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FACIL:50-261 H. B. Robinson Plant, Unit 2, Carolina Power and Ligh 05000261
AUTH.NAME AUTHOR AFFILIATION
EURY,L.W. Carolina Power & Light Co.
RECIP.NAME RECIPIENT AFFILIATION
VARGA,S.A. Operating Reactors Branch 1

SUBJECT: Forwards "Supplemental Info for Degraded Grid Voltage Analysis," in response to NRC 830118 request re electrical distribution sys voltages. Util does not plan to complete implementation of emergency bus alarms. S06 RPB

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MAR 23 1983

Director of Nuclear Reactor Regulation
Attention: Mr. Steven A. Varga, Chief
Operating Reactors Branch No. 1
Division of Licensing
United States Nuclear Regulatory Commission
Washington, DC 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
ADEQUACY OF ELECTRICAL DISTRIBUTION
SYSTEM VOLTAGE

Dear Mr. Varga:

Carolina Power & Light Company (CP&L) has received your letter, dated January 18, 1983, requesting additional information concerning the adequacy of electrical distribution system voltages at the H. B. Robinson Steam Electric Plant Unit No. 2 (HBR2). The enclosed supplemental report, prepared by Ebasco Services Company for CP&L, provides the additional information you requested. Section I of the supplemental report addresses each of your questions.

Carolina Power & Light Company is evaluating the recommendations in this report and is prepared to make the following commitments:

1. The H. B. Robinson Unit No. 2 (HBR2) updated Final Safety Analysis Report (FSAR) will be revised to include the updated drawings discussed in our response to NRC question No. 1 on page 1 of the enclosed report. We will also revise the Updated FSAR to include the method of backfeeding described in our response to NRC question No. 10 on page 19 of the enclosed report. Since this information will be developed in 1983, it will be included in the annual update of the FSAR in 1984.

2. Overvoltage and undervoltage alarms will be installed to monitor the 115kV system voltage. These alarms will annunicate in the HBR2 Control Room. In conjunction with this modification, studies will be performed to determine the alarm setpoints. These studies will also include an in-plant test to verify accelerating times for the pumps described in our response to NRC question No. 4 on page 5 of the enclosed report. The studies will be completed and the modification implemented prior to startup following the next refueling outage, contingent upon parts availability. Information concerning the study results and the modifications will be provided to your staff within 60 days after startup following the next refueling outage.

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3. Backfeeding Class 1E busses through the main transformer will only be accomplished during cold shutdown. Only Non-Class 1E busses will be backfed during hot shutdown. This will be accomplished through the main transformer and the unit auxiliary transformer. The plant safety related busses will be fed from the emergency diesel generators during hot shutdown. Administrative controls will be implemented prior to backfeeding the main transformer.

Carolina Power & Light Company would also like to bring to your attention that during our review of past correspondence concerning the degraded grid voltage issue, a letter dated February 17, 1977, from CP&L (Mr. E. E. Utley) to NRC (Mr. R. Reid) was identified which proposed the implementation of undervoltage and overvoltage relays and alarm on the emergency busses. Following additional review it was determined that more protection was needed, therefore, undervoltage trip devices were installed in place of the relays and alarms. We have reviewed the basis of the February 17, 1977 letter against more recent degraded grid voltage studies and have determined that the proposed 115kV undervoltage and overvoltage relays and alarms will negate the need for the undervoltage and overvoltage relays and alarms on the emergency busses. Therefore, CP&L does not plan to complete the implementation of the alarms on the emergency busses. (It should be noted that the existing undervoltage trip will remain on the emergency busses.)

If you have any further questions, please contact a member of our Nuclear Licensing staff.

Yours very truly,

L. W. Eury
Senior Vice President
Power Supply

DCW/kjr (6367DCW)
Enclosure

cc: Mr. J. P. O'Reilly (NRC-RII)
Mr. G. Requa (NRC)
Mr. Steve Weise (NRC-HBR)