



October 16, 1992
LD-92-107

Docket No. 52-002

Attn: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: System 80+™ Seismic Analysis Structural Models

Dear Sirs:

This letter transmits seismic analysis structural model details which were requested in two recent telephone calls.

If you have any questions, please call me or Dr. Stavros Dermitzakis of the ABB Impell Corporation at (510) 275-4797.

Very truly yours,

COMBUSTION ENGINEERING, INC.

C. B. Brinkman
Acting Director
Nuclear Systems Licensing

CBH/ser

cc: J. Trotter (EPRI)
T. Wambach (NRC)

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SUBJECT: System 80+ Seismic Model
Additional Information for Transmittal to NRC

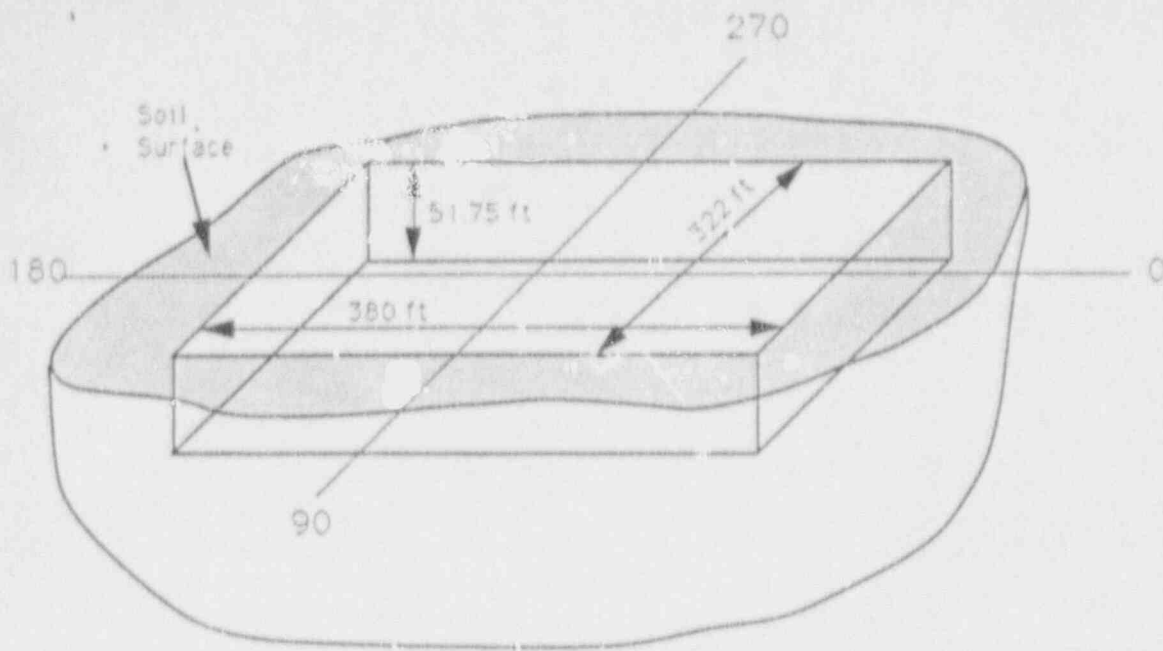
Attached please find additional information related to the seismic model of the System 80+ Nuclear Island and Nuclear Annex structures. This information was requested by Mr. Ramon Pichumani of the NRC during his telephone conversation with Dr. Stavros Dermitzakis of ABB Impell on 9/25/92. This information is to be used by the NRC in their independent seismic analysis of the System 30+.

Please do not hesitate to contact me at (510) 275-4537 or Dr. Stavros Dermitzakis at (510) 275-4797 should you have any questions.

ABB Impell Corporation

5000 Executive Parkway
Post Office Box 5013
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Telephone (510) 275-4500
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System 80+ Nuclear Island
and Nuclear Annex Structures

Dimensions of excavated volume: 380' x 322' x 51.75'

Ground Surface Elevation: + 91.75 ft

Elevation at bottom of Basemat: +40.00 ft

Soil Layers and Properties
Case B3.5

Layer No.	Thick. (ft.)	S-Wave Velocity (ft/sec)	P-Wave Velocity (ft/sec)	Damping S-Wave	Damping P-Wave
1	2.75	567	1389	0.026	0.009
2	3	567	1389	0.026	0.009
3	3	503	1232	0.050	0.017
4	3	503	1232	0.050	0.017
5	3	445	1090	0.080	0.027
6	3	445	1090	0.080	0.027
7	3	445	1090	0.080	0.027
8	3	389	953	0.109	0.036
9	3	389	953	0.109	0.036
10	3	389	953	0.109	0.036
11	3	394	965	0.112	0.037
12	3	394	965	0.112	0.037
13	3	394	965	0.112	0.037
14	3	411	1007	0.110	0.037
15	3	411	1007	0.110	0.037
16	3	411	1007	0.110	0.037
17	2	411	1007	0.110	0.037
18	2	411	1007	0.110	0.037
19	8	1301	3187	0.036	0.012
20	8	1328	3253	0.038	0.013
21	8	1328	3253	0.038	0.013
22	8	1328	3253	0.038	0.013
23	8	1363	3339	0.041	0.014
24	8	1363	3339	0.041	0.014

Unit Weight (all layers) = 125 pcf

Soil Layers and Properties
Case B4

Layer No.	Thick. (ft.)	S-Wave Velocity (ft/sec)	P-Wave Velocity (ft/sec)	Damping S-Wave	Damping P-Wave
1	3.75	473	1159	0.025	0.008
2	4	421	1031	0.050	0.017
3	4	421	1031	0.050	0.017
4	3.75	374	916	0.079	0.026
5	3.75	374	916	0.079	0.026
6	3.4	340	833	0.099	0.033
7	3.4	340	833	0.099	0.033
8	3.4	340	833	0.099	0.033
9	3.3	329	806	0.112	0.037
10	3.3	329	806	0.112	0.037
11	3.3	329	806	0.112	0.037
12	3.1	310	759	0.128	0.043
13	3.1	310	759	0.128	0.043
14	3.1	310	759	0.128	0.043
15	3.1	310	759	0.128	0.043
16	8	2124	5203	0.019	0.006
17	10	2181	5342	0.021	0.007
18	10	2181	5342	0.021	0.007
19	10	2264	5546	0.022	0.007
20	10	2264	5546	0.022	0.007

Unit Weight (all layers) = 125 pcf



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Attached please find additional information related to the seismic model of the System 80+ Nuclear Island and Nuclear Annex structures. This information was requested by Mr. Ramon Pichumani of the NRC during his telephone conversation with Dr. Stavros Dermitzakis of ABB Impell on 10/7/92. The information is to be used by the NRC in their independent seismic analysis of the System 80+.

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ATTACHMENT 1

System 80+ Nuclear Annex Structures

1. CVCS/Maintenance Area
2. Fuel Building Area
3. Control Room Area I
4. Control Room Area II
5. Emergency Diesel Generator Area Division I
6. Emergency Diesel Generator Area Division II
7. Emergency Feedwater Tank/Main Steam Valve House Area Div. I
8. Emergency Feedwater Tank/Main Steam Valve House Area Div. II

(see attached sketch for location of above areas)

