



Tennessee Valley Authority, Post Office Box 2000, Spring City, Tennessee 37381

JUN 05 1998

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

Gentlemen:

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

WATTS BAR NUCLEAR PLANT (WBN) - WATTS BAR NUCLEAR PLANT (WBN) -  
TECHNICAL SPECIFICATION (TS) CHANGE NO. 98-002 - CHANGES TO NEW  
FUEL VAULT STORAGE REQUIREMENTS FOR INCREASED FUEL ENRICHMENT

The purpose of this submittal is to provide NRC additional information concerning the control of the restricted new fuel vault cells described in the subject amendment request dated May 6, 1998. As a result of initial NRC review, it was verbally requested that information pertaining to TVA's method for the control of the restricted cells of the new fuel vault be provided. Enclosure 1 provides this information. Enclosure 2 provides the list of commitments.

If you have any further questions, please contact me at (423) 365-1824.

Sincerely,

*Rebecca M Mays*

*for* P. L. Pace  
Manager  
Site Licensing and Industry Affairs

Enclosure  
cc: See page 2

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U.S. Nuclear Regulatory Commission

Page 2

JUN 05 1998

cc (Enclosures):

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ENCLOSURE 1  
TS CHANGE 98-002  
CHANGES TO NEW FUEL VAULT STORAGE REQUIREMENTS

BACKGROUND

On May 6, 1998, TVA submitted the subject amendment requesting changes to the new fuel vault storage requirements to allow fuel enrichments up to 5.0 weight percent (wt%) U-235. The analysis that supports these changes requires that certain cells in the new fuel vault remain empty. As a result of NRC's initial review of this proposed amendment, NRC requested that TVA provide its method of controlling these restricted cells.

PROVIDED INFORMATION

The following plant procedures will be revised to implement the subject amendment:

Surveillance Instruction (SI) 0-SI-79-1, "Verifications Of Fuel Storage Configurations," administratively controls the storage of nuclear fuel. The restrictions for fuel stored in both the Spent Fuel Pool and the New Fuel Vault are currently defined in this procedure. The procedure requires a verification of the enrichment and ensures a suitable storage location is assigned. This SI is initiated during the development of the Fuel Assembly Transfer Forms. This procedure will be revised to restrict the storage and location of up to 120 fuel assemblies above 4.3 wt%; currently, only fuel below 4.3 wt% may be stored in any of the 130 storage locations in the New Fuel Vault.

Plant Administrative Instruction (PAI)-7.08, "Storage Of Material In The Spent Fuel Pool, Cask Pit, and New Fuel Vault," describes restrictions imposed on various components stored in the Spent Fuel Pool, Cask Pit, and New Fuel Vault. This procedure will be revised to require an insert holder plate in each of the restricted cells, when fuel assemblies above 4.3 wt% are to be received, and to require that these plates remain in place, during fuel handling operations, as a reminder to the fuel handling people that the cells are restricted

The holder plates are a square "inverted top hat" type design and are made from AISI 304 stainless steel which are compatible with the conditions seen by these plates. The "top hat rim" (i.e., top support plate) is approximately 13 inches square and sits on and overlaps the fuel storage cell. The "top hat inside" plate (i.e., the insert holder plate) is approximately 8.6 inches square and is suspended approximately 3 inches down inside of the fuel storage cell. The insert holder plate is configured like the top of a fuel assembly and has 24 holes to accommodate one of the fuel inserts such as a burnable poison hub.

ENCLOSURE 1  
TS CHANGE 98-002  
CHANGES TO NEW FUEL VAULT STORAGE REQUIREMENTS

LIST OF COMMITMENTS

1. Surveillance Instruction (SI) 0-SI-79-1, "Verifications Of Fuel Storage Configurations," will be revised to restrict the storage and location of up to 120 fuel assemblies above 4.3 wt%.
2. Plant Administrative Instruction (PAI)-7.08, "Storage Of Material In The Spent Fuel Pool, Cask Pit, and New Fuel Vault," will be revised to require an insert holder plate in each of the restricted cells, when fuel assemblies above 4.3 wt% are to be received, and to require that these plates remain in place, during fuel handling operations, as a reminder to the fuel handling people that the cells are restricted.