CP&L
Carolina Power & Light Company

MAY 05 1983

Serial: LAP-83-137

Director of Nuclear Reactor Regulation
Attention: Mr. D. B. Vassallo, Chief
Operating Reactors Branch No. 2
Division of Licensing
United States Nuclear Regulatory Commission
Washington, DC 20555

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2
DOCKET NOS. 50-325 AND 50-324
LICENSE NOS. DPR-71 AND DPR-62
SPENT FUEL POOL EXPANSION

Dear Mr. Vassallo:

On April 18, 1983 a conference call was held between members of your staff, Carolina Power & Light Company (CP&L) and General Electric (GE). Two questions were raised during the course of this conversation which were answered in a subsequent call on April 19, 1983. This letter is to confirm CP&L's responses provided in that call.

NRC Question (Paraphrased): Please describe the method used in the seismic analysis of the racks to combine the effects of the three spatial components of an earthquake.

Response: The Response Spectra Method described in USNRC Regulatory Guide 1.92, page 1.92-4, paragraph 2.1 was used to combine the data. The method is defined in the Reg. Guide as follows: "When the response spectra method is adopted for seismic analysis, the represented maximum values of the structural responses to each of the three componenets of earthquake motion should be combined by taking the square root of the sums of the squares of the maximum representative values of the codirectional responses caused by each of the three components of earthquake motion at a particular point of the structure or of the mathematical model."

NRC Question (Paraphrased): Please verify that the Safety Factors against overturning of the fuel storage racks as shown in Table 2-12 of GE Report NEDO-2494B are correct.

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Response: The safety factors shown in the reference table are correct as listed. The numbers are obtained by dividing θ (in radians) by the maximum rotation experienced by a fuel storage rack during a seismic event, where θ is defined as the angle, in radians, necessary for overturning to occur. (ref. Fig. 2-9 of GE Report NEDO-24948).

It is CP&L's understanding this satisfactorily answers all of the NRC's structural questions.

If you have any further questions on this subject please contact our staff.

Yours very truly,

S. R. Zimmerman
Manager
Licensing & Permits

SRZ/ce (6731JSD)

cc: Mr. D. O. Myers (NRC-BSEP)
Mr. J. P. O'Reilly (NRC-RII)
Mr. S. D. MacKay (NRC)