September 25, 1995

MEMORANDUM TO: Phillip F. McKee, Director
Project Directorate I-3
Division of Reactor Projects I/II

FROM: José A. Calvo, Chief (Original signed by J. Calvo)
Electrical Engineering Branch
Division of Engineering

SUBJECT: RESPONSE TO THE FOLLOWUP TO THE REQUEST FOR ADDITIONAL INFORMATION REGARDING GENERIC LETTER 92-08 (TAC NO. M85581)

Plant: Oyster Creek Nuclear Generating Station
Licensee: General Public Utilities Nuclear Corporation
Review Status: Open

We have reviewed General Public Utilities Nuclear Corporation's responses of December 27, 1994, and March 31, 1995, to the requests for additional information (RAI) of September 15, 1994, and December 29, 1994, respectively, regarding Generic Letter 92-08, "Thermo-Lag 330-1 Fire Barriers." The licensee was required, pursuant to Section 182A of the Atomic Energy Act of 1954, as amended, and 10 CFR 50.54(f), to submit written reports, under oath of affirmation, that provided the information specified in the RAIs. On the basis of our review, we have determined that the licensee's responses to the RAIs are incomplete. The specific areas where we found the licensee's responses to be incomplete are discussed in the attachment. Please transmit this information to the licensee and request that it submit a revised response. We recommend that the licensee be given 60 days to submit its revised response.

Docket No.: 50-219

Attachment: As stated

CONTACT: R. Jenkins, NRR/DE
415-2985

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

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ATTACHMENT

OYSTER CREEK NUCLEAR GENERATING STATION
DOCKET NO. 50-219
FOLLOWUP REQUEST FOR ADDITIONAL INFORMATION REGARDING
GENERIC LETTER 92-08
"THERMO-LAG 330-1 FIRE BARRIERS"

1.0 REQUEST FOR ADDITIONAL INFORMATION (RAI) OF FEBRUARY 10, 1994

In the RAI of February 10, 1994, the NRC staff requested information regarding important barrier parameters, Thermo-Lag barriers outside the scope of the Nuclear Energy Institute (NEI) program, ampacity derating, alternatives, and schedules.

In its submittal of December 27, 1994, the licensee indicated that it has completed calculations for Thermo-Lag protected circuits, which signify that the maximum allowable derating factors for these circuits currently exceed the values provided by the manufacturer, Thermal Science Inc. Since the scope of the NEI ampacity derating test program has not been finalized, the licensee could not identify the extent of the Oyster Creek Nuclear Generating Station (OCNGS) fire barriers that are to be bounded by the NEI program.

During a public meeting on March 14, 1995, with the licensees for the four lead plants for the resolution of Thermo-Lag issues, the staff responded to the question, "Will the resolution of the ampacity derating concern be deferred until agreement is reached on the appropriate testing protocol (i.e., IEEE P848)?" The staff reiterated its position, which was previously stated in the September 1994 RAI, that the ampacity derating concern could be resolved independently of the fire endurance concerns. After a review of the tests performed under the draft Institute of Electrical and Electronics Engineers (IEEE) Standard P848, the staff transmitted comments which were designed to ensure the repeatability of test results to the IEEE working group responsible for the test procedure. The licensee is requested to submit its ampacity derating evaluations, including any applicable test reports, in order to provide an adequate response to Generic Letter 92-08 Reporting Requirement 2(c).

2.0 REQUEST FOR ADDITIONAL INFORMATION OF DECEMBER 29, 1994

In the RAI of December 29, 1994, the staff requested information describing the examinations and inspections that will be performed to obtain the important barrier parameters for the Thermo-Lag configurations installed at OCNGS. In its responses of March 31, 1995, the licensee did not provide any further information in the ampacity derating area.

On May 18, 1995, members of the NRC staff held a telephone conference call with NEI representatives concerning ampacity derating issues for Thermo-Lag fire barriers. The staff indicated that the latest IEEE P848 draft procedure can be used by licensees or NEI as the basis for an ampacity derating test program. NEI agreed to review the Comanche Peak Steam Electric Station Unit 2

Safety Evaluation (SE) in order to develop a generic test program. The memorandum dated May 22, 1995, which documents the subject telephone conference meeting, is attached for your information. In addition, a copy of the subject SE dated June 14, 1995, was sent to those licensees who rely on Thermo-Lag installations.

The staff recognizes that most licensee may have excess ampacity margin using valid test data. However, those licensees who utilize industry test data must evaluate whether installed configurations are representative of the tested configurations. The subject evaluations should also analyze any deviations of the installed configuration with respect to the test configuration. The licensee did not indicate that CPSES Unit 2 Thermo-Lag fire barrier configurations were representative of OCNGS configurations.

In its submittal of December 27, 1994, the licensee referred to site specific calculations. If those calculations represent the licensee's final determination of ampacity derating parameters for Thermo-Lag fire barriers please forward a copy of the subject calculations for staff review. The licensee is requested to provide its site-specific schedule and plans for the resolution of the ampacity derating issue for Thermo-Lag fire barriers.

At this time the staff is not aware of any existing or planned NEI initiative which will address the ampacity derating issue. If a NEI test program or analysis is expected to be utilized by the licensee please provide specific program details and incorporate any input by NEI into the licensee's overall schedule.

Finally, the staff expects that the licensee will submit in conjunction with the resolution of the fire endurance issues, the test procedures or alternatively, a description of the analytical methodology including typical calculations which will be used to determine the ampacity derating parameters for the Thermo-Lag fire barriers that are installed at Oyster Creek Nuclear Generating Station.

May 22, 1995

NOTE TO: Brian W. Sheron, Director, DE, NRR

FROM: Carl H. Berlinger, Chief, EELB, DE, NRR

SUBJECT: MEMORANDUM OF RECORD

On May 18, 1995, members of the NRC staff (B. Sheron, C. Berlinger, P. Gill, M. Gamberoni and R. Jenkins) held a telephone conference call with Mr. Alex Marion and Mr. Biff Bradley of the Nuclear Energy Institute (NEI) on ampacity derating issues for Thermo-Lag fire barriers. Mr. Marion contacted the staff regarding two topics: (1) Status of the Safety Evaluation (SE) on the Comanche Peak Steam Electric Station (CPSES), Unit 2 Ampacity Derating Test Program; and (2) Staff Acceptance of the IEEE Standard P848, "Procedure for the Determination of the Ampacity Derating of Fire Protected Cables."

Dr. Berlinger stated that the subject SE for CPSES 2 had been completed and we expected that it will be transmitted to the licensee within the next two weeks. Dr. Berlinger agreed to notify Mr. Marion by phone after the SE had been issued by the staff. Due to potential generic applications the staff will provide a copy of the CPSES, Unit 2 SE to licensees with Thermo-Lag fire barriers.

The staff has been interfacing with the IEEE Task Force responsible for IEEE P848 over the last 2 years to improve the subject procedure. This effort has resulted in recent revisions to the subject procedure which addressed the majority of the concerns raised by EELB (reference: Letter dated 10/13/94 from C. Berlinger to A. K. Gwal). Although not all of the concerns were addressed by the IEEE Task Force Dr. Berlinger indicated that the latest IEEE P848 draft procedure can be used by licensees or NEI as the basis for an ampacity derating test program. The latest procedure revision (Draft 16) addresses the major test concerns regarding inductive heating and conduit surface emissivities effects.

The staff emphasized that licensees should submit the actual test procedures or plans to the staff for comment. After discussion of the various options to develop a generic test program NEI agreed to review the CPSES 2 SE and then contact the staff as necessary for further discussions or questions on this matter.

cc: Alex Marion, NEI

CONTACT: Ronaldo Jenkins, EELB/DE
415-2985

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