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U.S. Nuclear Regulatory Commission
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Edwin I. Hatch Nuclear Plant
Response to Request for Additional Information
Regarding Generic Letter 92-08, Thermo-Lag Fire Barriers

Gentlemen

On June 24, 1992, the NRC issued NRC Bulletin (NRCB) 92-01, (1) to notify licensees of failures in fire endurance testing of the Thermo-Lag 330 fire barrier system and request licensees to take specific actions. In a letter (2) to the NRC dated July 20, 1992, Georgia Power Company (GPC) described actions taken in response to the bulletin. As a result, fire patrols for the inoperable fire barriers were established in the affected areas as required by the Plant Hatch Fire Hazards Analysis to provide interim assurance of safe shutdown capability until the Thermo-Lag issue is resolved.

On August 28, 1992, the NRC issued NRCB 92-01, Supplement 1, (3) to notify licensees of additional Thermo-Lag fire endurance test failures and expand the scope of NRCB 92-01. In a letter to the NRC (4) dated September 25, 1992, GPC described the additional actions taken in response to the expanded scope of the bulletin.

On December 17, 1992, the NRC issued Generic Letter (GL) 92-08, (5) requesting licensees to submit additional information concerning the Thermo-Lag fire barriers installed at their plants and a schedule for completion of any necessary corrective actions. In a letter (6) dated April 16, 1993, GPC provided the requested information and discussed the request for a schedule relative to the completion of corrective actions. GPC indicated that actions necessary to resolve the Thermo-Lag issue at Plant Hatch will be

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based on the results of the industry test program being coordinated by the Nuclear Energy Institute (NEI), formerly the Nuclear Management and Resources Council (NUMARC), and that the compensatory actions mentioned above will remain in place to assure protection of safe shutdown equipment until all actions necessary to resolve the Thermo-Lag issue are complete

In a letter (7) dated June 16, 1993, the NRC acknowledged the pending industry test program results and requested GPC to review the results and inform the NRC of the necessary actions and schedule for restoring operability of the Thermo-Lag fire barriers. The NRC also requested that, for configurations not bounded by the NEI program, GPC provide a schedule for site-specific fire endurance testing and a schedule for implementation of any potential barrier upgrades resulting from the NEI testing. At the time of the NRC's request, the test configurations for the NEI program had not been provided to utilities; therefore, unique configurations could not be identified. By letter (8) dated June 10, 1993, GPC agreed to submit this information following completion of the program

By letter (9) dated December 21, 1993, the NRC requested licensees submit the following additional information regarding GL 92-08, pursuant to 10 CFR 50.54 (f):

- 1 A description and amount of Thermo-Lag barriers installed
- 2 Specific barrier parameters
- 3 A description of barriers outside the scope of the NEI test program.
- 4 A description of the plant-specific corrective action program.
- 5 Evaluations and plans for addressing ampacity derating
- 6 Alternatives for achieving compliance with NRC fire protection requirements
- 7 An integrated schedule addressing the overall corrective action schedule.

In a letter (10) dated February 10, 1994, GPC provided the requested information to the extent possible at that time. In addition, GPC provided details of a planned systematic evaluation and resolution process that employs circuit modifications, along with other options, for determining a resolution of the Thermo-Lag barrier issue. The response stated that the issuance of the NEI guidance documents for configuration and ampacity derating was pending and an evaluation of the Thermo-Lag barriers for acceptability would be performed following receipt and review of the NEI guidance documents. GPC committed to provide a supplemental response to complete the information requested.

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By letter (11) dated September 19, 1994, the NRC acknowledged receipt of GPC's February 10, 1994, letter and stated that NEI had issued the industry guidance documents. The letter provided information on the NRC's course of action to resolve the Thermo-Lag issue and requested GPC to provide additional information pursuant to 10 CFR 50.54(f) within 90 days. Specifically, GPC's previous letter deferred the submittal of requested information until transmittal of the NEI guidance documents for responses to Sections II, "Important Barrier Parameters;" III, "Thermo-Lag Fire Barriers Outside The Scope of the NUMARC Program;" IV, "Ampacity Derating;" and VI, "Schedules". The NRC's letter also stated that a performance-based approach was not acceptable to achieve compliance with NRC fire protection requirements in areas containing Thermo-Lag.

Georgia Power Company reviewed the industry guidance documents for upgrading the Thermo-Lag fire barriers to restore the operability of these barriers and address the ampacity derating issue. GPC also evaluated resolution processes involving physical circuit modifications and safe shutdown equipment re-evaluations as alternatives to upgrading the existing Thermo-Lag fire barriers. Based on these reviews, GPC determined that restoration of the Thermo-Lag fire barriers is not the preferred method. Consequently, GPC developed a program to resolve the Thermo-Lag issue based on the following actions:

1. Delete the requirement for the use of Thermo-Lag barriers.
2. Maintain compliance with Section III G of Appendix R by modifying circuit raceways, realigning existing fire areas, re-evaluation of the safe shutdown equipment requirements, and adjusting manual operator actions. The total number and scope of manual operator actions is not expected to significantly change from those currently in place. GPC will perform the corresponding evaluations and physical modifications under the 10 CFR 50.59 evaluation process; thus additional submittals requiring NRC staff evaluation will not be necessary. GPC does not intend to request additional exemptions to the requirements of Appendix R. However, GPC cannot exclude the possibility of certain plant-specific conditions that may preclude deleting the requirement for Thermo-Lag fire barriers. Consequently, a limited number of requests for exemptions may be submitted.

*3/28/95 letter says exemptions
will not be submitted*

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In response to the information requested by the NRC's letter dated September 19, 1994, pursuant to 10 CFR 50.54 (f) and in accordance with GPC's commitments to submit a supplemental response for the fire endurance issues, GPC will maintain compliance with Appendix R, Section III.G, by eliminating reliance on Thermo-Lag as a fire barrier material. The method for maintaining compliance is as described previously. GPC will complete the required evaluations and modifications to resolve the Thermo-Lag fire barrier issue for both Unit 1 and Unit 2 by startup of Unit 2 from the Fall 1998 refueling outage.

In response to the request for information regarding ampacity derating, GPC will not use Thermo-Lag as a fire barrier raceway wrap. However, Thermo-Lag may physically remain within the plant. Consequently, ampacity derating will not be related to the acceptability of the material as a fire rated barrier. However, ampacity derating will be used to determine the need to physically remove the Thermo-Lag barriers. In this case, the ampacity derating for the baseline configuration will be addressed and resolved consistent with the information provided by the NEI test program and NRC Information Notice 92-16. For circuits where ampacity derating does not meet the established acceptance criteria, such as selected power circuits, removal of the Thermo-Lag barriers will be completed for both Unit 1 and Unit 2 by startup of Unit 2 from the Fall 1998 refueling outage.

These commitments supersede GPC's previous commitments related to information requests and corrective actions associated with the Thermo-Lag fire barrier issue. GPC will maintain fire patrols in appropriate areas until the Thermo-Lag issue is resolved. This measure provides adequate interim assurance of safe shutdown capability until the requirement for Thermo-Lag fire barriers is eliminated by the previously described program.