



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

50-445

October 1, 1997

Mr. C. Lance Terry
TU Electric
Group Vice President, Nuclear
Attn: Regulatory Affairs Department
P. O. Box 1002
Glen Rose, TX 76043

SUBJECT: RESPONSE TO SAFETY EVALUATION OPEN ITEMS ON COMANCHE PEAK
STEAM ELECTRIC STATION, UNIT 1 REGARDING THERMO-LAG CABLE
FUNCTIONALITY ISSUES (TAC NO. MB5536)

- REFERENCES:
1. NRC letter from Mr. Timothy J. Polich to Mr. C. Lance Terry dated May 22, 1996
 2. TU Electric letter from Mr. C. Lance Terry, to NRC dated October 24, 1996 (TXX-96414)
 3. Transcript of meeting between the NRC and Texas Utilities Electric Company held on December 5, 1996 at the NRC Region IV Office in Arlington, Texas
 4. TU Electric letter from Mr. C. Lance Terry, to NRC dated February 28, 1997 (TXX-97047)

Dear Mr. Terry:

By letter dated February 28, 1997 TXX-97047 (Reference 4), Texas Utilities Electric Company (TU Electric) submitted revised responses to the seven open items in the Nuclear Regulatory Commission (NRC) staff's safety evaluation on Thermo-Lag fire barriers installed at Comanche Peak Steam Electric Station (CPSES) Unit 1 dated May 22, 1996 (Reference 1). TU Electric's previous responses to the seven open items, dated October 24, 1996 TXX-96414 (Reference 2), were discussed in detail during a meeting at the Region IV office in Arlington Texas on December 5, 1996 (Reference 3). During the course of discussions at that meeting, your response to Item 7 was found to be adequate, but your responses to the remaining six items required additional information for completion of the review by the NRC staff. A path to resolution for the six remaining items appeared to have been defined and agreed upon during that meeting. The staff has completed the review of Reference 4 and finds that Open Items 2, 5, 6, and 7 have been addressed adequately and are considered closed (as indicated in the Enclosure). However, Items 1, 3, and 4 remain open.

During the December meeting, the staff discussed Open Item 1 (thermal mass) at length (pages 12 to 33 of Reference 3). The staff finds your response to this item in Reference 4 to be contrary to those discussions. Specifically, the staff stated that your revised response should: discuss the testing that you have done for Unit 1 and Unit 2 and how the tests are the same; describe your understanding of prior agreements made with the staff that you were supposed to test fire barriers this way and no other way; and also provide the

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references where those agreements are documented. Yet Reference 4 states that TU Electric performed an evaluation that demonstrated that reductions in cable mass below the values tested will not adversely impact the functionality of the cables. During the December 5, 1996, meeting TU Electric did not indicate that cable functionality evaluations were to be the basis for determining the acceptability of the Thermo-Lag installation at CPSES, Unit 1 when the cable fill is less than the tested configuration. The information requested by the staff during the meeting was not included in the February 28, 1997, submittal (Reference 4).

During a phone conversation on September 16, 1997, your staff indicated that TU Electric has chosen to pursue the cable functionality option to resolve Item 1 and that TU Electric would contact the NRC if that position changed. The NRC staff stated that the cable functionality review would delay resolution of the issue. Further your staff stated that the information requested by the NRC staff at the December meeting could not be located in any docketed correspondence (i.e., that the testing was the same at Units 1 and 2).

With regard to Open Items 3 and 4, the staff finds that the TU Electric explanation also appears to be contrary to discussions during the December meeting (pages 47 and 54 of Reference 3). Specifically, in that meeting the staff stated (pages 51 and 52 of Reference 3) that the fire stop was an integral part of the barrier and should meet the acceptance criteria specified in the October 29, 1992, letter, and that the use of the criteria specified in IEEE-634 was not acceptable. Yet Reference 4 states that in CPSES Engineering Report ER-ME-067, Rev. 4, Attachment 2 to Appendix F, Silicone Elastomer and Thermo-Lag fire stop material were considered acceptable based on tests conducted in accordance with the criteria specified in IEEE-634 which is contrary to the October 29, 1992, criteria. These test reports have not been provided by TU Electric for NRC staff review. However, in reference 4 you stated that Silicone Foam material will be removed or augmented with acceptable fire stop material via Design Modification 97-014. This response does not address the acceptance criteria used for the evaluation of Silicone Elastomer or Thermo-Lag material used in fire stops at CPSES, Unit 1. Page 11 of the original safety evaluation (Reference 1) discussed the same issue.

During the September 16, 1997, call your staff explained that it was not the intent of TU Electric to use all of the tests referenced in CPSES Engineering Report ER-ME-067, Rev. 1, Attachment 2 to Appendix F as qualifying tests for Unit 1. Your staff agreed to eliminate any unnecessary tests from ER-ME-067, Rev. 4, and to supply the NRC any referenced test reports not previously reviewed.

The conversations on September 16, 1997, were helpful in clarifying TU Electric's positions on the three remaining open items. It is the staff's understanding that TU Electric will make changes to the information previously

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submitted. Please provide within thirty days receipt of this letter your revisions to CPSES Engineering Report ER-ME-067, and any change in position regarding the options to resolve any of the three remaining items. If you have further questions regarding these open items contact Timothy J. Polich at 301-415-1038.

Sincerely,

ORIGINAL SIGNED BY:

James W. Clifford, Acting Director
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 50-445

Enclosure: List of Open Items

cc w/encl: See next page

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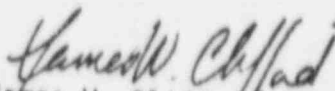
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Mr. C. Lance Terry

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Sincerely,



James W. Clifford, Acting Director
Project Directorate IV-1
Division of Reactor Projects III/IV
Office of Nuclear Reactor Regulation

Docket No. 5J-145

Enclosure: List of Open Items

cc w/encl: See next page

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TU Electric Company

cc:

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Comanche Peak, Units 1 and 2

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Open Item 1:

Raceway at CPSES Unit 1 where the total enclosed thermal mass is less than the total enclosed thermal mass of the tested configurations. This item remains open.

Open Item 2:

The hose stream performance of the Thermo-Lag "Box Assembly" tested in Scheme 11-4. The licensee has reinforced the joints of this assembly similar to those utilized for Scheme 12-1, 14-1 and 15-1. This item is closed.

Open Item 3:

Thermo-Lag fire stops installed in cable trays at CPSES Unit 1. This item remains open.

Open Item 4:

Silicone foam fire stops installed in cable trays at CPSES Unit 1, where the qualification is based on fire tests that used silicone elastomer. This item remains open.

Open Item 5:

The use of Test Scheme 9-3 (1 1/2-inch and 2-inch conduits) at CPSES Unit 1. The licensee has upgraded the 1 1/2-inch conduits installations in accordance with the design qualified in Scheme 9-2. The 2-inch conduits were found acceptable based on the licensee's cable functionality evaluations. This item is closed.

Open Item 6:

The use of Test Scheme 11-2 (2-inch air drop) at CPSES Unit 1. The licensee has upgraded the 2-inch air drops in accordance with the design qualified in Scheme 9-2. This item is closed.

Open Item 7:

The use of Test Scheme 15-2 for cables smaller than 750 KcMil [MCM]. The licensee does not use this scheme for cables smaller than 750 MCM. This item is closed.

ENCLOSURE