



Tennessee Valley Authority, Post Office Box 2000, Decatur, Alabama 35609-2000

R. D. (Rick) Machon
Vice President, Browns Ferry Nuclear Plant

March 22, 1995

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

10 CFR 50.54(f)

Gentlemen:

In the Matter of)
Tennessee Valley Authority)

Docket Nos. 50-259
50-260
50-296

BROWNS FERRY NUCLEAR PLANT (BFN) - REQUEST FOR ADDITIONAL (RAI) INFORMATION REGARDING GENERIC LETTER (GL) 92-08, "THERMO-LAG 330-1 FIRE BARRIERS" (TAC NOS. M85523, M85524, M85525)

The purpose of this letter is to provide TVA's reply to the subject December 22, 1994, RAI regarding the measures TVA is taking to ensure the Thermo-Lag material used at BFN conforms to NRC regulations. Additionally, this letter provides a revised schedule for replacing an existing fire barrier that currently uses Thermo-Lag to satisfy compliance with 10 CFR 50, Appendix R.

TVA currently has Thermo-Lag installed in the BFN Intake Pumping Station to provide a one-hour fire barrier for one division of Residual Heat Removal Service Water cables. (TVA has maintained a compensatory fire watch for this barrier since August 31, 1992, when TVA first identified potential inadequacies with Thermo-Lag.) By letter dated March 10, 1994, TVA informed NRC that it intended to modify this barrier (using existing Thermo-Lag material) to bring it into compliance with Appendix R. However, in light of issues raised with the qualification and acceptance of previously installed Thermo-Lag, TVA has elected to remove the Thermo-Lag material currently installed in the Intake Pumping Station. TVA plans to replace this Thermo-Lag material with new material obtained from Watts Bar Nuclear Plant (WBN). The new material and installation configurations will be qualified by TVA's Thermo-Lag qualification test program.

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(Specific information associated with TVA's Thermo-Lag qualification test program is being provided by the WBN response to this RAI.) The replacement Thermo-Lag 330-1 material will be accepted by TVA's quality assurance (QA) program. For the Intake Pumping Station, TVA expects to complete removal of the existing Thermo-Lag material and installation of the new qualified Thermo-Lag material prior to performing reactor pressure vessel hydrostatic testing for Unit 3 restart (approximately one month prior to initial criticality).

In addition to the Thermo-Lag material installed in the Intake Pumping Station, TVA has other Thermo-Lag material installed at BFN. This material was abandoned-in-place as a result of rerouting cables so that the Thermo-Lag no longer serves an Appendix R function. For the abandoned-in-place Thermo-Lag installations, TVA plans to remove the Thermo-Lag material if it is accessible and removal is cost effective.

For abandoned Thermo-Lag installations that are inaccessible or not cost effective to remove, TVA plans to conservatively address ampacity derating, seismic effects, and combustibility. For ampacity derating, TVA will ensure that affected cables are not derated below acceptable ampacity ratings. To address seismic effects, TVA plans to perform a quantitative seismic II/I analysis to determine effects on adjacent systems, structures, or components. For combustibility, TVA plans to establish a conservative upper bound combustibility value for the abandoned material and evaluate the effects of this combustibility value on fire loadings. TVA does not intend to perform any testing of abandoned material.

TVA expects to complete the ampacity derating, seismic, and combustibility analyses described above by December 22, 1995. TVA expects to complete necessary removal of abandoned Thermo-Lag material by June 20, 1996.

TVA considers that the information provided in this letter satisfies the RAI for BFN for the following reasons. First, the WBN response to this RAI provides the necessary qualification and testing information to support future installations of Thermo-Lag in BFN. Second, TVA will rely on its own QA and Thermo-Lag qualification test programs to qualify future Thermo-Lag installations. Third, TVA will not rely on existing BFN Thermo-Lag installations to achieve or

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maintain compliance with Appendix R. Fourth, TVA will be removing existing Thermo-Lag material in the Intake Pumping Station and replacing this material with new qualified material. Finally, TVA will either remove existing abandoned-in-place BFN Thermo-Lag installations, or evaluate these installations, without testing, to be acceptable as-is.

The enclosure provides a summary of commitments made in this letter. These commitments supersede the commitments made in TVA's March 10, 1994 letter. If you have any questions regarding this letter, please contact Pedro Salas at (205) 729-2636.

Sincerely,



R. D. Machon
Site Vice President

Enclosure

cc: See page 4

Subscribed and sworn to before me
on this 22nd day of March 1995.

Barbara A. Blanton
Notary Public

My Commission Expires ~~My~~ Commission Expires 10/06/98

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Enclosure

cc (Enclosure):

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ENCLOSURE

**TENNESSEE VALLEY AUTHORITY
BROWNS FERRY NUCLEAR PLANT (BFN)
UNITS 1, 2, AND 3**

**REQUEST FOR ADDITIONAL INFORMATION REGARDING GENERIC LETTER
(GL) 92-08, "THERMO-LAG 330-1 FIRE BARRIERS"**

SUMMARY OF COMMITMENTS

1. TVA will remove the Thermo-Lag material currently installed in the Intake Pumping Station and replace this material with new material obtained from Watts Bar Nuclear Plant. The new material and installation configurations will be qualified by TVA's Thermo-Lag qualification test program. The replacement Thermo-Lag material will be accepted by TVA's Quality Assurance Program. TVA expects to complete removal of the existing Thermo-Lag material and installation of the new qualified Thermo-Lag material prior to performing reactor pressure vessel hydrostatic testing for Unit 3 restart (approximately one month prior to initial criticality).
2. TVA will either evaluate, without testing, existing abandoned-in-place Thermo-Lag material, which serves no Appendix R functions, to determine if the material impacts current ampacity derating, seismic, or combustibility analyses; or TVA will remove these installations. TVA plans to complete these evaluations by December 22, 1995, and to complete necessary removal of abandoned-in-place Thermo-Lag material June 20, 1996.