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 FACIL: 50-261 H. B. Robinson Plant, Unit 2, Carolina Power and Light 05000261
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 RECIP. NAME: RECIPIENT AFFILIATION:
 DENTON, H.R. Office of Nuclear Reactor Regulation, Director

SUBJECT: Forwards "HB Robinson Fluence Reduction Analysis for Partial-Length Shield Assembly Concept," documenting results of flux reduction program to resolve pressurized thermal shock issue.

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SEP 30 1983

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
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
PRESSURIZED THERMAL SHOCK - FLUX REDUCTION PROGRAM

Dear Mr. Denton:

During the last two years, Carolina Power & Light Company (CP&L) has undertaken a very broad scope project designed to resolve the Pressurized Thermal Shock (PTS) issue for our H. B. Robinson Unit No. 2 (HBR2). That project has produced a triad of programs which each individually have the capability to resolve the issue for HBR2. That triad consists of 1) the HBR2 Flux Reduction Program which utilizes the CP&L designed Partial Length Shielded Assemblies (PLSAs), 2) the HBR2 Material Properties Research Program which was discussed with your staff on September 13, 1983, and 3) the HBR2 PTS Risk Scoping Study which will be supplied to you in the near future. The purpose of this letter and the attached report is to document the results of CP&L's flux reduction program.

In summary, the report finds that HBR2 can be operated as a minimum to the end of the Operating License prior to the critical Pressure Vessel (PV) weld reaching the NRC's PTS Screening Criteria. Very conservative calculations in the report show a flux reduction factor in excess of 9 for the PLSA design which will be loaded in the near future for Cycle 10 which extends the time at which the screening criteria is reached to the end of the Operating License. Better estimate calculations show the flux reduction factor to be in excess of 10, which would extend the time at which the screening criteria was reached out to the end of the design life of the PV.

Although, CP&L is continuing on with its other PTS programs including participation in the NRC's A-49 Program, CP&L believes that the PTS issue has been effectively resolved for HBR2. While we will be glad to answer questions from and work with your staff in their review of the attached

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Mr. H. R. Denton

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report, we are very confident in the results. Therefore, CP&L requests that you and your staff formally recognize the results documented here and transmit those results in future reports which you make to the NRC Commissioners and others.

If you have any questions on this letter, please contact our staff.

Yours very truly,



A. B. Cutter
Vice President

Nuclear Engineering & Licensing

JJS/kjr (7966JJS)

cc: Mr. J. P. O'Reilly (NRC-RII)
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