February 14, 1997

Mr. C. S. Hinnant, Vice President
Carolina Power & Light Company
H. B. Robinson Steam Electric Plant,
Unit No. 2
3581 West Entrance Road
Hartsville, South Carolina 29550

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION REGARDING THE ADEQUACY OF DELAYED OFFSITE POWER CIRCUIT FOR THE H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2 (TAC M97957)

Dear Mr. Hinnant:

The NRC has recently reviewed offsite power system designs for older operating plants as a result of lessons learned from the Maine Yankee Independent Safety Assessment. The review was conducted to verify the adequacy of delayed offsite power circuits. In particular, the staff was concerned with plants that rely upon main and unit auxiliary transformers to backfeed power to the onsite distribution system by removing the disconnect links between the main generator and the main transformer. Before we can conclude that the offsite power system design at the H. B. Robinson Steam Electric Plant, Unit No. 2 (HBR) meets its design licensing basis, additional information is needed regarding the delayed offsite power circuit at HBR. The response to the enclosed request for additional information is expected within 30 days.

Please contact me at (301) 415-2020 if you have any questions concerning this request.

Sincerely,

/ s /

Brenda Mozafari, Project Manager
Project Directorate II-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-261

Enclosure: Request for Additional Information

cc w/enclosure: See next page
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REQUEST FOR ADDITIONAL INFORMATION

REGARDING THE ADEQUACY OF THE DELAYED OFFSITE POWER CIRCUIT

FOR THE

H. B. ROBINSON STEAM ELECTIC PLANT, UNIT NO. 2

The NRC recently performed a review of offsite power system designs for older operating plants as a result of lessons learned from the Maine Yankee Independent Safety Assessment. The review was conducted to verify the adequacy of delayed offsite power circuits. In particular, the staff was concerned with plants that rely upon main and unit auxiliary transformers to backfeed power to the onsite distribution system by removing the disconnect links between the main generator and the main transformer. This review noted this feature in the design of the H. B. Robinson Steam Electric Plant, Unit No. 2 (HBR).

HBR was licensed with only one immediately available offsite power circuit and a delayed offsite power circuit that relies on a backfeed through the main and unit auxiliary transformers. To establish this backfeed the main generator disconnect links must be removed. For a delayed offsite power circuit to be considered an acceptable source of offsite power, it must be shown that power can be reestablished in sufficient time to prevent fuel design limits and design conditions of the reactor coolant pressure boundary from being exceeded. The HBR Updated Final Safety Analysis Report (UFSAR) states that removal of the main generator disconnect links in order to establish offsite power is expected to take a minimum of four hours. The UFSAR does not state, however, the maximum expected time needed to establish this backfeed source of power. The staff could not find any documentation to indicate that an analysis has been done to demonstrate the adequacy of this delayed offsite power circuit.

The staff is concerned that Carolina Power & Light Company (CP&L) may not have performed an analysis to demonstrate the adequacy of its delayed offsite power circuit. To resolve this concern, we request that you provide the information requested below.

1. State whether you have performed an analysis to demonstrate that the delayed offsite power circuit can be established in sufficient time to prevent fuel design limits and design conditions of the reactor coolant pressure boundary from being exceeded. If such analysis was performed, provide a summary of the analysis and any conclusions (e.g., adequacy of time limits and voltages, etc.).

ENCLOSURE

2. Describe any procedures in place for implementing the delayed offsite power circuit when needed, and state whether CP&L has tested its capability to backfeed power within an allowable time limit. If so, state how often operators are trained on using the procedures and how long it takes to establish the backfeed.

3. The staff noted that HBR's Technical Specifications do not contain surveillance requirements regarding the delayed offsite power circuit. Explain how HBR periodically verifies its ability to establish offsite power within a specified time limit using the main and unit auxiliary transformers.