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

March 13, 2008

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Mail Stop: OWFN P1-35
Washington, D.C. 20555-0001

Gentlemen:

In the Matter of) Docket No. 50-391
Tennessee Valley Authority)

WATTS BAR NUCLEAR PLANT (WBN) - UNIT 2 - REGULATORY FRAMEWORK FOR THE COMPLETION OF CONSTRUCTION AND LICENSING ACTIVITIES FOR UNIT 2 – RESTRUCTURED TABLES

Reference: TVA letter dated January 29, 2008, "Watts Bar Nuclear Plant (WBN) Unit 2 – Regulatory Framework for the Completion of Construction and Licensing Activities for Unit 2"

The regulatory framework for the completion of construction and licensing activities for Watts Bar Nuclear Plant (WBN) Unit 2 was submitted in TVA's January 29, 2008, letter to the NRC, "Regulatory Framework for the Completion of Construction and Licensing Activities for Unit 2." Based on subsequent discussions with the staff, TVA agreed to supplement the Regulatory Framework tables for the Safety Evaluation Report and Supplements (NUREG-0847) to allow ease of review and provide additional definitions for section status. This letter provides the restructured tables with those definitions.

A significant amount of the Unit 2 licensing basis was reviewed and approved concurrent with the Unit 1 operating license process. The Safety Evaluation Report and its Supplements related to the operation of WBN Plant Units 1 and 2 (NUREG-0847) were reviewed in order to identify whether the sections had or had not been approved for Unit 2.

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The following provides the seven definitions:

1. Closed (C): Previous staff review of NUREG-0847 and/or Supplements has closed the item either for both units at WBN or explicitly for WBN Unit 2.

2. Closed/Implementation (CI): Staff has approved either for both units at WBN or explicitly for WBN Unit 2; there is no change to the approved design; and implementation is recommended through Regional Inspection.

3. Closed/Technical Specification (CT): Item has been approved either for both units at WBN or explicitly for WBN Unit 2; however, a change to the original approval requires submittal of the Technical Specifications and staff review.

4. Not Applicable (NA): Justification as to why a section/subsection is not applicable is provided in the Additional Information section of the tables.

5. Open (O): No action or documentation is provided that shows that the staff has reviewed the item for WBN Unit 2.

6. Open/Technical Specifications (OT): No action or documentation is provided that shows that the staff has reviewed the item for WBN Unit 2, and the resolution is through submittal of a Technical Specification.

7. Open/Validation (OV): The proposed approach has been approved for WBN Unit 1; the same approach used is proposed for WBN Unit 2 without change.

The Table of Contents was derived from NUREG-0847 with sections added for new Standard Review Plan sections (e. g., Maintenance Rule) as appropriate. Introductory sections were closed in all cases. Conclusion sections were left open until all items in the associated sections were closed. Bulletins, Generic Letters and NUREG-0737 items were addressed only if they were explicitly included in NUREG-0847. References to an SSER indicate either approval for both units or explicit approval for Unit 2. In cases where the section was reviewed in multiple SSERs, only the latest SSER is provided in the SSER column. Reference to additional SSERs is contained in the Additional Information column. In the process of producing these restructured tables, administrative errors in the tables from Reference 1 were corrected. These consisted of two dates associated with SSERs and the title of an SER section. In addition, two open actions associated with the Technical Specifications were identified. Closed/Technical Specifications issues related to flood protection (section 2.4.10) and Anticipated Transient Without Scram (section 7.7.8) have been added. Based on comments from the staff, TVA reviewed information from SSERs 16 and 20 and has determined that SER sections for Solid Waste Management (11.4) and Process and Effluent Radiological Monitoring (11.5) are open for Unit 2.

To present the results of TVA's review of the WBN Unit 2 licensing basis, a series of tables (Tables 1 - 8) were developed. A brief description of these tables is provided below:

- Table 1 - Safety Evaluation Report and Supplements (NUREG-0847) Review Matrix Master Table

  This table provides the comprehensive review of the WBN Safety Evaluation Report and Supplements. The seven results described above were applied in this master table.

- Table 2 - Safety Evaluation Report and Supplements (NUREG-0847) Review Matrix Status = Closed

- Table 3 - Safety Evaluation Report and Supplements (NUREG-0847) Review Matrix Status = Closed/Implementation

- Table 4 - Safety Evaluation Report and Supplements (NUREG-0847) Review Matrix Status = Closed/Technical Specifications

- Table 5 - Safety Evaluation Report and Supplements (NUREG-0847) Review Matrix Status = Not Applicable

- Table 6 - Safety Evaluation Report and Supplements (NUREG-0847) Review Matrix Status = Open

- Table 7 - Safety Evaluation Report and Supplements (NUREG-0847) Review Matrix Status = Open/Technical Specifications

- Table 8 - Safety Evaluation Report and Supplements (NUREG-0847) Review Matrix Status = Open/Validation

Should TVA determine, based on further review or other emerging issues, that a different approach or additional action is appropriate, TVA will submit such changes to the NRC for review and concurrence. TVA will also provide periodic updates to the regulatory framework tables as actions are completed.

Based on a discussion with the staff, TVA will provide additional information on Generic Communications by March 20, 2008. Table 3 in the Reference, that provided a description of the Watts Bar Nuclear Performance Plan Corrective Action Programs (CAPs) and Special Programs (SPs), is not changed.

Enclosure 1 to this letter provides a list of the new open actions required for licensing made in the tables.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 13th day of March 2008. If you have any questions, please contact me at (423) 365-2351.

Sincerely,

M. Bajestani

Masoud Bajestani
Watts Bar Unit 2 Vice President

Enclosure
cc: See page 4

cc (Enclosure):

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Enclosure 1

List of Open Actions Required for Licensing

1. Address flooding protection requirements in Technical Specifications as appropriate on or before March 26, 2010.

2. Address ATWS Mitigation System Actuation Circuitry in Technical Specifications as appropriate on or before March 26, 2010.

3. Provide system description and information on QA provisions for the Unit 2 Solid Waste Management System and information on the Process Control Program on or before October 31, 2009.

4. Provide system description and information on QA provisions for the Unit 2 Radiation Monitoring System on or before October 31, 2009.

TABLE 1

SAFETY EVALUATION REPORT AND SUPPLEMENTS (NUREG-0847) REVIEW MATRIX MASTER TABLE

SAFETY EVALUATION REPORT AND SUPPLEMENTS (NUREG-0847) REVIEW MATRIX MASTER TABLE

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
1.0.0		NA	Overview only
1.1.0		NA	Overview only
1.1.1		NA	Overview only
1.1.2		NA	Overview only
1.1.3		NA	Overview only
1.1.4		NA	Overview only
1.2.0		NA	Overview only
1.3.0		NA	Overview only
1.3.1		NA	Overview only
1.3.2		NA	Overview only
1.4.0		NA	Overview only
1.5.0		NA	Overview only
1.6.0		NA	Overview only
1.7.0		NA	Overview only
1.8.0		NA	Overview only
1.9.0		NA	Overview only
1.10.0		NA	Overview only
2.0.0	0	C	Approved for both units in SER.
2.1.0	0	C	Approved for both units in SER.
2.1.1	0	C	Approved for both units in SER.
2.1.2	0	C	Approved for both units in SER.
2.1.3		O	SRP requirement. Unit 2 Action: Update FSAR for present and projected population over the lifetime of the plant.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
2.1 .4		O	"CONCLUSIONS" left open until all items in subsection are closed.
2.2 .0	0	C	Approved for both units in SER.
2.2 .1		O	SRP requirement. Unit 2 Action: Update FSAR for potential external hazards and hazardous materials.
2.2 .2		O	SRP requirement. Unit 2 Action: Update FSAR for projected annual number of aircraft flights.
2.2 .3	0	O	"CONCLUSIONS" left open until all items in subsection are closed.
2.3 .0	0	C	Approved for both units in SER.
2.3 .1	0	C	Approved for both units in SER.
2.3 .2	0	C	Approved for both units in SER.
2.3 .3	0	C	See 13.3.3 (Emergency Preparedness Evaluation Conclusions).
2.3 .4	0	C	Approved for both units in SER.
2.3 .5	0	C	Approved for both units in SER.
2.4 .0	0	C	Approved for both units in SER.
2.4 .1	0	C	Approved for both units in SER.
2.4 .2	0	C	Approved for both units in SER.
2.4 .3	0	C	Approved for both units in SER.
2.4 .4	0	C	Approved for both units in SER.
2.4 .5	0	C	GL 89-22, "Potential For Increased Roof Load Due to Changes in Maximum Precipitation" – Answer to informal question provided in TVA letter dated December 16, 1981, and subsequently included in FSAR. GL did not require a response. No further action required.
2.4 .6	0	C	Approved for both units in SER.
2.4 .7	0	C	Approved for both units in SER.
2.4 .8	3	C	CONFIRMATORY ISSUE for design basis groundwater level for ERCW pipeline Amendment 50 to the FSAR (May 1, 1984) provided a description of the analysis used to determine the 25-year groundwater level for the ERCW pipeline. Staff closed issue in SSER3.
2.4 .9		O	SRP requirement. Unit 2 Action: Update FSAR for present and projected use of local and regional groundwater.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
2.4.10	0	CT	Staff found flood emergency plan and draft Technical Specifications acceptable in original 1982 SER. Unit 2 Action: Address in Technical Specifications as appropriate.
2.4.11		NA	Addressed in 2.4.6.
2.4.12		NA	Addressed in 2.4.7.
2.4.13		NA	Addressed in 2.4.9.
2.4.14		NA	Addressed in 2.4.10.
2.5.0	0	C	Approved for both units in SER.
2.5.1	0	C	Approved for both units in SER.
2.5.2	0	C	Approved for both units in SER.
2.5.3	0	C	Approved for both units in SER.
2.5.4	3	C	CONFIRMATORY ISSUE for design differential settlement of piping and electrical components Analysis was presented to staff in September 1983. Staff found analysis and results acceptable. Staff closed issue in SSER3. --- CONFIRMATORY ISSUE for analysis of sheetpile walls Staff performed audit in September 1982, and determined TVA had used reasonable assumptions. Staff closed issue in SSER3. --- CONFIRMATORY ISSUE for material and geometric damping in soil-structure interaction (SSI) analysis Staff performed audit in September 1982, and determined TVA had used reasonable assumptions. Staff closed issue in SSER3. --- OUTSTANDING ISSUE (1) on liquefaction beneath ERCW pipelines and Class 1E electrical conduit. Amendment 50 to the FSAR (May 1, 1984) provided a description of the underground barriers along the ERCW pipelines. Staff agreed the barriers provide sufficient confinement to any liquefied soil. Staff closed issue in SSER3.
2.5.5	0	C	Approved for both units in SER.
2.5.6	0	C	Approved for both units in SER.
2.6.0	0	C	Approved for both units in SER.
3.0.0	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
3.1.0	0	C	Approved for both units in SER.
3.1.1	0	C	Approved for both units in SER.
3.1.2	0	C	Approved for both units in SER.
3.2.0	0	C	Approved for both units in SER.
3.2.1	5	C	CONFIRMATORY ISSUE for seismic classification of structures, systems, and components important to safety Staff closed issue on ERCW seismic category upgrade and seismic classification in SSER5. --- CONFIRMATORY ISSUE for ERCW upgrade to seismic category 1 Staff verified that required portion of ERCW had been upgraded or replaced satisfactorily in SSER5 and closed this issue.
3.2.2	0	C	Approved for both units in SER.
3.3.0	0	C	Approved for both units in SER.
3.3.1	0	C	Approved for both units in SER.
3.3.2	0	C	Approved for both units in SER.
3.4.0	0	C	Approved for both units in SER.
3.4.1	0	C	Approved for both units in SER.
3.4.2		NA	Addressed in 3.4.1.
3.5.0	0	C	Approved for both units in SER.
3.5.1	0	C	Approved for both units in SER.
3.5.2	2	C	CONFIRMATORY ISSUE for modifications to protect Diesel Generators TVA submitted a proposed design modification for installation of a reinforced concrete curb around the diesel exhaust stacks to protect them from damage in a letter dated November 24, 1982. The staff found this acceptable and closed this issue in SSER2.
3.5.3	0	C	Approved for both units in SER.
3.6.0	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
3 . 6 . 1	14	C	OUTSTANDING ISSUE involving main steam line break (MSLB) outside containment In a letter dated November 30, 1992, TVA submitted a new evaluation for both Units 1 and 2 accounting for increased environmental temperatures in the MSVV rooms due to release of superheated steam and later submitted, by letter dated March 28, 1994, additional information related to the assumptions made in this analysis. The staff reviewed this information together with their detailed evaluation and acceptance of the same methodology applied at Sequoyah and concluded that the MSLB analysis for the WBN MSVV rooms, including the effects of superheated steam, was acceptable and identified this issue as resolved in SSER14.
3 . 6 . 2	0	C	Approved for both units in SER.
3 . 6 . 3	5	C	New section in SRP 1987. Approved for both units in Appendix J of SSER5.
3 . 7 . 0	0	C	Approved for both units in SER.
3 . 7 . 1	8	C	OUTSTANDING ISSUE involving update of FSAR for seismic design issues The staff reviewed FSAR Amendment 68 and found that required changes had been incorporated into the FSAR, as committed to in TVA letter dated December 18, 1990, and issue was deemed resolved in SSER8.
3 . 7 . 2	11	C	3.7.2.1.2: OUTSTANDING ISSUE involving mass eccentricity In a letter dated May 8, 1991, TVA provided clarification that actual mass eccentricities from such items as equipment hatch and lock used in evaluating the steel containment vessel for an earthquake load were replaced by a 5% accidental eccentricity. This was demonstrated to be conservative. TVA also proposed a revision to the FSAR to document this change. The staff found this acceptable and resolved this issue in SSER8. --- 3.7.2.12: OUTSTANDING ISSUE involving comparison of Set A vs. Set B response The staff considered this item (opened in SSER6) resolved in SSER11 based on audits and inspections since SSER6.
3 . 7 . 3	12	OV	OUTSTANDING ISSUE involving use of code cases, damping factors for conduit and use of worst case, critical case and bounding case Deficiencies identified in the use of worst case, critical case and bounding calculations were resolved in IR 50-390/93-201, and this issue was considered resolved for Unit 1 in SSER12. Unit 2 Action: Addressed in CAP/SP. The Unit 1 approach will be used for Unit 2. --- Deficiencies identified in the use of worst case, critical case and bounding calculations were resolved in IR 50-390/93-201, and this issue was considered resolved for Unit 1 in SSER12. Unit 2 Action: Addressed in CAP/SP. The Unit 1 approach will be used for Unit 2. --- Conduit Supports Corrective Action Program. Process was reviewed and determined to be acceptable for Unit 1 in SER dated September 1, 1989. Unit 2 Action: Addressed in CAP/SP. The Unit 1 approach will be used for Unit 2.
3 . 7 . 4	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
3.8.0	0	C	Approved for both units in SER.
3.8.1	9	C	CONFIRMATORY ISSUE - verify buckling methodology In response to staff concern, TVA submitted a letter dated May 16, 1984, stating that TVA calculations already accounted for new information from NRC-sponsored research programs, particularly information concerning reinforcement around shell (vessel) opening. Based on their review of the response, the staff closed this issue in SSER3. --- OUTSTANDING ISSUE involving load combinations and stress allowables In response to staff concerns regarding use of ductility ratio when considering thermally induced stresses, TVA stated in a letter dated April 6, 1992, that they would use a methodology consistent with SRP 3.8.4 for the design of steel members and use the linear elastic provision of DG-C 1.6.12, Rev. 1, "Evaluation of Steel Structures with Thermal Restraint," except for the energy balance provision of Section C.2.3.1. The staff found this acceptable. TVA also agreed, in its May 8, 1991, letter, that any further sampling of structural welds after the issuance of NCIG-2, Rev. 2 would be to that revision. This issue was resolved in SSER9.
3.8.2	0	C	Approved for both units in SER.
3.8.3	0	C	Approved for both units in SER.
3.8.4	0	C	Approved for both units in SER.
3.9.0	0	C	Approved for both units in SER.
3.9.1	13	CI	OUTSTANDING ISSUE involving assumption in piping analysis for water-hammer due to check valve slam In response to NRC concern regarding TVA's piping analysis that postulated failure of certain supports, TVA submitted an August 4, 1992, letter stating that, where possible, supports were upgraded in the analysis to maintain structural integrity during the postulated loading scenario. The issue was resolved in SSER13. Unit 2 Action: Modify supports as needed.
3.9.2	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
3 . 9 . 3	8	C	3.9.3.1: OUTSTANDING ISSUE involving use of experience data to qualify category I(L) piping TVA stated in a letter dated December 18, 1990, that it was performing a verification program to validate the original seismic design basis for Category I(L) piping, including a screening criteria based on earthquake experience data to identify items requiring further evaluation and bounding case analysis to demonstrate the conservatism of the screening criteria. In a September 20, 1991, letter, TVA provided revised criteria for the bounding case analysis. Based on the staffs' evaluation, the issue was considered resolved in SSER8. --- 3.9.3.3: LICENSE CONDITION - Relief and safety valve testing (II.D.1) Staff found TVA approach in response to this issue, using information from EPRI valve test program and performing modifications to safety and relief discharge piping and supports, was acceptable. Issue was considered resolved in SSER3. --- 3.9.3.3: OUTSTANDING ISSUE involving operating characteristics of main steam safety valves In a letter dated June 21, 1991, TVA responded to NRC concerns regarding the design and installation of MSSVs stated that all valves and piping components were analyzed for all MSSV discharge loads acting simultaneously, combined with other required loads and this was accepted by the staff. In the same letter, TVA also provided the method used to establish the MSSV adjustment ring settings for plant valves and this was acceptable to the staff. This resolved the issue in SSER7. --- 3.9.3.4: CONFIRMATORY ISSUE involving baseplate flexibility and its effect on anchor bolt loads The TVA response to this issue, in a letter dated July 26, 1991, described an update to the previous response for B 79-02 and its civil design standard for concrete anchorage, which incorporated an increase in anchor stiffness and consideration of prying forces for thin baseplates analyzed by hand. The staff determined that this adequately resolved the issue in SSER8. --- 3.9.3.4: OUTSTANDING ISSUE involving stiffness and deflection limits for seismic Category I pipe supports TVA program to demonstrate that change in design criteria which uses stiffness and deflection limits for Category I pipe supports did not compromise the adequacy of pipe supports was found to be acceptable by the staff and the issue was resolved in SSER8. --- 3.9.3.4: OUTSTANDING ISSUE, staff was awaiting TVA concurrence on their position with respect to margin for critical buckling of pipe supports In a letter dated May 14, 1984, TVA provided results of a sampling program and determined that compressive stresses for pipe supports did not exceed acceptance criteria established by NRC and staff considered this issue resolved in SSER4.
3 . 9 . 4	0	C	Approved for both units in SER.
3 . 9 . 5	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
3 . 9 . 6	14	CT	OUTSTANDING ISSUE required that Technical Specifications include limiting condition for operation that requires plant shutdown or system isolation when leak limits are not met. Staff had not reviewed Technical Specifications. The safety evaluation in SSER14 states that the staff did not find any IST issues that would prevent issuance of an operating license for Unit 1. The item was resolved in SSER14. Unit 2 Action: Submit Technical Specifications.
3 . 9 . 7		NA	Area not addressed in 1981 Standard Review Plan.
3 . 9 . 8		NA	Area not addressed in 1981 Standard Review Plan.
3 . 10 . 0	9	C	Generic OUTSTANDING ISSUES involving adequacy of frequency test, peak broadening of response spectra, reconciling actual field mounting by welding vs. testing configuration mounted by bolting and need for surveillance and maintenance programs to address aging. The issue of peak broadening on response spectra was closed in SSER3. In a letter dated December 1, 1982, TVA provided justification for single-frequency tests to seismically qualify the Reactor Protection System cabinet. This showed that test response spectra (TRS) were substantially higher than broadened required response spectra (RRS) throughout the required frequency range. The staff evaluated test results and building seismic behavior and considered this aspect of the testing issue closed in SSER6. Staff concerns on the impact of aging on seismic performance were resolved in SSER6 based on discussions with TVA technical personnel and review of maintenance and surveillance instruction manuals. There was a specific issue on installing spacers for the 125V DC vital batteries as was done during qualification testing and required by the manufacturer. The issue was closed in SSER6 when it was determined that spacers had been installed. With regard to the overall issue on adequacy of testing, the staff performed an audit as part of Appendix S of SSER9. This included a review of the TVA approach, criteria and action plan to address effect of directional coupling and verification that acceleration at each device location is less than .95g because relay chatter at higher acceleration levels is expected. TRS enveloped RRS for all directions. The staff found the above to be in accordance with SRP 3.10 and IEEE 344-1975 and closed the issue. For reconciling the impact for equipment actually mounted using welding but tested with mounting by bolting, in-situ test results were provided to NRC (in letters dated April 30, 1985, and January 30, 1986) along with Westinghouse report on seismic qualification by analysis and testing for the main control board. The staff reviewed these results and on the basis of the consistency of all results provided, concluded that the issue was resolved in SSER6. --- OUTSTANDING ISSUE involving seismic classification of cable trays and conduits In its May 8, 1991, letter, TVA proposed to analyze conduits as Seismic Category I subsystems. Additionally, in a September 18, 1991 letter, TVA agreed to perform cable tray qualification using conventional linear elastic analysis methods, considering nonlinear response behavior on a case-by-case basis and to submit these cases to the staff for approval. The staff resolved this issue in SSER8.
3 . 11 . 0	15	OV	OUTSTANDING ISSUE - TVA program not submitted at time of SER The EQ program was submitted after issuance of the SER. It was reviewed and found acceptable in SSER15. Unit 2 Action: Complete EQ Special Program.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
3 . 12 . 0		NA	Addressed in 3.9.1 through 3.9.3.
3 . 12 . 1		NA	Addressed in 3.9.1 through 3.9.3.
3 . 12 . 2		NA	Addressed in 3.9.1 through 3.9.3.
3 . 12 . 3		NA	Addressed in 3.9.1 through 3.9.3.
3 . 12 . 4		NA	Addressed in 3.9.1 through 3.9.3.
3 . 12 . 5		NA	Addressed in 3.9.1 through 3.9.3.
3 . 12 . 6		NA	Addressed in 3.9.1 through 3.9.3.
3 . 13 . 0		NA	Area not addressed in 1981 Standard Review Plan.
4 . 0 . 0	0	C	Approved for both units in SER.
4 . 1 . 0	0	C	Approved for both units in SER.
4 . 2 . 0	0	C	Approved for both units in SER.
4 . 2 . 1	0	C	Approved for both units in SER.
4 . 2 . 2	2	OT	CONFIRMATORY ISSUE on cladding collapse calculations The staff reviewed the calculation for the predicted cladding collapse for the most limiting Watts Bar fuel and found it acceptable. Staff closed issue in SSER2. Unit 2 action: Use Westinghouse RFA-2 fuel as currently installed in Unit 1 for the initial cycle.
4 . 2 . 3	2	C	CONFIRMATORY ISSUE - identify margins and to offset reduction in DNBR due to fuel rod bowing and incorporating residual bow penalty into the Technical Specifications. In SSER2, the staff concluded TVA had an acceptable means of analyzing the effects of fuel rod bowing and determining any residual rod bowing penalties on the departure from nucleate boiling ratio and total peaking power. Staff closed the issue in SSER2.
4 . 2 . 4	0	C	Approved for both units in SER.
4 . 2 . 5		O	"FUEL DESIGN CONCLUSIONS" left open until all items in subsection are closed.
4 . 3 . 0	0	C	Approved for both units in SER.
4 . 3 . 1	0	C	Approved for both units in SER.
4 . 3 . 2	0	C	Approved for both units in SER.
4 . 3 . 3	0	C	Approved for both units in SER.
4 . 3 . 4	0	C	Approved for both units in SER.
4 . 4 . 0	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
4 . 4 . 1	0	C	Approved for both units in SER.
4 . 4 . 2	0	C	Approved for both units in SER.
4 . 4 . 3		OV	OUTSTANDING ISSUE concerning removal of RTD bypass system This outstanding issue was opened in SSER6. Staff issued an SER dated June 13, 1989, for Unit 1 only that approved replacement of the RTD bypass system with an Eagle-21 microprocessor system for monitoring reactor coolant temperature. TVA letter dated December 5, 2007, informs NRC of intent to use Eagle-21 for Unit 2. NRC requested additional information December 27, 2007. TVA provided the requested information by letter dated February 28, 2008. Unit 2 Action: Provide the additional information for NRC review.
4 . 4 . 4	0	C	Approved for both units in SER.
4 . 4 . 5	5	O	CONFIRMATORY ISSUE / LICENSE CONDITION on review of Loose Parts Monitoring System (LPMS) startup report and inclusion of limiting conditions for LPMS in Technical Specifications TVA letters dated February 25, 1982, and November 10, 1982, provided a description of operator training and an evaluation of conformance to RG 1.133. In SSER3, the staff closed the confirmatory issue and opened a license condition to track submittal of the startup test results and the alert level setting. In SSER5, the staff closed the LICENSE CONDITION to a TVA commitment to provide the startup test results and the alert level settings made in a letter dated September 19, 1990, for both units. For Unit 2 due to obsolescence, TVA will replace the LPMS. Unit 2 Action: Provide the startup test results and the alert level settings.
4 . 4 . 6	0	C	Approved for both units in SER.
4 . 4 . 7	0	CT	"Technical Resolution of Generic Issue B-59-(N-1) Loop Operation in BWRs and PWRs – N-1 Loop operation was addressed in original 1982 SER (4.4.7). Unit 2 Action: Confirm Technical Specifications prohibit (N-1) Loop Operation.
4 . 4 . 8		O	LICENSE CONDITION - Detectors for Inadequate core cooling (II.F.2) GL 82-28 / NUREG-0737, II.F.2, "Inadequate Core Cooling Instrumentation System" – In the original SER, the review of the ICC instrumentation was incomplete. The January 24, 1992, letter superseded the previous responses on this issue. TVA letter for Units 1 and 2 dated January 24, 1992, committed to install Westinghouse ICCM-86 and associated hardware. NRC completed the review for Units 1 and 2 in SSER10. For Unit 2 due to obsolescence of the ICCM-86 system, TVA intends to install the Westinghouse Common Q Post-Accident Monitoring System. Unit 2 Action: Install Westinghouse Common Q PAM system.
4 . 4 . 9		O	"CONCLUSION" left open until all items in subsection are closed.
4 . 5 . 0	0	C	Approved for both units in SER.
4 . 5 . 1	0	C	Approved for both units in SER.
4 . 5 . 2	0	C	Approved for both units in SER.
4 . 6 . 0	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
5 . 0 . 0	0	C	Approved for both units in SER.
5 . 1 . 0	0	C	Approved for both units in SER.
5 . 2 . 0	0	C	Approved for both units in SER.
5 . 2 . 1	0	C	Approved for both units in SER.
5 . 2 . 2	2	C	OUTSTANDING ISSUE on staff review of sensitivity study of required safety valve flow rate versus trip parameter TVA letter dated April 18, 1983, provided the safety valve sizing information and information on differences with the reference plant. Staff closed issue in SSER2.
5 . 2 . 3	0	C	Approved for both units in SER.
5 . 2 . 4	16	O	LICENSE CONDITION – Inservice inspection (ISI) program The ISI program is required to be submitted within 6 months of the date of issuance of the operating license. The applicable ASME Code edition and addenda are determined by reference to 50.55a(b) 12 months preceding the date of issuance of the OL. In SSER12, the LICENSE CONDITION was resolved by a TVA commitment to submit the program within six months after receiving the operating license. Unit 2 action: Submit Unit 2 ISI program. --- OUTSTANDING ISSUE - Unit 2 PSI program submitted April 30, 1990, with a partial listing of relief requests. This item tracked the staff review. In the SER, the preservice inspection program was still under review. NRC reviewed the Unit 1 PSI program in SSERs 10, 12, and 16. Unit 2 Action: Submit Unit 2 PSI program.
5 . 2 . 5	0	C	Approved for both units in SER.
5 . 3 . 0	0	C	Approved for both units in SER.
5 . 3 . 1	0	C	Approved for both units in SER.
5 . 3 . 2		OT	OUTSTANDING ISSUE - P-T limits for Unit 2 not provided. Staff will review as part of Unit 2 Technical Specifications. In the original 1982 SER, NRC indicated that the review of the Unit 2 P-T limits would be completed as part of the review of the Unit 2 Technical Specifications. Unit 2 action: Submit P-T limits.
5 . 3 . 3		OT	OUTSTANDING ISSUE for staff to complete evaluation of Unit 2 after receipt of P-T limits In the original 1982 SER, NRC indicated that the review of the Unit 2 P-T limits would be completed as part of the review of the Unit 2 Technical Specifications. Unit 2 action: Submit P-T limits.
5 . 4 . 0	0	C	Approved for both units in SER.
5 . 4 . 1	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
5 . 4 . 2	4	C	5.4.2.2: OUTSTANDING ISSUE for staff to evaluate TVA's proposed resolution to concerns about flow induced vibrations in Model D-3 SGs pre-heat region In the original 1982 SER, the staff concluded that because of the generic problem of tube degradation caused by flow induced vibration in Westinghouse model D steam generators, operation would be limited to 50%. TVA's May 27, 1983, letter committed to implement the NUREG-0966 modifications. In SSER4, staff concluded the modification was acceptable to operate at 100%. In a letter dated December 17, 2008, TVA confirmed that these modifications were performed.
5 . 4 . 3	2	CI	CONFIRMATORY ISSUEs to verify installation of an RHR flow alarm and proper function of dump valves when actuated manually In the SER, staff accepted TVA's commitment to provide, before startup, an RHR flow alarm to alert the operator to initiate alternate cooling modes in the event of loss of RHR pump suction. SSER2 resolved testing of dump valves Unit 2 action: Verify alarm installation.
5 . 4 . 4	0	C	Approved for both units in SER.
5 . 4 . 5	5	CI	LICENSE CONDITION - NUREG-0737, II.B.1, "Reactor Coolant System Vents" - In the original SER, the NRC found TVA's commitment to install reactor coolant vents acceptable pending verification. This was completed for Unit 1 only in SSER5 (IR 390/84-37). Unit 2 Action: Verify installation of reactor coolant vents.
6 . 0 . 0	0	C	Approved for both units in SER.
6 . 1 . 0	0	C	Approved for both units in SER.
6 . 1 . 1	0	C	Approved for both units in SER.
6 . 1 . 2	0	C	Approved for both units in SER.
6 . 1 . 3	0	C	Approved for both units in SER.
6 . 2 . 0	0	C	Approved for both units in SER.
6 . 2 . 1	3	C	6.2.1.1: CONFIRMATORY ISSUE involves reviewing analysis that ensures that containment external pressure will not exceed design value of 2.0 psi In the original 1982 SER, NRC indicated it would confirm the contention that containment external pressure transients could not exceed the design value of 2.0 psig. TVA submitted the information June 4, 1982. In SSER3, NRC concluded that the design provided adequate protection against damage from external pressure transients.
6 . 2 . 2	0	C	Approved for both units in SER.
6 . 2 . 3	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
6 . 2 . 4	5	CT	OUTSTANDING ISSUE for NRC to complete review of information provided by TVA to address Containment Purging During Normal Plant Operation LICENSE CONDITION - Containment isolation dependability In the original 1982 SER, NRC concluded that WBN met all the requirements of NUREG-0737, item II.E.4.2 except subsection (6) concerning containment purging during normal operation. In SSER3, the outstanding issue was closed and the LICENSE CONDITION was left open. NRC completed the review and issued a TER for both units on July 12, 1990. NRC concluded that the isolation valves can close against the buildup of pressure in the event of a design basis accident if the lower containment isolation valves are physically blocked to an opening angle of 50 degrees or less. (SSER5) Unit 2 Action: Reflect valve opening restriction in the Technical Specifications.
6 . 2 . 5	5	O	LICENSE CONDITION – (6f) Accident monitoring instrumentation II.F.1 – containment hydrogen In SSER5, NRC closed the LICENSE CONDITION for Unit 1 only (IR 390/84-85). Unit 2 Action: Verify installation of containment hydrogen accident monitoring instrumentation. This portion has a status of Closed/Implementation only. --- Unit 2 action: The hydrogen recombiners will be removed from the Unit 2 design and licensing basis based on 10 CFR 50.44 (final rule September 16, 2003) and abandoned in place. This portion has a status of Open.
6 . 2 . 6	0	C	Approved for both units in SER.
6 . 2 . 7	4	C	CONFIRMATORY ISSUE for TVA to confirm that the lowest temperatures which will be experienced by the limiting materials of the reactor containment pressure boundary under the conditions cited by GDC 51 will be in compliance with the temperatures identified in the staff's analysis of fracture toughness requirements for load bearing component of the containment system In SSER4, NRC reviewed the confirmatory information submitted and concluded for both units that the reactor containment pressure boundary materials will behave in a non-brittle manner and the requirements of GDC 51 were satisfied. NRC provided the technical basis in Appendix H of SSER4.
6 . 3 . 0	0	C	Approved for both units in SER.
6 . 3 . 1	7	C	OUTSTANDING ISSUE - involving removal of upper head injection system The Upper Head Injection (UHI) system design was approved in the original 1982 SER. TVA letter dated September 19, 1985, informed NRC that UHI would not be installed on Unit 2. In SSER7, NRC concluded it was acceptable to delete UHI from both units.
6 . 3 . 2	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
6 . 3 . 3	9	C	OUTSTANDING ISSUE - involving containment sump screen design In the original 1982 SER, the staff approved the proposed sump design in the FSAR. A deviation between the installed and proposed design was discovered during an NRC inspection. In SSER9, the staff concluded that the as-installed sump screen was acceptable. --- CONFIRMATORY ISSUE - provide a detailed survey of insulation material that could be debris post-LOCA In the original 1982 SER, NRC found the design of the containment sump against debris acceptable subject to the acceptability of a detailed survey of insulation materials. In SSER2, the NRC review of the survey confirmed the staff's initial conclusion that the design to provide protection against sump debris was acceptable.
6 . 3 . 4	0	C	Approved for both units in SER.
6 . 3 . 5	0	C	Approved for both units in SER.
6 . 4 . 0	0	C	Approved for both units in SER. See 18.1.0.
6 . 5 . 0	0	C	Approved for both units in SER.
6 . 5 . 1	0	C	Approved for both units in SER.
6 . 5 . 2	0	C	Approved for both units in SER.
6 . 5 . 3	0	C	Approved for both units in SER.
6 . 5 . 4	0	C	Approved for both units in SER.
6 . 6 . 0	10	O	OUTSTANDING ISSUE on additional information required on preservice inspection program and identification of plant specific areas where ASME Code Section XI requirements cannot be met and supporting technical justification NRC reviewed the preservice inspection program (PSI) for Unit 1 only in SSER10. Unit 2 action: Submit Unit 2 PSI program.
7 . 0 . 0	0	C	Approved for both units in SER.
7 . 1 . 0	0	C	Approved for both units in SER.
7 . 1 . 1	0	C	Approved for both units in SER.
7 . 1 . 2	0	C	Approved for both units in SER.
7 . 1 . 3		OT	Staff requested discussion of methodology for determining, setting, and evaluating as-found setpoints for drift susceptible instruments. Unit 2 action: Resolve this issue using the BFN TS-453 precedent (see NRC ML061680008).
7 . 2 . 0	0	C	Approved for both units in SER.
7 . 2 . 1	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
7.2 .2	0	C	Approved for both units in SER.
7.2 .3	0	C	Approved for both units in SER.
7.2 .4	0	C	Approved for both units in SER.
7.2 .5	14	CI	CONFIRMATORY ISSUE - address IEB 79-21 to alleviate temperature dependence problem associated with measuring SG water level In SSER14, NRC concurred with TVA's assessment to not insulate the steam generator water level instrument reference leg. Unit 2 Action: Update accident calculation.
7.2 .6	14	O	"CONCLUSIONS" left open until all actions in subsection are closed.
7.3 .0	0	C	Approved for both units in SER.
7.3 .1	0	C	Approved for both units in SER.
7.3 .2	2	C	CONFIRMATORY ISSUE is commitment to make a design change to provide protection that prevents debris from entering containment sump level sensors In the original SER, staff identified a concern that debris in the containment sump could block the inlets to the differential pressure transmitters and result in a loss of the permissive signal to the initiation logic for the automatic switchover from the injection to the recirculation mode of the emergency core cooling system. In a September 15, 1983, letter TVA notified NRC that the level sensors had been moved from inside the sump wall to outside the sump wall with the sense line opening protected by a cap with small holes. Staff closed the issue in SSER2.
7.3 .3	0	C	Approved for both units in SER.
7.3 .4	0	C	Approved for both units in SER.
7.3 .5	3	CI	CONFIRMATORY ISSUE - perform confirmatory tests to satisfy IEB 80-06 (to ensure that no device will change position solely due to reset action) and staff review of electrical schematics for modifications that ensure that valves remain in emergency mode after ESF reset In the original SER, staff concluded that the design modifications for Bulletin 80-06 were acceptable subject to review of the electrical schematics that were not available at the time. In SSER3, the staff found the modifications acceptable and closed the confirmatory issue. Unit 2 Action: Perform verification during preoperational testing.
7.3 .6	3	O	"CONCLUSIONS" left open until all actions in subsection are closed.
7.4 .0	0	C	Approved for both units in SER.
7.4 .1	0	C	Approved for both units in SER.
7.4 .2	0	C	Approved for both units in SER.
7.4 .3	0	C	Approved for both units in SER.
7.5 .0	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
7 . 5 . 1	0	C	Approved for both units in SER.
7 . 5 . 2	15	CI	OUTSTANDING ISSUE involving RG 1.97 instruments following course of an accident In the original 1982 SER, the staff stated that WBN did not use RG 1.97, "Instrumentation for Light Water Cooled Nuclear Power Plants to Assess Plants and Environs Conditions During and Following an Accident," for the design because the design predated the RG. In SSER7, an outstanding issue was opened. TVA provided NRC information on exceptions to RG 1.97. A detailed review was performed for both units (Appendix V of SSER9). The staff concluded that WBN conforms to or has adequately justified deviations from the guidance of RG 1.97, Revision 2. In SSER14 and SSER15, additional deviations to RG 1.97 were reviewed and accepted by NRC. NUREG-0737, II.F.1.2, ""Accident Monitoring Instrumentation" – Reviewed in SSER9. Unit 2 Actions: Install Noble gas, Iodine / particulate sampling, and Containment High Range Monitors.
7 . 5 . 3	0	CI	B 79-27, "Loss of Non-class 1E I&C Power System Bus During Operation" – TVA responded to the Bulletin on March 1, 1982. Reviewed in 7.5.3 of the original 1982 SER. Unit 2 Action: Issue appropriate emergency procedures.
7 . 5 . 4		O	"CONCLUSIONS" left open until all items in subsection are closed.
7 . 6 . 0	0	C	Approved for both units in SER.
7 . 6 . 1	0	C	Approved for both units in SER.
7 . 6 . 2	0	C	Approved for both units in SER.
7 . 6 . 3	0	C	Approved for both units in SER.
7 . 6 . 4	0	C	Approved for both units in SER.
7 . 6 . 5	4	C	CONFIRMATORY ISSUE - install switches on the main control board for the operator to manually arm this system (overpressure protection provided by pressurizer PORVs) In the original 1982 SER, the staff found the design of the overpressure protection during low temperature features acceptable pending review of the drawings and FSAR description. In SSER4, the staff documented completion of the review and closed the confirmatory issue.
7 . 6 . 6	0	C	Approved for both units in SER.
7 . 6 . 7	0	C	Approved for both units in SER.
7 . 6 . 8	0	C	Approved for both units in SER.
7 . 6 . 9	4	C	Approved for both units SER subject to completion of Confirmatory Issue in 7.6.5.
7 . 7 . 0	0	C	Approved for both units in SER.
7 . 7 . 1	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
7 . 7 . 2	7	C	LICENSE CONDITION – Status monitoring system, Bypassed and Inoperable Status Indication In the original 1982 SER, the staff requested TVA address RG 1.47, "Bypassed and Inoperable Status Indications for Nuclear Power Plant Safety Systems." TVA addressed RG 1.47 by letters dated January 29, 1987, and October 22, 1990. In SSER7, the staff documented completion of the review and closed the issue.
7 . 7 . 3	0	C	Approved for both units in SER.
7 . 7 . 4	0	C	Approved for both units in SER.
7 . 7 . 5	0	C	Approved for both units in SER.
7 . 7 . 6	0	C	Approved for both units in SER.
7 . 7 . 7	0	C	Approved for both units in SER.
7 . 7 . 8	9	CT	ATWS Mitigation design was reviewed and approved for both units in Appendix W of SSER9. Outstanding Issue was Technical Specifications requirements. Unit 2 Action: Address in Technical Specifications as appropriate.
7 . 8 . 0	0	C	Approved for both units in SER.
7 . 8 . 1	0	CI	NUREG-0737, II.D.3, "Valve Position Indication" – The design was reviewed in the original 1982 SER and found acceptable pending confirmation of installation of the acoustic monitoring system. In SSER5 (IR 390/84-35), the staff closed the LICENSE CONDITION for Unit 1 only. Unit 2 Action: Verify installation of the acoustic monitoring system to PORV to indicate position.
7 . 8 . 2	0	CI	NUREG-0737, II.E.1.2, "Auxiliary Feedwater System Initiation and Flow Indication" Unit 2 Action: Complete procedures and qualification testing.
7 . 8 . 3	0	CI	NUREG-0737, II.K.3.9, "Proportional Integral Derivative Controller Modification" – Reviewed in original 1982 SER. Unit 2 Action: Set the derivative time constant to zero.
7 . 8 . 4	0	CT	NUREG-0737, II.K.3.10, "Anticipatory Trip At High Power" Unit 2 Action: Unit 2 Technical Specifications and surveillance procedures will address this issue.
7 . 8 . 5	0	C	NUREG-0737, II.K.3.12, "Confirm Existence of Anticipatory Reactor Trip Upon Turbine Trip"
7 . 9 . 0		NA	Area not addressed in 1981 Standard Review Plan.
8 . 0 . 0	0	C	Approved for both units in SER.
8 . 1 . 0	0	C	Approved for both units in SER.
8 . 2 . 0	0	C	Approved for both units in SER.
8 . 2 . 1	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
8 . 2 . 2	13	C	OUTSTANDING ISSUE involving compliance of design changes to the offsite power system with GDC 17 and 18. In SSER13, the NRC documented the review of design changes to minimize the probability of losing all AC power, compliance with GDC 17 and minimizing the probability of a two unit trip following a one unit trip. These issues were resolved in SSER13. --- CONFIRMATORY ISSUE - document additional information in FSAR on control power supplies and distribution system for the Watts Bar Hydro Plant Switchyard In the original 1982 SER, NRC concluded that the offsite power system circuits at the Watts Bar Hydro Plant Switchyard met GDC 17 pending documentation in the FSAR. The information was added to the FSAR. In SSER2, NRC closed the issue. In SSER13, the staff reviewed revised information and concluded that it supported the original conclusion in SSER2.
8 . 2 . 3	0	C	Approved for both units in SER.
8 . 2 . 4	0	C	Approved for both units in SER.
8 . 3 . 0	0	C	Approved for both units in SER.
8 . 3 . 1	7	C	8.3.1.1: CONFIRMATORY ISSUE - incorporate new design that provides dedicated transformer for each preferred offsite circuit in FSAR In the original 1982 SER, NRC concluded that the offsite power system with a dedicated transformer for each preferred offsite circuit met GDC 17 pending documentation in the FSAR. The information was added to the FSAR. In SSER2, NRC closed the issue. --- 8.3.1.6: CONFIRMATORY ISSUE - provide diesel generator reliability qualification test report In SSER2, NRC indicated that it would verify DG qualification testing. TVA provided a copy of the DG qualification test report. In SSER7, the NRC concluded that the DGs had been satisfactorily tested in accordance with IEEE 387-1977. --- 8.3.1.6: LICENSE CONDITION (12) - Diesel generator reliability qualification testing at normal operating temperature In the original 1982 SER, NRC required that the capability of the DGs to start at normal temperature be demonstrated. TVA's August 31, 1983, letter confirmed tests had been performed on a DG identical to those at WBN. In SSER2, NRC closed the issue.
8 . 3 . 2	13	C	8.3.2.2: LICENSE CONDITION – DC monitoring and annunciation system In SSER3, the staff determined that some items were omitted from the design of the DG DC monitoring and annunciation system. In TVA letter dated September 13, 1991, TVA provided the additional information. In SSER13, NRC closed the issue. --- 8.3.2.4: CONFIRMATORY ISSUE - include diesel generator design analysis in FSAR In the original 1982 SER, staff indicated the design analysis for demonstrating compliance of the DGs with regulatory requirements and guidelines was acceptable pending incorporation of the analysis in the FSAR. The analysis was incorporated in the FSAR, and the issue closed in SSER2.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
8 . 3 . 3	13	C	8.3.3.1.1: CONFIRMATORY ISSUE involving submergence of electrical equipment as result of a LOCA In the original 1982 SER, staff stated that the design for the automatic deenergizing of loads as a result of a LOCA would be verified as part of the site visit. During the August 1991, visit and in a letter dated September 13, 1991, TVA committed to revise the FSAR. The information was added to the FSAR. In SSER13, NRC closed the issue. --- 8.3.3.1.2: CONFIRMATORY ISSUE - verify design for bypass of thermal overload protective device In the original 1982 SER, NRC indicated that the design for bypass of thermal overload protective devices on safety-related motor operated valves would be verified during the electrical drawing review. The staff subsequently reviewed the drawings and closed the issue in SSER2. --- 8.3.3.2: CONFIRMATORY ISSUE - revise FSAR to reflect requirements of shared safety systems In the original 1982 SER, the staff stated that the description and analysis of shared onsite AC and DC systems was under review but was acceptable pending revision of the FSAR. In SSER3, the confirmatory issue was left open to track additional information to be incorporated in the FSAR. In a letter dated September 13, 1991, TVA provided the additional information. In SSER13, NRC closed the issue. --- 8.3.3.2.3: CONFIRMATORY ISSUE for design of sharing raceway systems between units In the original SER, NRC indicated that the design for sharing of raceway systems between units would be verified during the electrical drawing review. The staff confirmed that cable routing was in accordance with accepted separation criteria and closed the issue in SSER2. --- 8.3.3.2.4: LICENSE CONDITION – Possible sharing of DC control power to AC switchgear In the original 1982 SER, staff required that all possible interconnections between redundant divisions through normal and alternate power sources to various loads be identified in the FSAR. TVA letter dated January 17, 1984, provided the information. NRC closed the issue in SSER3. --- 8.3.3.3: LICENSE CONDITION – Testing of associated circuits In the original 1982 SER, staff required that protective devices used to isolate non-Class 1E from Class 1E circuits be of high quality commensurate with their importance to safety and be periodically tested. TVA letter dated January 17, 1984, provided the information. NRC closed the issue in SSER3. --- 8.3.3.3: LICENSE CONDITION – Testing of non-class 1E cables In the original 1982 SER, staff required that protective devices used to isolate non-Class 1E from Class 1E circuits be of high quality commensurate with their importance to safety and be periodically tested. TVA letter dated January 17, 1984, provided the information. NRC closed the issue in SSER3. ---

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
			8.3.3.5.2: CONFIRMATORY ISSUE - incorporate commitment to test only one of four diesel generators at one time In the original 1982 SER, the NRC found the commitment to test DGs one at a time acceptable pending its incorporation into the FSAR. In SSER2, NRC reviewed the documentation and closed the issue. --- 8.3.3.6: CONFIRMATORY ISSUE involving evaluation of penetrations' ability to withstand failure of overcurrent protection device In the original 1982 SER, staff required a reevaluation of the penetrations' capability to withstand, without seal failure, the total range of available time-current characteristics assuming a single failure of any overcurrent protective device. In SSER3, staff found the results of the evaluation acceptable pending the information being incorporated in the FSAR. The staff reviewed the FSAR and closed the issue in SSER7. --- 8.3.3.6: LICENSE CONDITION – Testing of reactor coolant pump breakers In the original 1982 SER, staff required that the redundant fault current protective devices for the reactor coolant pump circuits meet RG 1.63. In SSER2, staff reviewed the design and concluded it met RG 1.63.
8 . 4 . 0		CI	Station Blackout (SBO) - SE for both units – March 18, 1993; SSE for both units – September 9, 1993. Unit 2 Action: Implement SBO requirements.
8 . 5 . 0		NA	Area not addressed in 1981 Standard Review Plan.
8 . 5 . 1		NA	Area not addressed in 1981 Standard Review Plan.
9 . 0 . 0	0	C	Approved for both units in SER.
9 . 1 . 0	0	C	Approved for both units in SER.
9 . 1 . 1	0	C	Approved for both units in SER.
9 . 1 . 2	0	C	Approved for both units in SER.
9 . 1 . 3	0	C	Approved for both units in SER.
9 . 1 . 4	13	CI	LICENSE CONDITION – Control of heavy loads (NUREG-0612) The staff concluded in SSER13 that the license condition was no longer necessary based on their review of TVA's response to NUREG-0612 guidelines for Phase I in TVA letter dated July 28, 1993. Unit 2 Action: Implement NEI guidance on heavy loads.
9 . 1 . 5		NA	Addressed in 9.1.4.
9 . 2 . 0	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
9.2 .1	18	O	No open issues in the original 1982 SER. SSER18 concludes ERCW does not conform to GDC 5 for two-unit operation. Unit 2 Action: Appropriate measures will be taken to ensure that the ERCW system is fully capable of meeting design requirements for two unit operation.
9.2 .2	5	CI	CONFIRMATORY ISSUE - relocate component cooling thermal barrier booster pumps above probable maximum flood (PMF) level before receipt of an OL TVA committed to relocate the pumps above PMF level and the staff found this acceptable. Implementation for this issue was resolved for Unit 1 in SSER5 when the staff verified in IR 390/84-20 that the pumps had been relocated. Unit 2 Action: Relocate pumps for Unit 2.
9.2 .3	0	C	Approved for both units in SER.
9.2 .4	0	C	Approved for both units in SER.
9.2 .5	0	C	Approved for both units in SER.
9.2 .6	0	C	Approved for both units in SER.
9.3 .0	0	C	Approved for both units in SER.
9.3 .1	0	C	Approved for both units in SER.
9.3 .2	14	C	LICENSE CONDITION – Post-Accident Sampling System TVA submitted a final procedure for estimating degree of core damage by letter dated June 10, 1994, and the license condition was deleted in SSER14.
9.3 .3	0	C	Approved for both units in SER.
9.3 .4	0	C	Approved for both units in SER.
9.4 .0	0	C	Approved for both units in SER.
9.4 .1	0	C	Approved for both units in SER.
9.4 .2	0	C	Approved for both units in SER.
9.4 .3	0	C	Approved for both units in SER.
9.4 .4	0	C	Approved for both units in SER.
9.4 .5	16	C	Approved for both units in SER.
9.5 .0	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
9 . 5 . 1	19	C	9.5.1.2: OUTSTANDING ISSUE for Fire Protection Program 9.5.1.3: CONFIRMATORY ISSUE – Electrical penetrations documentation 9.5.1.3: LICENSE CONDITION – Fire protection program In SSER18, the staff concluded that the Fire Protection program for Watts Bar conformed to the requirements of 10 CFR 50.48 and was acceptable except for the fire barrier seal program and emergency lighting inside the Reactor Building. Additionally, the staff considered the confirmatory issue involving electrical penetration documentation resolved in SSER18 on the basis of the safety evaluation of the revised Fire Protection program included in Appendix FF of SSER18. In Appendix FF of SSER19, a safety evaluation of the Fire Protection program contains a detailed evaluation of fire barrier penetration seals. The staff concluded that TVA's penetration seal program adequately demonstrates the fire resistive rating of the penetrations, and that they conform to the guidelines of Positions D.1.j and D.3.d of Appendix A to BTP 9.5.1 and were acceptable. The safety evaluation also includes TVA's revised position on emergency lighting, which was found to be acceptable.
9 . 5 . 2	5	CI	LICENSE CONDITION – Performance testing of communications system The staff resolved this license condition in SSER5 based on TVA's letter of March 18, 1985, which described its testing of communications systems. Unit 2 Action: Perform testing of communication systems on Unit 2.
9 . 5 . 3	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
9 . 5 . 4	5	C	9.5.4.1: CONFIRMATORY ISSUE - include required language in operating instruction to ensure no-load and low-load operation is minimized and revise operating procedures to address increased diesel generator load after it has run for an extended period of time at low or no load In SSER5, the staff verified that plant operating procedures had been revised to incorporate requirements that ensure that operational no-load and low-load conditions will not harm the diesel generators. --- 9.5.4.1: LICENSE CONDITION – Diesel Generator reliability The staff verified that the modifications necessary to comply with NUREG/CR-0660 had been completed and, as stated above, requirements had been incorporated into operating procedures. Thus, this license condition was resolved in SSER5. --- 9.5.4.1: OUTSTANDING ISSUE for staff to complete review to determine if diesel generator auxiliary support systems can perform their design safety functions under all conditions, after receipt of all requested information. In SSER5, the staff resolved the issue of the completeness of its review of the emergency diesel engine lubrication oil system. --- 9.5.4.1: OUTSTANDING ISSUE to design skid-mounted piping and components from the day tank to the diesel engine as seismic Category I and to ASME Section III, Class 3 The staff reviewed standards to which emergency diesel engine skid mounted auxiliary system piping and associated components were designed, as well as the testing and inspections to be performed on these systems, and concluded that they were acceptable in SSER5. The staff considered this issue resolved. This resolution applies to the fuel oil, cooling water, air starting, lubrication, and combustion air intake and exhaust systems. --- 9.5.4.2: CONFIRMATORY ISSUE - provide missile protection for fuel oil storage tank vent lines The staff found TVA's commitment to provide missile protection for the fuel oil storage tank vent lines acceptable and verified that the protection had been installed and considered this issue resolved in SSER5.
9 . 5 . 5	5	C	OUTSTANDING ISSUE to design engine cooling water system piping and components for all engines up to the engine interface, including auxiliary skid mounted piping, to ASME Section III, Class 3 The staff reviewed standards to which emergency diesel engine skid mounted auxiliary system piping and associated components were designed, as well as the testing and inspections to be performed on these systems, and concluded that they were acceptable in SSER5. The staff considered this issue resolved. This resolution applies to the fuel oil, cooling water, air starting, lubrication, and combustion air intake and exhaust systems.
9 . 5 . 6	5	C	OUTSTANDING ISSUE to design engine air-starting system piping components for all engines up to the engine interface, including auxiliary skid mounted piping, to ASME Section III, Class 3 The staff reviewed standards to which emergency diesel engine skid mounted auxiliary system piping and associated components were designed, as well as the testing and inspections to be performed on these systems, and concluded that they were acceptable in SSER5. The staff considered this issue resolved. This resolution applies to the fuel oil, cooling water, air starting, lubrication, and combustion air intake and exhaust systems.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
9 . 5 . 7	5	C	OUTSTANDING ISSUE to provide a more detailed description of the lubricating oil system and a description of the diesel engine crankcase explosion protection features TVA submittal of March 18, 1995, responded to a staff request to describe the features that protect the diesel engine crankcase from exploding. In SSER5, on the basis of this submittal, the staff concluded that the emergency diesel engine lubrication oil system can perform its safety function and is acceptable. This issue was resolved. --- OUTSTANDING ISSUE to design standby diesel engine lube oil system piping and components up to the engine interface, including skid mounted piping, to ASME Section III, Class 3 The staff reviewed standards to which emergency diesel engine skid mounted auxiliary system piping and associated components were designed, as well as the testing and inspections to be performed on these systems, and concluded that they were acceptable in SSER5. The staff considered this issue resolved. This resolution applies to the fuel oil, cooling water, air starting, lubrication, and combustion air intake and exhaust systems. --- OUTSTANDING ISSUE to perform additional modification, or provide justification for acceptability of proposed modification, to ensure lubrication of all wearing parts of the diesel engine either on an interim or continuous basis In response to a staff concern regarding dry diesel engine starting, TVA proposed using the manufacturers' modification and provided justification for its ability to ensure lubrication of all parts of the diesel engine. The staff found this acceptable in SSER5.
9 . 5 . 8	5	C	OUTSTANDING ISSUE to design standby diesel engine combustion air intake and exhaust system piping and components up to the engine interface to ASME Section III, Class 3 and recommendations of RG 1.26 The staff reviewed standards to which emergency diesel engine skid mounted auxiliary system piping and associated components were designed, as well as the testing and inspections to be performed on these systems, and concluded that they were acceptable in SSER5. The staff considered this issue resolved. This resolution applies to the fuel oil, cooling water, air starting, lubrication, and combustion air intake and exhaust systems.
10 . 0 . 0	0	C	Approved for both units in SER.
10 . 1 . 0	0	C	Approved for both units in SER.
10 . 2 . 0	0	C	Approved for both units in SER.
10 . 2 . 1	0	C	Approved for both units in SER.
10 . 2 . 2	0	C	Approved for both units in SER.
10 . 3 . 0	0	C	Approved for both units in SER.
10 . 3 . 1	0	C	Approved for both units in SER.
10 . 3 . 2	0	C	Approved for both units in SER.
10 . 3 . 3	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
10 . 3 . 4	5	OT	LICENSE CONDITION – Secondary water chemistry monitoring and control program The staff determined that the secondary water chemistry monitoring and control program was being included in the administrative section of the Technical Specifications and resolved this for Unit 1 in SSER5. Unit 2 Action: Take same action for Unit 2.
10 . 4 . 0	0	C	Approved for both units in SER.
10 . 4 . 1	0	C	Approved for both units in SER.
10 . 4 . 2	0	C	Approved for both units in SER.
10 . 4 . 3	0	C	Approved for both units in SER.
10 . 4 . 4	0	C	Approved for both units in SER.
10 . 4 . 5	0	C	Approved for both units in SER.
10 . 4 . 6	0	C	Approved for both units in SER.
10 . 4 . 7	0	C	Approved for both units in SER.
10 . 4 . 8	0	C	Approved for both units in SER.
10 . 4 . 9	0	C	Approved for both units in SER.
11 . 0 . 0	0	C	Approved for both units in SER.
11 . 1 . 0	16	C	Approved for both units in SER.
11 . 2 . 0	16	C	Approved for both units in SER - common systems
11 . 3 . 0	16	C	Approved for both units in SER - common systems
11 . 4 . 0	16	OV	Closed for Unit 1 only. Unit 2 Action: Provide system description and information on QA provisions for Unit 2 Solid Waste Management System and information on the Process Control Program.
11 . 5 . 0	20	OV	Closed for Unit 1 only. Unit 2 Action: Provide system description and information on QA provisions for the Unit 2 Radiation Monitoring System
11 . 6 . 0	16	C	Superseded by 11.1.0 through 11.5.0.
11 . 7 . 0	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
11 . 7 . 1	15	C	LICENSE CONDITION (6a) - Accident monitoring instrumentation II.F.1 – Noble Gas monitor TVA committed to have Unit 2 shielding building vent monitor in place and high range noble gas monitor installed and operational prior to Unit 1 fuel loading. The staff then considered License Condition 6a resolved in SSER5. --- LICENSE CONDITION (6b) - Accident monitoring instrumentation II.F.1 – Iodine particulate sampling See 7.5.2.
11 . 7 . 2	16	OT	NUREG-0737, III.D.1.1, "Primary Coolant Outside Containment" - Resolved for Unit 1 only in SSER10; reviewed in Appendix EE of SSER16. Unit 2 Actions: Include the waste gas disposal system in the leakage reduction program and incorporate in Unit 2 Technical Specifications.
12 . 0 . 0	14	C	Approved for both units in SER.
12 . 1 . 0	14	C	Approved for both units in SER.
12 . 2 . 0	14	C	Approved for both units in SER.
12 . 3 . 0	14	C	Approved for both units in SER.
12 . 4 . 0	14	C	Approved for both units in SER.
12 . 5 . 0	14	C	Approved for both units in SER.
12 . 6 . 0	14	C	OUTSTANDING ISSUE involving Health Physics Program The staff reviewed TVA's RADCON program (formerly the HP program) and found that the WBN organizational structure can provide adequate support for the RADCON program and that organizational changes described in the FSAR amendments met the staff's acceptance criteria. They considered this issue resolved in SSER10. In SSER14, the staff reviewed the revised FSAR sections (through Amendment 88), and found them acceptable.
12 . 7 . 0	0	C	Approved for both units in SER.
12 . 7 . 1	16	CI	NUREG-0737, II.B.2, "Plant Shielding" - NRC reviewed in Appendix EE of SSER16. Unit 2 Action: Complete Design Review of EQ of equipment for spaces/systems which may be used in post accident operations.
12 . 7 . 2	5	CI	NUREG-0737, II.F.1.2.C., "Accident Monitoring Instrumentation" - In SSER5, the staff resolved this license condition for Unit 1 (IR 390/84-09 & IR 390/84-28) due to verification that TVA's commitments regarding the high range in-containment monitor were satisfactory and that it was installed. Unit 2 Action: Install high range in-containment monitor for Unit 2.
12 . 7 . 3	16	CI	NUREG-0737, III.D.3.3, "In-plant Monitoring of I2 radiation monitoring" - NRC reviewed in Appendix EE of SSER16. Unit 2 Action: Complete modifications for Unit 2.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
13 . 0 . 0	0	C	Approved for both units in SER.
13 . 1 . 0	0	C	Approved for both units in SER.
13 . 1 . 1	0	C	Approved for both units in SER.
13 . 1 . 2	0	C	Approved for both units in SER.
13 . 1 . 3	8	C	LICENSE CONDITION – Use of experienced personnel during startup In the original 1982 SER, NRC provided for an LICENSE CONDITION to ensure TVA augmented the shift staff with individuals that had prior experience with large pressurized water reactor operations. TVA's commitment to comply with RG 1.8, "Personnel Selection and Training," provided adequate assurance, and in SSER8, NRC eliminated the LICENSE CONDITION.
13 . 2 . 0	0	C	Approved for both units in SER.
13 . 2 . 1	0	C	Approved for both units in SER.
13 . 2 . 2	0	C	Approved for both units in SER.
13 . 3 . 0	0	C	Approved for both units in SER.
13 . 3 . 1	0	C	Approved for both units in SER.
13 . 3 . 2	0	C	Approved for both units in SER.
13 . 3 . 3	20	C	LICENSE CONDITION – Emergency Preparedness (NUREG-0737, III.A.1, III.A.2, III.A.2) The NRC review of Emergency Preparedness in SSER13 superseded the review in the original 1982 SER. In SSER13, the staff concluded that the WBN Radiological Emergency Plan (REP) provided an adequate planning basis for an acceptable state of onsite emergency preparedness, and the LICENSE CONDITION was deleted. The NRC completed the review of the REP in SSER20.
13 . 4 . 0		OV	LICENSE CONDITION - Independent Safety Engineering Group (ISEG) (NUREG-0737, I.B.1.2) Resolved for Unit 1 only in SSER8 – January 1992. Unit 2 action: Implement the alternate ISEG that was approved for the rest of the TVA units including WBN Unit 1 by NRC on August 26, 1999. The function will be performed by the site engineering organizations.
13 . 5 . 0	0	C	Approved for both units in SER.
13 . 5 . 1	0	C	Approved for both units in SER.
13 . 5 . 2	9	CI	OUTSTANDING ISSUE involving operating, maintenance and emergency procedures In the original 1982 SER, this issue was used to track the staff's review of the emergency operating procedures generation package. In SSER9, the staff concluded that the outstanding issue was no longer needed as the staff no longer performed such reviews. The emergency operating procedure development program review is performed under IP 42000, "Emergency Operating Procedures." This inspection will be performed before issuance of an operating license. Unit 2 Action: Issue operating, maintenance and emergency procedures.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
13 . 5 . 3	3	C	LICENSE CONDITION – Report on outage of emergency core cooling system (NUREG-0737, II.K.3.17) In the original 1982 SER, the NRC accepted TVA's commitment to develop and implement a plan to collect emergency core cooling system outage information. In SSER3, the staff accepted a revised commitment from an October 28, 1983, letter to participate in the nuclear power reliability data system and comply with the requirements of 10 CFR 50.73
13 . 6 . 0	15	C	OUTSTANDING ISSUE to file appropriate revision to the Physical Security Plan In the original 1982 SER, the staff identified certain outstanding issues with TVA's Physical Security Plan. In SSER15, NRC provided a safety evaluation that concluded that WBN conforms to the requirements of 10 CFR 50.73. --- LICENSE CONDITION – Physical security of fuel in containment In the original 1982 SER, part of the Physical Security Plan (PSP) was not in accordance with the regulation. TVA submitted a new PSP on June 17, 1992. In SSER10, the staff concluded that the provisions for protection of the containment during major refueling and maintenance met the intent of the regulation.
14 . 0 . 0	14	CI	LICENSE CONDITION – Report changes to Initial Test Program In the original 1982 SER, this LICENSE CONDITION was intended to require TVA report to NRC within 30 days of modifying an approved initial test. In SSER7, the NRC accepted a commitment in TVA's July 1, 1991, letter to notify NRC within 30 days of any changes to the Startup Test Program made under 10 CFR 50.59. Unit 2 action: Notify NRC within 30 days of any changes to the Startup Test Program made under 10 CFR 50.59. --- Unit 2 issue to verify capability of each common station service transformer to carry load required to supply ESF loads of 1 unit under LOCA condition in addition to power required for shutdown on non-accident unit This issue was raised in SSER14 and resolved for Unit 1 only. In SSER14, the NRC stated that before an OL can be issued for Unit 2, TVA would have to demonstrate the capability of each CSST to carry the loads of one unit under LOCA conditions in addition to power required for shutting down the non-accident unit. TVA agreed with the NRC position in a January 5, 1995 letter. Unit 2 action: Amend FSAR Chapter 14 to reflect the capability of each CSST to carry the loads of one unit under LOCA conditions in addition to power required for shutting down the non-accident unit.
15 . 0 . 0	0	C	Approved for both units in SER.
15 . 0 . 1		NA	Area not addressed in 1981 Standard Review Plan.
15 . 0 . 2		NA	Area not addressed in 1981 Standard Review Plan.
15 . 1 . 0	0	C	Approved for both units in SER.
15 . 1 . 1		NA	Addressed in 15.2.1
15 . 1 . 2		NA	Addressed in 15.2.1
15 . 1 . 3		NA	Addressed in 15.2.1

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
15 . 1 . 4		NA	Addressed in 15.2.1
15 . 1 . 5		NA	Addressed in 15.2.1 and 15.4.2.
15 . 2 . 0	0	C	Approved for both units in SER.
15 . 2 . 1	0	C	Approved for both units in SER.
15 . 2 . 2	0	C	Approved for both units in SER.
15 . 2 . 3	0	C	Approved for both units in SER.
15 . 2 . 4	4	C	15.2.4.4: OUTSTANDING ISSUE for evaluation of Boron dilution and single failure criteria In a letter dated November 2, 1984, TVA stated that the boron dilution alarm system receives signals from two independent channels which are independently powered. Additionally, testing of these circuits was described. The staff concluded in SSER4 that the system is adequately protected from single failure and closed this item.
15 . 2 . 5	4	C	Approved for both units in SER subject to completion of Outstanding Issue in 15.2.4.4.
15 . 2 . 6		NA	Addressed in 15.2.1.
15 . 2 . 7		NA	Addressed in 15.2.1.
15 . 3 . 0	0	C	Approved for both units in SER.
15 . 3 . 1	0	C	Approved for both units in SER.
15 . 3 . 2	0	C	Approved for both units in SER.
15 . 3 . 3	0	C	Approved for both units in SER.
15 . 3 . 4	0	C	Approved for both units in SER.
15 . 3 . 5	0	C	Approved for both units in SER.
15 . 3 . 6	5	C	LICENSE CONDITION - Anticipated Transients Without Scram (Generic Letter 83-28, Item 4.3) In SSER5, the staff found TVA's response to a number of items in GL 83-28 acceptable, including Item 4.3, as stated in NRC letter dated June 18, 1990, and thus eliminated this license condition.
15 . 3 . 7	0	C	Approved for both units in SER.
15 . 4 . 0	0	C	Approved for both units in SER.
15 . 4 . 1	0	C	Approved for both units in SER.
15 . 4 . 2	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
15 . 4 . 3	14	C	LICENSE CONDITION – Steam Generator tube rupture In SSER12, the staff identified 5 items that required resolution involving 1) operator action times; 2) radiation offsite consequence analysis; 3) systems and 4) associated components credited for accident mitigation in SG tube rupture emergency operating procedures; and 5) system compatibility with bounding analysis. Items 2-5 were resolved in SSER12. In SSER14, the staff stated that a revised SG tube rupture analysis was more conservative and did not alter the conclusions of their Original safety evaluation. With regard to operator response times, TVA letters dated April 21, 1994, and August 15, 1994, and NRC letter dated June 28, 1994, dealt with simulator runs to address response times and operator performance during simulated SG tube ruptures. The staff concluded, after review of the TVA letters, that the times assumed in the tube rupture analysis were satisfactorily verified and deleted this condition.
15 . 4 . 4	0	C	Approved for both units in SER.
15 . 4 . 5	0	C	Approved for both units in SER.
15 . 4 . 6	0	C	Approved for both units in SER.
15 . 4 . 7	0	C	Approved for both units in SER.
15 . 5 . 0	0	C	Approved for both units in SER.
15 . 5 . 1	4	C	LICENSE CONDITION – Effect of high pressure injection for small beak LOCA with no auxiliary feedwater (NUREG-0737, II.K.2.13) In SSER4, the staff concluded that there was reasonable assurance that vessel integrity would be maintained for small breaks with an extended loss of all feedwater and that the USI A-49, "Pressurized Thermal Shock," review did not have to be completed to support the full-power license. They considered this condition resolved.
15 . 5 . 2	4	C	LICENSE CONDITION – Voiding in the reactor coolant system (NUREG-0737, II.K.2.17) The staff reviewed the generic resolution of this license condition in SSER4 and approved the study in question, thereby resolving this license condition.
15 . 5 . 3	5	C	LICENSE CONDITION – PORV isolation system (NUREG-0737, II.K.3.1, II.K.3.2) NUREG-0737, II.K.3.1, II.K.3.2, "Auto PORV isolation/Report on PORV Failures" - Reviewed in SSER5 and resolved based on NRC conclusion that there is no need for an automatic PORV isolation system (NRC letter dated June 29, 1990).
15 . 5 . 4	16	CI	"Implementation of TMI Item II.K.3.5 (Automatic Trip of Reactor Coolant Pumps" – Reviewed in 15.5.4 of original 1982 SER; became License Condition 35. The staff determined that their review of Item II.K.3.5 did not have to be completed to support the full power license and considered this license condition resolved in SSER4. The item was further reviewed in Appendix EE of SSER16. Unit 2 Action: Implement modifications as required.
15 . 5 . 5	16	CI	NUREG-0737, II.K.3.30, "Small Break LOCA Methods" and NUREG-0737, II.K.3.31, "Plant Specific Analysis" – The staff determined in SSER4 that their review of Items II.K.3.30 and II.K.3.31 did not have to be completed to support the full-power license and considered this LICENSE CONDITION resolved in SSER4. In SSER5, the staff further reviewed responses to these items, and concluded that the Units 1 and 2 FSAR methods and analysis met the requirements of II.K.3.30 and II.K.3.31. This item was further reviewed in Appendix EE of SSER16. Unit 2 Action: Complete analysis for Unit 2.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
15 . 6 . 0	0	C	Approved for both units in SER.
15 . 6 . 1	0	C	Approved for both units in SER.
16 . 0 . 0		OT	Unit 2 Action: Submit Technical Specifications.
16 . 1 . 0		NA	Area not addressed in 1981 Standard Review Plan.
17 . 0 . 0	0	C	Approved for both units in SER.
17 . 1 . 0	0	C	Approved for both units in SER.
17 . 2 . 0	13	C	OUTSTANDING ISSUE - QA program The staff reviewed the description of the QA program and concluded in SSER2 that the description was in compliance with NRC regulations. The staff reviewed the organization for the QA program and the NQA Plan, and presented their conclusions in SSER5. They concluded that the program was acceptable for the operations phase of Watts Bar. It was noted, however, that Amendment 63 stated that identification of safety related features would be addressed later and the staff left the outstanding issue unresolved. In SSER13, the staff concluded that TVA had established appropriate programmatic controls for identification of safety related features and considered this issue resolved.
17 . 3 . 0	0	C	Approved for both units in SER.
17 . 4 . 0	0	C	Approved for both units in SER.
17 . 5 . 0		NA	Area not addressed in 1981 Standard Review Plan.
17 . 6 . 0		OV	10 CFR 50.65– Maintenance Rule Unit 2 Action: Implement Maintenance Rule for Unit 2 systems 1 month prior to fuel load
18 . 0 . 0	0	NA	See 18.1.
18 . 1 . 0	16	OV	NUREG-0737, I.D.1, "Control Room Design Review" - NRC reviewed in SSER5, SSER6, SSER15, and Appendix EE of SSER16. Unit 2 Actions: Complete the CRDR process. Perform rewiring in accordance with ECN 5982. Take advantage of the completed Human Engineering reviews to ensure appropriate configuration for Unit 2 control panels. See CRDR Special Program.
18 . 2 . 0	16	O	"CONCLUSIONS" left open until all items in subsection are closed.

*** = See last page for status code definition.**

STATUS CODE DEFINITIONS

C: CLOSED: Previous staff review of NUREG-0847 and/or supplements has closed the item either for both units at WBN or explicitly for WBN Unit 2.

CI: CLOSED/IMPLEMENTATION: Staff has approved either for both units at WBN or explicitly for WBN Unit 2; there is no change to the approved design; and implementation is recommended through Regional Inspection.

CT: CLOSED/TECHNICAL SPECIFICATIONS: Item has been approved either for both units at WBN or explicitly for WBN Unit 2; however, a change to the original approval requires submittal of the Technical Specifications and staff review.

NA: NOT APPLICABLE: Justification as to why a section / subsection is not applicalbe is provided in the ADDITIONAL INFORMATION column.

O: OPEN: No action or documentation is provided that shows the staff has reviewed the item for WBN Unit 2.

OT: OPEN/TECHNICAL SPECIFICATIONS: No action or documentation is provided that shows the staff has reviewed the item for WBN Unit 2, and the resolution is through submittal of a Technical Specification.

OV: OPEN/VALIDATION: The proposed approach has been approved for Watts Bar Unit 1; the same approach is proposed for use on WBN Unit 2 without change.

*** = See last page for status code definition.**

TABLE 2

SAFETY EVALUATION REPORT AND SUPPLEMENTS (NUREG-0847) REVIEW MATRIX STATUS = CLOSED

SAFETY EVALUATION REPORT AND SUPPLEMENTS
(NUREG-0847) REVIEW MATRIX
STATUS = CLOSED

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
2 . 0 . 0	0	C	Approved for both units in SER.
2 . 1 . 0	0	C	Approved for both units in SER.
2 . 1 . 1	0	C	Approved for both units in SER.
2 . 1 . 2	0	C	Approved for both units in SER.
2 . 2 . 0	0	C	Approved for both units in SER.
2 . 3 . 0	0	C	Approved for both units in SER.
2 . 3 . 1	0	C	Approved for both units in SER.
2 . 3 . 2	0	C	Approved for both units in SER.
2 . 3 . 3	0	C	See 13.3.3 (Emergency Preparedness Evaluation Conclusions).
2 . 3 . 4	0	C	Approved for both units in SER.
2 . 3 . 5	0	C	Approved for both units in SER.
2 . 4 . 0	0	C	Approved for both units in SER.
2 . 4 . 1	0	C	Approved for both units in SER.
2 . 4 . 2	0	C	Approved for both units in SER.
2 . 4 . 3	0	C	Approved for both units in SER.
2 . 4 . 4	0	C	Approved for both units in SER.
2 . 4 . 5	0	C	GL 89-22, "Potential For Increased Roof Load Due to Changes in Maximum Precipitation" – Answer to informal question provided in TVA letter dated December 16, 1981, and subsequently included in FSAR. GL did not require a response. No further action required.
2 . 4 . 6	0	C	Approved for both units in SER.
2 . 4 . 7	0	C	Approved for both units in SER.
2 . 4 . 8	3	C	CONFIRMATORY ISSUE for design basis groundwater level for ERCW pipeline Amendment 50 to the FSAR (May 1, 1984) provided a description of the analysis used to determine the 25-year groundwater level for the ERCW pipeline. Staff closed issue in SSER3.
2 . 5 . 0	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
2.5 .1	0	C	Approved for both units in SER.
2.5 .2	0	C	Approved for both units in SER.
2.5 .3	0	C	Approved for both units in SER.
2.5 .4	3	C	CONFIRMATORY ISSUE for design differential settlement of piping and electrical components Analysis was presented to staff in September 1983. Staff found analysis and results acceptable. Staff closed issue in SSER3. --- CONFIRMATORY ISSUE for analysis of sheetpile walls Staff performed audit in September 1982, and determined TVA had used reasonable assumptions. Staff closed issue in SSER3. --- CONFIRMATORY ISSUE for material and geometric damping in soil-structure interaction (SSI) analysis Staff performed audit in September 1982, and determined TVA had used reasonable assumptions. Staff closed issue in SSER3. --- OUTSTANDING ISSUE (1) on liquefaction beneath ERCW pipelines and Class 1E electrical conduit. Amendment 50 to the FSAR (May 1, 1984) provided a description of the underground barriers along the ERCW pipelines. Staff agreed the barriers provide sufficient confinement to any liquefied soil. Staff closed issue in SSER3.
2.5 .5	0	C	Approved for both units in SER.
2.5 .6	0	C	Approved for both units in SER.
2.6 .0	0	C	Approved for both units in SER.
3.0 .0	0	C	Approved for both units in SER.
3.1 .0	0	C	Approved for both units in SER.
3.1 .1	0	C	Approved for both units in SER.
3.1 .2	0	C	Approved for both units in SER.
3.2 .0	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
3.2 .1	5	C	CONFIRMATORY ISSUE for seismic classification of structures, systems, and components important to safety Staff closed issue on ERCW seismic category upgrade and seismic classification in SSER5. --- CONFIRMATORY ISSUE for ERCW upgrade to seismic category 1 Staff verified that required portion of ERCW had been upgraded or replaced satisfactorily in SSER5 and closed this issue.
3.2 .2	0	C	Approved for both units in SER.
3.3 .0	0	C	Approved for both units in SER.
3.3 .1	0	C	Approved for both units in SER.
3.3 .2	0	C	Approved for both units in SER.
3.4 .0	0	C	Approved for both units in SER.
3.4 .1	0	C	Approved for both units in SER.
3.5 .0	0	C	Approved for both units in SER.
3.5 .1	0	C	Approved for both units in SER.
3.5 .2	2	C	CONFIRMATORY ISSUE for modifications to protect Diesel Generators TVA submitted a proposed design modification for installation of a reinforced concrete curb around the diesel exhaust stacks to protect them from damage in a letter dated November 24, 1982. The staff found this acceptable and closed this issue in SSER2.
3.5 .3	0	C	Approved for both units in SER.
3.6 .0	0	C	Approved for both units in SER.
3.6 .1	14	C	OUTSTANDING ISSUE involving main steam line break (MSLB) outside containment In a letter dated November 30, 1992, TVA submitted a new evaluation for both Units 1 and 2 accounting for increased environmental temperatures in the MSVV rooms due to release of superheated steam and later submitted, by letter dated March 28, 1994, additional information related to the assumptions made in this analysis. The staff reviewed this information together with their detailed evaluation and acceptance of the same methodology applied at Sequoyah and concluded that the MSLB analysis for the WBN MSVV rooms, including the effects of superheated steam, was acceptable and identified this issue as resolved in SSER14.
3.6 .2	0	C	Approved for both units in SER.
3.6 .3	5	C	New section in SRP 1987. Approved for both units in Appendix J of SSER5.
3.7 .0	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
3.7 .1	8	C	OUTSTANDING ISSUE involving update of FSAR for seismic design issues The staff reviewed FSAR Amendment 68 and found that required changes had been incorporated into the FSAR, as committed to in TVA letter dated December 18, 1990, and issue was deemed resolved in SSER8.
3.7 .2	11	C	3.7.2.1.2: OUTSTANDING ISSUE involving mass eccentricity In a letter dated May 8, 1991, TVA provided clarification that actual mass eccentricities from such items as equipment hatch and lock used in evaluating the steel containment vessel for an earthquake load were replaced by a 5% accidental eccentricity. This was demonstrated to be conservative. TVA also proposed a revision to the FSAR to document this change. The staff found this acceptable and resolved this issue in SSER8. --- 3.7.2.12: OUTSTANDING ISSUE involving comparison of Set A vs. Set B response The staff considered this item (opened in SSER6) resolved in SSER11 based on audits and inspections since SSER6.
3.7 .4	0	C	Approved for both units in SER.
3.8 .0	0	C	Approved for both units in SER.
3.8 .1	9	C	CONFIRMATORY ISSUE - verify buckling methodology In response to staff concern, TVA submitted a letter dated May 16, 1984, stating that TVA calculations already accounted for new information from NRC-sponsored research programs, particularly information concerning reinforcement around shell (vessel) opening. Based on their review of the response, the staff closed this issue in SSER3. --- OUTSTANDING ISSUE involving load combinations and stress allowables In response to staff concerns regarding use of ductility ratio when considering thermally induced stresses, TVA stated in a letter dated April 6, 1992, that they would use a methodology consistent with SRP 3.8.4 for the design of steel members and use the linear elastic provision of DG-C 1.6.12, Rev. 1, "Evaluation of Steel Structures with Thermal Restraint," except for the energy balance provision of Section C.2.3.1. The staff found this acceptable. TVA also agreed, in its May 8, 1991, letter, that any further sampling of structural welds after the issuance of NCIG-2, Rev. 2 would be to that revision. This issue was resolved in SSER9.
3.8 .2	0	C	Approved for both units in SER.
3.8 .3	0	C	Approved for both units in SER.
3.8 .4	0	C	Approved for both units in SER.
3.9 .0	0	C	Approved for both units in SER.
3.9 .2	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
3.9 .3	8	C	3.9.3.1: OUTSTANDING ISSUE involving use of experience data to qualify category I(L) piping TVA stated in a letter dated December 18, 1990, that it was performing a verification program to validate the original seismic design basis for Category I(L) piping, including a screening criteria based on earthquake experience data to identify items requiring further evaluation and bounding case analysis to demonstrate the conservatism of the screening criteria. In a September 20, 1991, letter, TVA provided revised criteria for the bounding case analysis. Based on the staffs' evaluation, the issue was considered resolved in SSER8. --- 3.9.3.3: LICENSE CONDITION - Relief and safety valve testing (II.D.1) Staff found TVA approach in response to this issue, using information from EPRI valve test program and performing modifications to safety and relief discharge piping and supports, was acceptable. Issue was considered resolved in SSER3. --- 3.9.3.3: OUTSTANDING ISSUE involving operating characteristics of main steam safety valves In a letter dated June 21, 1991, TVA responded to NRC concerns regarding the design and installation of MSSVs stated that all valves and piping components were analyzed for all MSSV discharge loads acting simultaneously, combined with other required loads and this was accepted by the staff. In the same letter, TVA also provided the method used to establish the MSSV adjustment ring settings for plant valves and this was acceptable to the staff. This resolved the issue in SSER7. --- 3.9.3.4: CONFIRMATORY ISSUE involving baseplate flexibility and its effect on anchor bolt loads The TVA response to this issue, in a letter dated July 26, 1991, described an update to the previous response for B 79-02 and its civil design standard for concrete anchorage, which incorporated an increase in anchor stiffness and consideration of prying forces for thin baseplates analyzed by hand. The staff determined that this adequately resolved the issue in SSER8. --- 3.9.3.4: OUTSTANDING ISSUE involving stiffness and deflection limits for seismic Category I pipe supports TVA program to demonstrate that change in design criteria which uses stiffness and deflection limits for Category I pipe supports did not compromise the adequacy of pipe supports was found to be acceptable by the staff and the issue was resolved in SSER8. --- 3.9.3.4: OUTSTANDING ISSUE, staff was awaiting TVA concurrence on their position with respect to margin for critical buckling of pipe supports In a letter dated May 14, 1984, TVA provided results of a sampling program and determined that compressive stresses for pipe supports did not exceed acceptance criteria established by NRC and staff considered this issue resolved in SSER4.
3.9 .4	0	C	Approved for both units in SER.
3.9 .5	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
3 . 10 . 0	9	C	Generic OUTSTANDING ISSUES involving adequacy of frequency test, peak broadening of response spectra, reconciling actual field mounting by welding vs. testing configuration mounted by bolting and need for surveillance and maintenance programs to address aging. The issue of peak broadening on response spectra was closed in SSER3. In a letter dated December 1, 1982, TVA provided justification for single-frequency tests to seismically qualify the Reactor Protection System cabinet. This showed that test response spectra (TRS) were substantially higher than broadened required response spectra (RRS) throughout the required frequency range. The staff evaluated test results and building seismic behavior and considered this aspect of the testing issue closed in SSER6. Staff concerns on the impact of aging on seismic performance were resolved in SSER6 based on discussions with TVA technical personnel and review of maintenance and surveillance instruction manuals. There was a specific issue on installing spacers for the 125V DC vital batteries as was done during qualification testing and required by the manufacturer. The issue was closed in SSER6 when it was determined that spacers had been installed. With regard to the overall issue on adequacy of testing, the staff performed an audit as part of Appendix S of SSER9. This included a review of the TVA approach, criteria and action plan to address effect of directional coupling and verification that acceleration at each device location is less than .95g because relay chatter at higher acceleration levels is expected. TRS enveloped RRS for all directions. The staff found the above to be in accordance with SRP 3.10 and IEEE 344-1975 and closed the issue. For reconciling the impact for equipment actually mounted using welding but tested with mounting by bolting, in-situ test results were provided to NRC (in letters dated April 30, 1985, and January 30, 1986) along with Westinghouse report on seismic qualification by analysis and testing for the main control board. The staff reviewed these results and on the basis of the consistency of all results provided, concluded that the issue was resolved in SSER6. --- OUTSTANDING ISSUE involving seismic classification of cable trays and conduits In its May 8, 1991, letter, TVA proposed to analyze conduits as Seismic Category I subsystems. Additionally, in a September 18, 1991 letter, TVA agreed to perform cable tray qualification using conventional linear elastic analysis methods, considering nonlinear response behavior on a case-by-case basis and to submit these cases to the staff for approval. The staff resolved this issue in SSER8.
4 . 0 . 0	0	C	Approved for both units in SER.
4 . 1 . 0	0	C	Approved for both units in SER.
4 . 2 . 0	0	C	Approved for both units in SER.
4 . 2 . 1	0	C	Approved for both units in SER.
4 . 2 . 3	2	C	CONFIRMATORY ISSUE - identify margins and to offset reduction in DNBR due to fuel rod bowing and incorporating residual bow penalty into the Technical Specifications. In SSER2, the staff concluded TVA had an acceptable means of analyzing the effects of fuel rod bowing and determining any residual rod bowing penalties on the departure from nucleate boiling ratio and total peaking power. Staff closed the issue in SSER2.
4 . 2 . 4	0	C	Approved for both units in SER.
4 . 3 . 0	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
4 . 3 . 1	0	C	Approved for both units in SER.
4 . 3 . 2	0	C	Approved for both units in SER.
4 . 3 . 3	0	C	Approved for both units in SER.
4 . 3 . 4	0	C	Approved for both units in SER.
4 . 4 . 0	0	C	Approved for both units in SER.
4 . 4 . 1	0	C	Approved for both units in SER.
4 . 4 . 2	0	C	Approved for both units in SER.
4 . 4 . 4	0	C	Approved for both units in SER.
4 . 4 . 6	0	C	Approved for both units in SER.
4 . 5 . 0	0	C	Approved for both units in SER.
4 . 5 . 1	0	C	Approved for both units in SER.
4 . 5 . 2	0	C	Approved for both units in SER.
4 . 6 . 0	0	C	Approved for both units in SER.
5 . 0 . 0	0	C	Approved for both units in SER.
5 . 1 . 0	0	C	Approved for both units in SER.
5 . 2 . 0	0	C	Approved for both units in SER.
5 . 2 . 1	0	C	Approved for both units in SER.
5 . 2 . 2	2	C	OUTSTANDING ISSUE on staff review of sensitivity study of required safety valve flow rate versus trip parameter TVA letter dated April 18, 1983, provided the safety valve sizing information and information on differences with the reference plant. Staff closed issue in SSER2.
5 . 2 . 3	0	C	Approved for both units in SER.
5 . 2 . 5	0	C	Approved for both units in SER.
5 . 3 . 0	0	C	Approved for both units in SER.
5 . 3 . 1	0	C	Approved for both units in SER.
5 . 4 . 0	0	C	Approved for both units in SER.
5 . 4 . 1	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
5 . 4 . 2	4	C	5.4.2.2: OUTSTANDING ISSUE for staff to evaluate TVA's proposed resolution to concerns about flow induced vibrations in Model D-3 SGs pre-heat region In the original 1982 SER, the staff concluded that because of the generic problem of tube degradation caused by flow induced vibration in Westinghouse model D steam generators, operation would be limited to 50%. TVA's May 27, 1983, letter committed to implement the NUREG-0966 modifications. In SSER4, staff concluded the modification was acceptable to operate at 100%. In a letter dated December 17, 2008, TVA confirmed that these modifications were performed.
5 . 4 . 4	0	C	Approved for both units in SER.
6 . 0 . 0	0	C	Approved for both units in SER.
6 . 1 . 0	0	C	Approved for both units in SER.
6 . 1 . 1	0	C	Approved for both units in SER.
6 . 1 . 2	0	C	Approved for both units in SER.
6 . 1 . 3	0	C	Approved for both units in SER.
6 . 2 . 0	0	C	Approved for both units in SER.
6 . 2 . 1	3	C	6.2.1.1: CONFIRMATORY ISSUE involves reviewing analysis that ensures that containment external pressure will not exceed design value of 2.0 psi In the original 1982 SER, NRC indicated it would confirm the contention that containment external pressure transients could not exceed the design value of 2.0 psig. TVA submitted the information June 4, 1982. In SSER3, NRC concluded that the design provided adequate protection against damage from external pressure transients.
6 . 2 . 2	0	C	Approved for both units in SER.
6 . 2 . 3	0	C	Approved for both units in SER.
6 . 2 . 6	0	C	Approved for both units in SER.
6 . 2 . 7	4	C	CONFIRMATORY ISSUE for TVA to confirm that the lowest temperatures which will be experienced by the limiting materials of the reactor containment pressure boundary under the conditions cited by GDC 51 will be in compliance with the temperatures identified in the staff's analysis of fracture toughness requirements for load bearing component of the containment system In SSER4, NRC reviewed the confirmatory information submitted and concluded for both units that the reactor containment pressure boundary materials will behave in a non-brittle manner and the requirements of GDC 51 were satisfied. NRC provided the technical basis in Appendix H of SSER4.
6 . 3 . 0	0	C	Approved for both units in SER.
6 . 3 . 1	7	C	OUTSTANDING ISSUE - involving removal of upper head injection system The Upper Head Injection (UHI) system design was approved in the original 1982 SER. TVA letter dated September 19, 1985, informed NRC that UHI would not be installed on Unit 2. In SSER7, NRC concluded it was acceptable to delete UHI from both units.
6 . 3 . 2	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
6 . 3 . 3	9	C	OUTSTANDING ISSUE - involving containment sump screen design In the original 1982 SER, the staff approved the proposed sump design in the FSAR. A deviation between the installed and proposed design was discovered during an NRC inspection. In SSER9, the staff concluded that the as-installed sump screen was acceptable. --- CONFIRMATORY ISSUE - provide a detailed survey of insulation material that could be debris post-LOCA In the original 1982 SER, NRC found the design of the containment sump against debris acceptable subject to the acceptability of a detailed survey of insulation materials. In SSER2, the NRC review of the survey confirmed the staff's initial conclusion that the design to provide protection against sump debris was acceptable.
6 . 3 . 4	0	C	Approved for both units in SER.
6 . 3 . 5	0	C	Approved for both units in SER.
6 . 4 . 0	0	C	Approved for both units in SER. See 18.1.0.
6 . 5 . 0	0	C	Approved for both units in SER.
6 . 5 . 1	0	C	Approved for both units in SER.
6 . 5 . 2	0	C	Approved for both units in SER.
6 . 5 . 3	0	C	Approved for both units in SER.
6 . 5 . 4	0	C	Approved for both units in SER.
7 . 0 . 0	0	C	Approved for both units in SER.
7 . 1 . 0	0	C	Approved for both units in SER.
7 . 1 . 1	0	C	Approved for both units in SER.
7 . 1 . 2	0	C	Approved for both units in SER.
7 . 2 . 0	0	C	Approved for both units in SER.
7 . 2 . 1	0	C	Approved for both units in SER.
7 . 2 . 2	0	C	Approved for both units in SER.
7 . 2 . 3	0	C	Approved for both units in SER.
7 . 2 . 4	0	C	Approved for both units in SER.
7 . 3 . 0	0	C	Approved for both units in SER.
7 . 3 . 1	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
7.3 .2	2	C	CONFIRMATORY ISSUE is commitment to make a design change to provide protection that prevents debris from entering containment sump level sensors In the original SER, staff identified a concern that debris in the containment sump could block the inlets to the differential pressure transmitters and result in a loss of the permissive signal to the initiation logic for the automatic switchover from the injection to the recirculation mode of the emergency core cooling system. In a September 15, 1983, letter TVA notified NRC that the level sensors had been moved from inside the sump wall to outside the sump wall with the sense line opening protected by a cap with small holes. Staff closed the issue in SSER2.
7.3 .3	0	C	Approved for both units in SER.
7.3 .4	0	C	Approved for both units in SER.
7.4 .0	0	C	Approved for both units in SER.
7.4 .1	0	C	Approved for both units in SER.
7.4 .2	0	C	Approved for both units in SER.
7.4 .3	0	C	Approved for both units in SER.
7.5 .0	0	C	Approved for both units in SER.
7.5 .1	0	C	Approved for both units in SER.
7.6 .0	0	C	Approved for both units in SER.
7.6 .1	0	C	Approved for both units in SER.
7.6 .2	0	C	Approved for both units in SER.
7.6 .3	0	C	Approved for both units in SER.
7.6 .4	0	C	Approved for both units in SER.
7.6 .5	4	C	CONFIRMATORY ISSUE - install switches on the main control board for the operator to manually arm this system (overpressure protection provided by pressurizer PORVs) In the original 1982 SER, the staff found the design of the overpressure protection during low temperature features acceptable pending review of the drawings and FSAR description. In SSER4, the staff documented completion of the review and closed the confirmatory issue.
7.6 .6	0	C	Approved for both units in SER.
7.6 .7	0	C	Approved for both units in SER.
7.6 .8	0	C	Approved for both units in SER.
7.6 .9	4	C	Approved for both units SER subject to completion of Confirmatory Issue in 7.6.5.
7.7 .0	0	C	Approved for both units in SER.
7.7 .1	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
7 . 7 . 2	7	C	LICENSE CONDITION – Status monitoring system, Bypassed and Inoperable Status Indication In the original 1982 SER, the staff requested TVA address RG 1.47, "Bypassed and Inoperable Status Indications for Nuclear Power Plant Safety Systems." TVA addressed RG 1.47 by letters dated January 29, 1987, and October 22, 1990. In SSER7, the staff documented completion of the review and closed the issue.
7 . 7 . 3	0	C	Approved for both units in SER.
7 . 7 . 4	0	C	Approved for both units in SER.
7 . 7 . 5	0	C	Approved for both units in SER.
7 . 7 . 6	0	C	Approved for both units in SER.
7 . 7 . 7	0	C	Approved for both units in SER.
7 . 8 . 0	0	C	Approved for both units in SER.
7 . 8 . 5	0	C	NUREG-0737, II.K.3.12, "Confirm Existence of Anticipatory Reactor Trip Upon Turbine Trip"
8 . 0 . 0	0	C	Approved for both units in SER.
8 . 1 . 0	0	C	Approved for both units in SER.
8 . 2 . 0	0	C	Approved for both units in SER.
8 . 2 . 1	0	C	Approved for both units in SER.
8 . 2 . 2	13	C	OUTSTANDING ISSUE involving compliance of design changes to the offsite power system with GDC 17 and 18. In SSER13, the NRC documented the review of design changes to minimize the probability of losing all AC power, compliance with GDC 17 and minimizing the probability of a two unit trip following a one unit trip. These issues were resolved in SSER13. --- CONFIRMATORY ISSUE - document additional information in FSAR on control power supplies and distribution system for the Watts Bar Hydro Plant Switchyard In the original 1982 SER, NRC concluded that the offsite power system circuits at the Watts Bar Hydro Plant Switchyard met GDC 17 pending documentation in the FSAR. The information was added to the FSAR. In SSER2, NRC closed the issue. In SSER13, the staff reviewed revised information and concluded that it supported the original conclusion in SSER2.
8 . 2 . 3	0	C	Approved for both units in SER.
8 . 2 . 4	0	C	Approved for both units in SER.
8 . 3 . 0	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
8 . 3 . 1	7	C	8.3.1.1: CONFIRMATORY ISSUE - incorporate new design that provides dedicated transformer for each preferred offsite circuit in FSAR In the original 1982 SER, NRC concluded that the offsite power system with a dedicated transformer for each preferred offsite circuit met GDC 17 pending documentation in the FSAR. The information was added to the FSAR. In SSER2, NRC closed the issue. --- 8.3.1.6: CONFIRMATORY ISSUE - provide diesel generator reliability qualification test report In SSER2, NRC indicated that it would verify DG qualification testing. TVA provided a copy of the DG qualification test report. In SSER7, the NRC concluded that the DGs had been satisfactorily tested in accordance with IEEE 387-1977. --- 8.3.1.6: LICENSE CONDITION (12) - Diesel generator reliability qualification testing at normal operating temperature In the original 1982 SER, NRC required that the capability of the DGs to start at normal temperature be demonstrated. TVA's August 31, 1983, letter confirmed tests had been performed on a DG identical to those at WBN. In SSER2, NRC closed the issue.
8 . 3 . 2	13	C	8.3.2.2: LICENSE CONDITION – DC monitoring and annunciation system In SSER3, the staff determined that some items were omitted from the design of the DG DC monitoring and annunciation system. In TVA letter dated September 13, 1991, TVA provided the additional information. In SSER13, NRC closed the issue. --- 8.3.2.4: CONFIRMATORY ISSUE - include diesel generator design analysis in FSAR In the original 1982 SER, staff indicated the design analysis for demonstrating compliance of the DGs with regulatory requirements and guidelines was acceptable pending incorporation of the analysis in the FSAR. The analysis was incorporated in the FSAR, and the issue closed in SSER2.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
8 . 3 . 3	13	C	8.3.3.1.1: CONFIRMATORY ISSUE involving submergence of electrical equipment as result of a LOCA In the original 1982 SER, staff stated that the design for the automatic deenergizing of loads as a result of a LOCA would be verified as part of the site visit. During the August 1991, visit and in a letter dated September 13, 1991, TVA committed to revise the FSAR. The information was added to the FSAR. In SSER13, NRC closed the issue. --- 8.3.3.1.2: CONFIRMATORY ISSUE - verify design for bypass of thermal overload protective device In the original 1982 SER, NRC indicated that the design for bypass of thermal overload protective devices on safety-related motor operated valves would be verified during the electrical drawing review. The staff subsequently reviewed the drawings and closed the issue in SSER2. --- 8.3.3.2: CONFIRMATORY ISSUE - revise FSAR to reflect requirements of shared safety systems In the original 1982 SER, the staff stated that the description and analysis of shared onsite AC and DC systems was under review but was acceptable pending revision of the FSAR. In SSER3, the confirmatory issue was left open to track additional information to be incorporated in the FSAR. In a letter dated September 13, 1991, TVA provided the additional information. In SSER13, NRC closed the issue. --- 8.3.3.2.3: CONFIRMATORY ISSUE for design of sharing raceway systems between units In the original SER, NRC indicated that the design for sharing of raceway systems between units would be verified during the electrical drawing review. The staff confirmed that cable routing was in accordance with accepted separation criteria and closed the issue in SSER2. --- 8.3.3.2.4: LICENSE CONDITION – Possible sharing of DC control power to AC switchgear In the original 1982 SER, staff required that all possible interconnections between redundant divisions through normal and alternate power sources to various loads be identified in the FSAR. TVA letter dated January 17, 1984, provided the information. NRC closed the issue in SSER3. --- 8.3.3.3: LICENSE CONDITION – Testing of associated circuits In the original 1982 SER, staff required that protective devices used to isolate non-Class 1E from Class 1E circuits be of high quality commensurate with their importance to safety and be periodically tested. TVA letter dated January 17, 1984, provided the information. NRC closed the issue in SSER3. --- 8.3.3.3: LICENSE CONDITION – Testing of non-class 1E cables In the original 1982 SER, staff required that protective devices used to isolate non-Class 1E from Class 1E circuits be of high quality commensurate with their importance to safety and be periodically tested. TVA letter dated January 17, 1984, provided the information. NRC closed the issue in SSER3. ---

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
			8.3.3.5.2: CONFIRMATORY ISSUE - incorporate commitment to test only one of four diesel generators at one time In the original 1982 SER, the NRC found the commitment to test DGs one at a time acceptable pending its incorporation into the FSAR. In SSER2, NRC reviewed the documentation and closed the issue. --- 8.3.3.6: CONFIRMATORY ISSUE involving evaluation of penetrations' ability to withstand failure of overcurrent protection device In the original 1982 SER, staff required a reevaluation of the penetrations' capability to withstand, without seal failure, the total range of available time-current characteristics assuming a single failure of any overcurrent protective device. In SSER3, staff found the results of the evaluation acceptable pending the information being incorporated in the FSAR. The staff reviewed the FSAR and closed the issue in SSER7. --- 8.3.3.6: LICENSE CONDITION – Testing of reactor coolant pump breakers In the original 1982 SER, staff required that the redundant fault current protective devices for the reactor coolant pump circuits meet RG 1.63. In SSER2, staff reviewed the design and concluded it met RG 1.63.
9.0.0	0	C	Approved for both units in SER.
9.1.0	0	C	Approved for both units in SER.
9.1.1	0	C	Approved for both units in SER.
9.1.2	0	C	Approved for both units in SER.
9.1.3	0	C	Approved for both units in SER.
9.2.0	0	C	Approved for both units in SER.
9.2.3	0	C	Approved for both units in SER.
9.2.4	0	C	Approved for both units in SER.
9.2.5	0	C	Approved for both units in SER.
9.2.6	0	C	Approved for both units in SER.
9.3.0	0	C	Approved for both units in SER.
9.3.1	0	C	Approved for both units in SER.
9.3.2	14	C	LICENSE CONDITION – Post-Accident Sampling System TVA submitted a final procedure for estimating degree of core damage by letter dated June 10, 1994, and the license condition was deleted in SSER14.
9.3.3	0	C	Approved for both units in SER.
9.3.4	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
9.4.0	0	C	Approved for both units in SER.
9.4.1	0	C	Approved for both units in SER.
9.4.2	0	C	Approved for both units in SER.
9.4.3	0	C	Approved for both units in SER.
9.4.4	0	C	Approved for both units in SER.
9.4.5	16	C	Approved for both units in SER.
9.5.0	0	C	Approved for both units in SER.
9.5.1	19	C	9.5.1.2: OUTSTANDING ISSUE for Fire Protection Program 9.5.1.3: CONFIRMATORY ISSUE – Electrical penetrations documentation 9.5.1.3: LICENSE CONDITION – Fire protection program In SSER18, the staff concluded that the Fire Protection program for Watts Bar conformed to the requirements of 10 CFR 50.48 and was acceptable except for the fire barrier seal program and emergency lighting inside the Reactor Building. Additionally, the staff considered the confirmatory issue involving electrical penetration documentation resolved in SSER18 on the basis of the safety evaluation of the revised Fire Protection program included in Appendix FF of SSER18. In Appendix FF of SSER19, a safety evaluation of the Fire Protection program contains a detailed evaluation of fire barrier penetration seals. The staff concluded that TVA's penetration seal program adequately demonstrates the fire resistive rating of the penetrations, and that they conform to the guidelines of Positions D.1.j and D.3.d of Appendix A to BTP 9.5.1 and were acceptable. The safety evaluation also includes TVA's revised position on emergency lighting, which was found to be acceptable.
9.5.3	0	C	Approved for both units in SER.

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SER SECTION	SSER #	*	ADDITIONAL INFORMATION
9.5 .4	5	C	9.5.4.1: CONFIRMATORY ISSUE - include required language in operating instruction to ensure no-load and low-load operation is minimized and revise operating procedures to address increased diesel generator load after it has run for an extended period of time at low or no load In SSER5, the staff verified that plant operating procedures had been revised to incorporate requirements that ensure that operational no-load and low-load conditions will not harm the diesel generators. --- 9.5.4.1: LICENSE CONDITION – Diesel Generator reliability The staff verified that the modifications necessary to comply with NUREG/CR-0660 had been completed and, as stated above, requirements had been incorporated into operating procedures. Thus, this license condition was resolved in SSER5. --- 9.5.4.1: OUTSTANDING ISSUE for staff to complete review to determine if diesel generator auxiliary support systems can perform their design safety functions under all conditions, after receipt of all requested information. In SSER5, the staff resolved the issue of the completeness of its review of the emergency diesel engine lubrication oil system. --- 9.5.4.1: OUTSTANDING ISSUE to design skid-mounted piping and components from the day tank to the diesel engine as seismic Category I and to ASME Section III, Class 3 The staff reviewed standards to which emergency diesel engine skid mounted auxiliary system piping and associated components were designed, as well as the testing and inspections to be performed on these systems, and concluded that they were acceptable in SSER5. The staff considered this issue resolved. This resolution applies to the fuel oil, cooling water, air starting, lubrication, and combustion air intake and exhaust systems. --- 9.5.4.2: CONFIRMATORY ISSUE - provide missile protection for fuel oil storage tank vent lines The staff found TVA's commitment to provide missile protection for the fuel oil storage tank vent lines acceptable and verified that the protection had been installed and considered this issue resolved in SSER5.
9.5 .5	5	C	OUTSTANDING ISSUE to design engine cooling water system piping and components for all engines up to the engine interface, including auxiliary skid mounted piping, to ASME Section III, Class 3 The staff reviewed standards to which emergency diesel engine skid mounted auxiliary system piping and associated components were designed, as well as the testing and inspections to be performed on these systems, and concluded that they were acceptable in SSER5. The staff considered this issue resolved. This resolution applies to the fuel oil, cooling water, air starting, lubrication, and combustion air intake and exhaust systems.
9.5 .6	5	C	OUTSTANDING ISSUE to design engine air-starting system piping components for all engines up to the engine interface, including auxiliary skid mounted piping, to ASME Section III, Class 3 The staff reviewed standards to which emergency diesel engine skid mounted auxiliary system piping and associated components were designed, as well as the testing and inspections to be performed on these systems, and concluded that they were acceptable in SSER5. The staff considered this issue resolved. This resolution applies to the fuel oil, cooling water, air starting, lubrication, and combustion air intake and exhaust systems.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
9 . 5 . 7	5	C	OUTSTANDING ISSUE to provide a more detailed description of the lubricating oil system and a description of the diesel engine crankcase explosion protection features TVA submittal of March 18, 1995, responded to a staff request to describe the features that protect the diesel engine crankcase from exploding. In SSER5, on the basis of this submittal, the staff concluded that the emergency diesel engine lubrication oil system can perform its safety function and is acceptable. This issue was resolved. --- OUTSTANDING ISSUE to design standby diesel engine lube oil system piping and components up to the engine interface, including skid mounted piping, to ASME Section III, Class 3 The staff reviewed standards to which emergency diesel engine skid mounted auxiliary system piping and associated components were designed, as well as the testing and inspections to be performed on these systems, and concluded that they were acceptable in SSER5. The staff considered this issue resolved. This resolution applies to the fuel oil, cooling water, air starting, lubrication, and combustion air intake and exhaust systems. --- OUTSTANDING ISSUE to perform additional modification, or provide justification for acceptability of proposed modification, to ensure lubrication of all wearing parts of the diesel engine either on an interim or continuous basis In response to a staff concern regarding dry diesel engine starting, TVA proposed using the manufacturers' modification and provided justification for its ability to ensure lubrication of all parts of the diesel engine. The staff found this acceptable in SSER5.
9 . 5 . 8	5	C	OUTSTANDING ISSUE to design standby diesel engine combustion air intake and exhaust system piping and components up to the engine interface to ASME Section III, Class 3 and recommendations of RG 1.26 The staff reviewed standards to which emergency diesel engine skid mounted auxiliary system piping and associated components were designed, as well as the testing and inspections to be performed on these systems, and concluded that they were acceptable in SSER5. The staff considered this issue resolved. This resolution applies to the fuel oil, cooling water, air starting, lubrication, and combustion air intake and exhaust systems.
10 . 0 . 0	0	C	Approved for both units in SER.
10 . 1 . 0	0	C	Approved for both units in SER.
10 . 2 . 0	0	C	Approved for both units in SER.
10 . 2 . 1	0	C	Approved for both units in SER.
10 . 2 . 2	0	C	Approved for both units in SER.
10 . 3 . 0	0	C	Approved for both units in SER.
10 . 3 . 1	0	C	Approved for both units in SER.
10 . 3 . 2	0	C	Approved for both units in SER.
10 . 3 . 3	0	C	Approved for both units in SER.
10 . 4 . 0	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
10 . 4 . 1	0	C	Approved for both units in SER.
10 . 4 . 2	0	C	Approved for both units in SER.
10 . 4 . 3	0	C	Approved for both units in SER.
10 . 4 . 4	0	C	Approved for both units in SER.
10 . 4 . 5	0	C	Approved for both units in SER.
10 . 4 . 6	0	C	Approved for both units in SER.
10 . 4 . 7	0	C	Approved for both units in SER.
10 . 4 . 8	0	C	Approved for both units in SER.
10 . 4 . 9	0	C	Approved for both units in SER.
11 . 0 . 0	0	C	Approved for both units in SER.
11 . 1 . 0	16	C	Approved for both units in SER.
11 . 2 . 0	16	C	Approved for both units in SER - common systems
11 . 3 . 0	16	C	Approved for both units in SER - common systems
11 . 6 . 0	16	C	Superseded by 11.1.0 through 11.5.0.
11 . 7 . 0	0	C	Approved for both units in SER.
11 . 7 . 1	15	C	LICENSE CONDITION (6a) - Accident monitoring instrumentation II.F.1 – Noble Gas monitor TVA committed to have Unit 2 shielding building vent monitor in place and high range noble gas monitor installed and operational prior to Unit 1 fuel loading. The staff then considered License Condition 6a resolved in SSER5. --- LICENSE CONDITION (6b) - Accident monitoring instrumentation II.F.1 – Iodine particulate sampling See 7.5.2.
12 . 0 . 0	14	C	Approved for both units in SER.
12 . 1 . 0	14	C	Approved for both units in SER.
12 . 2 . 0	14	C	Approved for both units in SER.
12 . 3 . 0	14	C	Approved for both units in SER.
12 . 4 . 0	14	C	Approved for both units in SER.
12 . 5 . 0	14	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
12 . 6 . 0	14	C	OUTSTANDING ISSUE involving Health Physics Program The staff reviewed TVA's RADCON program (formerly the HP program) and found that the WBN organizational structure can provide adequate support for the RADCON program and that organizational changes described in the FSAR amendments met the staff's acceptance criteria. They considered this issue resolved in SSER10. In SSER14, the staff reviewed the revised FSAR sections (through Amendment 88), and found them acceptable.
12 . 7 . 0	0	C	Approved for both units in SER.
13 . 0 . 0	0	C	Approved for both units in SER.
13 . 1 . 0	0	C	Approved for both units in SER.
13 . 1 . 1	0	C	Approved for both units in SER.
13 . 1 . 2	0	C	Approved for both units in SER.
13 . 1 . 3	8	C	LICENSE CONDITION – Use of experienced personnel during startup In the original 1982 SER, NRC provided for an LICENSE CONDITION to ensure TVA augmented the shift staff with individuals that had prior experience with large pressurized water reactor operations. TVA's commitment to comply with RG 1.8, "Personnel Selection and Training," provided adequate assurance, and in SSER8, NRC eliminated the LICENSE CONDITION.
13 . 2 . 0	0	C	Approved for both units in SER.
13 . 2 . 1	0	C	Approved for both units in SER.
13 . 2 . 2	0	C	Approved for both units in SER.
13 . 3 . 0	0	C	Approved for both units in SER.
13 . 3 . 1	0	C	Approved for both units in SER.
13 . 3 . 2	0	C	Approved for both units in SER.
13 . 3 . 3	20	C	LICENSE CONDITION – Emergency Preparedness (NUREG-0737, III.A.1, III.A.2, III.A.2) The NRC review of Emergency Preparedness in SSER13 superseded the review in the original 1982 SER. In SSER13, the staff concluded that the WBN Radiological Emergency Plan (REP) provided an adequate planning basis for an acceptable state of onsite emergency preparedness, and the LICENSE CONDITION was deleted. The NRC completed the review of the REP in SSER20.
13 . 5 . 0	0	C	Approved for both units in SER.
13 . 5 . 1	0	C	Approved for both units in SER.
13 . 5 . 3	3	C	LICENSE CONDITION – Report on outage of emergency core cooling system (NUREG-0737, II.K.3.17) In the original 1982 SER, the NRC accepted TVA's commitment to develop and implement a plan to collect emergency core cooling system outage information. In SSER3, the staff accepted a revised commitment from an October 28, 1983, letter to participate in the nuclear power reliability data system and comply with the requirements of 10 CFR 50.73

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
13 . 6 . 0	15	C	OUTSTANDING ISSUE to file appropriate revision to the Physical Security Plan In the original 1982 SER, the staff identified certain outstanding issues with TVA's Physical Security Plan. In SSER15, NRC provided a safety evaluation that concluded that WBN conforms to the requirements of 10 CFR 50.73. --- LICENSE CONDITION – Physical security of fuel in containment In the original 1982 SER, part of the Physical Security Plan (PSP) was not in accordance with the regulation. TVA submitted a new PSP on June 17, 1992. In SSER10, the staff concluded that the provisions for protection of the containment during major refueling and maintenance met the intent of the regulation.
15 . 0 . 0	0	C	Approved for both units in SER.
15 . 1 . 0	0	C	Approved for both units in SER.
15 . 2 . 0	0	C	Approved for both units in SER.
15 . 2 . 1	0	C	Approved for both units in SER.
15 . 2 . 2	0	C	Approved for both units in SER.
15 . 2 . 3	0	C	Approved for both units in SER.
15 . 2 . 4	4	C	15.2.4.4: OUTSTANDING ISSUE for evaluation of Boron dilution and single failure criteria In a letter dated November 2, 1984, TVA stated that the boron dilution alarm system receives signals from two independent channels which are independently powered. Additionally, testing of these circuits was described. The staff concluded in SSER4 that the system is adequately protected from single failure and closed this item.
15 . 2 . 5	4	C	Approved for both units in SER subject to completion of Outstanding Issue in 15.2.4.4.
15 . 3 . 0	0	C	Approved for both units in SER.
15 . 3 . 1	0	C	Approved for both units in SER.
15 . 3 . 2	0	C	Approved for both units in SER.
15 . 3 . 3	0	C	Approved for both units in SER.
15 . 3 . 4	0	C	Approved for both units in SER.
15 . 3 . 5	0	C	Approved for both units in SER.
15 . 3 . 6	5	C	LICENSE CONDITION - Anticipated Transients Without Scram (Generic Letter 83-28, Item 4.3) In SSER5, the staff found TVA's response to a number of items in GL 83-28 acceptable, including Item 4.3, as stated in NRC letter dated June 18, 1990, and thus eliminated this license condition.
15 . 3 . 7	0	C	Approved for both units in SER.
15 . 4 . 0	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
15 . 4 . 1	0	C	Approved for both units in SER.
15 . 4 . 2	0	C	Approved for both units in SER.
15 . 4 . 3	14	C	LICENSE CONDITION – Steam Generator tube rupture In SSER12, the staff identified 5 items that required resolution involving 1) operator action times; 2) radiation offsite consequence analysis; 3) systems and 4) associated components credited for accident mitigation in SG tube rupture emergency operating procedures; and 5) system compatibility with bounding analysis. Items 2-5 were resolved in SSER12. In SSER14, the staff stated that a revised SG tube rupture analysis was more conservative and did not alter the conclusions of their Original safety evaluation. With regard to operator response times, TVA letters dated April 21, 1994, and August 15, 1994, and NRC letter dated June 28, 1994, dealt with simulator runs to address response times and operator performance during simulated SG tube ruptures. The staff concluded, after review of the TVA letters, that the times assumed in the tube rupture analysis were satisfactorily verified and deleted this condition.
15 . 4 . 4	0	C	Approved for both units in SER.
15 . 4 . 5	0	C	Approved for both units in SER.
15 . 4 . 6	0	C	Approved for both units in SER.
15 . 4 . 7	0	C	Approved for both units in SER.
15 . 5 . 0	0	C	Approved for both units in SER.
15 . 5 . 1	4	C	LICENSE CONDITION – Effect of high pressure injection for small beak LOCA with no auxiliary feedwater (NUREG-0737, II.K.2.13) In SSER4, the staff concluded that there was reasonable assurance that vessel integrity would be maintained for small breaks with an extended loss of all feedwater and that the USI A-49, "Pressurized Thermal Shock," review did not have to be completed to support the full-power license. They considered this condition resolved.
15 . 5 . 2	4	C	LICENSE CONDITION – Voiding in the reactor coolant system (NUREG-0737, II.K.2.17) The staff reviewed the generic resolution of this license condition in SSER4 and approved the study in question, thereby resolving this license condition.
15 . 5 . 3	5	C	LICENSE CONDITION – PORV isolation system (NUREG-0737, II.K.3.1, II.K.3.2) NUREG-0737, II.K.3.1, II.K.3.2, "Auto PORV isolation/Report on PORV Failures" - Reviewed in SSER5 and resolved based on NRC conclusion that there is no need for an automatic PORV isolation system (NRC letter dated June 29, 1990).
15 . 6 . 0	0	C	Approved for both units in SER.
15 . 6 . 1	0	C	Approved for both units in SER.
17 . 0 . 0	0	C	Approved for both units in SER.
17 . 1 . 0	0	C	Approved for both units in SER.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
17 . 2 . 0	13	C	OUTSTANDING ISSUE - QA program The staff reviewed the description of the QA program and concluded in SSER2 that the description was in compliance with NRC regulations. The staff reviewed the organization for the QA program and the NQA Plan, and presented their conclusions in SSER5. They concluded that the program was acceptable for the operations phase of Watts Bar. It was noted, however, that Amendment 63 stated that identification of safety related features would be addressed later and the staff left the outstanding issue unresolved. In SSER13, the staff concluded that TVA had established appropriate programmatic controls for identification of safety related features and considered this issue resolved.
17 . 3 . 0	0	C	Approved for both units in SER.
17 . 4 . 0	0	C	Approved for both units in SER.

STATUS CODE DEFINITIONS

C: CLOSED: Previous staff review of NUREG-0847 and/or supplements has closed the item either for both units at WBN or explicitly for WBN Unit 2.

*** = See last page for status code definition.**

TABLE 3

SAFETY EVALUATION REPORT AND SUPPLEMENTS (NUREG-0847) REVIEW MATRIX STATUS = CLOSED/IMPLEMENTATION

SAFETY EVALUATION REPORT AND SUPPLEMENTS (NUREG-0847) REVIEW MATRIX STATUS = CLOSED/IMPLEMENTATION

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
3 . 9 . 1	13	CI	OUTSTANDING ISSUE involving assumption in piping analysis for water-hammer due to check valve slam In response to NRC concern regarding TVA's piping analysis that postulated failure of certain supports, TVA submitted an August 4, 1992, letter stating that, where possible, supports were upgraded in the analysis to maintain structural integrity during the postulated loading scenario. The issue was resolved in SSER13. Unit 2 Action: Modify supports as needed.
5 . 4 . 3	2	CI	CONFIRMATORY ISSUEs to verify installation of an RHR flow alarm and proper function of dump valves when actuated manually In the SER, staff accepted TVA's commitment to provide, before startup, an RHR flow alarm to alert the operator to initiate alternate cooling modes in the event of loss of RHR pump suction. SSER2 resolved testing of dump valves Unit 2 action: Verify alarm installation.
5 . 4 . 5	5	CI	LICENSE CONDITION - NUREG-0737, II.B.1, "Reactor Coolant System Vents" - In the original SER, the NRC found TVA's commitment to install reactor coolant vents acceptable pending verification. This was completed for Unit 1 only in SSER5 (IR 390/84-37). Unit 2 Action: Verify installation of reactor coolant vents.
7 . 2 . 5	14	CI	CONFIRMATORY ISSUE - address IEB 79-21 to alleviate temperature dependence problem associated with measuring SG water level In SSER14, NRC concurred with TVA's assessment to not insulate the steam generator water level instrument reference leg. Unit 2 Action: Update accident calculation.
7 . 3 . 5	3	CI	CONFIRMATORY ISSUE - perform confirmatory tests to satisfy IEB 80-06 (to ensure that no device will change position solely due to reset action) and staff review of electrical schematics for modifications that ensure that valves remain in emergency mode after ESF reset In the original SER, staff concluded that the design modifications for Bulletin 80-06 were acceptable subject to review of the electrical schematics that were not available at the time. In SSER3, the staff found the modifications acceptable and closed the confirmatory issue. Unit 2 Action: Perform verification during preoperational testing.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
7 . 5 . 2	15	CI	OUTSTANDING ISSUE involving RG 1.97 instruments following course of an accident In the original 1982 SER, the staff stated that WBN did not use RG 1.97, "Instrumentation for Light Water Cooled Nuclear Power Plants to Assess Plants and Environs Conditions During and Following an Accident," for the design because the design predated the RG. In SSER7, an outstanding issue was opened. TVA provided NRC information on exceptions to RG 1.97. A detailed review was performed for both units (Appendix V of SSER9). The staff concluded that WBN conforms to or has adequately justified deviations from the guidance of RG 1.97, Revision 2. In SSER14 and SSER15, additional deviations to RG 1.97 were reviewed and accepted by NRC. NUREG-0737, II.F.1.2, ""Accident Monitoring Instrumentation" – Reviewed in SSER9. Unit 2 Actions: Install Noble gas, Iodine / particulate sampling, and Containment High Range Monitors.
7 . 5 . 3	0	CI	B 79-27, "Loss of Non-class 1E I&C Power System Bus During Operation" – TVA responded to the Bulletin on March 1, 1982. Reviewed in 7.5.3 of the original 1982 SER. Unit 2 Action: Issue appropriate emergency procedures.
7 . 8 . 1	0	CI	NUREG-0737, II.D.3, "Valve Position Indication" – The design was reviewed in the original 1982 SER and found acceptable pending confirmation of installation of the acoustic monitoring system. In SSER5 (IR 390/84-35), the staff closed the LICENSE CONDITION for Unit 1 only. Unit 2 Action: Verify installation of the acoustic monitoring system to PORV to indicate position.
7 . 8 . 2	0	CI	NUREG-0737, II.E.1.2, "Auxiliary Feedwater System Initiation and Flow Indication" Unit 2 Action: Complete procedures and qualification testing.
7 . 8 . 3	0	CI	NUREG-0737, II.K.3.9, "Proportional Integral Derivative Controller Modification" – Reviewed in original 1982 SER. Unit 2 Action: Set the derivative time constant to zero.
8 . 4 . 0		CI	Station Blackout (SBO) - SE for both units – March 18, 1993; SSE for both units – September 9, 1993. Unit 2 Action: Implement SBO requirements.
9 . 1 . 4	13	CI	LICENSE CONDITION – Control of heavy loads (NUREG-0612) The staff concluded in SSER13 that the license condition was no longer necessary based on their review of TVA's response to NUREG-0612 guidelines for Phase I in TVA letter dated July 28, 1993. Unit 2 Action: Implement NEI guidance on heavy loads.
9 . 2 . 2	5	CI	CONFIRMATORY ISSUE - relocate component cooling thermal barrier booster pumps above probable maximum flood (PMF) level before receipt of an OL TVA committed to relocate the pumps above PMF level and the staff found this acceptable. Implementation for this issue was resolved for Unit 1 in SSER5 when the staff verified in IR 390/84-20 that the pumps had been relocated. Unit 2 Action: Relocate pumps for Unit 2.

* = See last page for status code definition.

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
9 . 5 . 2	5	CI	LICENSE CONDITION – Performance testing of communications system The staff resolved this license condition in SSER5 based on TVA's letter of March 18, 1985, which described its testing of communications systems. Unit 2 Action: Perform testing of communication systems on Unit 2.
12 . 7 . 1	16	CI	NUREG-0737, II.B.2, "Plant Shielding" - NRC reviewed in Appendix EE of SSER16. Unit 2 Action: Complete Design Review of EQ of equipment for spaces/systems which may be used in post accident operations.
12 . 7 . 2	5	CI	NUREG-0737, II.F.1.2.C., "Accident Monitoring Instrumentation" - In SSER5, the staff resolved this license condition for Unit 1 (IR 390/84-09 & IR 390/84-28) due to verification that TVA's commitments regarding the high range in-containment monitor were satisfactory and that it was installed. Unit 2 Action: Install high range in-containment monitor for Unit 2.
12 . 7 . 3	16	CI	NUREG-0737, III.D.3.3, "In-plant Monitoring of I2 radiation monitoring" - NRC reviewed in Appendix EE of SSER16. Unit 2 Action: Complete modifications for Unit 2.
13 . 5 . 2	9	CI	OUTSTANDING ISSUE involving operating, maintenance and emergency procedures In the original 1982 SER, this issue was used to track the staff's review of the emergency operating procedures generation package. In SSER9, the staff concluded that the outstanding issue was no longer needed as the staff no longer performed such reviews. The emergency operating procedure development program review is performed under IP 42000, "Emergency Operating Procedures." This inspection will be performed before issuance of an operating license. Unit 2 Action: Issue operating, maintenance and emergency procedures.
14 . 0 . 0	14	CI	LICENSE CONDITION – Report changes to Initial Test Program In the original 1982 SER, this LICENSE CONDITION was intended to require TVA report to NRC within 30 days of modifying an approved initial test. In SSER7, the NRC accepted a commitment in TVA's July 1, 1991, letter to notify NRC within 30 days of any changes to the Startup Test Program made under 10 CFR 50.59. Unit 2 action: Notify NRC within 30 days of any changes to the Startup Test Program made under 10 CFR 50.59. --- Unit 2 issue to verify capability of each common station service transformer to carry load required to supply ESF loads of 1 unit under LOCA condition in addition to power required for shutdown on non-accident unit This issue was raised in SSER14 and resolved for Unit 1 only. In SSER14, the NRC stated that before an OL can be issued for Unit 2, TVA would have to demonstrate the capability of each CSST to carry the loads of one unit under LOCA conditions in addition to power required for shutting down the non-accident unit. TVA agreed with the NRC position in a January 5, 1995 letter. Unit 2 action: Amend FSAR Chapter 14 to reflect the capability of each CSST to carry the loads of one unit under LOCA conditions in addition to power required for shutting down the non-accident unit.

* = See last page for status code definition.

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
15 . 5 . 4	16	CI	"Implementation of TMI Item II.K.3.5 (Automatic Trip of Reactor Coolant Pumps" – Reviewed in 15.5.4 of original 1982 SER; became License Condition 35. The staff determined that their review of Item II.K.3.5 did not have to be completed to support the full power license and considered this license condition resolved in SSER4. The item was further reviewed in Appendix EE of SSER16. Unit 2 Action: Implement modifications as required.
15 . 5 . 5	16	CI	NUREG-0737, II.K.3.30, "Small Break LOCA Methods" and NUREG-0737, II.K.3.31, "Plant Specific Analysis" – The staff determined in SSER4 that their review of Items II.K.3.30 and II.K.3.31 did not have to be completed to support the full-power license and considered this LICENSE CONDITION resolved in SSER4. In SSER5, the staff further reviewed responses to these items, and concluded that the Units 1 and 2 FSAR methods and analysis met the requirements of II.K.3.30 and II.K.3.31. This item was further reviewed in Appendix EE of SSER16. Unit 2 Action: Complete analysis for Unit 2.

STATUS CODE DEFINITIONS

CI: CLOSED/IMPLEMENTATION: Staff has approved either for both units at WBN or explicitly for WBN Unit 2; there is no change to the approved design; and implementation is recommended through Regional Inspection.

*** = See last page for status code definition.**

TABLE 4

SAFETY EVALUATION REPORT AND SUPPLEMENTS (NUREG-0847) REVIEW MATRIX STATUS = CLOSED/TECHNICAL SPECIFICATIONS

SAFETY EVALUATION REPORT AND SUPPLEMENTS
(NUREG-0847) REVIEW MATRIX
STATUS = CLOSED/TECHNICAL SPECIFICATIONS

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
2 . 4 . 10	0	CT	Staff found flood emergency plan and draft Technical Specifications acceptable in original 1982 SER. Unit 2 Action: Address in Technical Specifications as appropriate.
3 . 9 . 6	14	CT	OUTSTANDING ISSUE required that Technical Specifications include limiting condition for operation that requires plant shutdown or system isolation when leak limits are not met. Staff had not reviewed Technical Specifications. The safety evaluation in SSER14 states that the staff did not find any IST issues that would prevent issuance of an operating license for Unit 1. The item was resolved in SSER14. Unit 2 Action: Submit Technical Specifications.
4 . 4 . 7	0	CT	"Technical Resolution of Generic Issue B-59-(N-1) Loop Operation in BWRs and PWRs – N-1 Loop operation was addressed in original 1982 SER (4.4.7). Unit 2 Action: Confirm Technical Specifications prohibit (N-1) Loop Operation.
6 . 2 . 4	5	CT	OUTSTANDING ISSUE for NRC to complete review of information provided by TVA to address Containment Purging During Normal Plant Operation LICENSE CONDITION - Containment isolation dependability In the original 1982 SER, NRC concluded that WBN met all the requirements of NUREG-0737, item II.E.4.2 except subsection (6) concerning containment purging during normal operation. In SSER3, the outstanding issue was closed and the LICENSE CONDITION was left open. NRC completed the review and issued a TER for both units on July 12, 1990. NRC concluded that the isolation valves can close against the buildup of pressure in the event of a design basis accident if the lower containment isolation valves are physically blocked to an opening angle of 50 degrees or less. (SSER5) Unit 2 Action: Reflect valve opening restriction in the Technical Specifications.
7 . 7 . 8	9	CT	ATWS Mitigation design was reviewed and approved for both units in Appendix W of SSER9. Outstanding Issue was Technical Specifications requirements. Unit 2 Action: Address in Technical Specifications as appropriate.
7 . 8 . 4	0	CT	NUREG-0737, II.K.3.10, "Anticipatory Trip At High Power" Unit 2 Action: Unit 2 Technical Specifications and surveillance procedures will address this issue.

STATUS CODE DEFINITIONS

CT: CLOSED/TECHNICAL SPECIFICATIONS: Item has been approved either for both units at WBN or explicitly for WBN Unit 2; however, a change to the original approval requires submittal of the Technical Specifications and staff review.

*** = See last page for status code definition.**

TABLE 5

SAFETY EVALUATION REPORT AND SUPPLEMENTS (NUREG-0847) REVIEW MATRIX STATUS = NOT APPLICABLE

SAFETY EVALUATION REPORT AND SUPPLEMENTS (NUREG-0847) REVIEW MATRIX STATUS = NOT APPLICABLE

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
1.0.0		NA	Overview only
1.1.0		NA	Overview only
1.1.1		NA	Overview only
1.1.2		NA	Overview only
1.1.3		NA	Overview only
1.1.4		NA	Overview only
1.2.0		NA	Overview only
1.3.0		NA	Overview only
1.3.1		NA	Overview only
1.3.2		NA	Overview only
1.4.0		NA	Overview only
1.5.0		NA	Overview only
1.6.0		NA	Overview only
1.7.0		NA	Overview only
1.8.0		NA	Overview only
1.9.0		NA	Overview only
1.10.0		NA	Overview only
2.4.11		NA	Addressed in 2.4.6.
2.4.12		NA	Addressed in 2.4.7.
2.4.13		NA	Addressed in 2.4.9.
2.4.14		NA	Addressed in 2.4.10.
3.4.2		NA	Addressed in 3.4.1.
3.9.7		NA	Area not addressed in 1981 Standard Review Plan.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
3 . 9 . 8		NA	Area not addressed in 1981 Standard Review Plan.
3 . 12 . 0		NA	Addressed in 3.9.1 through 3.9.3.
3 . 12 . 1		NA	Addressed in 3.9.1 through 3.9.3.
3 . 12 . 2		NA	Addressed in 3.9.1 through 3.9.3.
3 . 12 . 3		NA	Addressed in 3.9.1 through 3.9.3.
3 . 12 . 4		NA	Addressed in 3.9.1 through 3.9.3.
3 . 12 . 5		NA	Addressed in 3.9.1 through 3.9.3.
3 . 12 . 6		NA	Addressed in 3.9.1 through 3.9.3.
3 . 13 . 0		NA	Area not addressed in 1981 Standard Review Plan.
7 . 9 . 0		NA	Area not addressed in 1981 Standard Review Plan.
8 . 5 . 0		NA	Area not addressed in 1981 Standard Review Plan.
8 . 5 . 1		NA	Area not addressed in 1981 Standard Review Plan.
9 . 1 . 5		NA	Addressed in 9.1.4.
15 . 0 . 1		NA	Area not addressed in 1981 Standard Review Plan.
15 . 0 . 2		NA	Area not addressed in 1981 Standard Review Plan.
15 . 1 . 1		NA	Addressed in 15.2.1
15 . 1 . 2		NA	Addressed in 15.2.1
15 . 1 . 3		NA	Addressed in 15.2.1
15 . 1 . 4		NA	Addressed in 15.2.1
15 . 1 . 5		NA	Addressed in 15.2.1 and 15.4.2.
15 . 2 . 6		NA	Addressed in 15.2.1.
15 . 2 . 7		NA	Addressed in 15.2.1.
16 . 1 . 0		NA	Area not addressed in 1981 Standard Review Plan.
17 . 5 . 0		NA	Area not addressed in 1981 Standard Review Plan.
18 . 0 . 0	0	NA	See 18.1.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION

STATUS CODE DEFINITIONS

NA: NOT APPLICABLE: Justification as to why a section / subsection is not applicalbe is provided in the ADDITIONAL INFORMATION column.

*** = See last page for status code definition.**

TABLE 6

SAFETY EVALUATION REPORT AND SUPPLEMENTS (NUREG-0847) REVIEW MATRIX STATUS = OPEN

SAFETY EVALUATION REPORT AND SUPPLEMENTS (NUREG-0847) REVIEW MATRIX STATUS = OPEN

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
2.1.3		O	SRP requirement. Unit 2 Action: Update FSAR for present and projected population over the lifetime of the plant.
2.1.4		O	"CONCLUSIONS" left open until all items in subsection are closed.
2.2.1		O	SRP requirement. Unit 2 Action: Update FSAR for potential external hazards and hazardous materials.
2.2.2		O	SRP requirement. Unit 2 Action: Update FSAR for projected annual number of aircraft flights.
2.2.3	0	O	"CONCLUSIONS" left open until all items in subsection are closed.
2.4.9		O	SRP requirement. Unit 2 Action: Update FSAR for present and projected use of local and regional groundwater.
4.2.5		O	"FUEL DESIGN CONCLUSIONS" left open until all items in subsection are closed.
4.4.5	5	O	CONFIRMATORY ISSUE / LICENSE CONDITION on review of Loose Parts Monitoring System (LPMS) startup report and inclusion of limiting conditions for LPMS in Technical Specifications TVA letters dated February 25, 1982, and November 10, 1982, provided a description of operator training and an evaluation of conformance to RG 1.133. In SSER3, the staff closed the confirmatory issue and opened a license condition to track submittal of the startup test results and the alert level setting. In SSER5, the staff closed the LICENSE CONDITION to a TVA commitment to provide the startup test results and the alert level settings made in a letter dated September 19, 1990, for both units. For Unit 2 due to obsolescence, TVA will replace the LPMS. Unit 2 Action: Provide the startup test results and the alert level settings.
4.4.8		O	LICENSE CONDITION - Detectors for Inadequate core cooling (II.F.2) GL 82-28 / NUREG-0737, II.F.2, "Inadequate Core Cooling Instrumentation System" – In the original SER, the review of the ICC instrumentation was incomplete. The January 24, 1992, letter superseded the previous responses on this issue. TVA letter for Units 1 and 2 dated January 24, 1992, committed to install Westinghouse ICCM-86 and associated hardware. NRC completed the review for Units 1 and 2 in SSER10. For Unit 2 due to obsolescence of the ICCM-86 system, TVA intends to install the Westinghouse Common Q Post-Accident Monitoring System. Unit 2 Action: Install Westinghouse Common Q PAM system.
4.4.9		O	"CONCLUSION" left open until all items in subsection are closed.

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
5 . 2 . 4	16	O	LICENSE CONDITION – Inservice inspection (ISI) program The ISI program is required to be submitted within 6 months of the date of issuance of the operating license. The applicable ASME Code edition and addenda are determined by reference to 50.55a(b) 12 months preceding the date of issuance of the OL. In SSER12, the LICENSE CONDITION was resolved by a TVA commitment to submit the program within six months after receiving the operating license. Unit 2 action: Submit Unit 2 ISI program. --- OUTSTANDING ISSUE - Unit 2 PSI program submitted April 30, 1990, with a partial listing of relief requests. This item tracked the staff review. In the SER, the preservice inspection program was still under review. NRC reviewed the Unit 1 PSI program in SSERs 10, 12, and 16. Unit 2 Action: Submit Unit 2 PSI program.
6 . 2 . 5	5	O	LICENSE CONDITION – (6f) Accident monitoring instrumentation II.F.1 – containment hydrogen In SSER5, NRC closed the LICENSE CONDITION for Unit 1 only (IR 390/84-85). Unit 2 Action: Verify installation of containment hydrogen accident monitoring instrumentation. This portion has a status of Closed/Implementation only. --- Unit 2 action: The hydrogen recombiners will be removed from the Unit 2 design and licensing basis based on 10 CFR 50.44 (final rule September 16, 2003) and abandoned in place. This portion has a status of Open.
6 . 6 . 0	10	O	OUTSTANDING ISSUE on additional information required on preservice inspection program and identification of plant specific areas where ASME Code Section XI requirements cannot be met and supporting technical justification NRC reviewed the preservice inspection program (PSI) for Unit 1 only in SSER10. Unit 2 action: Submit Unit 2 PSI program.
7 . 2 . 6	14	O	"CONCLUSIONS" left open until all actions in subsection are closed.
7 . 3 . 6	3	O	"CONCLUSIONS" left open until all actions in subsection are closed.
7 . 5 . 4		O	"CONCLUSIONS" left open until all items in subsection are closed.
9 . 2 . 1	18	O	No open issues in the original 1982 SER. SSER18 concludes ERCW does not conform to GDC 5 for two-unit operation. Unit 2 Action: Appropriate measures will be taken to ensure that the ERCW system is fully capable of meeting design requirements for two unit operation.
18 . 2 . 0	16	O	"CONCLUSIONS" left open until all items in subsection are closed.

STATUS CODE DEFINITIONS

O: OPEN: No action or documentation is provided that shows the staff has reviewed the item for WBN Unit 2.

*** = See last page for status code definition.**

TABLE 7

SAFETY EVALUATION REPORT AND SUPPLEMENTS (NUREG-0847) REVIEW MATRIX STATUS = OPEN/TECHNICAL SPECIFICATIONS

SAFETY EVALUATION REPORT AND SUPPLEMENTS (NUREG-0847) REVIEW MATRIX STATUS = OPEN/TECHNICATION SPECIFICATIONS

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
4 . 2 . 2	2	OT	CONFIRMATORY ISSUE on cladding collapse calculations The staff reviewed the calculation for the predicted cladding collapse for the most limiting Watts Bar fuel and found it acceptable. Staff closed issue in SSER2. Unit 2 action: Use Westinghouse RFA-2 fuel as currently installed in Unit 1 for the initial cycle.
5 . 3 . 2		OT	OUTSTANDING ISSUE - P-T limits for Unit 2 not provided. Staff will review as part of Unit 2 Technical Specifications. In the original 1982 SER, NRC indicated that the review of the Unit 2 P-T limits would be completed as part of the review of the Unit 2 Technical Specifications. Unit 2 action: Submit P-T limits.
5 . 3 . 3		OT	OUTSTANDING ISSUE for staff to complete evaluation of Unit 2 after receipt of P-T limits In the original 1982 SER, NRC indicated that the review of the Unit 2 P-T limits would be completed as part of the review of the Unit 2 Technical Specifications. Unit 2 action: Submit P-T limits.
7 . 1 . 3		OT	Staff requested discussion of methodology for determining, setting, and evaluating as-found setpoints for drift susceptible instruments. Unit 2 action: Resolve this issue using the BFN TS-453 precedent (see NRC ML061680008).
10 . 3 . 4	5	OT	LICENSE CONDITION – Secondary water chemistry monitoring and control program The staff determined that the secondary water chemistry monitoring and control program was being included in the administrative section of the Technical Specifications and resolved this for Unit 1 in SSER5. Unit 2 Action: Take same action for Unit 2.
11 . 7 . 2	16	OT	NUREG-0737, III.D.1.1, "Primary Coolant Outside Containment" - Resolved for Unit 1 only in SSER10; reviewed in Appendix EE of SSER16. Unit 2 Actions: Include the waste gas disposal system in the leakage reduction program and incorporate in Unit 2 Technical Specifications.
16 . 0 . 0		OT	Unit 2 Action: Submit Technical Specifications.

STATUS CODE DEFINITIONS

OT: OPEN/TECHNICAL SPECIFICATIONS: No action or documentation is provided that shows the staff has reviewed the item for WBN Unit 2, and the resolution is through submittal of a Technical Specification.

*** = See last page for status code definition.**

TABLE 8

SAFETY EVALUATION REPORT AND SUPPLEMENTS (NUREG-0847) REVIEW MATRIX STATUS = OPEN/VALIDATION

SAFETY EVALUATION REPORT AND SUPPLEMENTS (NUREG-0847) REVIEW MATRIX STATUS = OPEN/VALIDATION

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
3 . 7 . 3	12	OV	OUTSTANDING ISSUE involving use of code cases, damping factors for conduit and use of worst case, critical case and bounding case Deficiencies identified in the use of worst case, critical case and bounding calculations were resolved in IR 50-390/93-201, and this issue was considered resolved for Unit 1 in SSER12. Unit 2 Action: Addressed in CAP/SP. The Unit 1 approach will be used for Unit 2. ---------- Deficiencies identified in the use of worst case, critical case and bounding calculations were resolved in IR 50-390/93-201, and this issue was considered resolved for Unit 1 in SSER12. Unit 2 Action: Addressed in CAP/SP. The Unit 1 approach will be used for Unit 2. ---------- Conduit Supports Corrective Action Program. Process was reviewed and determined to be acceptable for Unit 1 in SER dated September 1, 1989. Unit 2 Action: Addressed in CAP/SP. The Unit 1 approach will be used for Unit 2.
3 . 11 . 0	15	OV	OUTSTANDING ISSUE - TVA program not submitted at time of SER The EQ program was submitted after issuance of the SER. It was reviewed and found acceptable in SSER15. Unit 2 Action: Complete EQ Special Program.
4 . 4 . 3		OV	OUTSTANDING ISSUE concerning removal of RTD bypass system This outstanding issue was opened in SSER6. Staff issued an SER dated June 13, 1989, for Unit 1 only that approved replacement of the RTD bypass system with an Eagle-21 microprocessor system for monitoring reactor coolant temperature. TVA letter dated December 5, 2007, informs NRC of intent to use Eagle-21 for Unit 2. NRC requested additional information December 27, 2007. TVA provided the requested information by letter dated February 28, 2008. Unit 2 Action: Provide the additional information for NRC review.
11 . 4 . 0	16	OV	Closed for Unit 1 only. Unit 2 Action: Provide system description and information on QA provisions for Unit 2 Solid Waste Management System and information on the Process Control Program.
11 . 5 . 0	20	OV	Closed for Unit 1 only. Unit 2 Action: Provide system description and information on QA provisions for the Unit 2 Radiation Monitoring System

*** = See last page for status code definition.**

SER SECTION	SSER #	*	ADDITIONAL INFORMATION
13 . 4 . 0		OV	LICENSE CONDITION - Independent Safety Engineering Group (ISEG) (NUREG-0737, I.B.1.2) Resolved for Unit 1 only in SSER8 – January 1992. Unit 2 action: Implement the alternate ISEG that was approved for the rest of the TVA units including WBN Unit 1 by NRC on August 26, 1999. The function will be performed by the site engineering organizations.
17 . 6 . 0		OV	10 CFR 50.65– Maintenance Rule Unit 2 Action: Implement Maintenance Rule for Unit 2 systems 1 month prior to fuel load
18 . 1 . 0	16	OV	NUREG-0737, I.D.1, "Control Room Design Review" - NRC reviewed in SSER5, SSER6, SSER15, and Appendix EE of SSER16. Unit 2 Actions: Complete the CRDR process. Perform rewiring in accordance with ECN 5982. Take advantage of the completed Human Engineering reviews to ensure appropriate configuration for Unit 2 control panels. See CRDR Special Program.

STATUS CODE DEFINITIONS

OV: OPEN/VALIDATION: The proposed approach has been approved for WBN Unit 1; the same approach is proposed for use on WBN Unit 2 without change.

*** = See last page for status code definition.**