



Tennessee Valley Authority, 1101 Market Street, Chattanooga, Tennessee 37402

APR 18 1991

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555

Gentlemen:

In the Matter of the Application of) Docket No. 50-438
Tennessee Valley Authority) 50-439

BELLEVILLE NUCLEAR PLANT (BLN) - CLARIFICATION OF THE REQUESTED POSITION
ON CATEGORY I CIVIL STRUCTURAL PAPER

Reference: Civil Structural Paper to U.S. Nuclear Regulatory Commission
from TVA, dated February 14, 1991 (L44 910214 801)

During a telephone conversation with members of your staff, held on
March 20, 1991, TVA was requested to provide clarification of exactly
what its position is with respect to the criteria to be used in
performing the reanalysis of Category I civil structures. The requested
clarification is provided in the following paragraph.

TVA intends to perform reanalysis of the Category I civil structures at
BLN in accordance with the guidance provided in Sections 3.7.1, 3.7.2,
and 3.7.3 of the Standard Review Plan, Revision 2, dated August 1989,
with the exception of peak broadening. TVA requests staff approval of
the use of 10 percent peak broadening for the design of Category I civil
structures. Justification for the use of 10 percent peak broadening as
opposed to 15 percent peak broadening was provided in the referenced
letter.

NRC has also requested TVA to provide a copy of the digitized data for
the site-specific response spectra used to produce Figure 1 of the
referenced letter. This information is provided as an attachment to this
letter.

9104240146 910418
PDR ADOCK 05000327
P PDR

ADD 1/1

APR 18 1991

U.S. Nuclear Regulatory Commission

If you should have any questions concerning this issue, please telephone
Bruce Schofield at (205) 574-8058.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

R. H. Shell
for E. G. Wallace, Manager
Nuclear Licensing and
Regulatory Affairs

Enclosure

cc (Enclosure):

Ms. S. C. Black, Deputy Director
Project Directorate II-4
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

NRC Resident Inspector
Bellefonte Nuclear Plant
P.O. Box 2000
Hollywood, Alabama 35752

Mr. M. C. Thadani, Project Manager
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

Mr. B. A. Wilson, Chief, Project Chief
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Attachment

SEQUOYAH, WATTS BAR AND BELLEFONTE NUCLEAR PLANTS ACCELERATION
VALUES FOR SITE SPECIFIC RESPONSE SPECTRUM

- A - The lognormally distributed 84th percentile site-specific horizontal response spectra at 4 % damping
- B - The SQN OBE HOR ABCD average response spectra at 4 % damping times 2 times 1.58
- C - The lognormally distributed 84th percentile site-specific vertical response spectra at 4 % damping
- D - The SQN OBE HOR ABCD average response spectra at 4 % damping times 2 times 1.11
- E - The lognormally distributed 84th percentile site-specific horizontal response spectra at 7 % damping
- F - The SQN OBE HOR ABCD average response spectra at 7 % damping times 2 times 1.58
- G - The lognormally distributed 84th percentile site-specific vertical response spectra at 7 % damping
- H - The SQN OBE HOR ABCD average response spectra at 7 % damping times 2 times 1.11

SEQUOYAH, WATTS BAR AND BELLEFONTE NUCLEAR PLANTS ACCELERATION
VALUES FOR SITE SPECIFIC RESPONSE SPECTRUM

PERIOD (SEC)	4% DAMP		4% DAMP		7% DAMP		7% DAMP		7% DAMP	
	A HOR	B HOR	C VERT	D VERT	E HOR	F HOR	G VER	H VER	I VER	
1	0.030	0.22681	0.232752	0.151963	0.163516	0.22482	0.232572	0.150629	0.163389	
2	0.035	0.24389	0.244272	0.163406	0.171609	0.23713	0.241164	0.158877	0.169425	
3	0.040	0.26301	0.253177	0.176217	0.177865	0.24962	0.245780	0.167245	0.172668	
4	0.045	0.26799	0.257069	0.179553	0.180599	0.25380	0.249939	0.170046	0.175590	
5	0.050	0.27944	0.271640	0.187225	0.190836	0.26286	0.261185	0.176116	0.183490	
6	0.055	0.28400	0.279469	0.190280	0.196336	0.26937	0.263385	0.180478	0.185036	
7	0.060	0.28912	0.286050	0.193710	0.200959	0.27090	0.271280	0.181503	0.190583	
8	0.065	0.30496	0.305926	0.206323	0.214922	0.28645	0.288760	0.191922	0.202863	
9	0.070	0.32349	0.328166	0.216738	0.230547	0.29505	0.300728	0.197684	0.211271	
10	0.075	0.32273	0.355282	0.216229	0.249597	0.29765	0.320516	0.199426	0.225173	
11	0.080	0.33035	0.358493	0.221335	0.251852	0.30496	0.332508	0.204323	0.233597	
12	0.085	0.34358	0.402531	0.230199	0.282790	0.31743	0.358525	0.212678	0.251875	
13	0.090	0.36426	0.426240	0.244054	0.299447	0.33285	0.380400	0.223010	0.267243	
14	0.095	0.38715	0.453691	0.259391	0.318732	0.35232	0.402972	0.236054	0.283101	
15	0.100	0.41270	0.479226	0.276509	0.336671	0.38060	0.410305	0.255002	0.288252	
16	0.110	0.47880	0.501769	0.320796	0.352508	0.41984	0.434274	0.281293	0.305091	
17	0.120	0.48665	0.602477	0.326056	0.423259	0.43642	0.489370	0.292401	0.343798	
18	0.130	0.56834	0.631456	0.380788	0.443618	0.48654	0.516323	0.325982	0.362733	
19	0.140	0.62617	0.652687	0.419534	0.458533	0.52627	0.502911	0.352601	0.353311	
20	0.150	0.60126	0.692903	0.402844	0.486786	0.52058	0.530204	0.348789	0.372485	
21	0.160	0.60968	0.637750	0.408486	0.448039	0.51890	0.528516	0.347663	0.371299	
22	0.170	0.59846	0.642439	0.400968	0.451334	0.50744	0.528153	0.339985	0.371044	
23	0.180	0.58905	0.673499	0.394664	0.473154	0.49374	0.537677	0.330806	0.377735	
24	0.190	0.57230	0.707836	0.383441	0.497277	0.48757	0.539085	0.326672	0.392775	
25	0.200	0.56789	0.653630	0.380486	0.459196	0.48866	0.524693	0.327402	0.368613	
26	0.210	0.57981	0.621347	0.388473	0.436516	0.48754	0.493452	0.326652	0.346666	
27	0.220	0.57863	0.606286	0.387682	0.425935	0.49055	0.479247	0.328669	0.336686	
28	0.230	0.54802	0.596870	0.367173	0.419320	0.47610	0.484629	0.318987	0.340467	
29	0.240	0.54189	0.622216	0.363066	0.437126	0.46369	0.501750	0.310672	0.352495	
30	0.250	0.57277	0.619832	0.383756	0.435452	0.46509	0.487810	0.311610	0.342702	
31	0.260	0.57151	0.605668	0.382912	0.425501	0.46072	0.468899	0.308682	0.329416	
32	0.270	0.53472	0.615369	0.358262	0.432316	0.44035	0.468163	0.295035	0.328899	
33	0.280	0.49445	0.616787	0.331282	0.433313	0.41682	0.470903	0.279269	0.330824	
34	0.290	0.47005	0.589657	0.314934	0.414253	0.40122	0.468875	0.268817	0.329400	
35	0.300	0.45865	0.571986	0.307296	0.401838	0.39319	0.454976	0.263437	0.319635	
36	0.320	0.43911	0.528092	0.294204	0.371001	0.38500	0.449955	0.257950	0.316108	
37	0.340	0.44142	0.597755	0.295751	0.419942	0.37654	0.471406	0.252282	0.331177	
38	0.360	0.44396	0.632918	0.297453	0.444645	0.37044	0.500050	0.248195	0.351301	
39	0.380	0.42662	0.608640	0.285835	0.427589	0.36031	0.503024	0.241408	0.353390	
40	0.400	0.40659	0.613834	0.272415	0.431238	0.34888	0.502235	0.233750	0.352836	
41	0.420	0.38460	0.659541	0.257682	0.463348	0.33142	0.517031	0.222051	0.363231	
42	0.440	0.36255	0.596548	0.242909	0.419094	0.30936	0.480761	0.207271	0.337750	
43	0.460	0.33656	0.520199	0.225495	0.365456	0.28853	0.442589	0.193315	0.310933	
44	0.480	0.31022	0.551384	0.207847	0.387364	0.26431	0.448805	0.177088	0.315300	
45	0.500	0.29697	0.617922	0.198970	0.434110	0.24897	0.489813	0.166810	0.344109	
46	0.550	0.24333	0.568298	0.163031	0.399247	0.20888	0.460999	0.139950	0.323866	
47	0.600	0.20033	0.537149	0.134221	0.377364	0.17707	0.422235	0.118637	0.296634	
48	0.650	0.18092	0.484385	0.121216	0.340296	0.15681	0.375955	0.105063	0.264120	
49	0.700	0.16678	0.409660	0.111743	0.287799	0.14327	0.345038	0.095991	0.242400	
50	0.750	0.15741	0.386374	0.105465	0.271440	0.13573	0.338974	0.090939	0.238140	
51	0.800	0.14944	0.372375	0.100125	0.261605	0.13121	0.318408	0.087911	0.223692	
52	0.850	0.14192	0.337524	0.095086	0.237121	0.12470	0.287398	0.083549	0.201806	
53	0.900	0.13330	0.286605	0.089311	0.201349	0.11817	0.253049	0.079174	0.177775	
54	0.950	0.12742	0.294750	0.085371	0.207071	0.11243	0.243719	0.075328	0.171220	

SEQUOYAH, WATTS BAR AND BELLEFONTE NUCLEAR PLANTS ACCELERATION
VALUES FOR SITE SPECIFIC RESPONSE SPECTRUM

PERIOD (SEC)	4% DAMP		4% DAMP		7% DAMP		7% DAMP		7% DAMP	
	A HOR	B HOR	C VERT	D VERT	E HOR	F HOR	G HOR	H HOR		
55	1.000	0.12792	0.307552	0.085706	0.216065	0.10863	0.247971	0.072782	0.174208	
56	1.100	0.11486	0.271678	0.076956	0.190862	0.10091	0.222701	0.067610	0.156455	
57	1.200	0.10855	0.232478	0.072729	0.163324	0.09345	0.190363	0.062612	0.133736	
58	1.300	0.09743	0.226011	0.065278	0.158780	0.08305	0.177665	0.055644	0.124816	
59	1.400	0.08026	0.232591	0.053774	0.163402	0.07060	0.179772	0.047302	0.126295	
60	1.500	0.06917	0.246920	0.046344	0.173469	0.06194	0.193204	0.041500	0.135732	
61	1.600	0.06235	0.238125	0.041775	0.167290	0.05698	0.189289	0.038177	0.132982	
62	1.700	0.05690	0.234725	0.038123	0.164902	0.05234	0.186355	0.035068	0.130920	
63	1.800	0.05244	0.196431	0.035135	0.137999	0.04800	0.160885	0.032160	0.113027	
64	1.900	0.04935	0.170667	0.033065	0.119899	0.04477	0.150587	0.029996	0.105792	
65	2.000	0.04665	0.178891	0.031256	0.125677	0.04202	0.151341	0.028153	0.106322	
66	2.100	0.04374	0.191048	0.029306	0.134218	0.03947	0.152350	0.026445	0.107031	
67	2.200	0.04141	0.167205	0.027745	0.117467	0.03712	0.139246	0.024870	0.097825	
68	2.300	0.03829	0.145702	0.025654	0.102360	0.03482	0.126249	0.023329	0.088694	
69	2.400	0.03621	0.142584	0.024261	0.100170	0.03267	0.121705	0.021889	0.085501	
70	2.500	0.03403	0.139903	0.022800	0.098286	0.03044	0.119153	0.020395	0.083709	
71	2.600	0.03164	0.145160	0.021199	0.101979	0.02824	0.116267	0.018921	0.081681	
72	2.700	0.02933	0.147272	0.019651	0.103463	0.02665	0.115648	0.017856	0.081246	
73	2.800	0.02762	0.137936	0.018505	0.096904	0.02506	0.112536	0.016790	0.079060	
74	2.900	0.02575	0.131148	0.017253	0.092136	0.02337	0.106085	0.015658	0.074528	
75	3.000	0.02400	0.119277	0.016080	0.083795	0.02185	0.098515	0.014640	0.069210	
76	3.200	0.02090	0.101038	0.014003	0.070982	0.01918	0.084956	0.012851	0.059684	
77	3.400	0.01862	0.081097	0.012475	0.056973	0.01717	0.069976	0.011504	0.049160	
78	3.600	0.01643	0.071994	0.011008	0.050578	0.01551	0.061783	0.010392	0.043405	
79	3.800	0.01488	0.071506	0.009970	0.050235	0.01409	0.061392	0.009440	0.043130	
80	4.000	0.01343	0.071889	0.008998	0.050504	0.01272	0.060650	0.008522	0.042608	