GENERAL ELECTRIC

NUCLEAR ENERGY
PROGRAMS
DIVISION

GENERAL ELECTRIC COMPANY, 175 CURTNER AVE., SAN JOSE, CALIFORNIA 95125

SPENT FUEL SERVICES OPERATION

DMD-270

Docket No. 70-1308
License No. SNM-1265

December 1, 1978

Office of Nuclear Material Safety & Safeguards
Attn: Mr. F.M. Empson, Project Manager
Fuel Reprocessing & Recycle Branch
U.S. Nuclear Regulatory Commission
7915 Eastern Avenue
Silver Spring, MD 20910

Reference: Memo to L.C. Rouse from F.M. Empson re Conference Call 11/22/78 (USNRC)

SUBJECT: SEISMIC RESPONSE COMPARISON - EL CENTRO AND RG 1.60

Gentlemen:

In response to our telephone conference of November 22, we have performed an analysis of the Basin 2 south wall to develop a specific comparison of results under the El Centro and RG 1.60 spectra. The south wall was selected for this comparison because it is the only wall not poured against rock, as are all other basin walls.

This analysis utilized the same techniques as involved in the analysis described in Revision 85 of NEDO 21326 (Subappendix A.15-A), involving General Electric's version of the finite element computer program SAP IV. Critical inertial stress due to seismic load is summarized in the attached table for element 18 (the critical element) showing minor differences between the results based on El Centro and RG 1.60. Likewise, the maximum stress in element 18 due to the combined effects of hydrostatic and seismic forces shows immaterial differences between the results of the two response spectra.

Due to the relatively high natural frequency of the wall, there is essentially no difference between results obtained under El Centro and RG 1.60 spectra.

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Please contact Hal Rogers if you have further questions regarding this matter.

Respectfully,

D.M. Dawson, Manager
Licensing & Transportation
408*925-6330 MC 861

DMD:HAR:bn

Attachment

CRITICAL INERTIAL STRESS [lbs/ft^2] ELEMENT 18

Mode No.	El Centro 2%		RG 1.60 4%		El Centro 5%		RG 1.60 7%	
	(1)	(2)	(1)	(2)	(1)	(2)	(1)	(2)
1	-4.68	4.58	-4.87	4.76	-12.73	12.45	-9.36	7.15
2	-3.12	2.50	-3.69	2.46	- 8.49	5.66	7.38	4.92
3	3.78	-4.38	3.87	-4.48	7.56	- 8.76	7.80	9.03
4	2.70	-2.93	2.84	-3.08	5.40	-5.86	5.69	-6.17
5	2.34	-2.50	2.51	-2.68	4.68	-5.00	5.02	-5.36
6	-.022	.008	-.023	.008	-.044	.016	-.046	.017
7	-.372	.217	.404	.236	-.744	.434	-.812	-.458
SRSS	±7.67	±7.83	±8.18	±8.09	±18.52	±18.00	±16.16	±16.00

where (1) and (2) are face 1&2 of element 18

\+ tensions

\- compression

% percent of critical damping