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 50-401 Shearon Harris Nuclear Power Plant, Unit 2, Carolina 05000401
 AUTH. NAME AUTHOR AFFILIATION
 ZIMMERMAN, S. R. Carolina Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION
 DENTON, H. R. Office of Nuclear Reactor Regulation, Director

SUBJECT: Retransmits response to draft SER Open Item 276 re Reg
 Guide 1.48, correcting heading on 830812 ltr.

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 TITLE: Licensing Submittal: PSAR/FSAR Amdts & Related Correspondence

NOTES:

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NRR/DSI/AEB 26	1 1	NRR/DSI/ASB	1 1
NRR/DSI/CPB 10	1 1	NRR/DSI/CSB 09	1 1
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NRR/DSI/PSB 19	1 1	NRR/DSI/RAB 22	1 1
NRR/DSI/RSB 23	1 1	REG FILE 04	1 1
RGN2	3 3	RM/DDAMI/MIB	1 0
EXTERNAL: ACRS 41	6 6	BNL (AMDTs ONLY)	1 1
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I have the honor to acknowledge the receipt of your letter of the 11th inst. and in reply to inform you that the same has been forwarded to the proper authorities for their consideration.

Very respectfully,
 J. H. [Signature]

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CP&L

Carolina Power & Light Company

SERIAL: LAP-83-389

AUG 17 1983

Company Correspondence

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
United States Nuclear Regulatory Commission
Washington, DC 20555

SHEARON HARRIS NUCLEAR POWER PLANT
UNIT NOS. 1 AND 2
DOCKET NOS. 50-400 AND 50-401
DRAFT SAFETY EVALUATION REPORT RESPONSE
MECHANICAL ENGINEERING BRANCH

Dear Mr. Denton:

Carolina Power & Light Company (CP&L) hereby retransmits one original and forty copies of the response to the Shearon Harris Nuclear Power Plant Draft Safety Evaluation Report CP&L Open Item 276. This response was previously submitted to the Staff in a letter dated August 12, 1983 (Serial: LAP-83-381) under the incorrect heading, "Materials Engineering Branch."

Yours very truly,



S. R. Zimmerman
Manager
Licensing & Permits

LSW/pgp (7700NLU)
Attachment

cc: Mr. D. Terao (NRC-MEB)
Mr. B. C. Buckley (NRC)
Mr. G. F. Maxwell (NRC-SHNPP)
Mr. J. P. O'Reilly (NRC-RII)
Mr. Travis Payne (KUDZU)
Mr. Daniel F. Read (CHANGE/ELP)
Chapel Hill Public Library
Wake County Public Library

Mr. Wells Eddleman
Dr. Phyllis Lotchin
Mr. John D. Runkle
Dr. Richard D. Wilson
Mr. G. O. Bright (ASLB)
Dr. J. H. Carpenter (ASLB)
Mr. J. L. Kelley (ASLB)

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1. The first part of the report discusses the general situation of the country and the progress of the revolution. It mentions the success of the revolution in the north and the progress in the south. It also mentions the success of the revolution in the east and the progress in the west.

2. The second part of the report discusses the situation of the country and the progress of the revolution. It mentions the success of the revolution in the north and the progress in the south. It also mentions the success of the revolution in the east and the progress in the west.

Shearon Harris Nuclear Power Plant
Draft Safety Evaluation Report Open Item 276

Provide a discussion giving a more detailed justification to Regulatory Guide 1.48; Regulatory Positions C.6, C.7, C.8, and C.10.

Response:

The CP&L position on Regulatory Guide 1.48 is stated below.

The SHNPP project meets the intent of this guide as described below:

NSSS - Westinghouse supplied components are designed using the stress limits and loading combinations presented in Sections 3.9.1 and 5.2 for ASME Code Class 1 components. The conservatism in these limits and the associated ASME design requirements precludes any component structural failure.

The operability of active ASME Code Class 1, 2, and 3 valves and active ASME Code Class 2 and 3 pumps (there are no active ASME Code Class 1 pumps) will be verified by methods detailed in Sections 3.9.1 and 5.2 for ASME Code Class 1 components and in Section 3.9.3 for ASME Code Class 2 and 3 components.

The use of the above stated methods provides an acceptable alternate method to meeting the guidance of this Regulatory Guide.

Balance of Plant - Regulatory Positions C.6a and C.6b--These positions are not applicable to the Shearon Harris Project. BOP systems will not utilize ASME Code Class 2 and 3 vessels designed to ASME Section VIII, Division 1.

Regulatory Position C.7 - This position is not applicable to SHNPP. BOP systems at the SHNPP will not utilize ASME Code Class 2 vessels assigned to Division 2 of Section VIII of the ASME Code.

Regulatory Position C.8.a - The allowable stress for ASME Code Class 2 and 3 piping is not exceeded although the loading combinations listed in Table 3.9.3-7 are greater than those required by Regulatory Position C.8.a(1).

The emergency loading of Regulatory Position C.8.a(2) is addressed in Table 3.9.3-11.

Regulatory Position C.8.b - For the faulted loading combination, Class 2 and 3 piping designed by Ebasco will meet the stress limits provided in Table 3.9.3-11.

Regulatory Position C.10.a - The allowable stress for ASME Code Class 2 and 3 pumps is not exceeded although the loading combinations listed in Table 3.9.3-7 are greater than those required by Regulatory Position C.10.a(1), except where the pump bending stresses are insignificant when compared to the membrane stresses. However, in no case will membrane stress exceed 0.75 yield stress under these conditions.

Table 3.9.3-8 specifies an allowable stress for the emergency plant condition as required by Regulatory Position C.10.a(2). See the response to Regulatory Position C.6.a above.

Regulatory position C.10.a(3) - The SHNPP Table 3.9.3-8 meets the guidance of the Regulatory Guide Note 11 (since pump operability will be demonstrated as discussed in FSAR Section 3.9.2), except where the pump bending stresses are insignificant when compared to the membrane stresses. Therefore, for those materials where the allowable stress is limited by yield stress rather than ultimate stress, the primary membrane stress could slightly exceed the yield stress. Under these conditions, the safety function of the pump would not be impaired.

Regulatory Positions C.11 and C.12 - Class 2 and 3 system pressure and temperature design conditions are determined for normal, upset, emergency and faulted plant conditions in conjunction with specified seismic events. A valve primary pressure rating is then specified to the manufacturer which is in excess of the limiting system pressure and temperature design conditions. Therefore, the requirements of Regulatory Guide 1.48 are met.

In addition, allowable valve stress limits for specified plant conditions and seismic loadings are specified to the manufacturer as indicated in FSAR Table 3.9.3-8. These allowable stresses are generally more restrictive than those presently proposed by the ASME Task Group on valves.

FSAR Section 1.8 will be revised in a future amendment to reflect this response.