

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
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MAR 30 1988

WBRD-50-390/87-16
WBRD-50-391/87-17

10 CFR 50.55(e)

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

Gentlemen:

In the Matter of the Application of)
Tennessee Valley Authority)

Docket Nos. 50-390
50-391

WATTS BAR NUCLEAR PLANT (WBN) UNITS 1 AND 2 - FAILURE TO ADEQUATELY CONTROL
AND DOCUMENT INSTRUMENT ACCURACY REQUIREMENTS - WBRD-50-390/87-16 AND
WBRD-50-391/87-17 - SECOND INTERIM REPORT

The subject deficiency was initially reported to NRC Region II Inspector
Gordon Hunegs on June 26, 1987, in accordance with 10 CFR 50.55(e) as SCR
WBN EQP 8621. Our first interim report was submitted on July 27, 1987.
Enclosed is our second interim report. We expect to submit our next report
on or about March 21, 1989.

If there are any questions, please telephone C. J. Riedl at (615) 365-8527.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


R. Gridley, Director
Nuclear Licensing and
Regulatory Affairs

Enclosure
cc: See page 2

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U.S. Nuclear Regulatory Commission

MAR 30 1988

cc (Enclosure):

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ENCLOSURE

WATTS BAR NUCLEAR PLANT UNITS 1 AND 2
FAILURE TO PROPERLY CONTROL AND DOCUMENT INSTRUMENT
ACCURACY REQUIREMENTS
WBRD-50-390/87-16 AND WBRD-50-391/87-17
SCR WBN EQP 8621
10 CFR 50.55(e)

SECOND INTERIM REPORT

Description of Deficiency

During the performance of environmental qualification evaluations, TVA determined that the "Westinghouse Setpoint Methodology For Protection Systems Watts Bar 1 and 2, Revision 2" and Westinghouse's "Functional Requirements, Post Accident Monitoring System, Revision 1" may not accurately document TVA's design basis and licensing commitments. Since instrument accuracy requirements obtained from these documents were used to establish environmental qualification of certain safety-related electrical equipment, the qualification of that equipment is in question.

The documents were provided to TVA by Westinghouse Electric Corporation, Pittsburgh, Pennsylvania, under the Nuclear Steam Supply System (NSSS) contract. The documents were reviewed and accepted by TVA. At the time of issue of the Setpoint Methodology Document, it was accurate with respect to Watts Bar's design and licensing basis. Although some plant changes (e.g., replacement of containment pressure transmitters) were incorporated into the Setpoint Methodology Document, TVA has not assured that all plant changes were evaluated for impact on the Setpoint Methodology Document.

The Functional Requirements Document is considered to be accurate with respect to the design requirements and licensing commitments which were applicable to the original Watts Bar Post Accident Monitoring (PAM) System design. However, TVA has made subsequent design and commitment changes which were not evaluated for impact on the Functional Requirements Document. For example, TVA's PAM System design requires certain instruments to function during some events for which the Westinghouse functional requirements do not require that instrumentation.

This condition was caused by inadequate change control procedures which did not require vendor documents to be revised unless the vendor documents were needed for construction or were referenced by TVA documents.

Safety Implications

The scope of this deficiency potentially includes all NSSS instrumentation used in the Reactor Protection System (RPS), Engineered Safety Features Actuation System (ESFAS), and PAM System. Any identified discrepancies in either the Setpoint Methodology Document or the Functional Requirement Document will be evaluated for safety implications.

Interim Progress

TVA is contracting with Westinghouse to review the Setpoint Methodology Document to verify that all bases and assumptions are consistent with current plant configuration. TVA will review and verify instrument input data which was previously supplied to Westinghouse and is included in the Setpoint Methodology Document. Any discrepancies will be identified and the documents will be revised as necessary.

The Functional Requirements Document will then be reviewed by TVA to identify any design and commitment changes which have been made by TVA which were not evaluated for impact on the Functional Requirements Document. Any identified changes will be provided to Westinghouse for revision of this document.

Other vendor-supplied documents will be reviewed, as committed in our response to violation 390, 391/87-05-01 which was submitted to NRC on January 15, 1988.

The Watts Bar Engineering Project procedures for Engineering Change Notices, Engineering Change Notice Modification Packages, and Design Change Notices have been revised. These procedures now ensure that vendor supplied information for safety-related components that are uniquely identified by engineering and affected by a TVA design change is identified and reviewed for engineering requirements. Affected vendor documents (or portions thereof) which contain engineering requirements must be revised and approved, or the engineering requirements must be incorporated into approved design input and design output documents. Implementation of these actions will prevent recurrence of this deficiency.

Any identified discrepancies in either the Setpoint Methodology Document or the Functional Requirement Document will be evaluated for safety implications, and appropriate corrective actions will be taken. A report describing the results of the evaluation, along with a schedule for completion of corrective actions, will be provided on or about March 21, 1989.