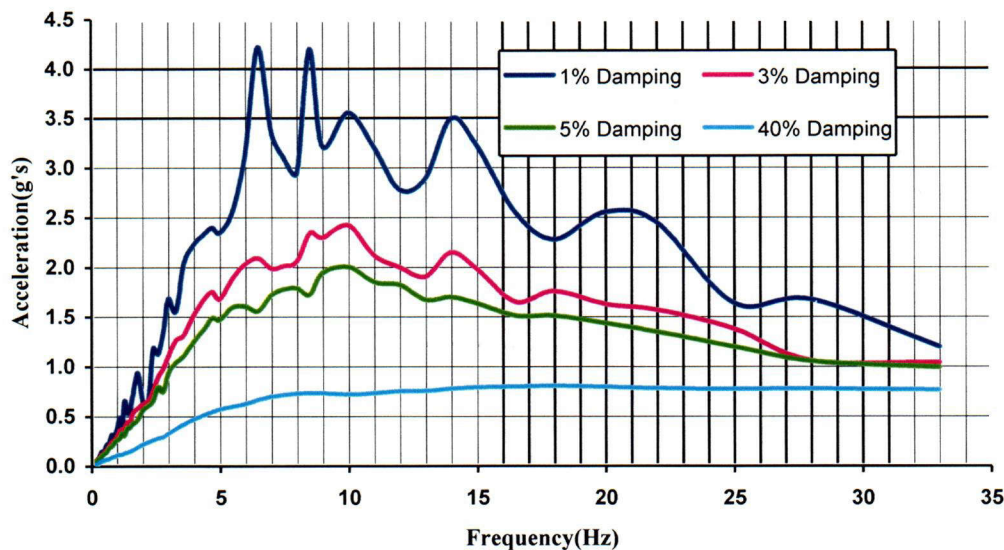


RAS 5657

12-22-ISFSI-State Exhibit 195-Rec'd 6/5/02

Response Spectra - Vertical For 2000 year Return Period



DOCKETED
USNRC

2003 JAN 31 PM 2: 14

OFFICE OF THE SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

CLEAR REGULATORY COMMISSION

Docket No. _____ Official Exh. No. 195
In the matter of PFS
Staff _____ IDENTIFIED ☒
Applicant _____ RECEIVED ☒
Intervenor ☒ REJECTED _____
Other _____ WITHDRAWN _____
DATE 6-5-02 Witness _____
Clerk Suzette Snider

Template=SECY-028

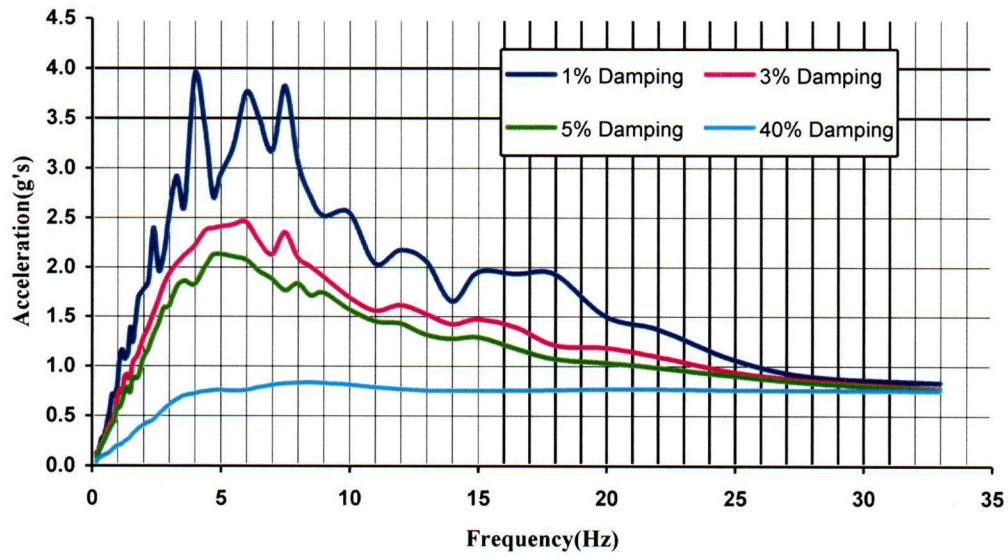
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SECY-02

2000 Return Period RESPONSE SPECTRA -Vertical

Frequency	1%	3%	5%	40%
0.2	6.05E-02	5.08E-02	4.47E-02	1.51E-02
0.3	8.69E-02	7.64E-02	7.03E-02	3.19E-02
0.4	1.47E-01	1.19E-01	9.76E-02	4.64E-02
0.5	1.53E-01	1.39E-01	1.27E-01	5.94E-02
0.6	2.18E-01	1.68E-01	1.43E-01	6.65E-02
0.7	2.36E-01	2.08E-01	1.84E-01	7.63E-02
0.8	3.19E-01	2.47E-01	2.02E-01	8.81E-02
0.9	2.95E-01	2.66E-01	2.37E-01	1.01E-01
1	3.73E-01	2.99E-01	2.64E-01	1.11E-01
1.1	4.93E-01	3.57E-01	2.79E-01	1.18E-01
1.2	4.10E-01	3.76E-01	3.33E-01	1.23E-01
1.3	6.57E-01	3.84E-01	3.08E-01	1.32E-01
1.4	5.41E-01	4.48E-01	3.88E-01	1.41E-01
1.5	5.64E-01	4.26E-01	3.88E-01	1.51E-01
1.6	7.05E-01	5.30E-01	4.25E-01	1.62E-01
1.8	9.38E-01	5.84E-01	4.70E-01	1.91E-01
2	6.48E-01	6.26E-01	5.65E-01	2.21E-01
2.2	6.22E-01	6.59E-01	6.06E-01	2.44E-01
2.4	1.19E+00	7.58E-01	6.59E-01	2.65E-01
2.6	1.13E+00	8.98E-01	7.99E-01	2.84E-01
2.8	1.35E+00	9.82E-01	7.51E-01	2.97E-01
3	1.68E+00	1.11E+00	9.35E-01	3.33E-01
3.3	1.56E+00	1.27E+00	1.04E+00	3.81E-01
3.6	2.03E+00	1.32E+00	1.11E+00	4.23E-01
4	2.23E+00	1.52E+00	1.26E+00	4.75E-01
4.4	2.34E+00	1.68E+00	1.38E+00	5.22E-01
4.7	2.40E+00	1.75E+00	1.49E+00	5.51E-01
5	2.35E+00	1.68E+00	1.47E+00	5.76E-01
5.5	2.56E+00	1.89E+00	1.60E+00	6.03E-01
6	3.15E+00	2.03E+00	1.60E+00	6.30E-01
6.5	4.22E+00	2.09E+00	1.56E+00	6.70E-01
7	3.37E+00	1.99E+00	1.72E+00	7.04E-01
7.5	3.09E+00	2.02E+00	1.78E+00	7.22E-01
8	2.95E+00	2.06E+00	1.79E+00	7.36E-01
8.5	4.20E+00	2.34E+00	1.73E+00	7.36E-01
9	3.22E+00	2.30E+00	1.94E+00	7.38E-01
10	3.56E+00	2.42E+00	2.00E+00	7.24E-01
11	3.21E+00	2.12E+00	1.85E+00	7.38E-01
12	2.78E+00	2.00E+00	1.82E+00	7.56E-01
13	2.89E+00	1.91E+00	1.67E+00	7.59E-01
14	3.49E+00	2.15E+00	1.70E+00	7.83E-01
15	3.22E+00	1.98E+00	1.63E+00	7.96E-01
16.5	2.55E+00	1.65E+00	1.51E+00	8.02E-01
18	2.28E+00	1.76E+00	1.51E+00	8.09E-01
20	2.56E+00	1.63E+00	1.44E+00	7.99E-01
22	2.45E+00	1.57E+00	1.35E+00	7.86E-01
25	1.64E+00	1.38E+00	1.20E+00	7.75E-01
28	1.68E+00	1.06E+00	1.06E+00	7.78E-01
33	1.20E+00	1.04E+00	9.92E-01	7.67E-01

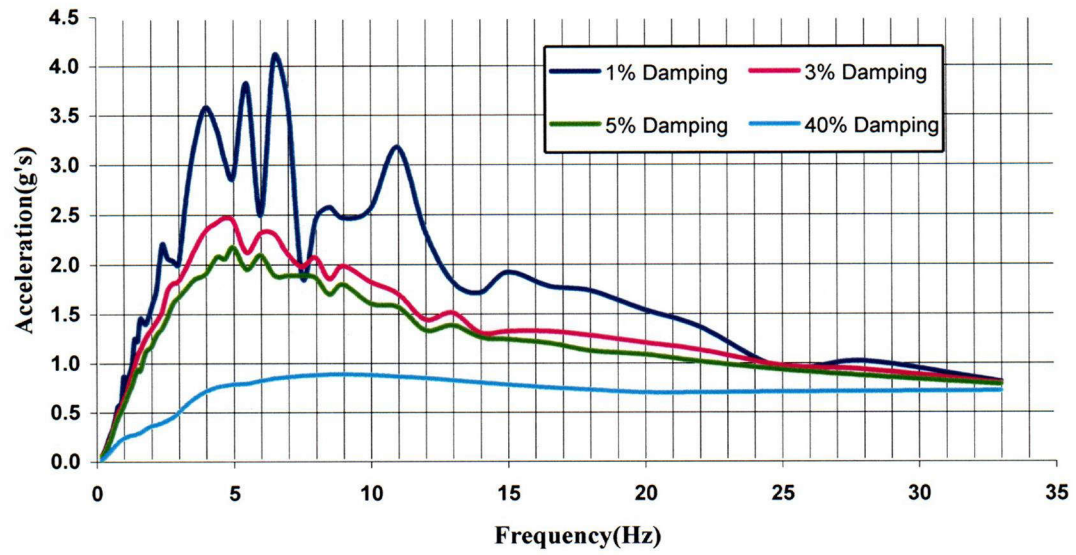
Response Spectra - NS For 2000 year Return Period



2000 Return Period RESPONSE SPECTRA -NS

Frequency	1%	3%	5%	40%
0.2	1.23E-01	1.00E-01	8.53E-02	3.88E-02
0.3	1.67E-01	1.55E-01	1.44E-01	7.22E-02
0.4	2.71E-01	2.22E-01	1.99E-01	9.01E-02
0.5	3.01E-01	2.74E-01	2.48E-01	1.04E-01
0.6	4.16E-01	3.46E-01	3.07E-01	1.20E-01
0.7	5.41E-01	4.15E-01	3.60E-01	1.33E-01
0.8	7.11E-01	4.55E-01	4.13E-01	1.52E-01
0.9	7.03E-01	5.09E-01	4.47E-01	1.81E-01
1	7.96E-01	6.74E-01	5.82E-01	2.00E-01
1.1	1.09E+00	7.60E-01	5.81E-01	2.09E-01
1.2	1.16E+00	7.28E-01	6.44E-01	2.19E-01
1.3	1.07E+00	8.92E-01	7.50E-01	2.43E-01
1.4	1.11E+00	9.14E-01	7.82E-01	2.63E-01
1.5	1.39E+00	8.65E-01	7.33E-01	2.85E-01
1.6	1.24E+00	1.03E+00	8.83E-01	3.15E-01
1.8	1.68E+00	1.12E+00	8.81E-01	3.66E-01
2	1.77E+00	1.28E+00	1.07E+00	4.05E-01
2.2	1.86E+00	1.39E+00	1.17E+00	4.35E-01
2.4	2.40E+00	1.53E+00	1.32E+00	4.60E-01
2.6	1.96E+00	1.67E+00	1.43E+00	5.12E-01
2.8	2.14E+00	1.82E+00	1.59E+00	5.62E-01
3	2.53E+00	1.93E+00	1.60E+00	6.08E-01
3.3	2.92E+00	2.03E+00	1.80E+00	6.64E-01
3.6	2.62E+00	2.12E+00	1.86E+00	7.02E-01
4	3.94E+00	2.22E+00	1.82E+00	7.26E-01
4.4	3.39E+00	2.37E+00	2.01E+00	7.48E-01
4.7	2.72E+00	2.39E+00	2.13E+00	7.58E-01
5	2.94E+00	2.41E+00	2.13E+00	7.60E-01
5.5	3.22E+00	2.43E+00	2.11E+00	7.55E-01
6	3.76E+00	2.46E+00	2.08E+00	7.61E-01
6.5	3.50E+00	2.26E+00	1.96E+00	7.88E-01
7	3.17E+00	2.13E+00	1.88E+00	8.11E-01
7.5	3.82E+00	2.35E+00	1.77E+00	8.27E-01
8	3.06E+00	2.10E+00	1.84E+00	8.33E-01
8.5	2.71E+00	2.00E+00	1.71E+00	8.36E-01
9	2.52E+00	1.91E+00	1.74E+00	8.30E-01
10	2.55E+00	1.70E+00	1.57E+00	8.14E-01
11	2.04E+00	1.56E+00	1.45E+00	7.90E-01
12	2.17E+00	1.61E+00	1.43E+00	7.71E-01
13	2.06E+00	1.52E+00	1.32E+00	7.58E-01
14	1.66E+00	1.42E+00	1.28E+00	7.53E-01
15	1.95E+00	1.47E+00	1.29E+00	7.53E-01
16.5	1.94E+00	1.39E+00	1.18E+00	7.57E-01
18	1.93E+00	1.21E+00	1.07E+00	7.60E-01
20	1.50E+00	1.19E+00	1.04E+00	7.68E-01
22	1.37E+00	1.09E+00	9.87E-01	7.68E-01
25	1.06E+00	9.39E-01	9.04E-01	7.59E-01
28	8.96E-01	8.57E-01	8.35E-01	7.56E-01
33	8.34E-01	7.74E-01	7.62E-01	7.50E-01

Response Spectra - EW For 2000 year Return Period



2000 Return Period RESPONSE SPECTRA -EW

Frequency(Hz)	1%	3%	5%	40%
0.2	6.22E-02	5.70E-02	5.24E-02	2.19E-02
0.3	1.15E-01	1.01E-01	9.13E-02	4.26E-02
0.4	1.83E-01	1.60E-01	1.41E-01	6.80E-02
0.5	2.71E-01	2.37E-01	2.07E-01	9.59E-02
0.6	3.34E-01	3.06E-01	2.81E-01	1.34E-01
0.7	4.59E-01	4.14E-01	3.77E-01	1.65E-01
0.8	5.67E-01	5.00E-01	4.46E-01	1.94E-01
0.9	5.96E-01	5.51E-01	5.07E-01	2.19E-01
1	8.69E-01	6.26E-01	5.64E-01	2.37E-01
1.1	7.56E-01	6.92E-01	6.34E-01	2.51E-01
1.2	8.71E-01	7.86E-01	7.11E-01	2.64E-01
1.3	1.00E+00	8.75E-01	7.70E-01	2.71E-01
1.4	1.25E+00	9.70E-01	8.56E-01	2.73E-01
1.5	1.22E+00	1.07E+00	9.39E-01	2.86E-01
1.6	1.45E+00	1.14E+00	9.26E-01	2.97E-01
1.8	1.40E+00	1.26E+00	1.12E+00	3.35E-01
2	1.56E+00	1.34E+00	1.17E+00	3.64E-01
2.2	1.76E+00	1.43E+00	1.29E+00	3.79E-01
2.4	2.20E+00	1.52E+00	1.36E+00	3.95E-01
2.6	2.07E+00	1.74E+00	1.47E+00	4.24E-01
2.8	2.04E+00	1.81E+00	1.61E+00	4.51E-01
3	2.00E+00	1.83E+00	1.67E+00	4.99E-01
3.3	2.71E+00	1.98E+00	1.76E+00	5.82E-01
3.6	3.20E+00	2.15E+00	1.85E+00	6.52E-01
4	3.58E+00	2.34E+00	1.91E+00	7.20E-01
4.4	3.37E+00	2.43E+00	2.08E+00	7.61E-01
4.7	3.05E+00	2.47E+00	2.06E+00	7.78E-01
5	2.88E+00	2.44E+00	2.18E+00	7.89E-01
5.5	3.83E+00	2.12E+00	1.95E+00	7.96E-01
6	2.50E+00	2.32E+00	2.09E+00	8.25E-01
6.5	4.10E+00	2.31E+00	1.89E+00	8.50E-01
7	3.62E+00	2.10E+00	1.89E+00	8.64E-01
7.5	1.88E+00	1.98E+00	1.89E+00	8.78E-01
8	2.46E+00	2.07E+00	1.87E+00	8.82E-01
8.5	2.58E+00	1.85E+00	1.70E+00	8.89E-01
9	2.47E+00	1.99E+00	1.80E+00	8.88E-01
10	2.56E+00	1.83E+00	1.60E+00	8.82E-01
11	3.18E+00	1.70E+00	1.57E+00	8.68E-01
12	2.33E+00	1.44E+00	1.34E+00	8.50E-01
13	1.83E+00	1.51E+00	1.39E+00	8.27E-01
14	1.71E+00	1.31E+00	1.26E+00	8.07E-01
15	1.92E+00	1.32E+00	1.24E+00	7.85E-01
16.5	1.78E+00	1.32E+00	1.20E+00	7.55E-01
18	1.73E+00	1.28E+00	1.13E+00	7.30E-01
20	1.54E+00	1.21E+00	1.09E+00	7.03E-01
22	1.37E+00	1.14E+00	1.02E+00	7.02E-01
25	9.49E-01	9.76E-01	9.34E-01	7.10E-01
28	1.02E+00	9.36E-01	8.72E-01	7.14E-01
33	8.12E-01	7.99E-01	7.85E-01	7.20E-01