

Three Mile Island (40.13° N, 76.73° E), Control Point Hazard

| SA (g) | AFE 0.5 Hz | AFE 1 Hz | AFE 2.5 Hz | AFE 5 Hz | AFE 10 Hz | AFE 25 Hz | AFE 100 Hz |
|----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 0.001000 | 4.018473e-03 | 7.182230e-03 | 1.089269e-02 | 1.151909e-02 | 1.158489e-02 | 1.132496e-02 | 1.033401e-02 |
| 0.001122 | 3.716386e-03 | 6.884047e-03 | 1.084579e-02 | 1.150797e-02 | 1.157247e-02 | 1.130999e-02 | 1.030652e-02 |
| 0.001259 | 3.425691e-03 | 6.476090e-03 | 1.073661e-02 | 1.145376e-02 | 1.153489e-02 | 1.122987e-02 | 1.018910e-02 |
| 0.001413 | 3.146518e-03 | 6.064203e-03 | 1.057525e-02 | 1.133293e-02 | 1.145686e-02 | 1.108311e-02 | 9.963445e-03 |
| 0.001585 | 2.878514e-03 | 5.655547e-03 | 1.035920e-02 | 1.115783e-02 | 1.133229e-02 | 1.088761e-02 | 9.642863e-03 |
| 0.001778 | 2.621958e-03 | 5.252352e-03 | 1.009086e-02 | 1.094641e-02 | 1.116644e-02 | 1.066027e-02 | 9.271713e-03 |
| 0.001995 | 2.377341e-03 | 4.856933e-03 | 9.765525e-03 | 1.070305e-02 | 1.096779e-02 | 1.040578e-02 | 8.874645e-03 |
| 0.002239 | 2.144972e-03 | 4.471475e-03 | 9.399541e-03 | 1.042684e-02 | 1.074011e-02 | 1.012425e-02 | 8.455131e-03 |
| 0.002512 | 1.924531e-03 | 4.096897e-03 | 9.004765e-03 | 1.011749e-02 | 1.048356e-02 | 9.816477e-03 | 8.017706e-03 |
| 0.002818 | 1.716825e-03 | 3.734901e-03 | 8.584272e-03 | 9.775361e-03 | 1.019795e-02 | 9.483701e-03 | 7.567295e-03 |
| 0.003162 | 1.521887e-03 | 3.386823e-03 | 8.140953e-03 | 9.401482e-03 | 9.883653e-03 | 9.127790e-03 | 7.109117e-03 |
| 0.003548 | 1.340673e-03 | 3.054434e-03 | 7.678783e-03 | 8.998080e-03 | 9.541763e-03 | 8.751383e-03 | 6.648280e-03 |
| 0.003981 | 1.172729e-03 | 2.738513e-03 | 7.202044e-03 | 8.568616e-03 | 9.174230e-03 | 8.357893e-03 | 6.190118e-03 |
| 0.004467 | 1.019056e-03 | 2.440685e-03 | 6.715586e-03 | 8.117352e-03 | 8.783804e-03 | 7.950883e-03 | 5.739356e-03 |
| 0.005012 | 8.788061e-04 | 2.161334e-03 | 6.224491e-03 | 7.649173e-03 | 8.373871e-03 | 7.534353e-03 | 5.300306e-03 |
| 0.005623 | 7.527703e-04 | 1.901873e-03 | 5.734207e-03 | 7.169374e-03 | 7.948280e-03 | 7.112097e-03 | 4.876364e-03 |
| 0.006310 | 6.397848e-04 | 1.662272e-03 | 5.250039e-03 | 6.683544e-03 | 7.511222e-03 | 6.688197e-03 | 4.470436e-03 |
| 0.007079 | 5.402233e-04 | 1.443466e-03 | 4.777107e-03 | 6.197309e-03 | 7.067084e-03 | 6.266294e-03 | 4.084566e-03 |
| 0.007943 | 4.526781e-04 | 1.244824e-03 | 4.320096e-03 | 5.716111e-03 | 6.620294e-03 | 5.850032e-03 | 3.720295e-03 |
| 0.008913 | 3.770918e-04 | 1.066660e-03 | 3.883122e-03 | 5.244938e-03 | 6.175141e-03 | 5.442382e-03 | 3.378438e-03 |
| 0.010000 | 3.119030e-04 | 9.078779e-04 | 3.469697e-03 | 4.788225e-03 | 5.735646e-03 | 5.046173e-03 | 3.059413e-03 |
| 0.011220 | 2.566740e-04 | 7.680940e-04 | 3.082469e-03 | 4.349766e-03 | 5.305453e-03 | 4.663564e-03 | 2.763096e-03 |
| 0.012589 | 2.099326e-04 | 6.457895e-04 | 2.723365e-03 | 3.932640e-03 | 4.887766e-03 | 4.296455e-03 | 2.488949e-03 |
| 0.014125 | 1.710439e-04 | 5.402139e-04 | 2.393411e-03 | 3.539164e-03 | 4.485293e-03 | 3.946123e-03 | 2.235903e-03 |
| 0.015849 | 1.386942e-04 | 4.499108e-04 | 2.092981e-03 | 3.170959e-03 | 4.100227e-03 | 3.613589e-03 | 2.001997e-03 |
| 0.017783 | 1.121240e-04 | 3.731575e-04 | 1.821649e-03 | 2.828964e-03 | 3.734250e-03 | 3.298774e-03 | 1.786472e-03 |
| 0.019953 | 9.029557e-05 | 3.081698e-04 | 1.578560e-03 | 2.513503e-03 | 3.388565e-03 | 3.001168e-03 | 1.590187e-03 |
| 0.022387 | 7.260113e-05 | 2.536351e-04 | 1.362376e-03 | 2.224453e-03 | 3.063950e-03 | 2.720975e-03 | 1.412496e-03 |
| 0.025119 | 5.826101e-05 | 2.080586e-04 | 1.171554e-03 | 1.961303e-03 | 2.760868e-03 | 2.459386e-03 | 1.252197e-03 |
| 0.028184 | 4.671386e-05 | 1.702238e-04 | 1.004028e-03 | 1.723153e-03 | 2.479548e-03 | 2.216610e-03 | 1.107994e-03 |
| 0.031623 | 3.742486e-05 | 1.389326e-04 | 8.577604e-04 | 1.508891e-03 | 2.219892e-03 | 1.992203e-03 | 9.785952e-04 |
| 0.035481 | 2.998886e-05 | 1.131673e-04 | 7.306034e-04 | 1.317195e-03 | 1.981427e-03 | 1.785529e-03 | 8.627314e-04 |
| 0.039811 | 2.403741e-05 | 9.195932e-05 | 6.205254e-04 | 1.146480e-03 | 1.763373e-03 | 1.595956e-03 | 7.592007e-04 |
| 0.044668 | 1.927743e-05 | 7.459837e-05 | 5.255497e-04 | 9.950181e-04 | 1.564753e-03 | 1.422701e-03 | 6.668490e-04 |
| 0.050119 | 1.546891e-05 | 6.043340e-05 | 4.438737e-04 | 8.611399e-04 | 1.384532e-03 | 1.264972e-03 | 5.845910e-04 |
| 0.056234 | 1.242008e-05 | 4.889980e-05 | 3.738587e-04 | 7.432460e-04 | 1.221651e-03 | 1.121868e-03 | 5.114151e-04 |
| 0.063096 | 9.978566e-06 | 3.951063e-05 | 3.140339e-04 | 6.397906e-04 | 1.075018e-03 | 9.925045e-04 | 4.463723e-04 |
| 0.070795 | 8.019049e-06 | 3.188498e-05 | 2.630548e-04 | 5.492993e-04 | 9.435060e-04 | 8.759365e-04 | 3.883489e-04 |
| 0.079433 | 6.446277e-06 | 2.569984e-05 | 2.197312e-04 | 4.703828e-04 | 8.259736e-04 | 7.712388e-04 | 3.360707e-04 |
| 0.089125 | 5.181137e-06 | 2.068909e-05 | 1.830140e-04 | 4.017498e-04 | 7.212813e-04 | 6.774610e-04 | 2.890196e-04 |
| 0.100000 | 4.163269e-06 | 1.663193e-05 | 1.519865e-04 | 3.422134e-04 | 6.283112e-04 | 5.936945e-04 | 2.474697e-04 |
| 0.112202 | 3.343184e-06 | 1.335081e-05 | 1.258427e-04 | 2.906908e-04 | 5.459858e-04 | 5.190503e-04 | 2.110751e-04 |
| 0.125893 | 2.682358e-06 | 1.069990e-05 | 1.038797e-04 | 2.461997e-04 | 4.732772e-04 | 4.527200e-04 | 1.792901e-04 |
| 0.141254 | 2.149637e-06 | 8.561056e-06 | 8.548664e-05 | 2.078696e-04 | 4.092059e-04 | 3.939545e-04 | 1.516275e-04 |
| 0.158489 | 1.720061e-06 | 6.836765e-06 | 7.013438e-05 | 1.749357e-04 | 3.528399e-04 | 3.419973e-04 | 1.276447e-04 |

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|----------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| 0.177828 | 1.373904e-06 | 5.448740e-06 | 5.735757e-05 | 1.467187e-04 | 3.033163e-04 | 2.960712e-04 | 1.068679e-04 |
| 0.199526 | 1.095058e-06 | 4.332780e-06 | 4.675859e-05 | 1.226122e-04 | 2.598803e-04 | 2.555163e-04 | 8.898015e-05 |
| 0.223872 | 8.708275e-07 | 3.437250e-06 | 3.799321e-05 | 1.020850e-04 | 2.218946e-04 | 2.197906e-04 | 7.368751e-05 |
| 0.251189 | 6.905236e-07 | 2.719457e-06 | 3.076721e-05 | 8.466867e-05 | 1.887967e-04 | 1.884071e-04 | 6.069310e-05 |
| 0.281838 | 5.459368e-07 | 2.145165e-06 | 2.482769e-05 | 6.994137e-05 | 1.600564e-04 | 1.609073e-04 | 4.969782e-05 |
| 0.316228 | 4.299049e-07 | 1.686445e-06 | 1.996224e-05 | 5.752789e-05 | 1.351712e-04 | 1.368550e-04 | 4.042891e-05 |
| 0.354813 | 3.375484e-07 | 1.321167e-06 | 1.599040e-05 | 4.710393e-05 | 1.136817e-04 | 1.158689e-04 | 3.262084e-05 |
| 0.398107 | 2.638949e-07 | 1.030770e-06 | 1.276065e-05 | 3.839013e-05 | 9.518509e-05 | 9.764364e-05 | 2.611061e-05 |
| 0.446684 | 2.052638e-07 | 8.007846e-07 | 1.014255e-05 | 3.114104e-05 | 7.933053e-05 | 8.189019e-05 | 2.077515e-05 |
| 0.501187 | 1.587140e-07 | 6.190605e-07 | 8.028256e-06 | 2.513755e-05 | 6.580208e-05 | 6.833689e-05 | 1.644512e-05 |
| 0.562341 | 1.220492e-07 | 4.761902e-07 | 6.327240e-06 | 2.018809e-05 | 5.430879e-05 | 5.671815e-05 | 1.290678e-05 |
| 0.630957 | 9.324913e-08 | 3.642305e-07 | 4.964167e-06 | 1.612746e-05 | 4.458279e-05 | 4.679593e-05 | 1.001188e-05 |
| 0.707946 | 7.082062e-08 | 2.770188e-07 | 3.876097e-06 | 1.281288e-05 | 3.638677e-05 | 3.836695e-05 | 7.711417e-06 |
| 0.794328 | 5.335738e-08 | 2.094084e-07 | 3.011338e-06 | 1.012121e-05 | 2.951670e-05 | 3.125479e-05 | 5.885021e-06 |
| 0.891251 | 3.981850e-08 | 1.575931e-07 | 2.327070e-06 | 7.947133e-06 | 2.379063e-05 | 2.528176e-05 | 4.424413e-06 |
| 1.000000 | 2.937812e-08 | 1.178406e-07 | 1.788032e-06 | 6.200294e-06 | 1.904380e-05 | 2.029109e-05 | 3.279942e-06 |
| 1.122019 | 2.147788e-08 | 8.746541e-08 | 1.365348e-06 | 4.804080e-06 | 1.513129e-05 | 1.614629e-05 | 2.401057e-06 |
| 1.258925 | 1.552407e-08 | 6.432368e-08 | 1.035829e-06 | 3.694713e-06 | 1.192588e-05 | 1.272439e-05 | 1.732817e-06 |
| 1.412538 | 1.109970e-08 | 4.685795e-08 | 7.802617e-07 | 2.819006e-06 | 9.315584e-06 | 9.914222e-06 | 1.232107e-06 |
| 1.584893 | 7.824445e-09 | 3.377586e-08 | 5.832768e-07 | 2.132150e-06 | 7.205203e-06 | 7.628178e-06 | 8.610556e-07 |
| 1.778279 | 5.436175e-09 | 2.408162e-08 | 4.324363e-07 | 1.596883e-06 | 5.511716e-06 | 5.788084e-06 | 5.902139e-07 |
| 1.995262 | 3.704805e-09 | 1.693398e-08 | 3.178322e-07 | 1.182550e-06 | 4.161730e-06 | 4.311889e-06 | 3.941007e-07 |
| 2.238721 | 2.470067e-09 | 1.169974e-08 | 2.313750e-07 | 8.641317e-07 | 3.094393e-06 | 3.138895e-06 | 2.536479e-07 |
| 2.511886 | 1.593660e-09 | 7.887870e-09 | 1.665864e-07 | 6.212471e-07 | 2.258158e-06 | 2.218382e-06 | 1.559630e-07 |
| 2.818383 | 9.823276e-10 | 5.130161e-09 | 1.181624e-07 | 4.373544e-07 | 1.609079e-06 | 1.503951e-06 | 9.042786e-08 |
| 3.162278 | 6.262222e-10 | 3.452660e-09 | 8.682221e-08 | 3.166867e-07 | 1.170193e-06 | 1.028801e-06 | 5.639723e-08 |
| 3.548134 | 2.701168e-10 | 1.775159e-09 | 5.548205e-08 | 1.960191e-07 | 7.313082e-07 | 5.536508e-07 | 2.236660e-08 |

Three Mile Island (40.13° N, 76.73° E), Response Spectra

| Frequency (Hz) | UHRS 1E-4 (g) | GMRS (g) | UHRS 1E-5 (g) |
|----------------|---------------|----------|---------------|
| 0.500000 | 0.018898 | 0.029720 | 0.063025 |
| 0.561009 | 0.021553 | 0.034485 | 0.073447 |
| 0.629463 | 0.024413 | 0.039365 | 0.084003 |
| 0.706269 | 0.027471 | 0.044383 | 0.094757 |
| 0.792447 | 0.030689 | 0.049544 | 0.105755 |
| 0.889140 | 0.034114 | 0.054990 | 0.117337 |
| 0.997631 | 0.037918 | 0.060999 | 0.130092 |
| 1.000000 | 0.038002 | 0.061129 | 0.130367 |
| 1.122019 | 0.044715 | 0.074185 | 0.159437 |
| 1.258925 | 0.052366 | 0.088031 | 0.189821 |
| 1.412538 | 0.061142 | 0.103153 | 0.222627 |
| 1.584893 | 0.071350 | 0.120111 | 0.259084 |
| 1.778279 | 0.083458 | 0.139761 | 0.301076 |
| 1.995262 | 0.097584 | 0.162230 | 0.348843 |
| 2.238721 | 0.113273 | 0.186654 | 0.400476 |
| 2.500000 | 0.128756 | 0.210149 | 0.449808 |
| 2.805046 | 0.146525 | 0.243600 | 0.523816 |

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| 3.147313 | 0.163454 | 0.273928 | 0.590212 |
| 3.531344 | 0.178801 | 0.299809 | 0.646062 |
| 3.962233 | 0.193464 | 0.323051 | 0.695423 |
| 4.445698 | 0.208701 | 0.345972 | 0.743414 |
| 4.988156 | 0.226734 | 0.372604 | 0.798898 |
| 5.000000 | 0.227129 | 0.373181 | 0.800095 |
| 5.610092 | 0.246348 | 0.411108 | 0.884847 |
| 6.294627 | 0.273178 | 0.460240 | 0.992955 |
| 7.062688 | 0.300587 | 0.506775 | 1.093547 |
| 7.924466 | 0.327561 | 0.550605 | 1.187240 |
| 8.891397 | 0.354469 | 0.591983 | 1.274391 |
| 9.976312 | 0.384895 | 0.635689 | 1.364682 |
| 10.000000 | 0.385572 | 0.636638 | 1.366626 |
| 11.220185 | 0.387106 | 0.638459 | 1.370155 |
| 12.589254 | 0.386475 | 0.638584 | 1.371049 |
| 14.125375 | 0.385948 | 0.639128 | 1.372978 |
| 15.848932 | 0.381680 | 0.633541 | 1.361773 |
| 17.782794 | 0.383676 | 0.638428 | 1.373123 |
| 19.952623 | 0.386509 | 0.643989 | 1.385540 |
| 22.387211 | 0.391772 | 0.653698 | 1.406935 |
| 25.000000 | 0.395619 | 0.657972 | 1.414983 |
| 28.050461 | 0.394657 | 0.655211 | 1.408421 |
| 31.473135 | 0.393713 | 0.651999 | 1.400634 |
| 35.313439 | 0.386018 | 0.636844 | 1.366785 |
| 39.622330 | 0.375426 | 0.617165 | 1.323369 |
| 44.456985 | 0.360288 | 0.590795 | 1.266031 |
| 49.881558 | 0.342212 | 0.558991 | 1.196723 |
| 55.968028 | 0.319836 | 0.520924 | 1.114415 |
| 62.797161 | 0.295397 | 0.480151 | 1.026673 |
| 70.459573 | 0.270620 | 0.438088 | 0.935778 |
| 79.056942 | 0.245196 | 0.394976 | 0.842647 |
| 88.703347 | 0.222205 | 0.356452 | 0.759667 |
| 99.526793 | 0.202709 | 0.323839 | 0.689451 |
| 100.000000 | 0.185409 | 0.296455 | 0.631288 |