

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

December 10, 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

By letter dated August 23, 1984 from T. M. Novak to H. G. Parris, the NRC provided TVA with the results of their evaluation of TVA's submittal of June 7, 1984 concerning compliance with GDC 51 at Watts Bar Nuclear Plant. The subject letter stated that ". . . it is the staff's conclusion that the wedges of main feedwater isolation valve (MFIV) S/N D66459 and MFIV D66291 remain unacceptable, given the + 40°F lowest service metal temperature identified (by TVA) . . . ." It is our understanding that the NRC believes the permissible lowest service metal temperature (PLSMT) for the subject wedges is +65°F. As specified below, TVA believes this condition will be met.

Experience at Sequoyah has demonstrated that secondary side cleanup begins several days before primary side heatup starts. It typically is the critical path for escalation to full power operation. This is the case because of the stringent chemistry control required to minimize steam generator corrosion. Secondary system cleanup begins with the establishment of condenser vacuum. The condenser pressure is typically 1 psia. The saturation temperature for this pressure is approximately 100°F. Cleanup progressively includes more and more of the condensate and feedwater systems. Long cycle operation pumps water from the condenser all the way out to the MFIV and back. This necessarily keeps the MFIVs at a temperature of 100°F. Long cycle operation is maintained throughout the heatup phase of plant operation for chemistry cleanup and control. TVA expects that operation of Watts Bar will be identical to Sequoyah.

In addition, technical specification 3.7.13 requires that the temperature in the rooms where the MFIVs are located be above 80°F whenever the valves are required to be operable.

Although TVA believes that + 40°F is an acceptable LSMT, expected system operation and technical specification requirements will ensure that the fluid temperature at the valve and the ambient air temperature around the valves will always be above 70°F whenever the valves are required to be operable. This temperature exceeds the PLSMT specified by the NRC. This information should resolve the remaining NRC concerns related to Watts Bar Nuclear Plant compliance with GDC 51.

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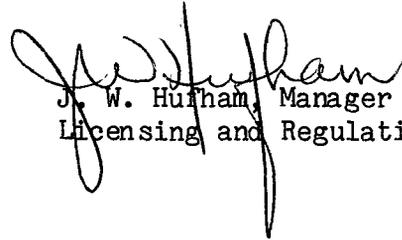
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If you have any questions concerning this matter, please get in touch with  
D. P. Ormsby at FTS 858-2682.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

  
J. W. Hufham, Manager  
Licensing and Regulations

Sworn to and subscribed before me  
this 10<sup>th</sup> day of Dec. 1984

Paulette H. White  
Notary Public  
My Commission Expires 8-24-88

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