

Columbia Generating Station (46.47° N, 119.33° E), Control Point Hazard

SA (g)	AFE 2.5 Hz	AFE 5 Hz	AFE 10 Hz	AFE 25 Hz	AFE 100 Hz
0.000100	9.485000e-02	9.491000e-02	9.413000e-02	9.330000e-02	9.362000e-02
0.000113	9.480000e-02	9.491000e-02	9.383000e-02	9.282000e-02	9.310000e-02
0.000128	9.471000e-02	9.490000e-02	9.340000e-02	9.224000e-02	9.245000e-02
0.000145	9.457000e-02	9.489000e-02	9.286000e-02	9.160000e-02	9.169000e-02
0.000164	9.438000e-02	9.488000e-02	9.222000e-02	9.091000e-02	9.087000e-02
0.000185	9.414000e-02	9.484000e-02	9.154000e-02	9.019000e-02	9.002000e-02
0.000210	9.385000e-02	9.477000e-02	9.082000e-02	8.947000e-02	8.916000e-02
0.000237	9.352000e-02	9.465000e-02	9.009000e-02	8.874000e-02	8.830000e-02
0.000268	9.318000e-02	9.449000e-02	8.936000e-02	8.801000e-02	8.744000e-02
0.000303	9.282000e-02	9.424000e-02	8.862000e-02	8.726000e-02	8.657000e-02
0.000343	9.244000e-02	9.394000e-02	8.789000e-02	8.647000e-02	8.569000e-02
0.000388	9.206000e-02	9.357000e-02	8.715000e-02	8.562000e-02	8.475000e-02
0.000439	9.166000e-02	9.317000e-02	8.637000e-02	8.466000e-02	8.372000e-02
0.000497	9.123000e-02	9.272000e-02	8.551000e-02	8.355000e-02	8.255000e-02
0.000562	9.076000e-02	9.225000e-02	8.453000e-02	8.227000e-02	8.117000e-02
0.000636	9.019000e-02	9.177000e-02	8.338000e-02	8.082000e-02	7.958000e-02
0.000719	8.949000e-02	9.128000e-02	8.203000e-02	7.919000e-02	7.777000e-02
0.000813	8.862000e-02	9.078000e-02	8.047000e-02	7.739000e-02	7.575000e-02
0.000920	8.752000e-02	9.026000e-02	7.872000e-02	7.540000e-02	7.355000e-02
0.001041	8.618000e-02	8.968000e-02	7.673000e-02	7.324000e-02	7.116000e-02
0.001177	8.456000e-02	8.904000e-02	7.451000e-02	7.093000e-02	6.860000e-02
0.001332	8.262000e-02	8.828000e-02	7.202000e-02	6.850000e-02	6.589000e-02
0.001507	8.035000e-02	8.737000e-02	6.931000e-02	6.599000e-02	6.308000e-02
0.001704	7.774000e-02	8.629000e-02	6.642000e-02	6.344000e-02	6.023000e-02
0.001928	7.480000e-02	8.498000e-02	6.346000e-02	6.088000e-02	5.739000e-02
0.002181	7.160000e-02	8.343000e-02	6.049000e-02	5.831000e-02	5.459000e-02
0.002467	6.822000e-02	8.163000e-02	5.760000e-02	5.569000e-02	5.183000e-02
0.002791	6.475000e-02	7.956000e-02	5.480000e-02	5.302000e-02	4.907000e-02
0.003157	6.130000e-02	7.721000e-02	5.213000e-02	5.027000e-02	4.627000e-02
0.003571	5.793000e-02	7.459000e-02	4.957000e-02	4.745000e-02	4.341000e-02
0.004040	5.468000e-02	7.175000e-02	4.711000e-02	4.459000e-02	4.052000e-02
0.004570	5.156000e-02	6.875000e-02	4.471000e-02	4.174000e-02	3.764000e-02
0.005170	4.857000e-02	6.568000e-02	4.234000e-02	3.894000e-02	3.482000e-02
0.005848	4.568000e-02	6.260000e-02	3.994000e-02	3.625000e-02	3.212000e-02
0.006615	4.284000e-02	5.957000e-02	3.748000e-02	3.367000e-02	2.957000e-02
0.007483	4.002000e-02	5.664000e-02	3.498000e-02	3.120000e-02	2.719000e-02
0.008465	3.720000e-02	5.380000e-02	3.245000e-02	2.884000e-02	2.495000e-02
0.009576	3.437000e-02	5.105000e-02	2.996000e-02	2.656000e-02	2.282000e-02
0.010833	3.155000e-02	4.838000e-02	2.752000e-02	2.435000e-02	2.079000e-02
0.012254	2.877000e-02	4.575000e-02	2.518000e-02	2.221000e-02	1.885000e-02
0.013862	2.608000e-02	4.312000e-02	2.294000e-02	2.016000e-02	1.699000e-02
0.015681	2.350000e-02	4.046000e-02	2.082000e-02	1.822000e-02	1.521000e-02
0.017739	2.107000e-02	3.778000e-02	1.882000e-02	1.640000e-02	1.355000e-02

0.020066	1.881000e-02	3.508000e-02	1.696000e-02	1.471000e-02	1.200000e-02
0.022699	1.672000e-02	3.238000e-02	1.522000e-02	1.314000e-02	1.055000e-02
0.025678	1.479000e-02	2.973000e-02	1.361000e-02	1.169000e-02	9.201000e-03
0.029047	1.304000e-02	2.716000e-02	1.210000e-02	1.034000e-02	7.957000e-03
0.032859	1.146000e-02	2.469000e-02	1.069000e-02	9.083000e-03	6.814000e-03
0.037170	1.003000e-02	2.235000e-02	9.392000e-03	7.918000e-03	5.780000e-03
0.042048	8.750000e-03	2.015000e-02	8.196000e-03	6.852000e-03	4.855000e-03
0.047565	7.612000e-03	1.808000e-02	7.105000e-03	5.887000e-03	4.038000e-03
0.053806	6.604000e-03	1.616000e-02	6.125000e-03	5.025000e-03	3.325000e-03
0.060867	5.715000e-03	1.437000e-02	5.252000e-03	4.263000e-03	2.712000e-03
0.068853	4.935000e-03	1.271000e-02	4.482000e-03	3.595000e-03	2.192000e-03
0.077888	4.251000e-03	1.119000e-02	3.806000e-03	3.013000e-03	1.759000e-03
0.088108	3.653000e-03	9.792000e-03	3.215000e-03	2.509000e-03	1.403000e-03
0.099670	3.130000e-03	8.522000e-03	2.701000e-03	2.074000e-03	1.109000e-03
0.112748	2.674000e-03	7.377000e-03	2.255000e-03	1.702000e-03	8.667000e-04
0.127542	2.276000e-03	6.354000e-03	1.869000e-03	1.384000e-03	6.667000e-04
0.144278	1.930000e-03	5.446000e-03	1.538000e-03	1.114000e-03	5.020000e-04
0.163210	1.629000e-03	4.644000e-03	1.255000e-03	8.860000e-04	3.680000e-04
0.184625	1.370000e-03	3.939000e-03	1.012000e-03	6.940000e-04	2.616000e-04
0.208851	1.146000e-03	3.321000e-03	8.068000e-04	5.343000e-04	1.798000e-04
0.236256	9.536000e-04	2.782000e-03	6.339000e-04	4.034000e-04	1.196000e-04
0.267257	7.893000e-04	2.314000e-03	4.900000e-04	2.980000e-04	7.693000e-05
0.302325	6.491000e-04	1.910000e-03	3.721000e-04	2.152000e-04	4.785000e-05
0.341995	5.300000e-04	1.564000e-03	2.774000e-04	1.516000e-04	2.869000e-05
0.386871	4.293000e-04	1.269000e-03	2.027000e-04	1.041000e-04	1.650000e-05
0.437634	3.447000e-04	1.020000e-03	1.451000e-04	6.954000e-05	9.059000e-06
0.495059	2.739000e-04	8.115000e-04	1.017000e-04	4.521000e-05	4.720000e-06
0.560020	2.151000e-04	6.381000e-04	6.969000e-05	2.857000e-05	2.325000e-06
0.633503	1.668000e-04	4.954000e-04	4.668000e-05	1.753000e-05	1.079000e-06
0.716629	1.274000e-04	3.794000e-04	3.055000e-05	1.045000e-05	4.717000e-07
0.810663	9.582000e-05	2.861000e-04	1.953000e-05	6.056000e-06	1.941000e-07
0.917036	7.080000e-05	2.123000e-04	1.220000e-05	3.416000e-06	7.559000e-08
1.037366	5.135000e-05	1.548000e-04	7.450000e-06	1.879000e-06	2.809000e-08
1.173485	3.653000e-05	1.108000e-04	4.449000e-06	1.011000e-06	1.011000e-08
1.327466	2.547000e-05	7.773000e-05	2.602000e-06	5.337000e-07	3.585000e-09
1.501652	1.741000e-05	5.346000e-05	1.492000e-06	2.776000e-07	1.269000e-09
1.698694	1.166000e-05	3.599000e-05	8.394000e-07	1.427000e-07	4.487000e-10
1.921589	7.655000e-06	2.371000e-05	4.643000e-07	7.284000e-08	1.562000e-10
2.173734	4.932000e-06	1.528000e-05	2.529000e-07	3.700000e-08	5.225000e-11
2.458964	3.121000e-06	9.625000e-06	1.359000e-07	1.878000e-08	1.639000e-11
2.781622	1.942000e-06	5.928000e-06	7.225000e-08	9.537000e-09	4.718000e-12
3.146617	1.190000e-06	3.568000e-06	3.813000e-08	4.855000e-09	1.228000e-12
3.559503	7.190000e-07	2.100600e-06	2.003000e-08	2.474000e-09	2.857000e-13
4.026569	4.290000e-07	1.208000e-06	1.050000e-08	1.260000e-09	5.893000e-14
4.554923	2.531000e-07	6.795000e-07	5.498000e-09	6.382000e-10	1.074000e-14
5.152606	1.479000e-07	3.741000e-07	2.876000e-09	3.202000e-10	1.727000e-15
5.828714	8.566000e-08	2.018000e-07	1.501000e-09	1.583000e-10	2.453000e-16
6.593533	4.925000e-08	1.067000e-07	7.789000e-10	7.671000e-11	3.093000e-17
7.458715	2.814000e-08	5.549000e-08	4.005000e-10	3.627000e-11	3.488000e-18

8.437425	1.598000e-08	2.840000e-08	2.031000e-10	1.666000e-11	3.554000e-19
9.544557	9.033000e-09	1.435000e-08	1.012000e-10	7.411000e-12	3.309000e-20
10.796952	5.082000e-09	7.188000e-09	4.931000e-11	3.180000e-12	2.855000e-21
12.213694	2.846000e-09	3.578000e-09	2.341000e-11	1.313000e-12	2.302000e-22
13.816336	1.587000e-09	1.777000e-09	1.080000e-11	5.210000e-13	1.768000e-23
15.629272	8.816000e-10	8.825000e-10	4.823000e-12	1.981000e-13	1.286000e-24
17.680094	4.873000e-10	4.394000e-10	2.082000e-12	7.213000e-14	8.285000e-26

Columbia Generating Station (46.47° N, 119.33° E), Control Point Hazard, continued

SA (g)	AFE 0.5 Hz	AFE 1 Hz
0.000010	9.476000e-02	9.458000e-02
0.000011	9.476000e-02	9.458000e-02
0.000013	9.476000e-02	9.458000e-02
0.000015	9.476000e-02	9.458000e-02
0.000017	9.472000e-02	9.458000e-02
0.000020	9.460000e-02	9.458000e-02
0.000023	9.443000e-02	9.457000e-02
0.000027	9.423000e-02	9.457000e-02
0.000031	9.403000e-02	9.456000e-02
0.000035	9.383000e-02	9.455000e-02
0.000040	9.363000e-02	9.454000e-02
0.000046	9.344000e-02	9.453000e-02
0.000053	9.324000e-02	9.452000e-02
0.000061	9.304000e-02	9.451000e-02
0.000071	9.284000e-02	9.450000e-02
0.000081	9.263000e-02	9.449000e-02
0.000093	9.231000e-02	9.448000e-02
0.000107	9.169000e-02	9.446000e-02
0.000123	9.067000e-02	9.442000e-02
0.000142	8.942000e-02	9.433000e-02
0.000163	8.807000e-02	9.420000e-02
0.000187	8.646000e-02	9.404000e-02
0.000215	8.408000e-02	9.382000e-02
0.000248	8.077000e-02	9.335000e-02
0.000285	7.701000e-02	9.239000e-02
0.000327	7.326000e-02	9.098000e-02
0.000376	6.969000e-02	8.940000e-02
0.000433	6.628000e-02	8.781000e-02
0.000498	6.304000e-02	8.624000e-02
0.000572	5.996000e-02	8.471000e-02
0.000658	5.703000e-02	8.320000e-02
0.000756	5.424000e-02	8.172000e-02
0.000870	5.155000e-02	8.027000e-02
0.001000	4.875000e-02	7.882000e-02
0.001150	4.554000e-02	7.723000e-02

0.001322	4.207000e-02	7.500000e-02
0.001520	3.870000e-02	7.177000e-02
0.001748	3.556000e-02	6.811000e-02
0.002009	3.257000e-02	6.449000e-02
0.002310	2.960000e-02	6.093000e-02
0.002656	2.670000e-02	5.706000e-02
0.003054	2.402000e-02	5.266000e-02
0.003511	2.160000e-02	4.819000e-02
0.004037	1.943000e-02	4.402000e-02
0.004642	1.747000e-02	4.020000e-02
0.005337	1.570000e-02	3.671000e-02
0.006136	1.404000e-02	3.351000e-02
0.007055	1.244000e-02	3.052000e-02
0.008111	1.092000e-02	2.755000e-02
0.009326	9.545000e-03	2.457000e-02
0.010723	8.295000e-03	2.173000e-02
0.012328	7.154000e-03	1.914000e-02
0.014175	6.136000e-03	1.672000e-02
0.016298	5.255000e-03	1.451000e-02
0.018738	4.491000e-03	1.253000e-02
0.021544	3.813000e-03	1.080000e-02
0.024771	3.205000e-03	9.281000e-03
0.028480	2.678000e-03	7.908000e-03
0.032745	2.233000e-03	6.686000e-03
0.037649	1.858000e-03	5.630000e-03
0.043288	1.534000e-03	4.732000e-03
0.049770	1.250000e-03	3.963000e-03
0.057224	1.006000e-03	3.294000e-03
0.065793	8.000000e-04	2.715000e-03
0.075646	6.277000e-04	2.219000e-03
0.086975	4.873000e-04	1.794000e-03
0.100000	3.753000e-04	1.438000e-03
0.114976	2.853000e-04	1.144000e-03
0.132194	2.128000e-04	8.982000e-04
0.151991	1.562000e-04	6.933000e-04
0.174753	1.140000e-04	5.293000e-04
0.200923	8.287000e-05	4.016000e-04
0.231013	5.964000e-05	3.019000e-04
0.265609	4.205000e-05	2.236000e-04
0.305386	2.904000e-05	1.633000e-04
0.351119	1.991000e-05	1.185000e-04
0.403702	1.373000e-05	8.606000e-05
0.464159	9.500000e-06	6.239000e-05
0.533670	6.508000e-06	4.490000e-05
0.613591	4.354000e-06	3.181000e-05
0.705481	2.818000e-06	2.202000e-05
0.811131	1.762000e-06	1.483000e-05
0.932604	1.068000e-06	9.702000e-06
1.072268	6.321000e-07	6.171000e-06

1.232847	3.675000e-07	3.831000e-06
1.417475	2.110000e-07	2.328000e-06
1.629751	1.199000e-07	1.386000e-06
1.873819	6.752000e-08	8.065000e-07
2.154435	3.763000e-08	4.562000e-07
2.477078	2.072000e-08	2.500000e-07
2.848037	1.100000e-08	1.324000e-07
3.274549	6.021000e-09	6.794000e-08
3.764938	3.173000e-09	3.393000e-08
4.328762	1.646000e-09	1.662000e-08
4.977026	8.407000e-10	8.067000e-09
5.722369	4.226000e-10	3.914000e-09
6.579331	2.092000e-10	1.912000e-09
7.564636	1.020000e-10	9.431000e-10
8.697490	4.903000e-11	4.693000e-10
10.000005	2.323000e-11	2.350000e-10

Columbia Generating Station (46.47° N, 119.33° E), Response Spectra

Frequency (Hz)	UHRS 1E-4 (g)	GMRS (g)	UHRS 1E-5 (g)
100.000	0.2484	0.2484	0.4288
50.000	0.2951	0.2951	0.5057
33.333	0.3471	0.3471	0.6242
25.000	0.3916	0.3916	0.7238
20.000	0.3595	0.3595	0.6537
13.333	0.4341	0.4341	0.8088
10.000	0.4978	0.5067	0.9638
6.667	0.7427	0.7501	1.4240
5.000	1.2160	1.2711	2.4340
3.333	1.3236	1.4474	2.8030
2.500	0.7958	0.9078	1.7767
2.000	0.7360	0.8878	1.7620
1.333	0.5313	0.6748	1.3565
1.000	0.3781	0.4634	0.9234
0.667	0.3089	0.3609	0.7104
0.500	0.1851	0.2281	0.4552
0.333	0.0837	0.0974	0.1917
0.200	0.0435	0.0472	0.0912
0.133	0.0262	0.0280	0.0540
0.100	0.0196	0.0207	0.0397