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

April 20, 1983

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 No. 50-390
Tennessee Valley Authority) 50-391

By letter dated June 9, 1982 from R. L. Tedesco to H. G. Parris, TVA was requested to provide additional information concerning the Watts Bar Nuclear Plant Initial Test Program. TVA responses to each of the NRC concerns, except the Condensate Storage Tank (CST), were provided by L. M. Mills' letter to you dated March 28, 1983. Enclosed is the result of the TVA evaluation which justifies not including the CST auxiliaries in the initial test program.

If you have any questions concerning the Watts Bar electrical equipment qualification program, please get in touch with D. P. Ormsby at FTS 858-2682.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

D S Kammer

D. S. Kammer
Nuclear Engineer

Sworn to and subscribed before me
this 20th day of April 1983

Paulette H. White
Notary Public
My Commission Expires 9-5-84

Enclosure
cc: U.S. Nuclear Regulatory Commission
Region II
Attn: Mr. James P. O'Reilly Administrator
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

B001

ENCLOSURE

WATTS BAR NUCLEAR UNITS 1 AND 2
CONDENSATE STORAGE TANK AUXILIARIES

The preferred sources of water for all auxiliary feedwater pumps are two 397,700 gallon condensate storage tanks. A minimum of 200,000 gallons in each tank is reserved for the Auxiliary Feedwater (AFW) Systems by means of a side connection in the tank through which other systems are supplied. As an unlimited backup water supply, a separate Essential Raw Cooling Water (ERCW) System header feeds each motor-driven pump. The turbine-driven pump can receive backup water from either ERCW header. The ERCW supply is automatically (or remote-manually) initiated on a two-out-of-three low pressure signal in the AFW system suction lines. Since the ERCW system supplies poor quality water, it is not used except in emergencies when the condensate supply is unavailable.

Except for the condensate storage tank (CST), connecting piping and associated auxiliary equipment, the AFW and ERCW systems are engineered safety-featured (ESF) systems. Although the water supply from the CSTs is preferred for the AFW system, it does not have to meet the ESF system criteria. In the event of loss of condensate feedwater supply to the AFW system the ERCW system automatically (or manually) will provide feedwater supply. Although maintenance of a supply of auxiliary feedwater is a required safety function, the ERCW system is that ESF system which ensures that this safety-related supply of water is provided. The CST and associated auxiliary equipment are not relied on, nor are they taken credit for in the plant safety analysis, to perform this safety-related function. Consequently, it is not necessary or appropriate for it to be included in the preoperational test program.

The initial test program does include the preoperational testing of the AFW and ERCW systems. The preop testing prerequisites for the AFW system test requires that the CSTs be completed, cleaned, inspected, and filled with a suitable amount of main feedwater quality water meeting specified chemical requirements and water temperature requirements. The noncritical systems (NCS) testing of the condensate storage and transfer facility ensures that these systems are functional.