Seismic data to support public meeting with Dominion regarding NRC staff evaluation of seismic risk at V.C. Summer Generating Station.

Table 1 GMRS and UHRS for Summer

Frequency (Hz)	UHRS 1E-4 (g)	GMRS (g)	UHRS 1E-5 (g)
0.100	0.010393	0.011400	0.022166
0.133	0.014814	0.016600	0.032301
0.200	0.024351	0.027200	0.053002
0.250	0.032217	0.036000	0.070069
0.333	0.046749	0.053600	0.104969
0.500	0.075534	0.088500	0.174311
0.667	0.099759	0.118200	0.233517
1.000	0.139904	0.171000	0.340474
1.333	0.176104	0.216400	0.431340
2.000	0.232316	0.287400	0.574054
2.500	0.279711	0.347600	0.694912
3.333	0.351728	0.439200	0.879098
4.000	0.407119	0.512300	1.027593
5.000	0.460551	0.576500	1.154844
6.667	0.555101	0.697000	1.397110
10.000	0.680901	0.881300	1.780175
13.333	0.706396	0.951900	1.942059
20.000	0.649357	0.920500	1.902157
25.000	0.591304	0.853100	1.770523
33.333	0.505417	0.745200	1.554968
40.000	0.457539	0.682000	1.427137
50.000	0.399905	0.599700	1.256728
100.000	0.280781	0.425200	0.893201
PGA	0.251260	0.374200	0.782801

Table A-1 Control Point Total Mean Hazard Curves for F=0.100 to 1.000 Hz								
SA(g)	**F0.100Hz**	**F0.133Hz**	**F0.200Hz**	**F0.250Hz**	**F0.333Hz**	**F0.500Hz**	**F0.667Hz**	**F1.000Hz**
0.00100	3.28009E-03	4.13911E-03	5.36478E-03	6.33062E-03	7.81626E-03	1.21837E-02	1.63253E-02	2.44156E-02
0.00126	2.76783E-03	3.62802E-03	4.81956E-03	5.71168E-03	7.01474E-03	1.06772E-02	1.41483E-02	2.13275E-02
0.00158	2.34382E-03	3.18874E-03	4.33940E-03	5.16426E-03	6.30956E-03	9.38275E-03	1.22981E-02	1.86824E-02
0.00200	1.97109E-03	2.78766E-03	3.89007E-03	4.64980E-03	5.65033E-03	8.20101E-03	1.06277E-02	1.62754E-02
0.00251	1.52832E-03	2.30203E-03	3.38016E-03	4.11520E-03	5.05387E-03	7.26225E-03	9.26133E-03	1.40149E-02
0.00316	1.15162E-03	1.85793E-03	2.89430E-03	3.60194E-03	4.48831E-03	6.41578E-03	8.05824E-03	1.20307E-02
0.00398	7.95767E-04	1.39806E-03	2.37149E-03	3.05187E-03	3.90956E-03	5.65357E-03	7.01865E-03	1.02878E-02
0.00501	5.49597E-04	1.05134E-03	1.94201E-03	2.58461E-03	3.40452E-03	4.98194E-03	6.11417E-03	8.79997E-03
0.00631	3.23433E-04	6.78991E-04	1.40973E-03	1.98294E-03	2.76550E-03	4.24155E-03	5.22164E-03	7.45809E-03
0.00794	1.90741E-04	4.39284E-04	1.02466E-03	1.52295E-03	2.24829E-03	3.61351E-03	4.46222E-03	6.32501E-03
0.01000	1.12257E-04	2.83721E-04	7.43841E-04	1.16847E-03	1.82633E-03	3.07654E-03	3.81091E-03	5.36063E-03
0.01260	5.61613E-05	1.53659E-04	4.54553E-04	7.62794E-04	1.29965E-03	2.38192E-03	3.02968E-03	4.35056E-03
0.01580	2.85041E-05	8.42856E-05	2.80627E-04	5.02393E-04	9.31414E-04	1.85395E-03	2.42009E-03	3.54615E-03
0.02000	1.40647E-05	4.50927E-05	1.69812E-04	3.25192E-04	6.58328E-04	1.42805E-03	1.91519E-03	2.86600E-03
0.02510	6.62081E-06	2.22294E-05	9.21777E-05	1.87990E-04	4.18352E-04	1.00066E-03	1.40228E-03	2.18830E-03
0.03160	3.07553E-06	1.07501E-05	4.87239E-05	1.05600E-04	2.58396E-04	6.83280E-04	1.00375E-03	1.63930E-03
0.03980	1.41286E-06	5.02695E-06	2.41730E-05	5.51102E-05	1.47764E-04	4.33876E-04	6.74248E-04	1.16440E-03
0.05010	6.50325E-07	2.35502E-06	1.20079E-05	2.87867E-05	8.45366E-05	2.75533E-04	4.52920E-04	8.27067E-04
0.06310	3.01861E-07	1.10142E-06	5.67347E-06	1.39124E-05	4.35924E-05	1.55895E-04	2.73073E-04	5.33723E-04
0.07940	1.40546E-07	5.16695E-07	2.68863E-06	6.74333E-06	2.25386E-05	8.84062E-05	1.64974E-04	3.45025E-04
0.10000	6.52432E-08	2.41677E-07	1.27043E-06	3.25929E-06	1.16233E-05	5.00234E-05	9.94716E-05	2.22663E-04
0.12600	2.94152E-08	1.12785E-07	6.01562E-07	1.54886E-06	5.67566E-06	2.56080E-05	5.36977E-05	1.28343E-04
0.15800	1.34832E-08	5.34741E-08	2.89301E-07	7.47496E-07	2.81298E-06	1.32928E-05	2.93611E-05	7.48278E-05
0.20000	5.98310E-09	2.45787E-08	1.34959E-07	3.49987E-07	1.35407E-06	6.71456E-06	1.56562E-05	4.26592E-05
0.25100	2.59840E-09	1.11501E-08	6.41824E-08	1.69355E-07	6.72694E-07	3.37094E-06	8.11476E-06	2.31301E-05
0.31600	1.10417E-09	4.94944E-09	2.99464E-08	8.07021E-08	3.30793E-07	1.67677E-06	4.15794E-06	1.23491E-05
0.39800	4.52377E-10	2.11410E-09	1.35390E-08	3.77165E-08	1.62177E-07	8.33956E-07	2.11073E-06	6.43021E-06
0.50100	1.85627E-10	9.04368E-10	6.12945E-09	1.76500E-08	7.96132E-08	4.15428E-07	1.07317E-06	3.35304E-06
0.63100	7.10342E-11	3.62429E-10	2.60000E-09	7.76398E-09	3.72090E-08	2.04025E-07	5.40914E-07	1.71812E-06
0.79400	2.72874E-11	1.45777E-10	1.10666E-09	3.42649E-09	1.74434E-08	1.00486E-07	2.73386E-07	8.82736E-07

Table A-1 Control Point Total Mean Hazard Curves for F=0.100 to 1.000 Hz								
SA(g)	**F0.100Hz**	**F0.133Hz**	**F0.200Hz**	**F0.250Hz**	**F0.333Hz**	**F0.500Hz**	**F0.667Hz**	**F1.000Hz**
1.00000	1.04434E-11	5.84272E-11	4.69473E-10	1.50741E-09	8.15334E-09	4.93550E-08	1.37807E-07	4.52358E-07
1.26000	3.58674E-12	2.13530E-11	1.83597E-10	6.12001E-10	3.50794E-09	2.27739E-08	6.61661E-08	2.23747E-07
1.58000	1.25949E-12	7.96853E-12	7.32126E-11	2.53164E-10	1.53594E-09	1.06786E-08	3.22564E-08	1.12300E-07
2.00000	4.23444E-13	2.85431E-12	2.81000E-11	1.00952E-10	6.49804E-10	4.85199E-09	1.52624E-08	5.47713E-08
2.51000	1.32412E-13	9.66422E-13	1.03615E-11	3.87933E-11	2.64541E-10	2.12792E-09	6.99002E-09	2.60951E-08
3.16000	3.96942E-14	3.14995E-13	3.70069E-12	1.44773E-11	1.04763E-10	9.09517E-10	3.12448E-09	1.21611E-08
3.98000	1.08552E-14	9.46615E-14	1.23983E-12	5.10449E-12	3.93175E-11	3.69520E-10	1.33148E-09	5.43475E-09
5.01000	2.97350E-15	2.84911E-14	4.15992E-13	1.80247E-12	1.47777E-11	1.50331E-10	5.68115E-10	2.43173E-09
6.31000	6.87024E-16	7.31539E-15	1.22002E-13	5.65491E-13	5.01046E-12	5.55339E-11	2.20696E-10	1.00000E-09
7.94000	1.59669E-16	1.88854E-15	3.59566E-14	1.78236E-13	1.70619E-12	2.05966E-11	8.60586E-11	4.12695E-10
10.00000	3.68979E-17	4.84983E-16	1.05469E-14	5.59260E-14	5.78568E-13	7.60951E-12	3.34351E-11	1.69731E-10

Table A-2 Control Point Total Mean Hazard Curves for F=1.333 to 10.000 Hz								
SA(g)	**F1.333Hz**	**F2.000Hz**	**F2.500Hz**	**F3.333Hz**	**F4.000Hz**	**F5.000Hz**	**F6.667Hz**	**F10.000Hz**
0.00100	2.97600E-02	3.48493E-02	3.62723E-02	3.75224E-02	3.77930E-02	3.81645E-02	3.82202E-02	3.77313E-02
0.00126	2.65506E-02	3.21114E-02	3.38195E-02	3.53947E-02	3.57773E-02	3.63123E-02	3.64411E-02	3.59214E-02
0.00158	2.37435E-02	2.96389E-02	3.15785E-02	3.34282E-02	3.39076E-02	3.45857E-02	3.47792E-02	3.42332E-02
0.00200	2.11348E-02	2.72658E-02	2.94020E-02	3.14960E-02	3.20640E-02	3.28745E-02	3.31287E-02	3.25592E-02
0.00251	1.83447E-02	2.42503E-02	2.64580E-02	2.87093E-02	2.93694E-02	3.03214E-02	3.06797E-02	3.01801E-02
0.00316	1.58370E-02	2.13995E-02	2.36122E-02	2.59493E-02	2.66784E-02	2.77417E-02	2.81938E-02	2.77761E-02
0.00398	1.35072E-02	1.84798E-02	2.05792E-02	2.28808E-02	2.36454E-02	2.47780E-02	2.53207E-02	2.50312E-02
0.00501	1.15233E-02	1.59602E-02	1.79364E-02	2.01743E-02	2.09557E-02	2.21287E-02	2.27380E-02	2.25556E-02
0.00631	9.69875E-03	1.33993E-02	1.51075E-02	1.70948E-02	1.78182E-02	1.89352E-02	1.95730E-02	1.95529E-02
0.00794	8.16871E-03	1.12572E-02	1.27335E-02	1.44950E-02	1.51602E-02	1.62126E-02	1.68587E-02	1.69597E-02
0.01000	6.87544E-03	9.45107E-03	1.07255E-02	1.22826E-02	1.28907E-02	1.38731E-02	1.45124E-02	1.47022E-02
0.01260	5.59934E-03	7.66580E-03	8.69878E-03	9.96405E-03	1.04737E-02	1.13152E-02	1.19210E-02	1.22217E-02
0.01580	4.57957E-03	6.24485E-03	7.08579E-03	8.11832E-03	8.54675E-03	9.26810E-03	9.83240E-03	1.01988E-02
0.02000	3.71435E-03	5.04411E-03	5.72288E-03	6.55840E-03	6.91559E-03	7.52859E-03	8.04505E-03	8.44690E-03
0.02510	2.88090E-03	3.94078E-03	4.49628E-03	5.17424E-03	5.48415E-03	6.00598E-03	6.49472E-03	6.91526E-03

Table A-2 Control Point Total Mean Hazard Curves for F=1.333 to 10.000 Hz								
SA(g)	**F1.333Hz**	**F2.000Hz**	**F2.500Hz**	**F3.333Hz**	**F4.000Hz**	**F5.000Hz**	**F6.667Hz**	**F10.000Hz**
0.03160	2.19740E-03	3.03781E-03	3.49461E-03	4.04965E-03	4.32206E-03	4.76765E-03	5.22432E-03	5.64124E-03
0.03980	1.60091E-03	2.26175E-03	2.64612E-03	3.11708E-03	3.36987E-03	3.75954E-03	4.19169E-03	4.58792E-03
0.05010	1.16637E-03	1.68416E-03	2.00409E-03	2.40011E-03	2.62849E-03	2.96578E-03	3.36457E-03	3.73278E-03
0.06310	7.80127E-04	1.17225E-03	1.44093E-03	1.78792E-03	2.00140E-03	2.29256E-03	2.66382E-03	3.00374E-03
0.07940	5.22628E-04	8.17128E-04	1.03739E-03	1.33346E-03	1.52558E-03	1.77398E-03	2.11098E-03	2.41919E-03
0.10000	3.49578E-04	5.68786E-04	7.45904E-04	9.93374E-04	1.16166E-03	1.37134E-03	1.67136E-03	1.94675E-03
0.12600	2.09684E-04	3.58382E-04	4.89382E-04	6.84061E-04	8.23498E-04	9.87571E-04	1.24215E-03	1.49067E-03
0.15800	1.27114E-04	2.27986E-04	3.23901E-04	4.74724E-04	5.87963E-04	7.16066E-04	9.28865E-04	1.14777E-03
0.20000	7.54722E-05	1.42333E-04	2.10730E-04	3.24482E-04	4.13956E-04	5.12310E-04	6.86253E-04	8.74205E-04
0.25100	4.23115E-05	8.33354E-05	1.27794E-04	2.06297E-04	2.71582E-04	3.41172E-04	4.72434E-04	6.27582E-04
0.31600	2.33202E-05	4.78599E-05	7.58637E-05	1.28168E-04	1.74102E-04	2.22113E-04	3.17950E-04	4.41229E-04
0.39800	1.24479E-05	2.63605E-05	4.28226E-05	7.51000E-05	1.05090E-04	1.36280E-04	2.01360E-04	2.93150E-04
0.50100	6.65314E-06	1.45351E-05	2.41945E-05	4.40334E-05	6.34627E-05	8.36514E-05	1.27563E-04	1.94802E-04
0.63100	3.46882E-06	7.71155E-06	1.29763E-05	2.39689E-05	3.51409E-05	4.70793E-05	7.37687E-05	1.17989E-04
0.79400	1.81329E-06	4.10172E-06	6.97699E-06	1.30788E-05	1.95045E-05	2.65573E-05	4.27535E-05	7.16072E-05
1.00000	9.45489E-07	2.17633E-06	3.74227E-06	7.11976E-06	1.08009E-05	1.49476E-05	2.47258E-05	4.33740E-05
1.26000	4.76574E-07	1.11479E-06	1.93389E-06	3.68763E-06	5.61501E-06	7.84019E-06	1.32263E-05	2.40916E-05
1.58000	2.43659E-07	5.79015E-07	1.01317E-06	1.93625E-06	2.95896E-06	4.16774E-06	7.16756E-06	1.35458E-05
2.00000	1.21149E-07	2.92658E-07	5.16722E-07	9.89788E-07	1.51831E-06	2.15807E-06	3.78652E-06	7.43612E-06
2.51000	5.89780E-08	1.45111E-07	2.59326E-07	4.98841E-07	7.66768E-07	1.09536E-06	1.95446E-06	3.96121E-06
3.16000	2.81076E-08	7.04748E-08	1.27535E-07	2.46494E-07	3.79723E-07	5.45075E-07	9.89517E-07	2.07141E-06
3.98000	1.28687E-08	3.29136E-08	6.03765E-08	1.17438E-07	1.81403E-07	2.61407E-07	4.83215E-07	1.04616E-06
5.01000	5.89885E-09	1.53899E-08	2.86168E-08	5.60187E-08	8.67651E-08	1.25512E-07	2.36235E-07	5.28922E-07
6.31000	2.49628E-09	6.67335E-09	1.26149E-08	2.49329E-08	3.87615E-08	5.61937E-08	1.07575E-07	2.49836E-07
7.94000	1.06001E-09	2.90338E-09	5.57914E-09	1.11331E-08	1.73722E-08	2.52396E-08	4.91405E-08	1.18364E-07
10.00000	4.48623E-10	1.25909E-09	2.45964E-09	4.95561E-09	7.76162E-09	1.13012E-08	2.23792E-08	5.59141E-08

Table A-3 Control Point Total Mean Hazard Curves for F=13.333 to 100.000 Hz and PGA								
SA(g)	**F13.333Hz**	**F20.000Hz**	**F25.000Hz**	**F33.333Hz**	**F40.000Hz**	**F50.000Hz**	**F100.000Hz**	**PGA**
0.00100	3.72074E-02	3.65853E-02	3.61238E-02	3.55185E-02	3.51004E-02	3.43948E-02	3.28472E-02	3.25880E-02
0.00126	3.53541E-02	3.46568E-02	3.41121E-02	3.33820E-02	3.28793E-02	3.20517E-02	3.02183E-02	2.99188E-02
0.00158	3.36288E-02	3.28670E-02	3.22508E-02	3.14145E-02	3.08406E-02	2.99120E-02	2.78479E-02	2.75170E-02
0.00200	3.19212E-02	3.11009E-02	3.04200E-02	2.94884E-02	2.88515E-02	2.78350E-02	2.55765E-02	2.52201E-02
0.00251	2.95757E-02	2.87593E-02	2.80408E-02	2.70369E-02	2.63523E-02	2.52749E-02	2.28829E-02	2.24950E-02
0.00316	2.72177E-02	2.64237E-02	2.56821E-02	2.46263E-02	2.39083E-02	2.27922E-02	2.03233E-02	1.99108E-02
0.00398	2.45575E-02	2.38322E-02	2.30932E-02	2.20146E-02	2.12834E-02	2.01600E-02	1.76904E-02	1.72542E-02
0.00501	2.21559E-02	2.14940E-02	2.07646E-02	1.96794E-02	1.89463E-02	1.78316E-02	1.53989E-02	1.49523E-02
0.00631	1.92800E-02	1.87425E-02	1.80552E-02	1.70027E-02	1.62943E-02	1.52330E-02	1.29324E-02	1.24788E-02
0.00794	1.67868E-02	1.63522E-02	1.57082E-02	1.46987E-02	1.40220E-02	1.30213E-02	1.08685E-02	1.04219E-02
0.01000	1.46081E-02	1.42591E-02	1.36589E-02	1.26997E-02	1.20596E-02	1.11239E-02	9.12780E-03	8.69801E-03
0.01260	1.22342E-02	1.19693E-02	1.14283E-02	1.05518E-02	9.96597E-03	9.12381E-03	7.33308E-03	6.93609E-03
0.01580	1.02839E-02	1.00838E-02	9.59747E-03	8.80104E-03	8.26851E-03	7.51416E-03	5.91807E-03	5.55714E-03
0.02000	8.58228E-03	8.43497E-03	8.00164E-03	7.28559E-03	6.80712E-03	6.13876E-03	4.73373E-03	4.41149E-03
0.02510	7.08252E-03	6.94635E-03	6.56082E-03	5.92756E-03	5.50516E-03	4.92179E-03	3.69711E-03	3.41908E-03
0.03160	5.81982E-03	5.68608E-03	5.34443E-03	4.78779E-03	4.41822E-03	3.91460E-03	2.85920E-03	2.62270E-03
0.03980	4.75387E-03	4.59979E-03	4.29579E-03	3.80772E-03	3.48743E-03	3.05976E-03	2.16193E-03	1.96441E-03
0.05010	3.88446E-03	3.72206E-03	3.45380E-03	3.02895E-03	2.75334E-03	2.39215E-03	1.63509E-03	1.47170E-03
0.06310	3.11747E-03	2.92979E-03	2.69136E-03	2.31966E-03	2.08674E-03	1.79251E-03	1.17647E-03	1.04501E-03
0.07940	2.50413E-03	2.30836E-03	2.09932E-03	1.77835E-03	1.58329E-03	1.34473E-03	8.47592E-04	7.43043E-04
0.10000	2.00975E-03	1.81706E-03	1.63594E-03	1.36196E-03	1.20001E-03	1.00768E-03	6.09875E-04	5.27634E-04
0.12600	1.53126E-03	1.35532E-03	1.20374E-03	9.78929E-04	8.52865E-04	7.06629E-04	4.11842E-04	3.50684E-04
0.15800	1.17329E-03	1.01709E-03	8.91381E-04	7.08461E-04	6.10457E-04	4.99184E-04	2.80389E-04	2.35062E-04
0.20000	8.89112E-04	7.54212E-04	6.51884E-04	5.05873E-04	4.30916E-04	3.47579E-04	1.87866E-04	1.54962E-04
0.25100	6.38794E-04	5.34739E-04	4.56381E-04	3.47112E-04	2.93223E-04	2.33629E-04	1.23329E-04	1.00200E-04
0.31600	4.50477E-04	3.73067E-04	3.14642E-04	2.35002E-04	1.97054E-04	1.55217E-04	8.01723E-05	6.41722E-05
0.39800	3.02511E-04	2.50146E-04	2.09158E-04	1.54577E-04	1.29123E-04	1.00896E-04	5.13715E-05	4.05688E-05
0.50100	2.03204E-04	1.67800E-04	1.39113E-04	1.01746E-04	8.46731E-05	6.56372E-05	3.29435E-05	2.56690E-05
0.63100	1.26230E-04	1.05889E-04	8.78596E-05	6.45536E-05	5.37565E-05	4.14714E-05	2.04731E-05	1.57676E-05
0.79400	7.85632E-05	6.69442E-05	5.55915E-05	4.10310E-05	3.41905E-05	2.62509E-05	1.27474E-05	9.70440E-06

Table A-3 Control Point Total Mean Hazard Curves for F=13.333 to 100.000 Hz and PGA								
SA(g)	**F13.333Hz**	**F20.000Hz**	**F25.000Hz**	**F33.333Hz**	**F40.000Hz**	**F50.000Hz**	**F100.000Hz**	**PGA**
1.00000	4.88062E-05	4.22473E-05	3.51119E-05	2.60339E-05	2.17078E-05	1.65870E-05	7.92248E-06	5.96143E-06
1.26000	2.81031E-05	2.51690E-05	2.11246E-05	1.57759E-05	1.31185E-05	9.94258E-06	4.61374E-06	3.42504E-06
1.58000	1.63685E-05	1.51566E-05	1.28441E-05	9.65979E-06	8.01119E-06	6.02346E-06	2.71720E-06	1.99057E-06
2.00000	9.32194E-06	8.93680E-06	7.64955E-06	5.79541E-06	4.79296E-06	3.57391E-06	1.56541E-06	1.13107E-06
2.51000	5.15497E-06	5.15884E-06	4.45416E-06	3.36667E-06	2.75986E-06	2.03252E-06	8.55348E-07	6.07518E-07
3.16000	2.80001E-06	2.92724E-06	2.54637E-06	1.91573E-06	1.55451E-06	1.12956E-06	4.55724E-07	3.17985E-07
3.98000	1.46931E-06	1.60563E-06	1.40096E-06	1.04085E-06	8.32468E-07	5.95096E-07	2.28889E-07	1.56690E-07
5.01000	7.71776E-07	8.81428E-07	7.71350E-07	5.65892E-07	4.46098E-07	3.13735E-07	1.15053E-07	7.72773E-08
6.31000	3.78903E-07	4.49614E-07	3.91245E-07	2.80398E-07	2.16866E-07	1.49763E-07	5.23732E-08	3.45481E-08
7.94000	1.86552E-07	2.29964E-07	1.98987E-07	1.39327E-07	1.05731E-07	7.17013E-08	2.39158E-08	1.54951E-08
10.00000	9.15957E-08	1.17314E-07	1.00939E-07	6.90418E-08	5.14046E-08	3.42299E-08	1.08877E-08	6.92803E-09