TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

September 5, 1984

Director of Nuclear Reactor Regulation
Attention: Ms. E. Adensam, Chief
Licensing Branch No. 4
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Ms. Adensam:

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

An NRC audit of the Watts Bar Nuclear Plant (WBN) electrical equipment qualification files was conducted on February 14-16, 1984. The audit concluded with several findings both generic and component specific being identified and requiring resolution.

A generic finding on the issue of instrument accuracy was identified by NRC auditors with TVA being requested to describe the methods employed in determining acceptability of the WBN instrument accuracies with respect to demonstrated instrument accuracies.

TVA's approach for determining accuracy acceptability for the balance-of-plant (BOP) instrumentation was presented and deemed acceptable by NRC at the time of the audit. TVA subsequently documented the information conveyed to the NRC auditors on this matter by letter dated March 20, 1984.

For the nuclear steam supply system (NSSS) equipment, TVA, at the time of the audit, informed the NRC auditors that Westinghouse Electric Corporation (W) notified TVA in cases where the generic accuracy was not applicable for Watts Bar application. NRC indicated that TVA/W should document that the demonstrated accuracies are applicable for the Watts Bar NSSS instrumentation. TVA, by letters dated March 20, May 22, and June 11, 1984 indicated that W was generating a statistical setpoint study for the NSSS equipment which would include plant-specific accuracies. A comparison of the demonstrated versus plant-specific accuracies would then be made.

The W study has now been issued. For the NSSS protection equipment in the study, inaccuracies caused by accident environmental effects were combined with normal instrument channel inaccuracies by Westinghouse's setpoint methodology for protection systems. The resultant total channel inaccuracies were compared against the Watts Bar safety analyses limits and plant trip/actuation setpoints to confirm that adequate margin exists between the setpoints and safety limits. The assumed environmental errors used in the setpoint study will be compared against accuracies recorded in the equipment test reports by October 1, 1984, to ensure that demonstrated accuracies are acceptable.

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For NSSS postaccident monitoring (PAM) equipment, the total instrument channel inaccuracies are calculated by combining the same normal channel inaccuracies with the inaccuracies introduced by environmental conditions from the test reports. These total indicated accuracies will be verified to be within the accuracy requirements which have been established for PAM channels as described in FSAR table 7.5-1 by September 10, 1984.

Please note that the previously referenced letters of May 22 and June 11, 1984 mistakenly indicated that the W setpoint methodology study would be submitted to NRC. TVA's commitment with respect to the environmental qualification issue related to the W study should have been consistent with TVA commitments identified in the WBN Safety Evaluation Report (SER) (NUREG-0847) Section 7.1.3.1 (confirmatory item 21) which states that a summary of the data used in the setpoint analysis would be provided. TVA has provided this summary data for both the BOP and NSSS equipment by letters dated April 25, 1983 and September 4, 1984 respectively.

If you have any questions concerning this matter, please get in touch with D. B. Ellis at FTS 858-2681.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Licensing

Sworn to and subscribed before me
this 5th day of Sept 1984

Bryant M. Lowery
Notary Public
My Commission Expires 4/8/86

cc: U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323