



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

September 16, 1992

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

Tennessee Valley Authority
ATTN: Dr Mark O. Medford, Vice President
Nuclear Assurance, Licensing & Fuels
3B Lookout Place
1101 Market Street
Chattanooga, Tennessee 37402-2801

Dear Dr. Medford:

SUBJECT: RESPONSE TO NRC BULLETIN 92-01, "FAILURE OF THERMO-LAG 330 FIRE BARRIER SYSTEM" (TAC NOS.)

By letter dated July 31, 1992, the Tennessee Valley Authority (TVA) provided a response to NRC Bulletin 92-01 for the Browns Ferry Nuclear Plant (BFN). The response indicated that TVA has determined that the Thermo-Lag 330 small conduit configurations at BFN are operable. TVA's operability assessment was based on performing an evaluation of temperature data associated with a failed or indeterminate fire test and relating that to the specific fire loading of the plant area containing the protected conduits. However, the staff does not consider this approach to provide an adequate level of fire safety to ensure that safe shutdown capability functions are free from fire damage.

In accordance with Generic Letter 91-18, "Information to Licensees Regarding Two NRC Inspection Manual Sections on Resolution of Degraded and Nonconforming Conditions and on Operability," the operability of a component or a system is based on its ability to perform its specified function. The specified function of a fire barrier system is to endure a fire exposure with severity of either 1 or 3 hours, and properly protect the shutdown function on the unexposed side of the fire barrier. Bulletin 92-01 requested licensees to treat the specified barriers as inoperable until a plant specific determination is made.

The NRC considers these fire barriers to be inoperable when they cannot provide the specified level of fire safety established by either the NRC-approved fire protection program or the requirements of Appendix R to 10 CFR 50, Section III.G. The NRC has determined that weaknesses exist in plant installation. These conditions, when compared to recent test configurations, could contribute to short-term premature failure under postulated fire conditions. Therefore, an adequate level of fire protection as required for the protection of safe shutdown capability, relating to those specific barrier configurations identified by Bulletin 92-01 can't be demonstrated unless TVA possesses plant specific test data other than the data identified in Information Notice 92-46.

In addition, the staff does not consider Generic Letter 86-10, Enclosure 1, Interpretation 4, "Fire Area Boundaries", to be applicable to fire barrier systems required to separate redundant shutdown trains in the same fire area.

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Generic Letter 86-10, Enclosure 2, "Appendix R Questions and Answers," Questions 3.2.2, "Deviations from Tested Configurations," is also not applicable since the subject engineering analysis assumes that a qualified, tested configuration which has successfully passed the appropriate test acceptance criteria is being used as a basis for this analysis. The intent of Generic Letter 86-10 was to provide guidance to the industry on specific Appendix R-related questions with respect to ensuring compliance with Appendix R and was not intended to delete the fire protection of safe shutdown capability requirements imposed by the regulation. Therefore, Generic Letter 86-10 does not allow a licensee to justify an Appendix R fire barrier system with a fire endurance rating less than that required by the regulation without applicable plant specific test data, and ultimately an exemption.

On the basis that TVA's bulletin response did not demonstrate that plant specific fire barriers at BFN can provide the required level of fire safety, the NRC staff considers TVA's actions unacceptable. As noted by Bulletin 92-01, until the subject barriers can be demonstrated to possess the specified level of fire endurance, the fire watch provisions of plant technical specifications or fire protection program implementing procedures should be implemented as appropriate. Consequently, TVA is hereby requested to submit a revised response to Bulletin 92-01 within the next 30 days.

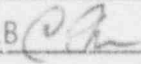


The information requested by this letter is within the scope of the overall burden hours estimated in NRC Bulletin 92-01 of 120 person hours per licensee response, including those needed to assess the new recommendations, search data sources, gather and analyze the data, and prepare the required letters. This estimate of the average number of burden hours pertains only to the identified response-related matters and does not include the time needed to implement the requested action. This request is covered by Office of Management and Budget Clearance Number 3150-0012, which expires June 30, 1994.

Sincerely,



Thierry Ross, Senior Project Manager
 Project Directorate II-4
 Division of Reactor Projects I-II
 Office of Nuclear Reactor Regulation

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Browns Ferry Nuclear Plant

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