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 FACIL:50-261 H. B. ROBINSON PLANT, UNIT 2, CAROLINA POWER AND LIGHT 05000261
 AUTH. NAME AUTHOR AFFILIATION
 UTLEY, E. E. CAROLINA POWER & LIGHT CO.
 RECIP. NAME: RECIPIENT AFFILIATION
 SCHWENCER, A. OPERATING REACTORS BRANCH 11

SUBJECT: FORWARDS SEISMIC REANALYSIS OF RCS IN RESPONSE TO 790517
 & 790518 TELCONS, LOADS & MOMENTS MEET FSAR CRITERIA.

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Carolina Power & Light Company

May 21, 1979

FILE: NG-3514(R)

SERIAL NO: GD-79-1337

Office of Nuclear Reactor Regulation
ATTENTION: Mr. Albert Schwencer, Chief
Operating Reactors Branch No. 1
United States Nuclear Regulatory Commission
Washington, D. C. 20555

H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT NO. 2
DOCKET NO. 50-261
LICENSE NO. DPR-23
SEISMIC ANALYSIS OF REACTOR COOLANT PIPING

Dear Mr. Schwencer:

In telephone conversations on May 17 and 18, 1979, your staff asked for additional information on the reanalysis of the Reactor Coolant System at H. B. Robinson detailed in our letter of April 27. The results of that reanalysis are attached in Tables 1, 2, and 3. All loads and moments are below allowable and meet the criteria specified in the H. B. Robinson FSAR.

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

Yours very truly,

E. E. Utley
Executive Vice President
Power Supply

JJS/t1
Attachment

Acc'd
SE 1/1

TABLE 1

H. B. ROBINSON UNIT NO. 2

PRIMARY COOLANT LOOP

PIPE STRESSES (SEISMIC ONLY)

<u>LOCATION</u>	<u>STRESSES (KSI)</u>	
	<u>ORIGINAL SEISMIC RUN</u>	<u>REVISED SEISMIC RUN</u>
RPV Outlet	0.1	0.1
SG Inlet Elbow	0.2	0.2
SG Inlet	0.2	0.2
SG Outlet	1.6	1.6
SG Outlet Elbow	2.1	2.1
Crossover Leg Elbow (SG Side)	0.8	0.8
RCP Inlet	3.1	3.0
RCP Outlet	2.9	2.9
Cold Leg Elbow	1.1	1.2
RPV Inlet	1.1	1.1

Allowable Stress: 13 ksi

TABLE 2

H. B. ROBINSON UNIT NO. 2

PRIMARY COOLANT LOOP

SUPPORT LOADS (SEISMIC ONLY)

<u>Support</u>	<u>Analysis</u>	<u>(kips)</u>				<u>(in-kips)</u>	
		<u>Fx</u>	<u>Fy</u>	<u>Fz</u>	<u>Mx</u>	<u>My</u>	<u>Mz</u>
SG Lower:	Original:	0	106	115	5069	2064	2253
	Revised:	0	123	116	5087	2052	2234
* Support stress: 4.0 ksi Yield stress: 40 ksi							
SG Upper	Original:	4	0	204	0	0	0
	Revised:	4	0	204	0	0	0
* Support stress: 4.0 ksi Yield stress: 40 ksi							
RCP:	Original:	31	83	131	29	974	680
	Revised:	30	83	131	29	971	715
* Support stress: 4.8 ksi Yield stress: 40 ksi							
RPV:	Original	26	33	3	2447	870	4672
	Revised:	26	33	3	2422	862	4690
* Support stress: 2.0 ski Yield stress: 40 ksi							

*Deadweight and seismic loads combined.

TABLE 3

H. B. ROBINSON UNIT NO. 2

PRIMARY COOLANT LOOP

PRIMARY EQUIPMENT NOZZLE LOADS (SEISMIC ONLY)

Nozzle	Analysis	(kips)			(in-kips)		
		<u>F_x</u>	<u>F_y</u>	<u>F_z</u>	<u>M_x</u>	<u>M_y</u>	<u>M_z</u>
RPVON	Original:	30.30	1.10	1.79	21.66	109.6	70.5
	Revised:	30.33	1.12	1.82	22.7	111.3	72.0
* Revised Analysis Total Stress:		15.6 ksi					
Allowable Stress:		20.04 ksi					
SGIN	Original:	30.21	1.04	2.11	39.3	135.1	438.6
	Revised:	30.22	1.04	2.15	40.3	135.0	439.1
* Revised Analysis Total Stress:		14.9 ksi					
Allowable Stress:		22.44 ksi					
SGON	Original:	30.66	44.46	66.39	4305.0	265.7	1312.9
	Revised:	30.59	44.34	66.38	4303.9	274.8	1308.7
* Revised Analysis Total Stress:		15.4 ksi					
Allowable Stress:		22.44 ksi					
RCPIN	Original:	30.82	44.55	62.05	6034.1	914.2	3114.1
	Revised:	30.75	44.43	62.04	6017.9	912.2	3107.4
* Revised Analysis Total Stress:		15.6 ksi					
Allowable Stress:		22.44 ksi					
RCPON	Original:	4.85	31.20	2.75	3458.8	96.0	2831.7
	Revised:	4.85	31.18	2.76	3480.7	94.0	2808.6
* Revised Analysis Total Stress:		17.7 ksi					
Allowable Stress:		22.44 ksi					
RPVIN	Original:	7.0	31.5	2.68	399.3	222.7	2089.5
	Revised:	7.0	31.5	2.87	422.7	219.5	2109.6
* Revised Analysis Total Stress:		15.3 ksi					
Allowable Stress:		20.04 ksi					

* Pressure, deadweight and seismic loads combined.