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October 1, 1985

Tennessee Valley Authority
ATTN: Mr. H. G. Parris
Manager of Power and
Engineering (Nuclear)
6N11 B Missionary Ridge Place
1101 Market Street
Chattanooga, TN 37402-2801

Gentlemen:

SUBJECT: REACTOR PROTECTION SYSTEM P-10 PERMISSIVE BISTABLE TRIP SETPOINT
AND RESET VALUES

Your letter dated July 3, 1985, addressed inspection team findings identified in Inspection Report 50-390/85-32 regarding P-10 permissive bistable setpoint and reset values. We understand that the Tennessee Valley Authority will set the P-10 permissive bistable trip setpoint within the allowable band specified in the Technical Specifications. The reset value for the P-10 permissive bistable will continue to be set in accordance with vendor recommendations. Based upon discussions with Tom Dunning of NRR, we consider that your actions meet the intent of the Technical Specifications. Additional concerns relating to the basis of the allowable values given in Table 2.2-1 of the Technical Specifications for Power Range Neutron Flux P-10 will be pursued with NRR.

Regarding your evaluation of the inspection team's concerns, you state, "It is interesting to note that the inspection team focused on the P-10 reset value without addressing the reset values for other permissives. It is the P-6 reset value that automatically energizes the source range detectors." The inspection team was fully aware of the functions of the Westinghouse reactor protection system permissives. Our inspection report clearly directed your attention to those safety-related functions of the P-10 permissive bistable reset identified in Table 7.2-2 of the FSAR and in the bases for the limiting safety system settings in the Technical Specifications. Our concern regarding the source range detector interlock portion of the P-10 permissive logic was minor.

We note that your evaluation focused on the source range detector interlock function of the P-10 permissive and not on the more significant safety-related concerns of the inspection team regarding the automatic reinstatement of the intermediate range and power range low setpoint reactor trips which occur at the P-10 permissive bistable reset value. A complete evaluation would have identified that the power range low setpoint reactor trip provides primary protection for the rod ejection accident and the startup accident according to the Chapter 15 FSAR accident analysis. This fact lends merit to the inspection team's concerns.

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We consider this item to be closed. If you have any questions, please contact C.A. Julian at FTS 242-5541.

Sincerely,

Original Signed by
Roger D. Walker

Roger D. Walker, Director
Division of Reactor Projects

Enclosure:
Letter from J.W. Hufham to
J.N. Grace, dated July 3, 1985

- cc w/encl:
- ✓ E. R. Ennis, Acting Site Director
- ✓ K. W. Whitt, Chief, Nuclear Safety Staff
- ✓ R. Pierce, Watts Bar Nuclear Plant Project Manager
- ✓ D. L. Williams, Jr., Supervisor Licensing Section
- ✓ A. M. Kamal, Nuclear Engineer
- ✓ G. Wadewitz, Construction Project Manager
- ✓ M. J. Burzynski, Regulatory and Engineering Section

- bcc w/encl:
- ✓ M. J. Virgilio, NRR
- C. A. Julian, RII
- ✓ NRC Resident Inspector Document Control Desk State of Tennessee

RII
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DFalconer
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~~ENCLOSURE~~
TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
1630 Chestnut Street Tower II

July 3, 1985

U.S. Nuclear Regulatory Commission

Region II

**Attn: Dr. J. Nelson Grace, Regional Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323**

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Dear Dr. Grace:

WATTS BAR NUCLEAR PLANT - REACTOR PROTECTION SYSTEM P-10 TRIP SETPOINT AND RESET VALUE

In the NRC inspection report number 50-390/85-32 item k(2), the NRC Region II inspection team that reviewed Watts Bar surveillance instructions identified a possible discrepancy in the data package for SI-3.1.4 regarding the P-10 setpoint and reset value. This issue was also discussed at a recent meeting at the NRC Region II office. The Region II inspection team position was that both the trip setpoint and the reset value should fall within the allowable band specified in the technical specifications. TVA initially agreed that the two values would be adjusted to fall within the allowable band. TVA has since re-evaluated its position and now believes that only the trip setpoint need fall within the allowable band specified in the technical specifications.

The inspection team's concern stemmed from the fact that P-10 performs two different functions. On increasing power, P-10 enables the manual block of the intermediate range and power range low setpoint reactor trips and automatically enables the at-power reactor trips. On decreasing power, P-10 automatically disables the at-power trips, automatically enables the intermediate range and power range low setpoint reactor trips, and enables part of the logic to automatically reinstate the source range detectors. The source range detectors automatically energize below the P-6 setpoint. The inspection team placed importance on the P-10 reset value because it must change states to enable the source range automatic energization.

TVA has re-evaluated the inspection team's concern and believes it is without merit. P-10 does not, by itself, reinstate the source range monitors. The tolerance recommended by the inspection team for the P-10 reset value is unnecessary because further power reductions to below the P-6 setpoint are required to energize the source range detectors. It is interesting that the inspection team focused on the P-10 reset value without addressing the reset values for other permissives. It is the P-6 reset value that automatically energizes the source range detectors.

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U.S. Nuclear Regulatory Commission

July 3, 1985

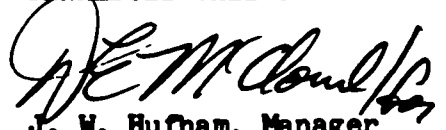
TVA discussed the issue of reset values in the technical specifications with NRC-NRR (Tom Dunning) by telephone on May 10, 1985. The NRC-NRR position on this issue was that the allowable band in the technical specifications applies to the bistable trip setpoint only. The reset value should be set in accordance with the vendor recommendations contained in the precautions, limitations, and setpoints document.

In summary, TVA has re-evaluated the NRC inspection team's concern regarding the trip setpoint and reset value for the P-10 permissive bistable and believes that it is without merit. TVA has discussed this issue with NRC-NRR and they concur with TVA's position. TVA will set the P-10 permissive trip setpoint and maintain it within the allowable band specified in the technical specifications. The reset value for the P-10 permissive bistable will be set in accordance with vendor recommendations.

If you have any questions, please get in touch with R. H. Shell at FTS 858-2688.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


J. W. Hufham, Manager
Licensing and Regulations

cc: Mr. James Taylor, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555