

September 25, 1995

MEMORANDUM TO: Gail H. Marcus, Director
 Project Directorate III-3
 Division of Reactor Projects III/IV

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. M85535)

Plant: Clinton Power Station, Unit 1
 Licensee: Illinois Power Company
 Review Status: Open

We have reviewed Illinois Power Company's responses of December 16, 1994; March 16, 1995; and March 28, 1995 to the requests for additional information (RAI) of September 19, 1994; per the request of Mr. Douglas Pickett, Project Manager of the Clinton Power Station; and December 28, 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.: 50-461
 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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Division of Reactor Projects III/IV

FROM: José A. Calvo, Chief
Electrical Engineering Branch
Division of Engineering *José A. Calvo*

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415-2985

CLINTON POWER STATION
DOCKET NO. 50-461
FOLLOWUP REQUEST FOR ADDITIONAL INFORMATION REGARDING
GENERIC LETTER 92-08
"THERMO-LAG 330-1 FIRE BARRIERS"

1.0 REQUEST FOR ADDITIONAL INFORMATION (RAI) OF SEPTEMBER 19, 1994

In the RAI of September 19, 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 16, 1994, the licensee committed to incorporate the applicable values, expected to be provided by NEI, into our electrical design calculations when they become available. The licensee stated that evaluations performed that compared the ampacity derating factors described in NRC Information Notice (IN) 94-22, "Fire Endurance and Ampacity Derating Test Results for 3-Hour Fire-Related Thermo-Lag 330-1 Fire Barriers," with those that apply at Clinton Power Station (CPS) indicate that the CPS derating factors are more conservative. Therefore, the licensee asserted that there is no need to revise the CPS electrical design calculations.

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 Electronic 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. At this time the staff is not aware of any existing or planned NEI initiative which will address the ampacity derating issue.

2.0 REQUEST FOR ADDITIONAL INFORMATION BY PROJECT MANAGER

In its response of March 16, 1995, the licensee provided information safety evaluations at the request of Mr. Douglas Pickett, the NRC project manager of CPS. These safety evaluations were prepared in accordance with 10 CFR 50.59 to address 7 of the 11 Thermo-Lag installations at CPS. The evaluation results determined that there were no unreviewed safety questions.

3.0 REQUEST FOR ADDITIONAL INFORMATION OF DECEMBER 28, 1994

In the RAI of December 28, 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 Clinton Power Station. In its submittal of March 28, 1995, the licensee reiterated its assertion that the Thermo-Lag fire barriers do not adversely impact the current carrying capability (i.e., ampacity) of the protected cables. Further, the licensee did not consider it necessary to conduct any additional examinations or tests to verify its Thermo-Lag ampacity parameters.

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 the test configuration in IN 94-22 was representative of CPS configurations. The licensee is requested to provide copies of EPED Calculation 19-AI-8, "Derating for 3-Hour TSI Tray Wrap," and EPED Calculation 19-G-31, "Ampacity of Control Cables in Completely Filled Trays."

In its submittal of December 16, 1994, the licensee referred to site-specific evaluations. If these evaluations, other than the safety evaluations submitted on March 16, 1995, represent the licensee's final determination of ampacity derating parameters for Thermo-Lag fire barriers please forward a copy of the subject evaluations for staff review. Given that there are no unresolved technical issues, 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. 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 the Clinton Power Station.