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NOV 17 1992

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

Gentlemen:

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

WATTS BAR NUCLEAR PLANT (WBN) - NRC INSPECTION REPORT NO. 390, 391/92-23
REPLY TO NOTICE OF VIOLATION (NOV)

This letter responds to Inspection Report 390, 391/92-23 dated October 18, 1992, which identified a Severity Level IV violation. The violation concerns failure to follow procedures for updates to primary drawings. TVA has carefully reviewed the NOV and subject inspection report and provides Enclosure 1 in response to the violation. TVA notes that the identified discrepancies were minor and had no impact on the "as-built" plant configuration or the test acceptance criteria provided in Preoperational Test Instruction PTI-211.01.

Based on the relative significance of the identified issues, NRC may wish to reconsider the violation severity level assigned to this item. A level V classification would seem to be more consistent with criteria provided in 10 CFR 2, Appendix C, "General Statement of Policy and Procedure for NRC Enforcement Actions."

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Enclosure 2 provides TVA's response concerning resolution of the equipment identification problem related to fuses and handswitches, as requested in NRC's letter of October 18, 1992.

Should there be any questions regarding this information, please telephone Paul L. Pace at (615) 365-1824.

Very truly yours,

W. J. Museler

William J. Museler

Enclosures
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ENCLOSURE 1
REPLY TO NRC'S OCTOBER 18, 1992 LETTER TO TVA
FAILURE TO FOLLOW PROCEDURES FOR UPDATE OF PRIMARY DRAWINGS
VIOLATION 390, 391/92-23-01

DESCRIPTION OF VIOLATION

10 CFR 50 Appendix B, Criterion V requires that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures or drawings. Additionally, the licensee's accepted Nuclear Quality Assurance Plan TVA-NQA-PLN89, Revision 2, Section 7.2.7.F requires that measures to control plant configuration and ensure that the actual plant configuration is accurately depicted on drawings shall be established, documented, and implemented.

On July 7, 1992, Preoperational Test instruction PTI 211-01, 6.9 KV Shutdown Boards, Revision 0, was approved by the Engineering/Modification Manager and issued for use. Section 2.2 of PTI 211-01, Development References, list some, but not all the applicable design drawings that corroborate test requirements and test acceptance criteria.

Engineering Administrative Instruction EAI 3.09, Incorporation of Change Documents into Drawings, Revision 5, Section 4.1.1.E, establishes requirements for incorporating change documents into drawings in accordance with time limits shown in Appendix C. Primary drawings are required to be updated within 15 days of the work completion date.

Engineering Administrative Instruction EAI 3.07, System Plant Acceptance Evaluation, Revision 1, Section 6.3, Start of Preop Testing, establishes requirements for System 211 that as modification work is completed primary and critical drawings are updated to reflect as constructed configuration.

Contrary to the above, during this inspection, NRC identified that the following System 211 drawings were not updated to accurately reflect as-constructed plant configuration based on various identified drawing deficiencies.

- Drawing No. 1-45W760-211-1, Wiring Diagram, 6900 Volt Shutdown Power Schematic Diagram, Revision three.
- Drawing No. 1-45W760-211-19, Wiring Diagram, 6900 Volt Shutdown Power Schematic Diagram Revision one.
- Drawing No. 1-45W760-211-9, Wiring Diagram, 6900 Volt Shutdown Power Schematic Diagram, Revision five.

Contributing to this failure to maintain configuration control of the drawings that are necessary and sufficient to support performance of PTI 211-01 was the Licensee's failure to initiate Design Change documents for the following System 55 drawings to incorporate test requirements and test acceptance criteria.

- Drawing No. 47B601-55-66, Electrical Instrument Tabulation, Revision M
- Drawing No. 47B601-55-67, Electrical Instrument Tabulation, Revision C
- Drawing No. 47B601-55-68, Electrical Instrument Tabulation, Revision C
- Drawing No. 47B601-55-69, Electrical Instrument Tabulation, Revision C
- Drawing No. 1-45W600-55-36, Annunciator System Key Diagram, Revision one
- Drawing No. 1-45W600-55-37, Annunciator System Key Diagram, Revision one
- Drawing No. 1-45W600-55-38, Annunciator System Key Diagram, Revision one
- Drawing No. 1-45W600-55-39, Annunciator System Key Diagram, Revision one

REASON FOR THE VIOLATION

The reason for the violation was the occurrence of isolated examples of inattention to detail on the part of draftsmen and design personnel during the process of drawing production and design change development, respectively.

The examples cited involve 6 errors which impact a total of 11 drawings. The specific errors are not enumerated within the Notice of Violation, but TVA identified the errors by reviewing the Inspection Report details and change documents produced during the inspection. A detailed description of the discrepancies is provided in the attached table along with the general cause of the error, the timeframe when the discrepancy was made, the significance, corrective action taken, and recurrence control/extent of condition.

It should be noted that one of the errors cited impacted four drawings and was actually an enhancement to an annunciator engraving description in the Auxiliary Control Room that the NRC inspector recommended and TVA implemented. In the event a reactor operator is required to evacuate the Main Control Room, he actuates a transfer switch which isolates the circuitry from the Control Building. This defeats the automatic transfer feature of the 6900V shutdown buses and any transfers must be made manually. The NRC inspector pointed out that the engraving in the Auxiliary Control Room, "6900V SD BD 1A-A TRANSFER," might lead to the assumption that automatic transfer was available. TVA agreed and enhanced the engraving to say "6900V SD BD ALT BKR CLOSED." TVA considers this change to be an enhancement and not an error since the operator would be aware of the system capabilities.

The remaining five errors impacting seven drawings were all of a very minor nature and had no potential to impact the as-constructed configuration or the test acceptance criteria. Reviewing these examples, TVA was unable to identify examples of noncompliance with the WBN procedural requirements of EAI 3.07, "System Plant Acceptance Evaluation," which verifies all engineering work is complete, or EAI 3.09, "Incorporation of Change Documents into Drawings." The errors did not impact the process of updating drawings via incorporation of change paper.

The error cited for drawings 1-45W600-36, -37, -38, and -39 involved failure to fully depict all required changes under the design change notice (DCN), however, the omission did not impact test acceptance criteria or the field configuration. This example is typical of the type of minor discrepancies handled by the F-DCN process described by EAI 3.05, "Design Change Notices."

CORRECTIVE ACTION TAKEN AND RESULTS ACHIEVED

All of the discrepancies listed in the Attachment have been corrected through the issuance of DCNs. As an enhancement, the description for the annunciator alarm engraving in the Auxiliary Control Room was modified.

To verify the consistency of System 211 drawings, WBN performed a 100% review of System 211 annunciator points (40 total). Through this review, one additional minor discrepancy was identified involving the mislabeling of a wire number on a Unit 2 annunciator drawing required for Unit 1 operation.

In addition, a 100% review was conducted of additional annunciator points (83 total) for 12 other near term systems resulting in 4 minor discrepancies (drawing reference errors, a panel number typographical error, and an additional example of an incorrect window number on a key diagram).

As with the cited errors, the five discrepancies identified through these reviews were of minor significance, did not affect the field configuration, and have been corrected by the issuance of DCNs.

CORRECTIVE STEPS TAKEN TO AVOID FURTHER VIOLATION

The errors cited fall within the scope of the programs in place at WBN to identify and correct drawing discrepancies. These programs include portions of the corrective action in the Design Baseline and Verification Program (DVBP) and the Drawing Deviation (DD) Program outlined in Site Standard Practice SSP-2.11.

The DBVP Corrective Action Program (CAP) includes a process to ensure that the functional configuration of portions of systems which are required to mitigate design basis events are accurately depicted on plant control room drawings. These portions of the control room drawing were verified to match plant functional configuration by walkdown or testing. Walkdown verification was used, where practical, on flow, control, and single line drawings. However, systems and components which could not be confirmed through walkdowns (for example electrical circuits represented on schematics) require testing or evaluation in order to ensure functional performance consistent with the drawings. This testing is part of the WBN Startup Testing Program and provides an additional mechanism to identify drawing discrepancies.

For DDs outside the scope of DBVP, WBN has implemented an ongoing program to identify and correct drawing discrepancies. The DD program is outlined in SSP-2.11 and is part of the WBN corrective action program. The procedure contains requirements for identification, validation, review, and correction of DDs found during typical work processes. In addition, the discrepancies dispositioned through this process are monitored for adverse trends.

TVA considers that these programs are appropriate to ensure an adequate level of management attention is applied to the identification and correction of drawing discrepancies.

DATE WHEN FULL COMPLIANCE WILL BE ACHIEVED

With respect to the identified discrepancies, TVA is now in compliance.

ATTACHMENT TO ENCLOSURE 1

DRAWING CITED IN VIOLATION	DESCRIPTION OF DISCREPANCY	CAUSE OF ERROR AND TIMEFRAME	SIGNIFICANCE	CORRECTIVE ACTION	RECURRENCE CONTROL/EXTENT OF CONDITION
1-47W60-211-1 Revision 3	Drawing note was incomplete & failed to recognize possibility of manual alignment to the maintenance power source.	Drawing note error on DCN M-12051-A in January 1992. This was an attention to detail error made by the designer and verifier.	No impact. Circuit design, design criteria, and test documents were all correct. Hardware correct.	Issue drawing deviation and S-DCN to enhance the note. Completed 9/17/92 by DCN S-20393-A.	None required. Covered by existing programs.
	Set of contacts designated as being in the breaker close circuit when they were actually in the breaker trip circuit.	Drafting transposition error made while developing CCD from AC drawing in September 1990.	No impact. Led to a dead end when tracing schematics. Hardware correct.	Issue drawing deviation and S-DCN to correct the contact function description. Completed 9/17/92 by DCN S-20393-A.	None required. Covered by existing programs.
1-45W760-211-19 Revision 1	One relay contact shown normally open when it was actually normally closed.	Design error that occurred prior to 1986; attention to detail error.	No impact. Although shown incorrectly on the circuit schematic, the relay contact development on the same drawing showed it correctly. Hardware correct.	Issue drawing deviation and S-DCN to correct the contact. Completed 9/17/92 by DCN S-20393-A.	None required. Covered by existing programs.
1-45W760-211-9 Revision 5	One contact in a schematic was shown as being from test switch 43MT(X) when it should have been 43MT(Y)	Design error that occurred prior to 1986; attention to detail error.	No impact. All the contacts in the Train A circuit were shown as 43MT(X). All the contacts in the Train B circuit on the same drawing were shown as 43MT(Y). The discrepancy was obvious. Hardware correct.	Issue drawing deviation and S-DCN to correct the contact. Completed 9/17/92 by DCN S-20393-A.	None required. Covered by existing programs.

ATTACHMENT TO ENCLOSURE 1

DRAWING CITED IN VIOLATION	DESCRIPTION OF DISCREPANCY	CAUSE OF ERROR AND TIMEFRAME	SIGNIFICANCE	CORRECTIVE ACTION	RECURRENCE CONTROL/EXTENT OF CONDITION
47B601-55-66 47B601-55-67 47B601-55-68 47B601-55-69 (Revision C)	Alarm engraving said "6900V SD BD 1A-A TRANSFER." Inspector pointed out a recommended enhancement for alarm engravings to state "6900 KV SD BD 1A-A ALT BKR CLOSED"	No error involved. Wording change was an enhancement.	No impact.	None required.	None required.
1-45W600-36 1-45W600-37 1-45W600-38 1-45W600-39 Revision 1	New annunciator matrix numbering scheme not reflected on some annunciator key diagrams.	Error made on DCN P-03000-A in November 1989. Designer failed to change all required drawings. This was a DCN scoping error.	No impact since the window matrix numbering scheme was correctly shown on the window engraving drawings. Interdrawing references by wire number were correct. Hardware correct.	Issue F-DCN to correct window numbers. Also, extent of condition review found one additional drawing with the same error. Completed 8/27/92 by DCN F-20155-A.	None required. Covered by existing programs.

ENCLOSURE 2
REPLY TO NRC'S OCTOBER 18, 1992 LETTER TO TVA
EQUIPMENT IDENTIFICATION FOR HANDSWITCHES AND FUSES

NRC's letter of October 18, 1992, which transmitted Inspection Report 390, 391/92-23 and Notice of Violation 390, 391/92-23-01 requested that TVA provide NRC with information concerning resolution of the equipment identification problem related to fuses and handswitches. As described in the Inspection Report, Section 3.b, the issue concerns inconsistencies in TVA's identification of fuses and handswitches using an alpha suffix train designator ("-A" or "-B") at the end of the unique identifier number (UNID). NRC noted examples of this type of inconsistency existed between preoperational test PTI 211-01, engineering schematics, and field tagging.

Response

TVA agrees that the alpha train designator is not always used on plant drawings, procedures, documents, and field tags. However, since use of this suffix is not necessary to uniquely identify plant components, the apparent "inconsistency" is not a problem. Use of the UNID assures that plant operations, maintenance, and testing personnel are working on the correct device.

Assignment of component identifiers for WBN is controlled by procedure number DNES 8.41 "Component Identification - Watts Bar Nuclear Plant." This procedure defines the format for a component's UNID. Paragraph 4.2.6 addresses the use of the suffix field for designating a component's division of separation. The procedure states that "...this field is not used to uniquely identify components." Component UNIDs are unique with or without the suffix for division of separation. The division of separation suffix may or may not be used on nametags, depending on the nametag's function and location, without affecting the uniqueness of the UNID. The same holds true for documents, procedures, test instructions, etc. Therefore, the inclusion or exclusion of "-A" or "-B" suffixes has no affect on the unique identification of a device. No corrective actions are required.