

Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381

July 14, 1995

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, D.C. 20555

Gentlemen:

In the Matter of the Application of) Docket Nos. 50-390 Tennessee Valley Authority) 50-391

WATTS BAR NUCLEAR PLANT (WBN) - STATUS OF SAFETY ISSUES AT WATTS BAR UNIT 1 NUCLEAR POWER PLANT - MARCH 1995 - FINAL REPORT

Your letter to O. D. Kingsley, Jr., dated February 23, 1995, provided the results of an NRC review of the status of generic safety issues which are applicable to WBN. Your letter to O. D. Kingsley, Jr., dated May 4, 1995, directed TVA to use a final version of the NRC report which was transmitted informally to TVA on March 29, 1995.

As agreed during our April 28, 1995 meeting, TVA's response to the February 23, 1995 and May 4, 1995, letters is being provided to NRC in stages. The first two parts of the three part response were provided by my May 19, and June 14, 1995 letters to you. This letter provides the final part.

The status for each item is provided in Enclosure 1 as an update to the summary tables shown in the NRC final report as Tables 4.2, 5.2, 6.2, and 7.2.

Enclosure 2 provides the rationale for differences between the status in the summary tables of the final NRC report and the status developed from TVA's review of the issues. As requested, completion schedules are provided for issues with an implementation status of "open."



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This letter revises the status of GSI 70 provided in my letter dated June 14, 1995. TVA's September 10, 1993, response to Generic Letter 90-06, committed to submit the Inservice Inspection program within six months after receiving an Operating License. Actions required for fuel load are complete, but final implementation requires submittal of the Inservice Inspection program. The implementation status of GSI 70 should be "open" with completion scheduled for six months after fuel load.

If you should have any questions, contact E. W. Whitaker at (615)/365-1035.

Sincerely,

R. R. Baron

Nuclear Assurance and

Licensing Manager (Acting)

Enclosures

cc (Enclosures):

NRC Resident Inspector Watts Bar Nuclear Plant Rt. 2, Box 700 Spring City, Tennessee 37381

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Enclosure 1

Watts Bar Nuclear Plant Completion Status of Generic Issues

Issue	Description	NRC Lic Action	TVA Lic Action	NRC Impl	TVA Impl	NRC Verify	TVA Verify
I.A.1.2	Shift Supervisor Responsibilities	Complete	Complete	Open	Complete	Open	Complete
I.A.1.3.1	Shift Manning	Open	Complete	Open	Complete	Open	Complete
I.A.1.3.2	Shift Manning	Open	Complete	Open	Complete	Open	Complete
I.A.2.1.1	RO/SRO Training and Qualification - SRO Experience	Open	Complete	Open	Complete	N/A	Complete
I.A.2.1.2	RO/SRO Training and Qualification - SRO have 1 yr as RO	Open	Complete	Open	Complete	N/A	Complete
I.A.2.1.3	RO/SRO Training and Qualification - SRO have 3 months on shift training	Open	Complete	Open	Complete	N/A	Complete
I.A.2.1.4	RO/SRO Training and Qualification - Modify Training	Open	Complete	Open	Complete	N/A	Complete
I.A.2.1.5	RO/SRO Training and Qualification - Management Cert of License Applications	Open	Complete	Open	Complete	N/A	Complete
I.A.2.3	Administration of Training Program	Complete	Complete	Open	Complete	N/A	Complete
I.A.3.1.1	Revise Scope & Criteria for Operator Licensing Exams - Increase scope	Open	Complete	Open	Complete	N/A	Complete

I.A.3.1.2	Revise Scope & Criteria for Operator Licensing Exams - Increase passing grade	Open	Complete	Open	Complete	N/A	Complete
I.A.3.1.3	Revise Scope & Criteria for Operator Licensing Exams - Simulator Exams - Plants w/ Simulators	Open	Complete	Open	Complete	N/A	Complete
I.C.1.1	Emergency Operating Procedures	Open	Complete	Open	Complete	Open	Complete
I.C.1.2.A	Emergency Operating Procedures	Open	Complete	Open	Complete	N/A	Complete
I.C.1.2.B	Emergency Operating Procedures	Open	Complete	Open	Complete	Open	Complete
I.C.1.3.A	Emergency Operating Procedures	Open	Complete	Open	Complete	N/A	Complete
I.C.1.3.B	Emergency Operating Procedures	Open	Complete	Open	Complete	Open	Complete
I.C.2	Shift Turnover Procedures	Complete	Complete	Complete	Complete	Open Open	Open
I.C.3	Shift Supervisor Responsibilities	Complete	Complete	Open	Complete	Open	Open
I.C.4	Main Control Room Access	Complete	Complete	Open	Complete	Open	Open
I.C.6	Verifying Correct Performance of Operating Activities	Complete	Complete	Open	Complete	Open	Open
II.B.2.1	Shielding	Complete	Complete	Open	Complete	N/A	N/A
II.B.2.2	Shielding	Complete	Complete	Open	Complete	N/A	N/A
II.B.2.3	Shielding	Complete	Complete	Open	Complete	Open	Open
II.B.4.1	Training for Mitigating Core Damage - Development of a Training Program	Open	Complete	Open	Complete	N/A	Complete
II.B.4.2	Training for Mitigating Core Damage - Completion of Training	Open	Complete	Open	Complete	N/A	Complete

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II.D.3	Valve Position Indication - Install in Control Room	Complete	Complete	Complete	Open	Complete	Open
II.E.1.2.1.A	Auxiliary Feedwater System Initiation - Short Term	Complete	Complete	Complete	N/A	Complete	N/A
II.E.1.2.1.B	Auxiliary Feedwater System Initiation - Long Term	Complete	Complete	Open	Complete	Open	Complete
II.E.1.2.2.A	Auxiliary Feedwater System Automatic Initiation and Flow Indication - Short Term	Complete	Complete	Complete	N/A	Complete	N/A
II.E.1.2.2.B	Auxiliary Feedwater System Flow Indication - Long Term	Complete	Complete	Open	Open	Open	Open
II.E.4.2.1-4	Containment Isolation System	Open	Open II.E.4.2.2	Open	Complete	Open	Complete
II.E.4.2.5	Containment Isolation System Setpoint	Complete	Complete	Complete	Complete	Open	Open
II.E.4.2.6	Containment Purge Valve Operability	Complete	Cómplete	Open	Complete	Open	Complete
II.E.4.2.7	Containment Purge Valve Isolation On High Radiation	Complete	Open	Open	Complete	Open	Complete
II.K.1.5	IE Bulletins - Proper Positioning of Safety Related Valves (BL79-06A)	Open	Open	Open	Complete	N/A	N/A
II.K.1.10	Operability Status	Open	Complete	Open	Complete	N/A	N/A
II.K.1.17	IE Bulletins - Rx Trip on Low Pressurizer Pressure	Open	Complete	Open	Complete	N/A	Complete
II.K.3.3	Report Safety & Relief Valve Failures and Challenges	Complete	Complete	Open	Complete	N/A	N/A
II.K.3.5.A	Auto Trip of Reactor Coolant Pumps - Proposing Modifications (GL 83-10C) (GL 85-12)	Open	Complete	N/A	Complete	N/A	N/A

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II.K.3.5.B	Auto Trip of Reactor Coolant Pumps - Implementing Modifications (GL 83-10C) (GL 85-12)	Open ·	Complete	Open	Complete	Open	Open
II.K.3.10	Proposed Anticipatory Trip - at High Power	Complete	Complete	Open	Complete	Open	Open
II.K.3.30.A	SBLOCA Model - Program Outline & Schedule	Open	Complete	Open	Complete	N/A	N/A
II.K.3.30.B	SBLOCA Model - Revised LOCA Analysis Model	Open	Complete	Open	Complete	N/A	N/A
II.K.3.30.C	SBLOCA Model - Plant Specific Analysis	Open	Complete	Open .	Complete	N/A	N/A
II.K.3.9	PID Controller Modification	Complete	Complete	Complete	Complete	Open	Complete
III.D.3.3.1	Inplant Iodine Radiation Monitoring - Sampling Capability	Complete	Complete	Open	Complete	Open	Complete
III.D.3.3.2	Inplant Iodine Radiation Monitoring	Complete	Complete	Open	Complete	Open	Complete
GSI 43	Reliability of Air Systems	Complete	Open	Open	Complete	N/A	N/A
GSI 51	Improving the Reliability of Open-Cycle Service Water Systems (BL 81-03) (GL89-13)	Complete	Complete	Open	Open	Open	Open
GSI 67.3.3	Accident Monitoring Instrumentation (RG1.97, GL82-33)	Complete	Complete	Open	Open	Open	Open
GSI 75 (B078)	Post Maintenance Testing of Reactor Trip system components - Items 3.1.1 & 3.1.2	Open	Complete	Open	Complete	Open	Complete
GSI 93 (B098)	Steam Binding of Auxiliary Feedwater Pumps (GL 88-03) (BL 85-01)	Complete	Complete	Open	Complete	Complete	Complete

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GSI 99 (L817)	Reactor Coolant System/ Residual Heat Removal Suction Line Valve Interlock on PWRs	Complete	Complete	Open	Open	Open	Open
GSI A-13 (B017)	Hydraulic Snubbers	Open	Complete	Open	Complete	N/A	N/A
GSI A-13 (B022)	Mechanical Snubbers	Open	Complete	Open	Complete	N/A	N/A
GSI B-63 (B045)	Isolation of Low Pressure Systems Connected to the Reactor Coolant Pressure Boundary	Open	Complete	Open	Complete	N/A	N/A
MPA A016	Qualifications of Inspection, Examinations, and Testing and Audit Personnel (GL 81-01)	Open	Complete	Open	Complete	N/A	N/A
MPA A023	Reg. Guide 1.99 Rev. 2 Pressurized Thermal Shock Rule	Open	Complete	Open	Open	N/A	N/A
MPA A025	Inservice Testing Program Reviews and Schedules (GL 89-04)	Complete	Complete	Open	Complete	Open	Open
MPA B024	Containment Purging & Venting During Normal Operation - Guidelines for Valve Operability (GL79-46)	Open	Complete	Open	Complete	Open	Complete
MPA B063	Emergency Procedures & Training for Station Blackout Events (GL 81-04)	Open	Complete	Open	Open	N/A	N/A
MPA B101	Boric Acid Corrosion of Carbon Steel Reactor Pressure Boundary Components in PWR Plants (GL88-05)	Complete	Complete	Open	Complete	Open	Open
MPA B111	Individual Plant Examinations (GL 88-20)	Complete	Complete	Open	Open	N/A	N/A

MPA F072 TMI I.D.2	SPDS Response to GL 89-02 (GL 89-06)	Open	Open	Open	Open	N/A	N/A
MPA L208	Thermo Lag	Open	Open	Open	Open	Open	Open
MPA L304	Rod Control System Failure and Withdrawal of Rod Control Cluster Assemblies (GL 93-04)	Open	Complete	Open	Open	N/A	N/A
MPA L907	Vehicular Bomb Threat	Complete	Complete	Open	Open	Open	Complete
MPA L908	Erosion/Corrosion-Induced pipe Wall Thinning (GL 89-08)	Complete	Complete	Open	Open	N/A	N/A
MPA X802	Steam Generator Tube Rupture (BL 88-02)	Open	Completed	Open	Completed	N/A 4	N/A
MPA X804	Potential Safety-Related Pump Loss (BL 88-04)	Completed	Completed	Open	Open	Open	Completed
MPA X808	Thermal Stress in Piping (BL 88-08)	Open	Open	Open	Open	N/A	N/A
MPA X810	Non-Conforming Molded-Case Circuit Breakers (BL 88-10)	Complete	Complete	Open	Complete	N/A	N/A
MPA X811	Themal Stratification in PZR Surge Line (BL 88-11)	Completed	Completed	Open	Completed	N/A	N/A
MPA X903	Potential Loss of Required Shutdown Margin During Refueling Operations (BL 89-03)	Complete	Complete	Open	Complete	N/A	N/A
USI A-09	Anticipated Transient Without Scram	Open	Complete	Ореп	Complete	Open	Complete
USI A-24	Qualification of Class 1E Safety-related Equipment	Open	Complete	Open	Open	Open	Open
USI A-26	Reactor Vessel Pressure Transient Protection	Complete	Complete	Open	Open	Open	Open
USI A-47	Safety Implications of Control Systems	Open	Complete	Open	Complete	N/A	N/A

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USI A-48	Hydrogen Control Measures and Effects of Hydrogen Burns on	Complete	Complete	Open	Complete	N/A	N/A
	Safety Equipment						

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Enclosure 2

Watts Bar Nuclear Plant Generic Issues

Basis for TVA Status

Issue Number	Description	Basis / Rationale/Comments	
I.A.1.2	Shift Supervisor Responsibilities	Closure package provided to NRC staff at Watts Bar. Closed by Region II.	
I.A.1.3.1	Shift Manning	Closure package provided to NRC staff at Watts Bar. Closed by Region II.	
I.A.1.3.2	Shift Manning	Closure package provided to NRC staff at Watts Bar. Closed by Region II.	
I.A.2.1.1	RO/SRO Training and Qualification - SRO Experience	NRC reviews and TVA implementation of I.A.2.1 included the SRO experience requirements, therefore Licensing Action is considered complete. SRO experience requirements are implemented using TVAN training procedures and are considered complete. Verification of the overall operator training program was performed by IR 95-01.	
I.A.2.1.2	RO/SRO Training and Qualification - SRO have 1 yr as RO	NRC reviews and TVA implementation of I.A.2.1 included the SRO with one year of RO experience requirements, therefore Licensing Action is considered complete. SRO experience requirements are implemented using TVAN training procedures and are considered complete. Verification of the overall operator training program was performed by IR 95-01.	

Issue Number	Description	Basis / Rationale/Comments
I.A.2.1.3	RO/SRO Training and Qualification - SRO have 3 months on shift	NRC reviews and TVA implementation of I.A.2.1 included the SRO on-shift training requirements, therefore Licensing Action is considered complete.
	training	SRO on-shift training requirements are implemented using TVAN training procedures and are considered complete.
		Verification of the overall operator training program was performed by IR 95-01.
I.A.2.1.4	RO/SRO Training and Qualification - Modify Training	NRC reviews and TVA implementation of I.A.2.1 included the SRO training on specific topics, therefore Licensing Action is considered complete.
	Training	SRO training on specific topics is implemented using TVAN training procedures and is considered complete.
		Verification of the overall operator training program was performed by IR 95-01.
I.A.2.1.5	RO/SRO Training and Qualification - Management Cert of	NRC reviews and TVA implementation of I.A.2.1 included the SRO training including applications for licenses, therefore Licensing Action is considered complete.
	License Applications	SRO license applications are implemented using TVAN training procedures and are considered complete. These procedures require certification of applicants for an SRO or RO license by the Site Vice President.
		Verification of the overall operator training program was performed by IR 95-01.
I.A.2.3	Administration of Training Program	Licensing Action is complete based on the approval of the SAT based training program in SSER 9.
	·	Implementation of the qualification and training requirements for the SRO trainers is complete based on incorporation of the requirements in TVAN training procedures which provide for SRO examinations and qualification requirements for SRO trainers.
	,	Verification of the overall operator training program was performed by IR 95-01.

Issue Number	Description	Basis / Rationale/Comments
I.A.3.1.1	Revise Scope & Criteria for Operator Licensing Exams - Increase scope	NRC reviews and TVA implementation of I.A.3.1 included the RO training on specific topics, therefore Licensing Action is considered complete. RO training on specific topics is implemented using TVAN training procedures and is considered complete. Verification of the overall operator training program was performed by IR 95-01.
I.A.3.1.2	Revise Scope & Criteria for Operator Licensing Exams - Increase passing grade	NRC reviews and TVA implementation of I.A.3.1 included the RO passing grade requirements, therefore Licensing Action is considered complete. RO passing grade requirements are implemented using TVAN training procedures and are considered complete. Verification of the overall operator training program was performed by IR 95-01.
I.A.3.1.3	Revise Scope & Criteria for Operator Licensing Exams - Simulator Exams - Plants w/ Simulators	NRC reviews and TVA implementation of I.A.3.1 included the simulator examination requirements, therefore Licensing Action is considered complete. RO simulator examination requirements are implemented using TVAN training procedures and are considered complete. Verification of the overall operator training program was performed by IR 95-01. IR 95-01 verified that the WBN training program meets 10 CFR 50.120.
I.C.1.1	Emergency Operating Procedures	Closure package provided to NRC staff at Watts Bar
I.C.1.2.A	Emergency Operating Procedures	Closure package provided to NRC staff at Watts Bar
I.C.1.2.B	Emergency Operating Procedures	Closure package provided to NRC staff at Watts Bar
I.C.1.3.A	Emergency Operating Procedures	Closure package provided to NRC staff at Watts Bar

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Issue Number	Description	Basis / Rationale/Comments
I.C.1.3.B	Emergency Operating Procedures	Closure package provided to NRC staff at Watts Bar
I.C.2	Shift Turnover Procedures	Closure package provided to NRC staff at Watts Bar
I.C.3	Shift Supervisor Responsibilities	Closure package provided to NRC staff at Watts Bar
I.C.4	Main Control Room Access	Closure package provided to NRC staff at Watts Bar
I.C.6	Verifying Correct Performance of Operating Activities	Closure package provided to NRC staff at Watts Bar
II.B.2.1	Shielding	Closure package provided to NRC staff at Watts Bar
II.B.2.2	Shielding	Closure package provided to NRC staff at Watts Bar
II.B.2.3	Shielding	Closure package provided to NRC staff at Watts Bar
II.B.4.1	Training for Mitigating Core Damage - Development of a Training Program	NRC reviews and TVA implementation of II.B.4 included the training for mitigation of core damage, therefore Licensing Action is considered complete. Training for mitigation of core damage is implemented using TVAN training procedures and is considered complete. NRC review of the training program in IR 95-01 concluded that the program was adequate to meet 10CFR 50.120.
		Verification of the overall operator training program was performed by IR 95-01.

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Issue Number	Description	Basis / Rationale/Comments
Н.В.4.2	Training for Mitigating Core Damage - Completion of Training	NRC reviews and TVA implementation of II.B.4 included the training for mitigation of core damage, therefore Licensing Action is considered complete. Training for mitigation of core damage is implemented using TVAN training procedures and is considered complete. NRC review of the training program in IR 95-01 concluded that the program was adequate to meet 10CFR 50.120. Verification of the overall operator training program was performed by IR 95-01.
II.D.3	Valve Position Indication - Install in Control Room	Licensing Action is considered complete. TVA revised the response by TVA letter dated November 7, 1994, (after NRC approval) which discussed the accelerometer relocation downstream of the PORVs. NRC approved the change in SSER 14. Implementation is open pending corrective actions for identified problems: installation of transient shields and hardline cable associated with the acoustic monitoring system. This work is scheduled to be complete by fuel load.
		Verification was completed by IR 84-35. The changes described above may lead to further NRC review.
II.E.1.2.1.A	Auxiliary Feedwater System Initiation - Short Term	The implementation and verification portions of this issue are not applicable since the need for interim measures was eliminated by TVA installing the long term measures directly for Watts Bar. The long term aspects are covered by item II.E.1.2.1.B.
II.E.1.2.1.B	Auxiliary Feedwater System Initiation - Long Term	Implementation of a safety grade initiation system is described in the system design description and is considered complete. Verification of the initiation system was performed in IR 84-20. IR 88-01 reopened the issue based on the belief that the system environmental qualification was not properly documented. This issue was subsequently closed since the subject equipment is in a mild environment, and the original closure in IR 84-20 was appropriate.
II.E.1.2.2.A	Auxiliary Feedwater System Automatic Initiation and Flow Indication - Short Term	The implementation and verification portions of this issue are not applicable since the need for interim measures was eliminated by TVA installing the long term measures directly for Watts Bar. The long term aspects are covered by item II.E.1.2.2.B.

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Issue Number	Description	Basis / Rationale/Comments
II.E.1.2.2.B	Auxiliary Feedwater System Flow Indication - Long Term	Implementation of the AFW flow indicators will be complete when the flow transmitters environmental qualification is complete which requires completion of field installation of lead shielding. The associated work order is scheduled to be worked by August 31, 1995.
II.E.4.2.1-4	Containment Isolation System	TVA letter dated February 20, 1985 addressed an exception to automatic isolation of non-essential systems (vent lines off the residual heat removal system). NRC approval of the containment isolation configuration for these penetrations was provided in SSER 12 which approved a corrective action plan for containment isolation. This completes licensing actions except for item II.E.4.2.2 which remains open [Pending NRC approval of addition of the Post Accident Sampling system to the list of essential systems submitted by letter dated February 25, 1985 (also see FSAR Table 6.3.4-1)]. Implementation is considered complete based on issuance of design criteria covering these requirements.
II.E.4.2.5	Containment Isolation System Setpoint	Inspections of these issues were documented by IRs 84-52, 85-08, 93-01, and 93-36. Implementation is considered complete since TVA's evaluation determined that no change to the setpoint was required. Standard technical specifications have retained the Phase A isolation
		setpoint (1.54 psid rounded to 1.5). Final instrument loop calibration is conducted within the STS and is therefore considered complete. Verification is shown as 'open' in the detailed writeup of this issue, but shown as complete in the summary table. IR 95-18 inspected the preoperational test procedure used to verify isolation
II.E.4.2.6	Containment Purge Valve Operability	setpoint, but it did not specifically address the setpoint. Implementation is complete based on completion of modifications to properly orient the purge valves and install blocks on lower containment purge valves to limit opening to 50 degrees. Technical specification requirements are addressed as part of the standard technical specification program and as such are considered complete.
		NRC reverified the 50 degree opening angle restriction on the lower containment valves in IR 90-06.

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Issue Number	Description	Basis / Rationale/Comments
II.E.4.2.7	Containment Purge Valve Isolation On High Radiation	Licensing Action is considered open due to a change in valve isolation logic as described in FSAR amendments (Chapter 11 in Amendment 77, Chapter 9 in Amendment 87). The containment ventilation isolation logic no longer includes the isolation on a high containment radiation signal since experience at Sequoyah indicated this signal causes spurious containment ventilation isolation actuations. An isolation on high purge exhaust radiation is retained. This action is consistent with the actions approved for Sequoyah in License Amendments 168 and 158 for units 1 and 2, respectively. TVA will update the design description in FSAR Chapter 6 in Amendment 90 to be consistent with the Chapter 9 and 11 which is scheduled for submittal on August 31, 1995.
		Implementation of the isolation logic was initially completed and subsequently reviewed and approved by NRC in IRs 83-55, 84-35, and 84-42. Removal of the containment high radiation actuation of the containment ventilation isolation was removed by a design change completed in 1994. The remaining action for TVA is to amend Chapter 6 in Amendment 90 to be consistent with the changes previously submitted in Amendments 77 and 87. Amendment 90 is scheduled for submittal on August 31, 1995. Verification of the containment ventilation isolation logic was performed by NRC in IRs 83-55,
-	·	84-35, and 84-42. Removal of the containment high radiation signal consistent with the Sequoyah modification should not require verification since the remaining logic has already been verified.
II.K.1.5	IE Bulletins (BL79-06C) - Proper Positioning of Safety Related Valves	Licensing action for this item remains open. TVA's letters dated July 12, 1979 and September 14, 1981 stated that systems and procedures would be reviewed to ensure that valve position requirements were properly specified. A critical valve list was added to the shift and relief turnover procedure in October 1981 to provide assurance that critical valves are properly positioned. The current generation of operations procedures maintain this valve list. Site Standard Practices 2.03 and 12.06 which govern development and checkout of procedures include provisions to ensure that valve positions are properly specified. Based on the above TVA actions the intent of the bulletin has been met.
		Implementation of the valve position review is considered complete based on the addition of the critical valve list to the shift turnover procedures in October 1981. The SSPs discussed above include provisions to ensure valve positions are specified in operations, maintenance and testing procedures. The walkdown requirements which are part of the System Pre-Operability Checklist process verify proper valve alignments.

Issue Number	Description	Basis / Rationale/Comments
П.К.1.10	Operability Status	Licensing Action is considered complete based on coverage of the II.K.1.10 issues within the scope of issues I.C.2 and I.C.6 which were approved in the SER [NUREG 0660 item II.K.1.10 (Table c.1 item 10) references I.C.2 and I.C.6 as the implementing items] Implementation is complete based on completion of closure packages for items I.C.2 and I.C.6 which have been previously submitted to the NRC field office at Watts Bar.
II.K.1.17	IE Bulletins - Rx Trip on Low Pressurizer Pressure	Licensing Action is considered complete based on NRC review and approval of the low pressurizer pressure trip as discussed in the SER and as required by Technical Specifications. Implementation is considered complete based on inclusion of the trip in the system description and in the plant technical specifications. Technical specification surveillance requirements will ensure operability of the reactor trips. NRC verification of the low pressurizer pressure reactor trip was addressed in IR 83-20.
II.K.3.3	Report Safety & Relief Valve Failures and Challenges	The licensing action is considered closed with the following clarifications. TVA's original licensing position included both primary and secondary safety and relief valves in the reporting requirements while only primary valves were needed to meet NUREG 0737. In reaching the conclusion that TVA met the requirements of NUREG 0737, SER section 13.5.3 relied on reporting of the primary valves only. TVA revised the licensing position by letter dated June 7, 1995, to be consistent with NUREG 0737, SER section 13.5.3, and technical specifications by requiring reporting on primary valves only. In addition, the annual reporting requirement of NUREG 0737has been replaced with more stringent (monthly) reporting requirements. Plant procedures are in place to provide for reporting failures and challenges to primary safety and relief valves in accordance with the more stringent technical specification requirements. Implementation of this item is therefore considered complete.

Issue Number	Description	Basis / Rationale/Comments
II.K.3.5.A	Auto Trip of Reactor Coolant Pumps - Proposing Modifications (GL 83-10C) (GL 85-12)	The Licensing Action is considered complete based on the SSER 5 reference to NRC's June 8, 1990 letter which specifically addressed item II.K.3.5 and considered NRC review action complete on the issue. Implementation of the alternate reactor coolant pump trip criteria referenced in NRC's June 8, 1990 letter is addressed in emergency operating procedures and function restoration guidelines. The RCP trip criterion (reactor coolant system pressure decreasing) was developed using the Westinghouse Owners Group methodology. Calculations to account for analysis and instrument inaccuracies have been performed to establish the current pump trip criterion of 1500 psig decreasing and this criterion is reflected in the operating procedures. This item is considered complete.
II.K.3.5.B	RCP Auto Trip - Proposed Modifications to Accomplish the (GL 83-10C) (GL 85-12)	The Licensing Action is considered complete based on the SSER 5 reference to NRC's June 8, 1990 letter which specifically addressed item II.K.3.5 and considered NRC review action complete on the issue. Implementation of the alternate reactor coolant pump trip criteria referenced in NRC's June 8, 1990 letter is addressed in emergency operating procedures and function restoration guidelines. The RCP trip criterion (reactor coolant system pressure decreasing) was developed using the Westinghouse Owners Group methodology. Calculations to account for analysis and instrument inaccuracies have been performed to establish the current pump trip criterion of 1500 psig decreasing and this criterion is reflected in the operating procedures. This item is considered complete. The June 8, 1990 NRC letter mentioned a potential for subsequent NRC inspections of the issue. NRC inspections in the area of operating procedures subsequent to the June 8, 1990 letter are documented in IR 93-30, and 94-86 which do not specifically address the reactor coolant pump trip criteria or item II.K.3.5.B.

Issue Number	Description	Basis / Rationale/Comments
II.K.3.10	Proposed Anticipatory Trip - at High Power	Implementation is considered complete based on NRC approval in SSER 5 of the SBLOCA model and agreement that WFLASH results were more conservative than NOTRUMP and hence existing analysis on WBN was bounding. The SSER noted that the requirements of II.K.3.30 and II.K.3.31 were addressed. WBN submitted an updated analysis by letter dated February 16, 1995 and NRC documented the acceptability of the reanalysis by letter dated April 18, 1995.
		Field implementation of the anticipatory trip is accomplished in accordance with NRC standard technical specifications and is considered complete. TS SR 3.3.1 is addressed by site procedures.
II.K.3.30.A	SBLOCA Model - Program Outline & Schedule	Licensing Action and Implementation are complete based on NRC approval by letter dated April 18, 1995 of TVA's SBLOCA analysis submitted by letter dated February 16, 1995.
II.K.3.30.B	SBLOCA Model - Revised LOCA Analysis Model	Licensing Action is considered complete based on NRC approval of the use of the Westinghouse NOTRUMP model as documented in SSER 5. TVA committed to provide the results of WBN specific SBLOCA NOTRUMP analysis by letter dated October 17, 1986.
	. 5	Implementation is considered complete based on NRC approval by letter dated April 18, 1995 of TVA's SBLOCA analysis submitted by letter dated February 16, 1995.
II.K.3.30.C	SBLOCA Model - Plant Specific Analysis	Licensing Action and Implementation are complete based on NRC approval by letter dated April 18, 1995 of TVA's Watts Bar specific SBLOCA analysis submitted by letter dated February 16, 1995.
II.K.3.9	PID Controller Modification	Verification as documented in IR 84-35 and IR 85-08 is consistent with the Temporary Instruction therefore verification is considered complete.
III.D.3.3.1	Inplant Iodine Radiation Monitoring - Sampling Capability	This requirement is implemented by Emergency Plan Implementing Procedures which provide instruction for inplant iodine monitoring during accident conditions using portable sampling equipment.
		Verification is complete based on closure in IR 84-09; IR 93-81 which reopened the issue to verify that current procedures and training were adequate; and IR 94-06 which verified acceptability.

Issue Number	Description	Basis / Rationale/Comments
III.D.3.3.2	Inplant Iodine Radiation Monitoring -	This requirement is implemented by Emergency Plan Implementing Procedures which provide instruction for inplant iodine monitoring during accident conditions using portable sampling equipment.
	q	Verification is complete based on closure in IR 84-09; IR 93-81 which reopened the issue to verify that current procedures and training were adequate; and IR 94-06 which verified acceptability.
GSI 43	Reliability of Air Systems	Licensing Action is considered open since TVA is revising the response to GL 88-14 to reflect changes in local filtration and modified particle size criterion for air samples. The submittal to NRC is scheduled for July 14, 1995.
		Field installation of local filters is complete. The new sampling criterion has been incorporated into the technical instruction. Other requirements of GL 88-14 relative to operations, maintenance and training have been addressed therefore implementation is considered complete.
GSI 51	Improving the Reliability of Open-Cycle Service Water Systems (BL 81- 03) (GL89-13)	Licensing action is considered complete based on NRC acceptance by letters dated July 9, 1990 and June 13, 1994 of TVA's responses to GL 89-13 dated January 26, 1990, March 4, 1994, and May 23, 1994. The generic letter also requires a confirmation of completion letter which TVA considers part of the implementation phase.
		Implementation is open pending completion of performance testing of the open-cycle service water heat exchangers. As committed in TVA's March 4, 1994 letter this will be complete before plant startup from the first refueling outage, currently scheduled for March 28, 1997.
GSI 67.3.3	Accident Monitoring Instrumentation (RG1.97 Rev. 2, GL82-33)	Licensing action is considered complete based on NRC review and approval in SSER 14 of TVA program revisions submitted by letter dated May 9, 1994. Consistent with the Regional meetings held after issuance of GL 82-33, NRC review is not required for program revisions that maintain compliance with RG 1.97 Rev.2. Program revisions submitted by TVA on April 21, 1995 were determined not to devieate from RG 1.97 Rev.2 and therefore require no further NRC review.
		Several items remain with implementation scheduled for August 14, 1995.

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Issue Number	Description	Basis / Rationale/Comments
GSI 75 (B078)	Post Maintenance Testing of Reactor Trip system components - Items 3.1.1 & 3.1.2	Licensing Action is considered complete based on NRC approval of the 11/7/1983 response as documented in SSER 5. TVA's 11/7/1983 response contained details that explained how post maintenance testing requirements were reviewed and approved. These details were not required by GL 83-28. Subsequent changes to the PMT approval process were provided to NRC by letter dated November 1, 1993 because the approval process details were in the original response. Since the process details are not required by the GL, changes to the approval process should not alter the status of the issue.
(The GL places requirements for ensuring PMT is performed on reactor trip system components. These requirements are reflected in site procedures. The associated maintenance instructions were reviewed by NRC in IR 94-73 and found that performance of these instructions should be acceptable. Based on the above implementation is considered complete. NRC IR 94-73 statements about additional verification and validation are addressed by site standard practice on administration of site procedures and the plant administrative instruction on preparation of maintenance instructions. Verification is considered complete based on IR 94-73 which inspected procedures for reactor trip breakers / switchgear and found the PMT acceptable. TI 2515/91 was closed based on this inspection.
GSI 93 (B098)	Steam Binding of Auxiliary Feedwater Pumps (GL 88-03) (BL 85-01)	Implementation is complete based on inclusion of the required elements of BL 85-01 in Watts Bar procedures as committed in TVA's January 27, 1986 response to BL 85-01, and as verified in IR 90-20. These elements have been retained in current operating procedures which verify AFW pump discharge piping is at ambient temperature and which vent the AFW pumps if high discharge piping temperature is identified.
GSI 99 (L817)	Reactor Coolant System/ Residual Heat Removal Suction Line Valve Interlock on PWRs	Licensing Action is considered complete based on the NRC acceptance as outlined in the Final Report on Generic Issues at Watts Bar, with the following additional information. Watts Bar modified its response to GL 88-17 by letter dated February 7, 1995. NRC reviewed the revised response and by letter dated March 8, 1995 found that the conclusions reached in NRC letters dated June 19, 1990 and October 2, 1990 were not changed.
·		Implementation is open pending development of procedures and administrative controls to ensure containment closure in the event of loss of shutdown cooling. These actions are scheduled for completion by August 21, 1995.

Issue Number	Description	Basis / Rationale/Comments
GSI A-13 (B017)	Hydraulic Snubbers	The Licensing Action is considered complete based on WBN technical specifications being developed in accordance with the NRC standard technical specification program STS. The STS program supersedes or incorporates earlier TS requirements and WBN TS will be approved under STS. Snubber requirements are provided in the Technical Requirements Manual and the associated surveillance will be completed in accordance with the TRM.
		Implementation is considered complete based on transfer of the technical specifications for snubbers to the Technical Requirements Manual. This issue requires technical specification enhancements, however, WBN technical specifications are being developed in accordance with the NRC standard technical specification program (STS). The STS program supersedes or incorporates earlier TS requirements and WBN TS will be approved under STS.
GSI A-13 (B022)	Mechanical Snubbers	The Licensing Action is considered complete based on WBN technical specifications being developed in accordance with the NRC standard technical specification program STS. The STS program supersedes or incorporates earlier TS requirements and WBN TS will be approved under STS. Snubber requirements are provided in the Technical Requirements Manual and the associated surveillance will be completed in accordance with the TRM. Implementation is considered complete based on transfer of the technical specifications for snubbers to the Technical Requirements Manual. This issue requires technical specification
		enhancements, however, WBN technical specifications are being developed in accordance with the NRC standard technical specification program (STS). The STS program supersedes or incorporates earlier TS requirements and WBN TS will be approved under STS.
GSI B-63 (B045)	Isolation of Low Pressure Systems Connected to the Reactor Coolant Pressure Boundary	Licensing Action is considered complete based on NRC acceptance of the testing of pressure isolation valves as part of the Inservice Testing Program in SSER 14. Technical specification issues are addressed by WBN technical specifications which are being developed in accordance with the NRC standard technical specification program STS. The STS program supersedes or incorporates earlier TS requirements and WBN TS will be approved under STS.
		Implementation is addressed by the NRC approved IST program and by the WBN technical specifications which are being developed in accordance with the NRC standard technical specification program STS. The STS program supersedes or incorporates earlier TS requirements and WBN TS will be approved under STS.

Issue Number	Description	Basis / Rationale/Comments
MPA A016	Qualifications of Inspection, Examinations, and Testing and Audit Personnel (GL 81-01)	Licensing Action is considered complete based on multiple NRC issuances approving TVA's QA program, including qualifications of personnel. Specifically, SER Chapter 17 & SSER 5 Chapter 17 approves the QA plan and references Table 17.1 which includes RG 1.58 and RG 1.146. SSER 6 links GL 81-01 to TAC M76972 and shows the status as complete. The TVA NQA plan has been revised by TVA and approved by NRC in SSERs 10, 13, & 15. TVA letter dated June 5, 1990 and NRC letter dated January 6, 1994 document TVA changes and NRC approvals for RG 1.58 items.
		Implementation is considered complete based on the inclusion of the RG 1.58, 1.146 (with exceptions) and RG 1.28 (which endorsed the ANSI/ASME NQA-1-1983 requirements formerly endorsed by RG 1.58 and 1.146) in the NQA plan. The requirements are implemented through site standard practices and quality assurance procedures which ensure personnel are properly trained and qualified. IRs 89-13 and 91-31 verified the programs against RG 1.58.
MPA A023	Reg. Guide 1.99 Rev. 2 Pressurized Thermal Shock Rule	WBN technical specifications are being developed in accordance with the NRC standard technical specification program STS. The STS program supersedes or incorporates earlier TS requirements and WBN TS will be approved under STS. Since the Pressure/Temperature Limits Report (PTLR) is being resolved within the STS process, the Licensing Action is considered complete. The TVA portion of implementation was complete with the submittal of the PTLR on March 29, 1995 and FSAR Amendment 89 on May 18, 1995. NRC review and approval of the associated WCAP is required by fuel load to fully implement this method of limiting the potential for pressurized thermal shock. Implementation of the curves developed by the analysis required by this issue is addressed by the STS program and specifically by the Pressure / Temperature Limits Report.
MPA A025	Inservice Testing Program Reviews and Schedules (GL 89-04)	IRs 94-84 and 95-05 identified an issue with testing only the fail safe function of two pressure control valves and stroke testing of four residual heat removal system valves. These issues were tracked by IFI 95-05-01. Revisions to the site standard practice and the IST Program to address the IFI are complete. Verification by IRs 94-84 and 95-05 concluded that the ASME Section XI IST program was adequately implemented.

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Issue Number	Description	Basis / Rationale/Comments
MPA B024	Containment Purging & Venting During Normal Operation - Guidelines for Valve Operability (GL79-46)	Licensing Action is complete based on the thorough review of the purge system against BTP CSB 6-4. Several rounds of questions led to resolution in the SER. Further documentation of closure was provided by an NRC letter dated July 12, 1990 and SSER 5 which approved the purge valve operability provided the valves were properly oriented and the 24 inch upper containment valves were mechanically blocked to limit opening to less than 50 degrees.
		Implementation is considered complete based on completion of design changes to properly orient the valves and install blocks to limit opening to 50 degrees.
		Verification of the valve orientation led to NOV 84-75-02. IR 85-19 verified that corrective actions were complete and closed the NOV. NRC IR 90-06 reverified completion of the installation of 50 degree mechanical blocks on the upper containment purge valves.
MPA B063	Emergency Procedures & Training for Station Blackout Events (GL 81- 04)	Licensing Action is considered complete based on the issuance of 10 CFR 50.63 which subsumed earlier Station Blackout issuances. TVA responses to 10 CFR 50.63 dated August 31, 1992 and January 27, 1993 were reviewed for compliance in safety evaluations dated March 18, 1993 and September 9, 1993. Implementation of actions to meet 10 CFR 50.63 are scheduled to be completed by August 2,
		1995.
MPA B101	Boric Acid Corrosion of Carbon Steel Reactor Pressure Boundary Components in PWR Plants (GL88-05)	A program has been established to identify, evaluate, and control borated water corrosion.
MPA B111	Individual Plant Examinations (GL 88-20)	Implementation remains open pending completion of enhancements which TVA committed to make in a letter dated June 30, 1994. The enhancements to operator procedures are scheduled for completion by August 2, 1995.
MPA F072 TMI I.D.2	SPDS Response to GL 89-02 (GL 89-06)	Licensing Action is expected to be closed upon issuance of SSER 15 on June 30, 1995. Implementation is expected to be complete with submittal of a SPDS "Operational" letter scheduled for October 17, 1997. An SPDS "Functional" letter to NRC is scheduled for submittal by fuel load.

Issue Number	Description	Basis / Rationale/Comments
MPA L208	Thermo Lag	Licensing action and implementation remain open pending completion of remedial actions on Thermo Lag installation and submittal of a confirmation of completion letter scheduled for October 30, 1995.
MPA L304	Rod Control System Failure and Withdrawal of Rod Control Cluster Assemblies (GL 93-04)	Licensing Action is considered complete based on NRC December 9, 1994, approval of TVA commitments. These commitments predated NRC final approval of WOG recommendations, but they are consistent with WOG recommendations and therefore will not be changed. Implementation will be complete when the current order tests on the rod control system are performed just prior to startup. The commitment is scheduled for September 14, 1995.
MPA L907	Vehicular Bomb Threat	Implementation will not be complete until full security is put in effect. Lockdown is scheduled for August 25, 1995. Verification was completed by IR 94-71.
MPA L908	Erosion/Corrosion- Induced pipe Wall Thinning (GL 89-08)	Implementation of GL 89-08 actions will be complete with the completion of two commitments currently scheduled for August 14, 1995
MPA X802	Steam Generator Tube Rupture (BL 88-02)	Licensing Action is considered complete based on a review of TVA submittals in IR 90-24 which reviewed all three TVA submittals. These were documented in SSER 6 as complete for Unit 1. Implementation is complete based on analysis of Sequoyah experience data and review of the Watts Bar implications. Commitments made in the March 31, 1988, and March 1, 1989 letters have been implemented. The TVA actions were reviewed by NRC in IR 90-24 and found to address BL 88-02 for unit 1.

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Issue Number	Description	Basis / Rationale/Comments
MPA X804	Potential Safety-Related Pump Loss (BL 88-04)	Licensing action is complete based on NRC review of the TVA December 20, 1990, revised response as part of an inspection, IR 94-10.
	a	Implementation remains open pending completion of actions to verify adequate miniflow operation for the Auxiliary Feedwater Pumps to address URI 390/93-74-05 and submittal of a letter to NRC documenting completion. This issue is scheduled for completion by August 31, 1995.
		Verification of this item was completed by NRC in IR 94-10. TI 2515/105 allows closure when the licensee actions have progressed to the point that the staff can conclude that acceptable progress is being made toward resolution. Based on the above, verification can be considered complete
MPA X808	Thermal Stress in Piping (BL 88-08)	Licensing Action remains open pending NRC review and approval of TVA's January 10, 1995 letter. NRC review was scheduled for completion by June 30, 1995.
		Implementation of Unit 1 actions is complete; however the status remains open pending NRC acceptance of the proposed response to BL 88-08.
MPA X810	NonConforming Molded-Case Circuit Breakers (BL 88-10)	Implementation was completed by corrective action program item WB890415 which NRC verified in IR 93-11 and IR 94-66 which closed BL 88-10.
MPA X811	Thermal Stratification in PZR Surge Line (BL 88-11)	Implementation is complete based on closure of commitments associated with BL 88-11 and NRC closure of the bulletin in IR 94-55.
MPA X903	Potential Loss of Required Shutdown Margin During Refueling Operations (BL 89-03)	Implementation is considered complete based on the completion of the commitment to provide for briefings of personnel responsible for fuel handling to sensitize them to need for proper control of fuel during core loading. This commitment was made part of the governing procedure for loading fuel. The evaluation of intermediate configurations and procedure controls on intermediate configurations were addressed in TVA's response to the bulletin dated June 19, 1990. Required controls were placed in appropriate site procedures.

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Issue Number	Description	Basis / Rationale/Comments
USI A-09	Anticipated Transient Without Scram	WBN technical specifications are being developed in accordance with the NRC standard technical specification program STS. The STS program supersedes or incorporates earlier TS requirements and WBN TS will be approved under STS. Since the ATWS requirements are being resolved within the STS process, and since NRC approved the ATWS mitigation design in SSER 9, the Licensing Action is considered complete.
		Implementation of the design is complete based on completion of associated commitments. The AMSAC was reviewed by NRC in IRs 94-55, 94-84 and 95-05.
		Verification was completed by IR 95-05 in accordance with TI 2500/020.
USI A-24	Qualification of Class 1E Safety-related Equipment	Licensing Action is complete based on NRC approval in SSER 15. Implementation of the 10 CFR 50.49 program requires completion of the Environmental Qualification Special Program which will be completed just prior to fuel load. As previously committed, TVA will submit a letter confirming completion of the EQ program.
		Verification is scheduled to be completed during the final NRC EQ inspection scheduled for July 17-28, 1995.
USI A-26	Reactor Vessel Pressure Transient Protection	Licensing Action is considered complete based on approval of design of the LTOP system. (Ref. SER, SSER 4, SSER 7)
		Implementation will be complete upon NRC approval of the Pressure/Temperature Limits Report (PTLR) submitted by letter dated March 29, 1995, and WCAP-14040, Rev.1.
USI A-47	Safety Implications of Control Systems	Licensing Action is considered complete based on NRC acceptance of the response as documented in the letter of October 24, 1990.
		Implementation is considered complete based on installation of overfill protection features as documented in the SSER 6. Technical specification and associated procedure issues are considered complete based on WBN technical specifications being developed in accordance with the NRC standard technical specification program (STS). The STS program supersedes or incorporates earlier TS requirements and WBN TS will be approved under STS.

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Issue Number	Description	Basis / Rationale/Comments
USI A-48	Hydrogen Control Measures and Effects of Hydrogen Burns on Safety Equipment	Implementation is complete based on installation of 68 ignitors and two recombiners as described in the Combustible Gas Control system description. Technical specification and associated procedure issues are considered complete based on WBN technical specifications being developed in accordance with the NRC standard technical specification program (STS). The STS program supersedes or incorporates earlier TS requirements and WBN TS will be approved under STS.

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