

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

5N 157B Lookout Place

JAN 21 1988

U.S. Nuclear Regulatory Commission
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Gentlemen:

In the Matter of)	Docket Nos. 50-327
Tennessee Valley Authority)	50-328

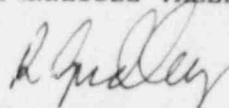
SEQUOYAH NUCLEAR PLANT (SQN) - NRC INSPECTION REPORT NOS. 50-327/87-66 AND
50-328/87-66 - SYSTEM ALIGNMENT INSPECTION - RESPONSE TO VIOLATIONS

Enclosed is our response to Kenneth P. Barr's December 21, 1987 letter to
S. A. White that transmitted a notice of two violations.

If you have any questions, please telephone M. R. Harding at 615/870-6422.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


R. Gridley, Director
Nuclear Licensing and
Regulatory Affairs

cc (Enclosure):

Mr. K. P. Barr, Acting Assistant Director
for Inspection Programs
TVA Projects Division
Office of Special Projects
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Mr. G. G. Zech, Assistant Director
for Projects
TVA Projects Division
Office of Special Projects
U.S. Nuclear Regulatory Commission
Mail Stop 7E23
7920 Norfolk Avenue
Bethesda, Maryland 20814

Sequoyah Resident Inspector
Sequoyah Nuclear Plant
2600 Igou Ferry Road
Soddy Daisy, Tennessee 37379

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PDR ADDCK 05000327
G PDR

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MRH:GBK:RHS:GC

cc: (Enclosure):

RIMS, MR 4N 72A-C (Ref: A02 8/1228 011)
H. L. Abercrombie, O&PS-4, Sequoyah
C. E. Ayers, LP 6N 25D-C
J. R. Bynum, LP 6N 38A-C
E. S. Christenbury, Ell B33 C-K
W. H. Hannum, BR 1N 77B-C
M. R. Harding, O&PS-4, Sequoyah
N. C. Kazanas, LP 4N 45A-C
J. A. Kirkebo, W12 A12 C-K
G. R. Mullee, BR 5S 168A-C
D. R. Nichols, BR 5S 100A-C
P. J. Polk, Bethesda Licensing Office
M. J. Ray, LP 5N 105B-C
G. L. Rogers, LP 6N 38A-C
S. J. Smith, POB-2, Sequoyah
D. L. Williams, W10 B85 C-K

ENCLOSURE
RESPONSE TO NRC INSPECTION REPORT NUMBERS
50-327/87-66 AND 50-328/87-66
KENNETH P. BARR'S LETTER TO S. A. WHITE
DATED DECEMBER 21, 1987

Violation 50-327, -328/87-66-01

"A. Technical Specification (TS) 6.8.1 requires that procedures recommended in Appendix 'A' of Regulatory Guide 1.33, Revision 2, be established, implemented, and maintained. This includes administrative procedures. The requirements of TS 6.8.1 are implemented by Administrative Instruction AI-2 titled 'Authorities and Responsibilities for Safe Operation and Shutdown', Administrative Instruction AI-4 titled 'Preparation, Review, Approval and Use of Plant Instructions', and Administrative Instruction AI-30, titled 'Nuclear Plant Method of Operation.' Operation Section Administrative Letter OSLA-58, titled 'Maintaining Cognizance of Operational Status - Configuration Control', implements the requirements of AI-2 and AI-30 for maintaining configuration control.

Contrary to the above, prior to October 30, 1987, the licensee failed to adequately establish, implement, and maintain procedures for configuration control as follows:

1. The licensee failed to adequately specify when configuration control should start in that OSLA-58 requires the unit's lead operator to maintain configuration control records only after the System Operating Instruction (SOI) checklists are completed, but not while the checklists are in progress.
2. The licensee failed to specify in AI-2 or OSLA-58 an appropriate method for deviating from SOI checklists in that deviations to SOI checklists were not considered as procedure changes. Because of this, the licensee did not use the appropriate criteria or approval level for processing deviations.
3. The licensee failed to adequately implement the requirements in AI-4 and OSLA-58 for the use of working copies of SOI checklists in that the completed working copy for SOI valve checklist 68.1A indicated the checklist was not properly performed while the final copy did not. AI-4 requires that information be transferred from the working copy to the final copy after the completion of work.
4. The licensee failed to implement the requirements in OSLA-58 for recording of deviations from SOI checklists in that the designated unit operator was not placing the date next to his initials when deviating an item on the status file copies of checklists as required by OSLA-58.
5. The licensee failed to implement the requirements in OSLA-58 for maintaining configuration control after SOI checklists are complete in that the documented positions in the configuration control system for the four Reactor Coolant Pump Seal Return Flow Control Valves, the Excess Letdown Heat Exchanger Supply Containment Isolation Valve, and the three Boron Injection Tank recirculation valves disagreed with the actual positions.

6. The licensee failed to implement the requirements in OSLA-58 for processing a revision to SOI checklist 63.1d in that the configuration log entries for RHR supply valves 2-FCV-74-1 and 2-FCV-74-2 were cleared when the checklist revision was received without reperforming the portion of the checklist that had been revised. This resulted in the documented positions in the configuration control system being in disagreement with the actual positions.

This is a Severity Level IV violation (Supplement I)."

Admission or Denial of The Violation

TVA admits the violation and all examples stated.

Reason For The Violation

An inadequate instruction letter (OSLA-58), coupled with a lack of management attention to the system alignment and configuration control program, was the cause of this violation.

Corrective Steps That Have Been Taken

Corrective actions taken with respect to this violation include the conversion of OSLA-58 to AI-58. This conversion included addressing the procedural problem areas identified in this violation. Additionally, AI-58 is reviewed and approved by PORC.

Management personnel were assigned to directly supervise the system alignment program, and training was given to all personnel involved in this program regarding the importance of following procedures. OSLA-107 was performed on all AI-58 Appendix A checklists before their performance.

Corrective Steps That Will Be Taken To Avoid Further Violations

The corrective actions taken with respect to this violation should be sufficient to prevent further violations of this nature.

Date When Full Compliance Will Be Achieved

All corrective actions referenced in this response have been completed.

Specific corrective actions for the examples of the violation are given below.

Example 1

"The licensee failed to adequately specify when configuration control should start in that OSLA-58 requires the unit's lead operator to maintain configuration control records only after the System Operating Instruction (SOI) checklists are completed, but not while the checklists are in progress."

Corrective Steps That Have Been Taken

OSLA-58 was converted to AI-58; AI-58, revision 1, section 3.2.f, specifically requires configuration control to be maintained throughout the performance of an SOI checklist. Additionally, involved permanent and temporary SQN Operations Group employees have received training on AI-58. This training was conducted before employees used the revised procedure.

Example 2

"The licensee failed to specify in AI-2 or OSLA-58 an appropriate method for deviating from SOI checklists in that deviations to SOI checklists were not considered as procedure changes. Because of this, the licensee did not use the appropriate criteria or approval level for processing deviations."

Corrective Steps That Have Been Taken

AI-58 addresses checklist deviations in section 3.5. The method of deviation meets technical specifications 6.8.3 and 6.5.1A.1a approval and implementation criteria. Deviations now receive the same level of review as a temporary procedure change. Involved Operations Group employees have been trained on the deviation process.

Example 3

"The licensee failed to adequately implement the requirements in AI-4 and OSLA-58 for the use of working copies of SOI checklists in that the completed working copy for SOI valve checklist 68.1A indicated the checklist was not properly performed while the final copy did not. AI-4 requires that information be transferred from the working copy to the final copy after the completion of work."

Corrective Steps That Have Been Taken

An assistant shift supervisor was assigned to directly supervise this activity, and involved employees were retrained on procedural compliance.

Example 4

"The licensee failed to implement the requirements in OSLA-58 for recording of deviations from SOI checklists in that the designated unit operator was not placing the date next to his initials when deviating an item on the status file copies of checklists as required by OSLA-58."

Corrective Steps That Have Been Taken

Employees involved were counselled on the importance of adhering to procedures. Additionally, new designated unit operators and a shift management member were selected to supervise system and valve alignment verification reperformance.

Example 5

"The licensee failed to implement the requirements in OSLA-58 for maintaining configuration control after SOI checklists are complete in that the documented positions in the configuration control system for the four Reactor Coolant Pump Seal Return Flow Control Valves, the Excess Letdown Heat Exchanger Supply Containment Isolation Valve, and the three Boron Injection Tank recirculation valves disagreed with the actual positions."

Corrective Steps That Have Been Taken

Management personnel were assigned to directly supervise the system alignment activities, and involved employees were retrained regarding the importance of following procedures. Additionally, the issuance of AI-58, which addresses the identified program deficiencies, should aid in preventing further violations of this nature.

Example 6

"The licensee failed to implement the requirements in OSLA-58 for processing a revision to SOI checklist 63.1d in that the configuration log entries for RHR supply valves 2-FCV-74-1 and 2-FCV-74-2 were cleared when the checklist revision was received without reperforming the portion of the checklist that had been revised. This resulted in the documented positions in the configuration control system being in disagreement with the actual positions."

Corrective Steps That Have Been Taken

Management personnel were assigned to directly supervise the system alignment activities, and involved employees were retrained regarding the importance of following procedures. Additionally, the issuance of AI-58, which addresses the identified program deficiencies, should aid in preventing further violations of this nature.

Violation 50-327, -328/87-66-02

"B. Technical Specification 6.8.1 requires that procedures recommended in Appendix 'A' of Regulatory Guide 1.33, Revision 2, be established, implemented, and maintained. Appendix A of Regulatory Guide 1.33 requires procedures for startup, operation, and shutdown of safety related PWR systems.

Contrary to the above, prior to October 30, 1987, the licensee failed to provide an adequate System Operating Instruction (SOI-63) for the Emergency Core Cooling System as follows:"

Violation 50-327, -328/87-66-02 (cont'd)

- "1. The licensee failed to provide for the initial positioning of all system 63 valves and blank flanges in that SOI-63 valve checklists do not specify or verify the positions of the root valves to RWST level transmitters 2-63-46, 2-63-49, 2-63-50, 2-63-51, 2-63-52, and 2-63-53; the root valve to pressure instrument 2-63-74; and the flanges downstream of valves 2-63-599 and 2-74-549.
2. The licensee failed to provide for the initial positioning of all system 63 electrical equipment in that SOI power availability checklist 63.1d does not specify the positions for the power supply breakers to control valves 2-HIC-74-16, 2-HIC-74-32, and 2-HIC-74-28.
3. The licensee failed to provide adequate instructions to ensure specified fuses were installed for system 63 electrical equipment in that the locations for the penetration and penetration control fuses for 2-FCV-63-7 on SOI power availability checklist 63.1A-8 were not adequately specified on the checklist or reference print.

This is a Severity Level IV violation (Supplement I)."

Admission or Denial of The Violation

TVA admits the violation and the three examples stated.

Reason For The Violation

Example 1 of this violation occurred because an OSLA-107, Appendix B validation of the SOI-63 checklist had not been completed before this inspection. Had this verification been done, the referenced discrepancies should have been identified.

With respect to the refueling water storage tank (RWST) level transmitters, it should be mentioned that Surveillance Instruction (SI) 98.5, and Instrument Maintenance Instruction 63, double verifies their root valve position when placing them in service. Additionally, SI-2 requires RWST levels to be checked on every shift in all modes.

Extensive modifications were performed on the plant before valve alignment. This effort caused the plant to lead or lag the prints and procedures in some cases. The OSLA-107 process was designed to identify and correct these discrepancies.

Example 2 occurred because the OSLA-107 validation had not been completed for the SOI-63 checklist. Historically, employees have assumed that a breaker being listed on a power availability checklist indicated that it was to be closed unless otherwise specified.

Example 3 occurred because there was major modifications work done to install the fuses referenced in the example. Although Operations reviewed the workplans, they did not review the many field change requests (FCRs) written against the workplans. This resulted in these fuses not being adequately specified on the checklist or referenced print.

Corrective Steps That Have Been Taken

OSLA-107 has been performed on all AI-58, Appendix A, checklists before their performance. This process provided an initial verification of the checklists and was also continued during the system lineups.

In order to prevent plant modifications from adversely affecting the SOI checklists, the procedures revision project reviews all workplans and associated FCRs for their effect on the SOIs. Modifications Branch ensures that all workplans have a signoff block for the operations procedure revision project and for drawing update.

Corrective Steps That Will Be Taken To Avoid Further Violations

The OSLA-107 process is ongoing and will continue to aid in documenting the identification and resolution of SOI discrepancies.

Additionally, a phase 2 procedures enhancement program is to be implemented to ensure human factors, consistency, and clarity in all SOIs.

Date When Full Compliance Will Be Achieved

The procedure enhancement program will be implemented in a timely manner as specified in the Nuclear Performance Plan.

All other corrective actions referenced in this response have been completed.

NRC expressed concern that TVA would initiate and carry out programs as important as the system alignment program without having previously addressed the problem areas identified by this inspection report. Because of management inattention to the system alignment program, OSLA-107 walkdowns were not completed. The purpose of OSLA-107 is to provide a method for technical evaluation and verification of SOIs. This instruction provides for a tabletop technical verification (Appendix A) of the instruction and a physical walkdown verification (Appendix B) of checklists, which includes a comparison of verification to latest "as constructed" drawings, and a review by an accredited unit operator to ensure checklist accuracy. Had the OSLA-107 walkdowns been completed, the deficiencies identified by this inspection should have been detected.