

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

May 28, 1981

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Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II - Suite 3100
101 Marietta Street
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2 - NRC-OIE REGION II INSPECTION REPORT
50-390/81-05, 50-391/81-05 - RESPONSE TO 390,391/81-05-01, 390,391/81-05-02
AND 390,391/81-05-03 - RESPONSE TO VIOLATIONS

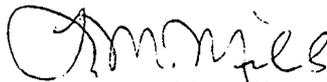
The subject inspection report dated April 29, 1981 cited TVA with one
Severity Level IV Violation and two Severity Level V Violations in
accordance with 10 CFR 2.201. Enclosed is our response to these
violations. We expect to provide further information concerning violation
390/81-05-02, 391/05-02 on or about September 30, 1981.

If you have any questions, please get in touch with D. L. Lambert at
FTS 857-2581.

To the best of my knowledge, I declare the statements contained herein are
complete and true.

Very truly yours,

TENNESSEE VALLEY AUTHORITY



L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure

cc: Mr. Victor Stello, Director (Enclosure)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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ENCLOSURE
WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
RESPONSE TO VIOLATIONS

Violation 50-390/81-05-01, 50-391/81-05-01

10CFR50.55, paragraph (e), Conditions of Construction Permits, requires the holder of a construction permit to notify the Commission within 24 hours and submit a written report within 30 days on each reportable deficiency found in design and construction, which, were it to have remained uncorrected, could have affected adversely the safety of operations of the nuclear power plant at any time throughout the expected lifetime of the plant and which represents . . . a significant breakdown in any portion of the quality assurance program conducted in accordance with the requirements of Appendix B.

Contrary to the above, significant deficiency No. 1 identified in site QA Audit No. WB-G-80-02 concerning the site not having procedures to document the field fabrication and installation of safety-related HVAC assemblies was improperly evaluated, and inappropriately determined not reportable by TVA on January 31, 1980, in that a major portion of this safety-related work had already been installed by that date without a QA program being in place to control the work.

TVA reevaluated the subject deficiency approximately one year later and notified RII that this item was reportable on February 4, 1981, along with another similar site audit deficiency found in Audit No. WB-G-81-03.

This is a Severity Level V Violation (Supplement II.E).

Admission or Denial of Alleged Violation

TVA admits the violation occurred as stated.

Reason for the Violation

TVA evaluated the deficiency identified as required under 10CFR50.55(e) upon receipt of the significant audit finding and determined that there was a breakdown in QA procedures covering fabrication and installation of safety-related HVAC ducting. The statement quoted from the TVA determination of reportability information worksheet has been misinterpreted by NRC; the single item referred to is the fabrication and installation procedure for EGTS ductwork that would also be applicable to all other safety-related ductwork. TVA's evaluation did consider the lack of a single procedure for all safety-related HVAC ductwork and, at the time, it was considered not to be a significant breakdown in the QA program that could adversely affect plant safety (no deficiencies had been identified in the as-installed HVAC ducts). TVA acknowledges that what constitutes a significant breakdown in the QA program under 10CFR50.55(e) is subject to interpretation, and in retrospect, believes that this item should have been deemed a significant breakdown in the QA program.

Clearly, there was no intent on TVA's part to circumvent 10CFR50.55(e) reporting requirements. The matter was adequately discussed with NRC-OIE at the time (four separate discussions in late January and early February 1980) and a good faith effort to investigate the matter was used as a basis for the original determination. We believe the violation resulted because information was not available at the time or was not considered to have the significance shown by later events.

Corrective Steps Taken and Results Achieved

TVA reevaluated WB-G-80-02 in early February 1981 after the identification of further audit deficiencies and nonconformances in the area of the HVAC QA. TVA concluded that the HVAC QA breakdown could have led to inadequate construction of the ducts resulting in a potential degradation to plant safety. TVA, therefore determined it reportable under 10CFR50.55(e) and confirmed this in a telephone call to NRC-OIE Region II on February 4, 1981.

Corrective Steps Taken to Avoid Further Noncompliance

TVA management responsible for reportability determinations under 10CFR50.55(e) has reviewed the circumstances involving this matter and have discussed the implications involved. Since the deficiency was reevaluated and determined reportable before the inspection finding, no additional corrective action is required.

Date of Full Compliance

TVA was in full compliance on February 4, 1981.

Violation 50-390/81-05-02, 50-391/81-05-02

10CFR50, Appendix B, Criterion II and the accepted QA program described in the FSAR Section 17.1A.2.2 requires the applicant to establish a quality assurance program at the earliest practicable time, consistent with the schedule for accomplishing the activities and that the program shall be documented by written procedures which provide control measures for activities related to quality which were prepared and made available before the scheduled performance of the activities.

Contrary to the above, ductwork and piping for safety-related HVAC systems and portions of other HVAC systems described in TVA's General Design Criteria WB-DC-40-36.1 and Construction Specification No. N3G-881 received no quality assurance program in the areas of procurement, identification and control of material, fabrication, installation, inspection, testing, and the documentation of such activities for all work accomplished before July 2, 1980.

This is a Severity Level IV Violation (Supplement II.D.1):

Admission or Denial of Alleged Violation

TVA admits the violation occurred as stated.

Interim Progress

The lack of an effective QA program for safety-related HVAC systems, before July 1980, is currently under general review and is being addressed in our response to the NRC Confirmation of Action Letter (COAL) dated February 10, 1981. In addition, the following 50.55(e) items identify the principal deficiencies currently understood to have led to the subject violation.

Audits:

WB-G-80-02	Deficiency No. 1
WB-M-81-03	Deficiency No. 1
WB-G-81-06	Deficiency No. 2
WB-G-80-06	Deficiency No. 3
WB-G-81-06	Deficiency No. 16

Nonconformance Reports:

WBNNEB8107 R1
2929 R1
2938 R3
3181 R1

When the safety implications and corrective action associated with the COAL in general and the above deficiencies in particular have been fully assessed, TVA will prepare a final report on the subject violation. We anticipate that a final report will be prepared by September 30, 1981.

Violation 50-390/81-05-03, 50-391/81-05-03

10CFR50, Appendix B, Criterion V, as implemented by FSAR Section 17.1A.5, requires that activities affecting quality be accomplished in accordance with documented procedures. QA Procedures 3.5, Revision 11, and 3.3, Revision 10, are the instructions used for the installation and inspection of safety-related cables and exposed rigid conduit.

On March 19, 1981, activities affecting quality were not accomplished in accordance with documented procedures as follows:

1. QCP-3.5 requires that electrical cables be installed in raceways as detailed on pull slips and as designated in the procedure.

Contrary to the above, cable number 0-3V-31-2147-A was routed through conduit OVC963A and not conduit OVC964A as required by the cable pull slip.

2. QCP-3.3 requires that all rigid and flexible conduit, boxes, fittings and accessories be installed in accordance with approved drawings issued by EN DES and Construction Specification G-40.

Contrary to the above, conduit No. 2VC1123B was incorrectly identified as 2VC1124B and was not in accordance with EN DES conduit and grounding drawing No. 45N820-4.

This is a Severity Level V Violation (Supplement II.E).

Admission or Denial of the Alleged Violation

TVA admits the violation occurred as stated.

Reasons for the Violation

1. Cable 0-3V-31-2147 was incorrectly routed during installation. This incorrect routing was not detected by electrical inspectors. This constitutes a failure to follow procedure WBNP-QCP-3.5, Installation, Inspection, and Testing of Insulated Control, Signal, and Power Cables. The misrouting of cable 0-3V-31-2147-A was caused by a typographical error which labeled the cable as 0-3V-21-2147-A. Both the misrouting and incorrect label appear to be isolated occurrences.
2. Conduit was incorrectly identified. This conduit was correctly installed per drawing 45N820-4. The reason for the incorrect labeling is unknown. This constitutes a failure to follow procedure WBNP-QCP-3.3, Installation, Inspection, and Documentation of Exposed Rigid and Flexible Conduit.

Corrective Steps Taken and Results Achieved

1. Cable 0-3V-31-2147-A has been removed and reinstalled in the correct conduit. This was accomplished in accordance with Watts Bar Procedure WBNP-QCP-3.5 R11. Also, this cable has been reinspected.
2. Conduit No. 2VC1123B has been relabeled to comply with design drawings and Construction Specification G-40.

Corrective Steps Taken to Avoid Further Noncompliance

To prevent recurrence, electrical inspectors were reinstructed in the requirements for the inspection of cable routing and conduit identification on April 21, 1981.

Date of Full Compliance

TVA was in full compliance on May 11, 1981.