refueling.

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TAC M83693 tracks IPEEE.

MPA F-072 Safety parameter display system, response to Generic Letter 89-02 (GL 89-06). Staff acceptance in Chapter 18 of SSER 5, 6 and 15. Proposed license condition, introduced in SSER 5, will assure full operability by startup from first refueling outage. TAC M73723 will track implementation.

G. Documentation or Other Actions Needed

I.C.7.1 - Nuclear steam supply system vendor review of procedures, low-power test program - TVA letter of 5/19/95 stated that the power ascension test, which is described in Section 14.2.12.2 of the FSAR and approved by the staff in SSER 14, included participation by the vendor. This issue is thus closed without additional action.

I.D.1.2 (MPA-F008, F-071) - Detailed control room design review (DCRDR), follow-up to MPA F-008 - Chapter 18 of SSER 5, 6 and 15 found all DCRDR actions acceptably complete. This issue is closed.

II.D.1.1 - Safety and relief valve test requirements, description of test program and schedule - the staff reviewed the applicant's 7/19/94 submittal, and closed this issue in SSER 15.

II.D.1.2 (MPA F-014) - Safety and relief valve test requirements, complete testing of safety and relief valves - The staff reviewed the applicant's 7/19/94 submittal, and closed this issue in SSER 15.

II.D.1.3 (MPA F-084) - Safety and relief valve test requirements, test block valves - The staff reviewed the applicant's 7/19/94 submittal, and closed this issue in SSER 15.

II.E.4.2.1-4 (MPA F-78) Containment isolation dependability, implement diverse isolation - Staff evaluation complete in Section 6.2.4 of SER and SSER 5. However, there was no staff evaluation of 2/20/85 and 2/25/85 TVA submittals

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- USI A-01 - Water Hammer - Appendix C of the 1982 SER specifically resolved this issue for Watts Bar. USI A-01 was resolved generically in 1984, but the generic resolution does not have an impact on the staff's previous resolution for Watts Bar. Appendix C in SSER 15 closed this USI.
- USI A-11 (MPA S-007) -
Reactor vessel material toughness - This issue was subsumed by equivalent margin analysis, which was evaluated and closed in Section 5.3.1.1.1 of SSER 14. This USI is thus closed.
- USI A-17 - Systems interaction - generically resolved with publication of GL 89-18. Appendix C in SSER 15 closed the USI.
- USI A-24 - Equipment qualification - TVA information under NRR review. Section 3.11 and Appendix C of SSER 15 closed this USI.
- USI A-47 (MPA B-113) -
Safety implications of control systems -
Technical issue closed by letter, P. S. Tam to O. D. Kingsley, dated October 24, 1990 (TAC M75017). Appendix C of SSER 15 closed this USI.
- GS1 75 (MPA B-078) -
Generic Letter 83-28, Items 3.1.1 and 3.1.2 -
TVA letter 11/1/83 (after SSER 5). Tam memo of November 2, 1994 (TAC M64345), recorded efforts to have Region II follow up on it....
- GS1 75 (MPA B-087) -
Generic Letter 83-28, Items 3.2.1 and 3.2.2 -
Tam memo of November 2, 1994 (TAC M64345), recorded efforts to have Region II follow up on it....
- MPA A-016 -
Qualifications of inspection, examination, and testing and audit personnel (Generic Letter 81-01) - SSER 5, Chapter 17, clearly stated that the TVA QA program is in compliance with Reg. Guide 1.58 and 1.146, the main substance of GL 81-01. While MPA A-016 or GL 81-01 was not specifically mentioned, the substance is there in SSER 5. This issue is thus closed.
- MPA B-031 -
Deep draft pump deficiencies (Bulletin 79-15) -
Section 3.10 of SSER 4 approved TVA's response

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and closed the issue. TVA then submitted a subsequent letter dated 1/24/92, providing additional information on preventive maintenance. There is no stated requirement for the staff to review such a letter. The issue thus remains closed.

MPA B-063 -

Emergency procedures and training for station blackout events (Generic Letter 81-04) - All station blackout issues were subsumed by 10 CFR 50.63 (MPA A-44). The staff's letter dated 9/9/93 (TAC M68624) found all Watts Bar station blackout fixes acceptable, with full implementation by fuel load. This issue is thus closed.

MPA B-110 -

Motor operated valve testing and surveillance - The staff has reviewed TVA's response to Supplement 2 to GL 89-10 by letter dated 9/14/90 (TAC M75736). Review of other supplements is an ongoing generic effort.

MPA L-208 -

Thermo-Lag 330-1 fire barriers (Generic Letter 92-08) - TVA's response is under review under TAC M85622. Furthermore, TVA has undertaken plant-specific design and testing of Thermo-Lag; such review is ongoing under TAC M63648.

MPA L-304 -

Rod control system failures and withdrawal of rod control cluster assemblies (Generic Letter 93-04) - The staff found, by letter dated 12/9/94, that TVA's response to the GL is acceptable (TAC M86877); this issue is thus closed. TVA is to notify the staff in writing upon full implementation.

MPA X-802 (BL-88-02) -

Rapidly propagating fatigue crack in steam generator tubes - NRC closed out in 6/7/90 letter (TAC M67329). TVA stated, and the staff agrees, that the staff did not consider TVA's 3/1/89 letter, which proposed a more conservative approach. On such basis, this issue is considered closed.

MPA X-808 (BL-88-08) -

Thermal stress in piping - Issue was originally closed by staff letter of 9/19/91 (TAC M69706).

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The issue was reopened by TVA's submittal of 3/29/94; review is ongoing under TAC M89581.

MPA X-809 (Bulletin 88-09) -
Thimble tube thinning in Westinghouse reactors -
TVA response of 3/11/94 fully complies with the
bulletin (TAC M72693). Based on instruction
from the lead project manager (memo, B. Buckley
to PMS, 9/27/89), there is no need for
additional action. Issue is closed.

H. Licensing Action Considered Complete in Scientech, Inc.
Report

*The staff agrees with Scientech's assessment, and the following
issues remain closed.*

- I.A.2.3 - Administration of training program
- I.B.1.2 - Independent safety engineering group
- I.C.2 - Shift and relief turnover procedures
- I.C.3 - Shift supervisor responsibility
- I.C.4 - Control room access
- I.C.5 (MPA F-006) -
Feedback of Operating Experience
- I.C.6 (MPA F-007) -
Verifying correct performance of operating
activities
- I.C.7.2 - Nuclear steam supply system vendor review of
procedures, power ascension and emergency
procedures
- I.C.8 - Pilot monitoring of selected emergency
procedures for near-term operating licenses
- I.D.1.1 (MPA F-008) -
Detailed control room review (DCRDR), program
plan
- I.G.1.1 - Preoperational and low-power testing, propose
tests
- I.G.1.2 - Preoperational and low-power testing, analyses
and procedures

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- I.G.1.3 - Preoperational and low-power testing, perform training and evaluate results
- II.B.1.1 - Reactor coolant system vents design and analyses
- II.B.1.3 - Reactor coolant system vents, procedures governing use of the vents
- II.B.2.1 - Design review of plant shielding and environmental qualification of equipment for spaces/systems which may be used in post-accident operations, radiation and shielding review
- II.B.2.2 - Design review of plant shielding and environmental qualification of equipment for spaces/systems which may be used in post-accident operations, corrective actions to assure access
- II.B.2.3 (MPA F-011) -
Design review of plant shielding and environmental qualification of equipment for spaces/systems which may be used in post-accident operations, complete modifications
- II.D.3 - Valve position indication, install in control room
- II.E.1.1.1 -
Auxiliary feedwater system evaluation analysis
- II.E.1.2.1.A -
Auxiliary feedwater system initiation and flow, short term changes
- II.E.1.2.1.B (MPA F-016) -
Auxiliary feedwater system initiation and flow, long term changes
- II.E.1.2.2.A -
Auxiliary feedwater system initiation and flow, short term flow indication
- II.E.1.2.2.B (MPA F-017) -
Auxiliary feedwater system initiation and flow, long term flow indication
- II.E.3.1 - Emergency power for pressurizer heaters
- II.E.4.2.5 -
Containment isolation dependability, adjust

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setpoints for non-essential system isolation

- II.E.4.2.6 (F-079) -
Containment isolation dependability, containment
purge valve operability
- II.E.4.2.7 (MPA F-019) -
Containment isolation dependability, close purge
valves on high radiation signal
- II.G.1 - Power supplies for pressurizer relief valves,
block valves, and level indicators
- II.K.2.13 (MPA F-030) -
Orders on B&W plants, thermal/mechanical
analysis
- II.K.2.17 (MPA F-033) -
Orders on B&W plants, voiding in reactor coolant
system during anticipated transients
- II.K.2.19 (MPA F-034) -
Orders on B&W plants, benchmark analysis of
sequential auxiliary feedwater flow
- II.K.3.1 (MPA F-036) -
Final recommendations, B&O Task Force, automatic
isolation of the pressurizer pilot-operated
relief valve
- II.K.3.2 (MPA F-037) -
Final recommendations, B&O Task Force, report on
safety effect of pilot-operated valve isolation
system
- II.K.3.3 (MPA F-038) -
Final recommendations, B&O Task Force, report
safety and relief valves failures and challenges
- II.K.3.9 (MPA F-040) -
Final recommendations, B&O Task Force,
proportional integral derivative (PID)
controller modification
- II.K.3.10 (MPA F-041) -
Final recommendations, B&O Task Force, proposed
anticipatory trip modifications
- II.K.3.12.A -
Final recommendations, B&O Task Force, proposed
modifications to install anticipatory trip

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- II.K.3.17 (MPA F-047) -
Final recommendations, B&O Task Force, report
ECCS component outages
- II.K.3.25.A -
Final recommendations, B&O Task Force, propose
modifications to pump seal cooling systems
- II.K.3.25.B (MPA F-053) -
Final recommendations, B&O Task Force, install
modifications to pump seal cooling systems
- II.K.3.31 (MPA F-058) -
Final recommendations, B&O Task Force,
compliance with 10 CFR 50.46
- III.A.1.2.1 (MPAs F-063, -064, -065) -
Upgrade emergency support facilities
- III.A.1.2 (MPA F-067) -
Emergency preparedness, upgrade emergency plans
- III.A.2.2 (MPA F-068) -
Emergency preparedness, meteorological data
- III.D.1.1 -
Primary coolant outside containment
- III.D.3.3.1 -
In-plant iodine radiation monitoring, provide
equipment to determine presence of radioiodine
- III.D.3.3.2 (MPA F-069) -
In-plant iodine radiation monitoring, provide
equipment, training, and procedures
- USI A-02 - Asymmetric blowdown loads on reactor primary
coolant systems
- USI A-03 - Westinghouse steam generator tube integrity
- USE A-26 - Reactor vessel pressure transient protection
- USI A-31 - Residual heat removal shutdown requirements
- USE A-36 (MPA C-010 and -015) -
Control of heavy loads near spent fuel
- USI USE A-40 (MPA B-109) -
Seismic design criteria
- USI A-44 (MPA A-022) -

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Station blackout

- USI A-45 - Shutdown decay heat removal requirements
- USI A-48 (MPA S-003) -
Hydrogen control measures and effects of
hydrogen burns on safety equipment
- GSI 43 (MPA B-107) -
Reliability of air systems
- GSI 51 (MPA L-913) -
Proposed requirements for improving the
reliability of open-cycle service water systems
- GSI 67.3.3 (MPA A-17) -
Improved accident monitoring
- GSI 75 (MPA B-076) -
Generic Letter 83-28, Item 1.1, post-trip review
program description and procedure
- GSI 75 (MPA B-085) -
Generic letter 83-28, Item 1.2, post-trip data
and information capability
- GIS 75 (MPA B-077) -
Generic Letter 83-28, Item 2.1, equipment
classification and vendor interface, reactor
trip system components
- GSI 75 (MPA B-086) -
Generic Letter 83-28, Item 2.2.1, equipment
classification for safety-related components
- GSI 75 (MPA L-003) -
Generic Letter 83-28, Item 2.2.2, vendor
interfact for safety-related components
- GSI 75 (MPA B-079) -
Generic Letter 83-28, Items 3.1.3, post-
maintenance testing, changes to test
requirements (reactor trip system components)
- GSI 75 (MPA B-080) -
Generic Letter 83-28, Item 4.1, reactor trip
system reliability, vendor-related modifications
- GSI 75 (MPA B-081) -
Generic Letter 83-28, Items 4.2.1 and 4.2.2,
reactor trip system reliability, maintenance and
testing

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- GSI 75 (MPA B-082) -
Generic Letter 83-28, Item 4.3, reactor trip system reliability, design modifications - automatic actuation of shunt trip attachment
- GSI 75 (MPA B-088) -
Generic Letter 83-28, post-maintenance testing, changes to test requirements (all other SR components)
- GSI 75 (MPA B-090) -
Generic Letter 83-28, Item 4.3, reactor trip system reliability - technical specification changes, automatic actuation of shunt trip attachment
- GSI 75 (MPA B-092) -
Generic Letter 83-28, Item 4.5.1, reactor trip system reliability - diverse trip features (system functional testing)
- GSI 75 (MPA B-093) -
Generic Letter 83-28, Items 4.5.2 and 4.5.3, reactor trip system reliability, test alternatives and intervals (system functional testing)
- GSI 99 (MPA L-817) -
Reactor coolant system/residual heat removal suction line valve interlock on PWRs
- GSI 93 (MPA B-098) -
Steam binding of auxiliary feedwater pumps (Generic Letter 88-03)
- MPA A-025 -
Inservice testing reviews and schedules (Generic Letter 89-04)
- MPA B-043 -
Cracking in feedwater system piping (Bulletin 79-13)
- MPA B-066 -
Natural circulation cooldown (Generic Letter 81-21)
- MPA B-089 -
Generic Letter 83-28, Items 4.2.3 and 4.2.4, life testing and replacement of reactor trip breakers

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- MPA B-095 -
Loss of residual heat removal (Generic Letter 87-12)
- MPA B-096 -
Thinning of pipe walls in nuclear power plants (Bulletin 87-01)
- MPA B-101 -
Boric acid corrosion of carbon steel reactor pressure boundary components in PWR plants
- MPA B-111 -
Individual plant examinations (Generic Letter 88-20)
- MPA B-117 (Bulletin 89-01, Supplement 2) -
Failure of Westinghouse steam generator tube mechanical plugs
- MPA B-120 -
Reactor vessel structural integrity (Generic Letter 92-01)
- MPA B-122 (Bulletin 90-01, Supplement 1) -
Loss of fill oil in transmitters manufactured by Rosemount
- MPA B-123 -
Inaccuracy of motor-operated valve diagnostic equipment
- MPA L-907 -
Power reactor safeguards contingency planning for surface vehicle bombs (Generic Letter 89-07)
- MPA L-908 (Generic Letter 89-08) -
Erosion/corrosion-induced pipe wall thinning
- MPA X-001 (Bulletin 90-01) -
Loss of fill oil in transmitters manufactured by Rosemount
- MPA X-801 (Bulletin 88-01) -
Defects in Westinghouse circuit breakers (Bulletin 88-01)
- MPA X-803 (Bulletin 88-01) -
General Electric HFA relays
- MPA X-804 (Bulletin 88-04) -
Potential safety-related pump loss

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- MPA X-805 (Bulletin 88-05) -
Nonconforming materials supplied by Piping
Supplies, Inc. at Folsom, New Jersey and West
Jersey Manufacturing Company at Williamstown,
New Jersey
- MPA X-810 -
Circuit breaker material problems (Bulletin 88-
10)
- MPA X-811 -
Thermal stratification in pressurizer surge line
(Bulletin 88-11)
- MPA X-901 (Bulletin 89-01) -
Failure of Westinghouse steam generator tube
mechanical plugs
- MPA X-902 -
Stress corrosion cracking of Anchor Darling
valve bolting (Bulletin 89-02)
- MPA X-903 -
Potential loss of required shutdown margin
during refueling operations (Bulletin 89-03)