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Docket Number 50-346

License Number NPF-3

Serial Number 2282

March 22, 1995

United States Nuclear Regulatory Commission  
Document Control Desk  
Washington, D. C. 20555

Subject: Response to the Follow-up to the 10CFR50.54(f) Request for  
Additional Information Regarding Generic Letter 92-08, "Thermo-  
Lag 330-1 Fire Barriers" (TAC No. M85542)

Ladies and Gentlemen:

Toledo Edison (TE) received the Nuclear Regulatory Commission's (NRC) follow-up letter to the request for additional information regarding Generic Letter (GL) 92-08, "Thermo-Lag 330-1 Fire Barriers," on January 3, 1995 (TE Log Number 4464). This letter requested a significant amount of information based on a licensee's continued use or increased use of Thermo-Lag material. Toledo Edison's response to the request as applicable to the Davis-Besse Nuclear Power Station (DBNPS) is provided in the enclosure.

Toledo Edison's previously submitted response to GL 92-08 (TE Serial Number 2132 dated April 16, 1993) discussed that, as an interim measure, TE has established hourly fire watch patrols as compensatory measures in the rooms where the Thermo-Lag 330-1 fire barrier system is used as a 1-hour or 3-hour fire barrier for the protection and separation of safe shutdown capability. These compensatory measures are in addition to the existing fire detection and suppression systems installed at the DBNPS, the onsite fire brigade, and the combustible material controls program, which together ensure the public's health and safety is being safeguarded.

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Operating Companies:  
Cleveland Electric Illuminating  
Toledo Edison

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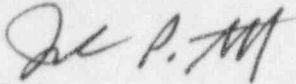
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If you have any questions, please contact Mr. W. T. O'Connor, Manager -  
Regulatory Affairs, at (419) 249-2366.

Very truly yours,

A handwritten signature in dark ink, appearing to read "J. B. Martin". The signature is fluid and cursive, with the first letters of the first and last names being capitalized and prominent.

MKL/laj

Enclosure

cc: L. L. Gundrum, NRC/NRR DB-1 Project Manager  
J. B. Martin, Regional Administrator, NRC Region III  
S. Stasek, NRC Region III, DB-1 Senior Resident Inspector  
R. P. Zimmerman, Associate Director for Projects - NRR  
Utility Radiological Safety Board

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RESPONSE TO FOLLOW-UP REQUEST FOR ADDITIONAL INFORMATION

REGARDING GENERIC LETTER 92-08

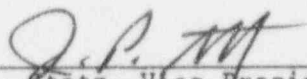
FOR

DAVIS-BESSE NUCLEAR POWER STATION

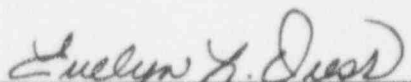
UNIT NUMBER 1

This letter is submitted pursuant to 10CFR50.54(f). Attached is Toledo Edison's response (letter Serial Number 2282) to the NRC letter dated December 23, 1994, received by Toledo Edison on January 3, 1995, requesting additional information regarding Generic Letter 92-08, "Thermo-Lag 330-1 Fire Barriers".

By:

  
J. P. Stetz, Vice President,  
Nuclear - Davis-Besse

Sworn and Subscribed before me this 22nd day of March, 1995.

  
Notary Public, State of Ohio

EVELYN L. DRESS  
Notary Public, State of Ohio  
My Commission Expires 7/28/98

TOLEDO EDISON RESPONSE TO FOLLOW-UP REQUEST  
FOR ADDITIONAL INFORMATION  
REGARDING GENERIC LETTER 92-08

NRC Request for Information:

1. Thermo-Lag Materials

- a. Describe the specific tests and analyses that will be performed to verify that the Thermo-Lag fire barrier materials that are currently installed at Davis-Besse, or that will be installed in the future, are representative of the materials that were used to address the technical issues associated with Thermo-Lag barriers and to construct the fire endurance and ampacity derating test specimens. The tests and analyses shall address the material properties and attributes that were determined or controlled by TSI during the manufacturing process and the quality assurance program. The tests and analyses shall also address the material properties and attributes that contribute to conclusions that the Thermo-Lag materials and barriers conform to NRC regulations. These include:
  - (1) chemical composition
  - (2) material thickness
  - (3) material weight and density
  - (4) the presence of voids, cracks, and delaminations
  - (5) fire endurance capabilities
  - (6) combustibility
  - (7) flame spread rating
  - (8) ampacity derating
  - (9) mechanical properties such as tensile strength, compressive strength, shear strength, and flexural strength.
- b. Describe the methodology that will be used to determine the sample size and demonstrate that the sample size will be large enough to ensure that the information and data obtained will be sufficient to assess the total population of in-plant Thermo-Lag barriers and the materials that will be installed in the future. In determining the sample size, consider the time of installation and manufacture of the various in-plant materials and barrier installations. Give the number and types (e.g., panels, conduit preshapes, trowel-grade material, stress skin) of samples that will be tested or analyzed.
- c. Submit the schedule for verifying the Thermo-Lag materials.
- d. After the analyses and tests have been completed, submit a written supplemental report that confirms that this effort has been completed and provide the results of the tests and analyses. Describe any changes to previously submitted plans or schedules that result from the tests or analyses.

## 2. Important Barrier Parameters

- a. Describe the examinations and inspections that will be performed to obtain the important barrier parameters given in Section II of the RAI of December 1993 for the Thermo-Lag fire barrier configurations installed at Davis-Besse.
- b. Describe the methodology that will be applied to determine the number and type of representative in-plant fire barrier configurations that will be examined in detail and demonstrate that the sample size is adequate to ensure that the information and data that will be obtained are adequate to assess the total population of in-plant Thermo-Lag barriers. A large enough sample of the total population of configurations should be examined to provide reasonable assurance that the materials and important barrier parameters used to construct the in-plant barriers and any future barrier installations or modifications, are representative of the parameters used to construct the fire endurance test specimens.
- c. Submit the schedule for obtaining and verifying all of the important barrier parameters.
- d. After the information has been obtained and verified, submit a written supplemental report that confirms that this effort has been completed and provides the results of the examinations and inspections. Verify that the parameters of the in-plant configurations are representative of the parameters of the fire endurance test specimens. Describe any changes to previously submitted plans or schedules that result from the examinations.

### Toledo Edison Response:

The NRC issued previous requests for additional information regarding Generic Letter 92-08 on December 28, 1993 (TE Log Number 4125), and September 21, 1994 (TE Log Number 4398). Toledo Edison responded on February 11, 1994 (TE Serial Number 2201) and December 8, 1994 (TE Serial Number 2258), respectively. The December 8, 1994 letter described TE's plans and schedule to resolve the Thermo-Lag issue for the DBNPS, and stated that the NRC will be provided with an update in June 1995.

As the NRC is aware, Thermo-Lag and fire protection continues to be an evolving issue. Toledo Edison is evaluating the alternatives discussed in the December 8, 1994 letter. Alternatives being evaluated include re-routing or other circuit modifications that would remove the need to take credit for installed Thermo-Lag. Another alternative being evaluated is the replacement of Thermo-Lag for at least some of the safe shutdown circuits with alternative materials. The need to address the issues raised in the latest request for additional information will factor into the decision-making process for resolving the Thermo-Lag issue. If the decision is made to retain Thermo-Lag for at least some of the safe shutdown circuits, then a detailed plan and schedule for responding to the

significant number of issues raised in the latest request would be developed and provided to the NRC. The preparation and submittal of such information to the NRC at this time would be premature and adversely impact the Toledo Edison resources evaluating the options for Thermo-Lag material.

Under the assumption that retention of Thermo-Lag in certain applications may be a viable option, Toledo Edison is participating in a joint utility effort to confirm via creation of a generic data pool that there are no significant Thermo-Lag chemical composition variations. This effort, which is being coordinated by the Nuclear Energy Institute (NEI), involves the comparison of samples submitted by individual utilities. A single laboratory will compare the samples using pyrolysis gas chromatography testing conducted under a standard test protocol. Results for the utility-provided samples will also be compared to results of previous NEI and utility tests.

By utilizing the resulting chemical composition test results, Toledo Edison should have a better basis to confirm the applicability of generic industry test data with respect to fire endurance capability, combustibility, flame spread, heat release and ampacity derating.

Toledo Edison will provide an update of the status of the chemical composition testing program in June 1995, concurrent with the update previously discussed in its December 8, 1994 letter.