



Nebraska Public Power District

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CNSS931051
April 16, 1993

U. S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, DC 20555

Subject: Response to NRC Generic Letter 92-08, Thermo-Lag 330-1 Fire
Barriers - 10 CFR 50.54(f)
Cooper Nuclear Station
Docket No. 50-298/DPR-46

Reference: Letter from G. R. Horn to NRC Document Control Desk dated March
12, 1993, "Cable Spreading Room Thermo-Lag Radiant Energy
Shields"

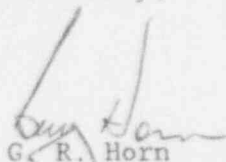
Gentlemen:

On December 17, 1992, the Nuclear Regulatory Commission (NRC) issued Generic Letter (GL) 92-08. This generic letter contains requested actions and reporting requirements regarding the qualification of Thermo-Lag fire barriers and the basis for ampacity derating factors employed for cabling protected by Thermo-Lag barriers.

As requested by GL 92-08, attached is the Nebraska Public Power District's (District) response to the requested actions contained in the NRC generic letter. This response is submitted under oath pursuant to the provisions of 10 CFR 50.54(f).

If you have any questions regarding this response, or require additional information, please contact me.

Sincerely,



G. R. Horn
Nuclear Power Group Manager

GRH/bjs/dnm/ya
Attachment

cc: U.S. Nuclear Regulatory Commission
Region IV
Arlington, TX

NRC Resident Inspector
Cooper Nuclear Station

010085

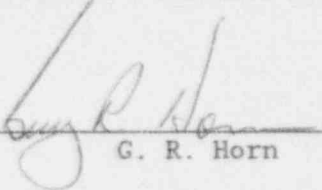
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STATE OF NEBRASKA)

PLATTE COUNTY)

G. R. Horn, being first duly sworn, deposes and says that he is an authorized representative of the Nebraska Public Power District, a public corporation and political subdivision of the State of Nebraska; that he is duly authorized to submit this response on behalf of Nebraska Public Power District; and that the statements contained herein are true to the best of his knowledge and belief.

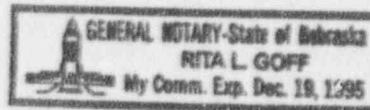


G. R. Horn

Subscribed in my presence and sworn to before me this 16th day of April, 1993.



NOTARY PUBLIC



NEBRASKA PUBLIC POWER DISTRICT'S
RESPONSE TO GENERIC LETTER 92-08
RESOLUTION OF THE ISSUES RELATED TO
"THERMO-LAG 330-1 FIRE BARRIERS"

INTRODUCTION

On December 17, 1992, the NRC issued Generic Letter 92-08. This generic letter provides an overview of the development of the Thermo-Lag issue, and requests information pursuant to 10 CFR 50.54(f) relative to the installed Thermo-Lag barriers. Particular emphasis is placed on the ampacity derating issue. In general, the generic letter requests significant information relative to the qualification basis of installed barriers. The following is Nebraska Public Power District's (District) response to the reporting requirements of the generic letter. This response is supplemented by information previously provided to the NRC in the March 12, 1993 (referenced in the accompanying letter) correspondence.

REQUESTED ACTION:

1. State whether Thermo-Lag 330-1 barriers are relied upon (a) to meet 10 CFR 50.48, to achieve physical independence of electrical systems, (b) to meet a condition of a plant's operating license, or (c) to satisfy a licensing commitment. If applicable, state that Thermo-Lag 330-1 is not used at the facility. This generic letter applies to all 1-hour and all 3-hour Thermo-Lag 330-1 materials and barrier systems assembled by any assembly method such as by assembling preformed panels and conduit shapes, as well as spray, trowel and brush-on applications.

RESPONSE

As of the date of this report, the District has three remaining installations of Thermo-Lag that are relied upon to satisfy licensing commitments. Two of the installations are in the Cable Spreading Room and the remaining installation is in the Cable Expansion Room. All three installations are non-rated radiant energy shields, which form the bases for Appendix R exemption requests in these fire areas.

REQUESTED ACTION:

2. If Thermo-Lag 330-1 barriers are used at the facility,
 - (a) State whether or not the licensee has qualified the Thermo-Lag 330-1 fire barriers by conducting fire endurance tests in accordance with the NRC's requirements and guidance or licensing commitments.
 - (b) State (1) whether or not the fire barrier configurations installed in the plant represent the materials, workmanship, methods of assembly, dimension, and configurations of the qualification test assembly configurations; and (2) whether or not the licensee has evaluated any deviations from the tested configurations.

- (c) State (1) whether or not the as-built Thermo-Lag 330-1 barrier configurations are consistent with the barrier configurations used during the ampacity derating tests relied upon by the licensee for the ampacity derating factors used for all raceways protected by Thermo-Lag 330-1 (for fire protection of safe shutdown capability or to achieve physical independence of electrical systems) and (2) whether or not the ampacity derating test results relied upon by the licensee are correct and applicable to the plant design.

RESPONSE:

- (a) The District has not qualified any of the Thermo-Lag installations by conducting fire endurance tests.
- (b) (1) The Thermo-Lag installations are representative of the materials, workmanship, and methods of assembly for test assemblies qualified by the vendor. The installation activity was overseen by the vendor's representative onsite at the time of installation. However, these installations are considered unrated radiant energy shields and, as such, differ from the tested configurations provided by the vendor.
- (b) (2) The District has evaluated the Thermo-Lag installations for compliance with the licensing design basis of the exemption requests. The configurations are considered unrated radiant energy shields and, therefore, cannot be qualified to a rated, tested configuration. This evaluation was provided to the NRC in the referenced March 12, 1993 District correspondence.
- (c) (1) The Thermo-Lag installations are considered unrated radiant energy shields. They consist of two large open ended conduit bank enclosures and one flat, horizontal shield beneath a bank of conduit. All of the subject Thermo-Lag installations are sufficiently spaced to be considered as open air installations per the National Electrical Code. They do not require ampacity derating beyond that required for the conduit itself.
- (c) (2) The ampacity derating factors relied upon for the conduits in question have been obtained from the National Electrical Code for the conduit installations themselves and are not further derated by the proximity of the Thermo-Lag material.

REQUESTED ACTION:

3. With respect to any answer to items 2(a), 2(b), or 2(c) above in the negative, (a) describe all corrective actions needed and include a schedule by which such actions shall be completed and (b) describe all compensatory measures taken in accordance with the technical specifications or administrative controls. When corrective actions have been completed, confirm in writing their completion.

RESPONSE

- (a) No corrective actions are needed nor planned for the Thermo-Lag installation in the Cable Expansion Room. In this installation, the fire rating of the Thermo-Lag material in the non-rated radiant energy shield was not a factor in the basis for the exemption request and the installation continues to satisfy the applicable licensing commitment.

For the two installations in the Cable Spreading Room, the radiant energy shields, made of Thermo-Lag, were to consist of materials which have been tested to a one-hour rating in some other configuration. As a result, the ability of the Thermo-Lag material to satisfy this licensing commitment has been questioned and a firewatch has been posted as a compensatory measure. As discussed in response to Item 3.b below, this firewatch will remain posted until either the Thermo-Lag is replaced or NRC acceptance of the District's evaluations, transmitted by the reference, is received.

- (b) Per information previously provided to the NRC in the referenced March 12, 1993 District correspondence, a firewatch has been posted as a compensatory measure in the Cable Spreading Room and will remain posted until the Thermo-Lag is replaced or the issue is resolved. Written correspondence will be submitted confirming completion of the corrective actions.

4. List all Thermo-Lag 330-1 barriers for which answers to item 2 cannot be provided in the response due within 120 days from the date of this generic letter, and include a schedule by which such answers shall be provided.

RESPONSE

Not Applicable