power= .00mw, burnup= 25470.mwd, flux= 2.96E+07n/cm**2-sec

		initial ******* d	******* d	******* d	******* d	******* d
	sb126	1.85E-14	1.93E-14	1.93E-14	1.94E-14	1.94E-14	1.87E-14
	cd109	7.36E-19	2.61E-17	2.66E-17	2.72E-17	2.76E-17	6.82E-19
	te127m	3.00E-19	1.09E-12	1.09E-12	1.09E-12	1.09E-12	1.64E-19

power= 4.890E-04mw, burnup=2.5470E+04mwd, flux= 2.96E+07n/cm**2-sec

nuclide concentrations, gram atoms

basis = single reactor assembly

	charge ******* d	******* d	******* d	******* d	******* d	******* d
h 1	1.49E-03	1.50E-03	1.50E-03	1.51E-03	1.52E-03	1.52E-03
h 2	4.46E-06	4.48E-06	4.50E-06	4.52E-06	4.54E-06	4.54E-06
h 3	5.19E-12	7.49E-12	7.50E-12	7.51E-12	7.52E-12	5.14E-12
h 4	.00E+00	3.79E-36	3.80E-36	3.80E-36	3.81E-36	.00E+00
he 3	1.85E-08	1.86E-08	1.86E-08	1.86E-08	1.87E-08	1.87E-08
he 4	2.47E-04	2.49E-04	2.50E-04	2.51E-04	2.52E-04	2.52E-04
he 6	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ne 20	2.97E-05	2.99E-05	3.00E-05	3.01E-05	3.03E-05	3.03E-05
ne 21	1.34E-08	1.35E-08	1.36E-08	1.37E-08	1.38E-08	1.38E-08
ne 22	1.96E-07	1.97E-07	1.98E-07	1.98E-07	1.99E-07	1.99E-07
ne 23	8.87E-31	8.86E-16	8.86E-16	8.87E-16	8.87E-16	8.87E-31
na 22	9.29E-13	5.25E-12	5.26E-12	5.26E-12	5.26E-12	8.69E-13
na 23	7.53E+03	7.53E+03	7.53E+03	7.53E+03	7.53E+03	7.53E+03
na 24	3.23E-24	3.23E-09	3.23E-09	3.23E-09	3.23E-09	3.23E-24
na 24m	5.31E-31	5.30E-16	5.30E-16	5.31E-16	5.31E-16	5.31E-31
na 25	4.83E-39	4.87E-24	4.91E-24	4.96E-24	5.00E-24	5.00E-39
mg 24	1.92E-01	1.93E-01	1.93E-01	1.94E-01	1.95E-01	1.95E-01
mg 25	1.38E-06	1.39E-06	1.41E-06	1.42E-06	1.43E-06	1.43E-06
mg 26	4.45E-06	4.47E-06	4.49E-06	4.51E-06	4.53E-06	4.53E-06
mg 27	2.65E-28	2.64E-13	2.64E-13	2.64E-13	2.65E-13	2.65E-28
mg 28	.00E+00	6.71E-26	6.72E-26	6.72E-26	6.73E-26	.00E+00
al 27	4.99E+04	4.99E+04	4.99E+04	4.99E+04	4.99E+04	4.99E+04
al 28	2.39E-26	2.39E-11	2.39E-11	2.39E-11	2.39E-11	2.40E-26
al 29	3.94E-37	3.97E-22	4.01E-22	4.04E-22	4.08E-22	4.08E-37
al 30	.00E+00	1.28E-31	1.30E-31	1.32E-31	1.34E-31	.00E+00
si 28	5.58E-01	5.61E-01	5.63E-01	5.65E-01	5.68E-01	5.68E-01
si 29	1.26E-05	1.27E-05	1.28E-05	1.29E-05	1.30E-05	1.30E-05
si 30	3.03E-10	3.07E-10	3.11E-10	3.15E-10	3.20E-10	3.20E-10
si 31	2.71E-38	2.74E-23	2.78E-23	2.82E-23	2.86E-23	2.86E-38
si 32	5.76E-30	5.98E-30	6.08E-30	6.17E-30	6.26E-30	6.09E-30
totals	5.75E+04	5.75E+04	5.75E+04	5.75E+04	5.75E+04	5.75E+04
flux		2.96E+07	2.96E+07	2.96E+07	2.96E+07	2.96E-08

power= 4.890E-04mw, burnup=2.5470E+04mwd, flux= 2.96E+07n/cm**2-sec

nuclide concentrations, gram atoms

basis = single reactor assembly

	charge ******* d	******* d	******* d	******* d	******* d	******* d
he 4	5.82E+01	5.88E+01	5.94E+01	6.00E+01	6.06E+01	6.06E+01
pb206	4.14E-01	4.22E-01	4.30E-01	4.37E-01	4.45E-01	4.45E-01
pb207	2.43E-02	2.47E-02	2.51E-02	2.55E-02	2.59E-02	2.59E-02
pb208	8.51E-04	8.59E-04	8.66E-04	8.74E-04	8.82E-04	8.82E-04
pb209	1.40E-09	1.42E-09	1.43E-09	1.44E-09	1.46E-09	1.46E-09
pb210	3.94E-04	3.97E-04	4.00E-04	4.03E-04	4.06E-04	4.06E-04
pb211	6.15E-11	6.16E-11	6.19E-11	6.21E-11	6.24E-11	6.25E-11
pb212	2.04E-11	2.13E-11	2.14E-11	2.15E-11	2.16E-11	2.07E-11
pb214	9.00E-10	9.07E-10	9.14E-10	9.21E-10	9.27E-10	9.28E-10
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

bi209	7.76E-02	7.92E-02	8.09E-02	8.26E-02	8.42E-02	8.43E-02
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	2.42E-07	2.44E-07	2.46E-07	2.48E-07	2.50E-07	2.50E-07
bi211	3.65E-12	3.65E-12	3.67E-12	3.68E-12	3.70E-12	3.71E-12
bi212	1.93E-12	2.02E-12	2.03E-12	2.04E-12	2.05E-12	1.97E-12
bi213	3.28E-10	3.31E-10	3.34E-10	3.37E-10	3.41E-10	3.41E-10
bi214	6.68E-10	6.73E-10	6.79E-10	6.84E-10	6.89E-10	6.89E-10
po210	6.70E-06	6.74E-06	6.80E-06	6.85E-06	6.90E-06	6.90E-06
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	4.03E-17	4.04E-17	4.05E-17	4.07E-17	4.09E-17	4.09E-17
po212	1.02E-22	1.06E-22	1.07E-22	1.07E-22	1.08E-22	1.03E-22
po213	4.93E-19	4.98E-19	5.02E-19	5.07E-19	5.12E-19	5.12E-19
po214	9.19E-17	9.26E-17	9.34E-17	9.41E-17	9.47E-17	9.48E-17
po215	5.05E-17	5.07E-17	5.09E-17	5.11E-17	5.13E-17	5.14E-17
po216	7.72E-17	8.06E-17	8.10E-17	8.14E-17	8.17E-17	7.84E-17
po218	1.04E-10	1.05E-10	1.06E-10	1.07E-10	1.07E-10	1.07E-10
rn218	3.50E-44	3.77E-29	3.79E-29	3.81E-29	3.83E-29	3.64E-44
rn219	1.12E-13	1.13E-13	1.13E-13	1.14E-13	1.14E-13	1.14E-13
rn220	2.96E-14	3.09E-14	3.11E-14	3.12E-14	3.13E-14	3.01E-14
rn222	1.85E-07	1.86E-07	1.88E-07	1.89E-07	1.91E-07	1.91E-07
ra222	3.83E-41	4.09E-26	4.11E-26	4.14E-26	4.16E-26	3.89E-41
ra223	2.80E-08	2.81E-08	2.82E-08	2.83E-08	2.85E-08	2.85E-08
ra224	1.68E-10	1.76E-10	1.77E-10	1.77E-10	1.78E-10	1.71E-10
ra225	1.53E-07	1.55E-07	1.56E-07	1.58E-07	1.59E-07	1.59E-07
ra226	2.83E-02	2.85E-02	2.87E-02	2.89E-02	2.91E-02	2.91E-02
ra228	1.46E-10	1.48E-10	1.49E-10	1.51E-10	1.52E-10	1.52E-10
ac225	1.04E-07	1.05E-07	1.06E-07	1.07E-07	1.08E-07	1.08E-07
ac227	1.95E-05	1.96E-05	1.96E-05	1.97E-05	1.98E-05	1.98E-05
ac228	1.79E-14	1.81E-14	1.82E-14	1.84E-14	1.86E-14	1.86E-14
th226	1.87E-39	2.00E-24	2.01E-24	2.02E-24	2.03E-24	1.90E-39
th227	4.53E-08	4.54E-08	4.56E-08	4.58E-08	4.59E-08	4.60E-08
th228	3.21E-08	3.36E-08	3.37E-08	3.39E-08	3.40E-08	3.26E-08
th229	2.98E-02	3.01E-02	3.04E-02	3.07E-02	3.10E-02	3.10E-02
th230	1.37E+00	1.38E+00	1.39E+00	1.40E+00	1.41E+00	1.41E+00
th231	2.71E-09	3.48E-09	3.48E-09	3.49E-09	3.49E-09	2.71E-09
th232	3.58E-01	3.62E-01	3.65E-01	3.69E-01	3.72E-01	3.72E-01
th233	4.06E-28	4.10E-13	4.14E-13	4.18E-13	4.23E-13	4.23E-28
th234	5.36E-07	5.36E-07	5.36E-07	5.36E-07	5.36E-07	5.36E-07
pa231	2.93E-02	2.94E-02	2.95E-02	2.96E-02	2.98E-02	2.98E-02
pa232	6.25E-26	6.27E-11	6.30E-11	6.33E-11	6.36E-11	6.36E-26

1

sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 actinides page 248
power= 4.890E-04mw, burnup=2.5470E+04mwd, flux= 2.96E+07n/cm**2-sec

0 nuclide concentrations, gram atoms
basis = single reactor assembly

	charge ******* d	******* d	******* d	******* d	******* d
pa233	1.40E-06	1.40E-06	1.40E-06	1.39E-06	1.39E-06	1.39E-06
pa234m	1.81E-11	1.81E-11	1.81E-11	1.81E-11	1.81E-11	1.81E-11
pa234	8.07E-12	8.07E-12	8.07E-12	8.07E-12	8.07E-12	8.07E-12
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	1.81E-36	1.94E-21	1.95E-21	1.96E-21	1.97E-21	1.84E-36
u231	6.58E-32	6.63E-17	6.69E-17	6.74E-17	6.80E-17	6.80E-32
u232	1.14E-06	1.22E-06	1.23E-06	1.23E-06	1.24E-06	1.16E-06
u233	7.12E-01	7.18E-01	7.24E-01	7.30E-01	7.35E-01	7.35E-01
u234	1.02E+01	1.02E+01	1.02E+01	1.02E+01	1.02E+01	1.02E+01
u235	6.55E+02	6.55E+02	6.54E+02	6.54E+02	6.54E+02	6.54E+02
u236	1.94E+02	1.94E+02	1.94E+02	1.95E+02	1.95E+02	1.95E+02
u237	3.34E-13	4.15E-07	4.15E-07	4.16E-07	4.16E-07	3.11E-13
u238	3.63E+04	3.63E+04	3.63E+04	3.63E+04	3.63E+04	3.63E+04
u239	3.76E-23	3.76E-08	3.76E-08	3.76E-08	3.77E-08	3.77E-23

u240	3.26E-34	3.37E-34	3.48E-34	3.60E-34	3.71E-34	3.71E-34
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	1.60E-14	1.02E-12	1.02E-12	1.02E-12	1.02E-12	1.36E-14
np236m	2.43E-28	2.43E-13	2.43E-13	2.43E-13	2.43E-13	2.43E-28
np236	2.61E-06	2.62E-06	2.62E-06	2.63E-06	2.63E-06	2.63E-06
np237	4.04E+01	4.04E+01	4.04E+01	4.03E+01	4.03E+01	4.03E+01
np238	4.64E-15	1.82E-07	1.82E-07	1.82E-07	1.82E-07	4.36E-15
np239	1.61E-13	5.43E-06	5.44E-06	5.44E-06	5.44E-06	1.57E-13
np240m	2.78E-36	2.87E-36	2.97E-36	3.07E-36	3.17E-36	3.17E-36
np240	3.26E-38	1.37E-16	1.37E-16	1.37E-16	1.37E-16	3.66E-38
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	3.37E-11	1.38E-10	1.38E-10	1.38E-10	1.38E-10	3.22E-11
pu237	3.58E-29	3.12E-14	3.11E-14	3.09E-14	3.08E-14	3.17E-29
pu238	2.62E-03	2.75E-03	2.75E-03	2.75E-03	2.75E-03	2.61E-03
pu239	2.65E+01	2.63E+01	2.62E+01	2.60E+01	2.59E+01	2.59E+01
pu240	2.98E-01	2.93E-01	2.89E-01	2.85E-01	2.81E-01	2.81E-01
pu241	1.08E-05	1.46E-05	1.44E-05	1.42E-05	1.40E-05	1.01E-05
pu242	4.83E-05	4.83E-05	4.83E-05	4.84E-05	4.84E-05	4.84E-05
pu243	1.56E-29	1.25E-14	1.25E-14	1.25E-14	1.25E-14	1.57E-29
pu244	1.62E-23	1.68E-23	1.73E-23	1.79E-23	1.85E-23	1.85E-23
pu245	.00E+00	8.55E-35	8.84E-35	9.14E-35	9.44E-35	.00E+00
pu246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am239	1.52E-35	1.48E-20	1.47E-20	1.45E-20	1.43E-20	1.43E-35
am240	6.93E-33	6.79E-18	6.71E-18	6.62E-18	6.53E-18	6.52E-33
am241	4.47E-04	4.39E-04	4.33E-04	4.27E-04	4.21E-04	4.21E-04
am242m	2.51E-08	2.53E-08	2.50E-08	2.47E-08	2.44E-08	2.36E-08
am242	3.23E-13	2.01E-12	1.99E-12	1.96E-12	1.94E-12	3.04E-13
am243	1.84E-07	1.83E-07	1.82E-07	1.81E-07	1.80E-07	1.80E-07
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	1.71E-31	1.70E-16	1.69E-16	1.68E-16	1.67E-16	1.67E-31
am245	2.98E-40	1.68E-35	1.73E-35	1.79E-35	1.85E-35	2.54E-40
am246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm241	.00E+00	1.45E-23	1.43E-23	1.41E-23	1.39E-23	.00E+00
cm242	6.53E-11	4.06E-10	4.02E-10	3.96E-10	3.91E-10	6.15E-11
cm243	1.00E-15	1.15E-15	1.13E-15	1.12E-15	1.11E-15	9.38E-16
cm244	2.09E-12	2.66E-12	2.65E-12	2.63E-12	2.62E-12	2.02E-12

1

sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 actinides page 249
power= 4.890E-04mw, burnup=2.5470E+04mwd, flux= 2.96E+07n/cm**2-sec

0 nuclide concentrations, gram atoms
basis = single reactor assembly

	charge *******	d *******	d *******	d *******	d *******	d
cm245	7.87E-15	7.67E-15	7.48E-15	7.30E-15	7.13E-15	7.13E-15
cm246	5.89E-17	5.71E-17	5.54E-17	5.37E-17	5.21E-17	5.21E-17
cm247	8.87E-20	8.92E-20	8.96E-20	9.01E-20	9.05E-20	9.05E-20
cm248	4.70E-22	4.78E-22	4.86E-22	4.94E-22	5.02E-22	5.02E-22
cm249	.00E+00	1.84E-33	1.87E-33	1.91E-33	1.94E-33	.00E+00
cm250	1.82E-37	1.84E-37	1.85E-37	1.87E-37	1.88E-37	1.88E-37
cm251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
totals	3.73E+04	3.73E+04	3.73E+04	3.73E+04	3.73E+04	3.73E+04
0 flux		2.96E+07	2.96E+07	2.96E+07	2.96E+07	2.96E-08

0 1q array has 20 entries.
0 3q array has 1 entries.
0 3q array has 1 entries.
0 3q array has 1 entries.
0 4q array has 1 entries.
0 54q array has 12 entries.
1library information...

cross-section data taken from position number 28 of library on unit 33.

```
          pass   1
          pass   0
          *scale-system control module sas2 library*
          used a time-dependent neutron spectrum, for each of the above passes
            pass 0 applies start-up fuel densiities
            pass n applies mid time densities of nth library interval
          first library updated was...
          pass   1
          pass   0
          *scale-system control module sas2 library*
          used a time-dependent neutron spectrum, for each of the above passes
            pass 0 applies start-up fuel densiities
            pass n applies mid time densities of nth library interval
          first library updated was...
          ********************************************************************************
          *                                                                              *
          *            prelim lwr origen-s binary working library--id = 1143             *
          *         made from modified card-image origen-s libraries of scale 4.2        *
          *       data from the light element, actinide, and fission product libraries   *
          *         decay data, including gamma and total energy, are from endf/b-vi     *
          *                                                                              *
          *       neutron flux spectrum factors and cross sections were produced from    *
          *      the "presas2" case updating all nuclides on the scale "burnup" library  *
          *                                                                              *
          *                    fission product yields are from endf/b-v                  *
          *                                                                              *
          *              photon libraries use an 18-energy-group structure               *
          *             the photon data are from the master photon data base,            *
          *              produced to include bremsstrahlung from uo2 matrix              *
          *                                                                              *
          *        see information above this box (if present) for later updates         *
          *                                                                              *
          ********************************************************************************
          *                                                                              *
0         ********************************************************************************
0                   .other identification and sizes of library.
0                    data set name:  ft33f001
0                  8/29/1996    date library was produced
0                       1697    total number of nuclides in library
                         689    number of light-element nuclides
                         129    number of actinide nuclides
                         879    number of fission product nuclides
0                       7993    number of nonzero off-diagonal matrix elements
0         ********************************************************************************
1    sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2                                    page  250
         power=    .00mw, burnup=  25916.mwd, flux= 2.96E+07n/cm**2-sec
0                                    basis =
0    (note, k-infinities, clad and moderator absorptions are correct, only, if correctly weighted cross sections are applied.)
0                    initial      ******* d      ******* d      ******* d      ******* d      ******* d
     productions   1.278555E+06   1.277911E+06   1.277274E+06   1.276642E+06   1.276016E+06   1.276007E+06
     absorptions   1.043883E+06   1.043584E+06   1.043289E+06   1.042996E+06   1.042707E+06   1.042701E+06
     k infinity    1.224807E+00   1.224541E+00   1.224276E+00   1.224014E+00   1.223754E+00   1.223751E+00
0                    initial      ******* d      ******* d      ******* d      ******* d      ******* d
     actinide
     absorptions   1.023805E+06   1.023469E+06   1.023136E+06   1.022807E+06   1.022481E+06   1.022475E+06
     non-actinide
     abs. fracs.   1.923376E-02   1.927501E-02   1.931602E-02   1.935685E-02   1.939768E-02   1.939726E-02
1    sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2                fission products    page  251
0                              fraction of total absorption rate
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power= .00mw, burnup= 25916.mwd, flux= 2.96E+07n/cm**2-sec

0	initial ******* d	******* d	******* d	******* d	******* d
sm149	5.43E-03	5.43E-03	5.43E-03	5.43E-03	5.43E-03	5.43E-03
nd143	2.47E-03	2.49E-03	2.50E-03	2.51E-03	2.52E-03	2.52E-03
eu151	2.03E-03	2.03E-03	2.03E-03	2.04E-03	2.04E-03	2.04E-03
rh103	1.21E-03	1.21E-03	1.22E-03	1.22E-03	1.23E-03	1.23E-03
xe131	8.04E-04	8.07E-04	8.11E-04	8.15E-04	8.18E-04	8.18E-04
cs133	6.27E-04	6.30E-04	6.33E-04	6.36E-04	6.39E-04	6.39E-04
sm147	4.59E-04	4.61E-04	4.63E-04	4.65E-04	4.67E-04	4.67E-04
tc 99	4.04E-04	4.05E-04	4.06E-04	4.07E-04	4.09E-04	4.09E-04
nd145	3.54E-04	3.56E-04	3.57E-04	3.59E-04	3.61E-04	3.61E-04
sm152	2.84E-04	2.86E-04	2.87E-04	2.89E-04	2.90E-04	2.90E-04
mo 95	2.46E-04	2.47E-04	2.48E-04	2.49E-04	2.50E-04	2.50E-04
gd155	2.24E-04	2.24E-04	2.24E-04	2.23E-04	2.23E-04	2.23E-04
sm150	1.88E-04	1.89E-04	1.90E-04	1.91E-04	1.92E-04	1.92E-04
kr 83	1.51E-04	1.52E-04	1.52E-04	1.53E-04	1.54E-04	1.54E-04
cs135	1.42E-04	1.43E-04	1.43E-04	1.44E-04	1.44E-04	1.44E-04
eu153	1.17E-04	1.17E-04	1.18E-04	1.18E-04	1.19E-04	1.19E-04
ru101	1.10E-04	1.11E-04	1.11E-04	1.12E-04	1.12E-04	1.12E-04
pr141	1.07E-04	1.07E-04	1.08E-04	1.08E-04	1.09E-04	1.09E-04
cd113	1.02E-04	1.02E-04	1.02E-04	1.02E-04	1.02E-04	1.02E-04
la139	8.72E-05	8.76E-05	8.80E-05	8.84E-05	8.88E-05	8.88E-05
gd157	5.79E-05	5.78E-05	5.77E-05	5.75E-05	5.74E-05	5.74E-05
ag109	4.60E-05	4.62E-05	4.64E-05	4.66E-05	4.69E-05	4.69E-05
pd105	4.49E-05	4.51E-05	4.54E-05	4.56E-05	4.58E-05	4.58E-05
ba137	4.23E-05	4.25E-05	4.27E-05	4.29E-05	4.31E-05	4.31E-05
zr 93	3.38E-05	3.39E-05	3.41E-05	3.42E-05	3.44E-05	3.44E-05
i129	2.87E-05	2.88E-05	2.89E-05	2.91E-05	2.92E-05	2.92E-05
nd144	2.72E-05	2.73E-05	2.75E-05	2.76E-05	2.77E-05	2.77E-05
gd152	2.51E-05	2.52E-05	2.54E-05	2.56E-05	2.58E-05	2.58E-05
mo 97	1.98E-05	1.99E-05	2.00E-05	2.01E-05	2.02E-05	2.02E-05
pd108	1.10E-05	1.11E-05	1.11E-05	1.12E-05	1.12E-05	1.12E-05
ru 99	8.97E-06	9.10E-06	9.24E-06	9.37E-06	9.50E-06	9.51E-06
zr 91	9.08E-06	9.13E-06	9.17E-06	9.21E-06	9.25E-06	9.25E-06
y 89	8.69E-06	8.73E-06	8.77E-06	8.81E-06	8.85E-06	8.85E-06
ru102	8.31E-06	8.35E-06	8.39E-06	8.43E-06	8.47E-06	8.47E-06
ce142	7.28E-06	7.31E-06	7.34E-06	7.38E-06	7.41E-06	7.41E-06
nd148	6.99E-06	7.03E-06	7.06E-06	7.09E-06	7.13E-06	7.13E-06
sm151	6.61E-06	6.97E-06	6.97E-06	6.98E-06	6.98E-06	6.61E-06
nd146	5.92E-06	5.94E-06	5.97E-06	6.00E-06	6.03E-06	6.03E-06
pd107	5.56E-06	5.58E-06	5.61E-06	5.64E-06	5.67E-06	5.67E-06
in115	5.18E-06	5.20E-06	5.22E-06	5.25E-06	5.27E-06	5.27E-06
ba138	5.03E-06	5.06E-06	5.08E-06	5.10E-06	5.13E-06	5.13E-06
ce140	4.71E-06	4.73E-06	4.76E-06	4.78E-06	4.80E-06	4.80E-06
xe132	4.33E-06	4.35E-06	4.37E-06	4.39E-06	4.41E-06	4.41E-06
mo 98	2.87E-06	2.89E-06	2.90E-06	2.91E-06	2.93E-06	2.93E-06
mo100	2.81E-06	2.82E-06	2.84E-06	2.85E-06	2.86E-06	2.86E-06
xe134	2.78E-06	2.80E-06	2.81E-06	2.82E-06	2.84E-06	2.84E-06
zr 92	2.20E-06	2.21E-06	2.22E-06	2.23E-06	2.24E-06	2.24E-06
i127	2.10E-06	2.11E-06	2.12E-06	2.13E-06	2.14E-06	2.14E-06
ru104	1.92E-06	1.93E-06	1.94E-06	1.95E-06	1.96E-06	1.96E-06

1 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 fission products page 252

0 fraction of total absorption rate

power= .00mw, burnup= 25916.mwd, flux= 2.96E+07n/cm**2-sec

0	initial ******* d	******* d	******* d	******* d	******* d
zr 96	1.71E-06	1.72E-06	1.73E-06	1.74E-06	1.75E-06	1.75E-06
nd150	1.59E-06	1.59E-06	1.60E-06	1.61E-06	1.61E-06	1.61E-06
xe136	1.51E-06	1.52E-06	1.52E-06	1.53E-06	1.54E-06	1.54E-06

gd154	1.30E-06	1.31E-06	1.33E-06	1.34E-06	1.35E-06	1.35E-06
cd111	1.25E-06	1.25E-06	1.26E-06	1.27E-06	1.27E-06	1.27E-06
br 81	1.11E-06	1.12E-06	1.12E-06	1.13E-06	1.13E-06	1.13E-06
rb 85	1.06E-06	1.07E-06	1.07E-06	1.08E-06	1.08E-06	1.08E-06
ba135	9.33E-07	9.48E-07	9.62E-07	9.77E-07	9.92E-07	9.92E-07
zr 94	9.28E-07	9.32E-07	9.37E-07	9.41E-07	9.45E-07	9.45E-07
zr 90	8.57E-07	8.61E-07	8.64E-07	8.68E-07	8.72E-07	8.72E-07
sm154	7.53E-07	7.56E-07	7.60E-07	7.63E-07	7.67E-07	7.67E-07
te130	6.98E-07	7.01E-07	7.04E-07	7.08E-07	7.11E-07	7.11E-07
rb 87	6.12E-07	6.15E-07	6.17E-07	6.20E-07	6.23E-07	6.23E-07
pd106	4.64E-07	4.66E-07	4.68E-07	4.71E-07	4.73E-07	4.73E-07
se 77	4.50E-07	4.52E-07	4.54E-07	4.56E-07	4.58E-07	4.58E-07
gd156	4.44E-07	4.47E-07	4.49E-07	4.51E-07	4.54E-07	4.54E-07
ru100	3.44E-07	3.47E-07	3.50E-07	3.53E-07	3.56E-07	3.56E-07
kr 84	2.92E-07	2.93E-07	2.94E-07	2.96E-07	2.97E-07	2.97E-07
dy161	2.75E-07	2.76E-07	2.77E-07	2.79E-07	2.80E-07	2.80E-07
nd142	2.56E-07	2.58E-07	2.61E-07	2.63E-07	2.66E-07	2.66E-07
ba134	2.44E-07	2.46E-07	2.48E-07	2.50E-07	2.52E-07	2.53E-07
sb121	2.39E-07	2.41E-07	2.42E-07	2.43E-07	2.44E-07	2.44E-07
sm148	2.21E-07	2.23E-07	2.25E-07	2.27E-07	2.29E-07	2.29E-07
se 79	2.15E-07	2.16E-07	2.17E-07	2.18E-07	2.18E-07	2.18E-07
sb123	1.93E-07	1.94E-07	1.95E-07	1.96E-07	1.97E-07	1.97E-07
pd104	1.67E-07	1.68E-07	1.70E-07	1.71E-07	1.73E-07	1.73E-07
kr 86	1.63E-07	1.63E-07	1.64E-07	1.65E-07	1.66E-07	1.66E-07
te128	1.58E-07	1.58E-07	1.59E-07	1.60E-07	1.61E-07	1.61E-07
nb 93	1.48E-07	1.50E-07	1.53E-07	1.55E-07	1.57E-07	1.57E-07
tb159	1.18E-07	1.19E-07	1.20E-07	1.20E-07	1.21E-07	1.21E-07
se 80	1.08E-07	1.08E-07	1.09E-07	1.09E-07	1.10E-07	1.10E-07
te125	1.08E-07	1.08E-07	1.09E-07	1.09E-07	1.10E-07	1.10E-07
gd158	9.35E-08	9.39E-08	9.44E-08	9.49E-08	9.53E-08	9.53E-08
cd112	8.39E-08	8.43E-08	8.47E-08	8.51E-08	8.55E-08	8.55E-08
ag107	7.52E-08	7.65E-08	7.78E-08	7.90E-08	8.03E-08	8.03E-08
br 79	7.30E-08	7.41E-08	7.52E-08	7.63E-08	7.74E-08	7.75E-08
dy162	6.49E-08	6.53E-08	6.57E-08	6.60E-08	6.64E-08	6.64E-08
cd110	6.34E-08	6.41E-08	6.47E-08	6.54E-08	6.61E-08	6.61E-08
dy164	6.10E-08	6.13E-08	6.15E-08	6.18E-08	6.20E-08	6.20E-08
sn117	5.88E-08	5.91E-08	5.94E-08	5.97E-08	6.00E-08	6.00E-08
mo 96	5.52E-08	5.57E-08	5.62E-08	5.67E-08	5.72E-08	5.72E-08
li 6	5.49E-08	5.51E-08	5.54E-08	5.56E-08	5.58E-08	5.58E-08
cd114	5.01E-08	5.03E-08	5.06E-08	5.08E-08	5.11E-08	5.11E-08
xe129	4.51E-08	4.58E-08	4.66E-08	4.73E-08	4.80E-08	4.80E-08
eu152	4.65E-08	6.63E-08	6.65E-08	6.66E-08	6.68E-08	4.64E-08
sn119	4.47E-08	4.49E-08	4.51E-08	4.53E-08	4.56E-08	4.56E-08
pd110	4.16E-08	4.18E-08	4.20E-08	4.22E-08	4.24E-08	4.24E-08
sn115	4.09E-08	4.11E-08	4.13E-08	4.15E-08	4.17E-08	4.17E-08
sr 88	2.98E-08	3.00E-08	3.01E-08	3.02E-08	3.04E-08	3.04E-08

1 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 fission products page 253
0 fraction of total absorption rate
power= .00mw, burnup= 25916.mwd, flux= 2.96E+07n/cm**2-sec
0 initial ******* d ******* d ******* d ******* d ******* d

xe130	2.70E-08	2.72E-08	2.74E-08	2.77E-08	2.79E-08	2.79E-08
te126	2.39E-08	2.43E-08	2.46E-08	2.50E-08	2.53E-08	2.53E-08
ba136	2.23E-08	2.25E-08	2.26E-08	2.28E-08	2.30E-08	2.30E-08
se 82	2.05E-08	2.06E-08	2.07E-08	2.08E-08	2.09E-08	2.09E-08
dy163	1.62E-08	1.63E-08	1.64E-08	1.65E-08	1.66E-08	1.66E-08
kr 82	1.61E-08	1.62E-08	1.63E-08	1.64E-08	1.65E-08	1.65E-08
sn126	1.63E-08	1.63E-08	1.64E-08	1.64E-08	1.64E-08	1.64E-08
se 78	1.61E-08	1.62E-08	1.63E-08	1.63E-08	1.64E-08	1.64E-08
sn124	1.41E-08	1.42E-08	1.43E-08	1.43E-08	1.44E-08	1.44E-08

as 75	9.45E-09	9.50E-09	9.54E-09	9.59E-09	9.63E-09	9.63E-09
in113	8.14E-09	8.18E-09	8.22E-09	8.26E-09	8.30E-09	8.30E-09
eu155	8.12E-09	2.21E-08	2.21E-08	2.20E-08	2.20E-08	7.80E-09
sn118	5.69E-09	5.72E-09	5.74E-09	5.77E-09	5.80E-09	5.80E-09
pm147	5.62E-09	3.31E-08	3.31E-08	3.31E-08	3.31E-08	5.26E-09
sn122	4.92E-09	4.94E-09	4.97E-09	4.99E-09	5.01E-09	5.01E-09
cd116	4.78E-09	4.81E-09	4.83E-09	4.85E-09	4.87E-09	4.87E-09
sn120	3.61E-09	3.63E-09	3.65E-09	3.67E-09	3.68E-09	3.68E-09
eu154	3.52E-09	6.10E-09	6.13E-09	6.17E-09	6.20E-09	3.52E-09
ge 73	2.72E-09	2.74E-09	2.75E-09	2.76E-09	2.77E-09	2.77E-09
dy160	1.69E-09	1.71E-09	1.72E-09	1.74E-09	1.76E-09	1.76E-09
sr 90	1.72E-09	2.03E-09	2.03E-09	2.03E-09	2.03E-09	1.71E-09
ho165	1.64E-09	1.66E-09	1.67E-09	1.68E-09	1.69E-09	1.69E-09
gd160	1.33E-09	1.33E-09	1.34E-09	1.35E-09	1.35E-09	1.35E-09
xe128	9.81E-10	9.90E-10	9.99E-10	1.01E-09	1.02E-09	1.02E-09
ge 76	9.20E-10	9.24E-10	9.29E-10	9.33E-10	9.37E-10	9.37E-10
sr 86	4.56E-10	4.60E-10	4.64E-10	4.68E-10	4.72E-10	4.72E-10
cs137	3.95E-10	4.62E-10	4.62E-10	4.62E-10	4.63E-10	3.93E-10
sn116	3.69E-10	3.73E-10	3.76E-10	3.80E-10	3.83E-10	3.83E-10
te124	3.18E-10	3.20E-10	3.22E-10	3.24E-10	3.27E-10	3.27E-10
nb 94	1.68E-10	1.70E-10	1.71E-10	1.73E-10	1.75E-10	1.75E-10
te122	1.56E-10	1.57E-10	1.59E-10	1.60E-10	1.62E-10	1.62E-10
sr 87	1.53E-10	1.54E-10	1.55E-10	1.56E-10	1.57E-10	1.57E-10
se 76	1.26E-10	1.27E-10	1.28E-10	1.29E-10	1.30E-10	1.30E-10
kr 80	7.53E-11	7.66E-11	7.79E-11	7.92E-11	8.06E-11	8.06E-11
er166	7.65E-11	7.69E-11	7.74E-11	7.78E-11	7.83E-11	7.83E-11
cs134	5.98E-11	5.83E-10	5.85E-10	5.88E-10	5.91E-10	5.60E-11
ge 74	5.45E-11	5.47E-11	5.50E-11	5.52E-11	5.55E-11	5.55E-11
kr 85	4.41E-11	6.83E-11	6.84E-11	6.84E-11	6.84E-11	4.35E-11
ge 72	4.04E-11	4.06E-11	4.08E-11	4.10E-11	4.12E-11	4.12E-11
er167	9.93E-12	1.00E-11	1.01E-11	1.03E-11	1.04E-11	1.04E-11
te123	8.20E-12	8.31E-12	8.42E-12	8.53E-12	8.65E-12	8.65E-12
cd108	5.65E-12	5.76E-12	5.87E-12	5.98E-12	6.10E-12	6.10E-12
y 90	1.64E-12	1.93E-12	1.94E-12	1.94E-12	1.94E-12	1.63E-12
sb125	3.85E-13	2.13E-12	2.13E-12	2.13E-12	2.13E-12	3.60E-13
ce144	1.79E-13	7.23E-11	7.24E-11	7.24E-11	7.24E-11	1.43E-13
be 9	1.15E-13	1.15E-13	1.16E-13	1.16E-13	1.17E-13	1.17E-13
sn114	9.90E-14	9.99E-14	1.01E-13	1.02E-13	1.03E-13	1.03E-13
li 7	4.77E-14	4.79E-14	4.81E-14	4.84E-14	4.86E-14	4.86E-14
ru106	4.64E-14	4.63E-12	4.62E-12	4.61E-12	4.61E-12	3.88E-14

1 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 fission products page 254

0 fraction of total absorption rate

power= .00mw, burnup= 25916.mwd, flux= 2.96E+07n/cm**2-sec

0 initial ******* d ******* d ******* d ******* d ******* d

sb126	1.87E-14	1.94E-14	1.95E-14	1.95E-14	1.95E-14	1.88E-14
cd109	6.81E-19	2.82E-17	2.87E-17	2.93E-17	2.99E-17	6.55E-19
te127m	1.64E-19	1.08E-12	1.08E-12	1.08E-12	1.08E-12	8.19E-20

1

sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 light elements page 255

power= 4.890E-04mw, burnup=2.5916E+04mwd, flux= 2.96E+07n/cm**2-sec

0 nuclide concentrations, gram atoms

basis = single reactor assembly

charge	******* d	******* d	******* d	******* d	******* d
h 1	1.52E-03	1.52E-03	1.53E-03	1.54E-03	1.54E-03	1.54E-03
h 2	4.54E-06	4.56E-06	4.58E-06	4.60E-06	4.62E-06	4.62E-06
h 3	5.14E-12	7.52E-12	7.53E-12	7.54E-12	7.55E-12	5.09E-12
h 4	.00E+00	3.81E-36	3.82E-36	3.83E-36	3.83E-36	.00E+00
he 3	1.87E-08	1.87E-08	1.88E-08	1.88E-08	1.88E-08	1.88E-08
he 4	2.52E-04	2.53E-04	2.54E-04	2.55E-04	2.56E-04	2.56E-04

he 6	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ne 20	3.03E-05	3.04E-05	3.05E-05	3.07E-05	3.08E-05	3.08E-05
ne 21	1.38E-08	1.39E-08	1.41E-08	1.42E-08	1.43E-08	1.43E-08
ne 22	1.99E-07	2.00E-07	2.01E-07	2.02E-07	2.03E-07	2.03E-07
ne 23	8.87E-31	8.86E-16	8.87E-16	8.87E-16	8.87E-16	8.87E-31
na 22	8.69E-13	5.26E-12	5.26E-12	5.26E-12	5.26E-12	8.13E-13
na 23	7.53E+03	7.53E+03	7.53E+03	7.53E+03	7.53E+03	7.53E+03
na 24	3.23E-24	3.23E-09	3.23E-09	3.23E-09	3.23E-09	3.23E-24
na 24m	5.31E-31	5.31E-16	5.31E-16	5.31E-16	5.31E-16	5.31E-31
na 25	5.00E-39	5.04E-24	5.09E-24	5.13E-24	5.18E-24	5.18E-39
mg 24	1.95E-01	1.96E-01	1.97E-01	1.98E-01	1.98E-01	1.98E-01
mg 25	1.43E-06	1.44E-06	1.46E-06	1.47E-06	1.48E-06	1.48E-06
mg 26	4.53E-06	4.55E-06	4.57E-06	4.59E-06	4.61E-06	4.61E-06
mg 27	2.65E-28	2.64E-13	2.64E-13	2.65E-13	2.65E-13	2.65E-28
mg 28	.00E+00	6.73E-26	6.73E-26	6.74E-26	6.74E-26	.00E+00
al 27	4.99E+04	4.99E+04	4.99E+04	4.99E+04	4.99E+04	4.99E+04
al 28	2.40E-26	2.39E-11	2.39E-11	2.40E-11	2.40E-11	2.40E-26
al 29	4.08E-37	4.11E-22	4.15E-22	4.19E-22	4.23E-22	4.23E-37
al 30	.00E+00	1.35E-31	1.37E-31	1.39E-31	1.41E-31	.00E+00
si 28	5.68E-01	5.70E-01	5.73E-01	5.75E-01	5.78E-01	5.78E-01
si 29	1.30E-05	1.32E-05	1.33E-05	1.34E-05	1.35E-05	1.35E-05
si 30	3.20E-10	3.24E-10	3.28E-10	3.32E-10	3.37E-10	3.37E-10
si 31	2.86E-38	2.90E-23	2.94E-23	2.98E-23	3.02E-23	3.02E-38
si 32	6.09E-30	6.33E-30	6.44E-30	6.53E-30	6.62E-30	6.43E-30
totals	5.75E+04	5.75E+04	5.75E+04	5.75E+04	5.75E+04	5.75E+04
0 flux		2.96E+07	2.96E+07	2.97E+07	2.97E+07	2.97E-08

1

sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 actinides page 256
power= 4.890E-04mw, burnup=2.5916E+04mwd, flux= 2.96E+07n/cm**2-sec

0 nuclide concentrations, gram atoms
basis = single reactor assembly

charge	******* d	******* d	******* d	******* d	******* d
he 4	6.06E+01	6.12E+01	6.18E+01	6.24E+01	6.30E+01	6.30E+01
pb206	4.45E-01	4.53E-01	4.61E-01	4.70E-01	4.78E-01	4.78E-01
pb207	2.59E-02	2.63E-02	2.67E-02	2.71E-02	2.75E-02	2.75E-02
pb208	8.82E-04	8.90E-04	8.97E-04	9.05E-04	9.13E-04	9.13E-04
pb209	1.46E-09	1.47E-09	1.49E-09	1.50E-09	1.51E-09	1.51E-09
pb210	4.06E-04	4.09E-04	4.12E-04	4.15E-04	4.18E-04	4.18E-04
pb211	6.25E-11	6.26E-11	6.29E-11	6.31E-11	6.34E-11	6.35E-11
pb212	2.07E-11	2.17E-11	2.18E-11	2.19E-11	2.20E-11	2.10E-11
pb214	9.28E-10	9.34E-10	9.41E-10	9.48E-10	9.54E-10	9.54E-10
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	8.43E-02	8.60E-02	8.77E-02	8.94E-02	9.12E-02	9.12E-02
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	2.50E-07	2.52E-07	2.53E-07	2.55E-07	2.57E-07	2.57E-07
bi211	3.71E-12	3.71E-12	3.73E-12	3.74E-12	3.76E-12	3.76E-12
bi212	1.97E-12	2.06E-12	2.07E-12	2.08E-12	2.08E-12	2.00E-12
bi213	3.41E-10	3.44E-10	3.47E-10	3.51E-10	3.54E-10	3.54E-10
bi214	6.89E-10	6.94E-10	6.99E-10	7.04E-10	7.09E-10	7.09E-10
po210	6.90E-06	6.95E-06	7.00E-06	7.05E-06	7.10E-06	7.10E-06
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	4.09E-17	4.10E-17	4.12E-17	4.14E-17	4.15E-17	4.16E-17
po212	1.03E-22	1.08E-22	1.09E-22	1.09E-22	1.10E-22	1.05E-22
po213	5.12E-19	5.17E-19	5.22E-19	5.27E-19	5.32E-19	5.32E-19
po214	9.48E-17	9.54E-17	9.61E-17	9.68E-17	9.75E-17	9.75E-17
po215	5.14E-17	5.15E-17	5.17E-17	5.19E-17	5.21E-17	5.22E-17
po216	7.84E-17	8.21E-17	8.25E-17	8.28E-17	8.32E-17	7.96E-17
po218	1.07E-10	1.08E-10	1.09E-10	1.10E-10	1.10E-10	1.10E-10
rn218	3.64E-44	3.84E-29	3.86E-29	3.88E-29	3.90E-29	3.64E-44
rn219	1.14E-13	1.15E-13	1.15E-13	1.15E-13	1.16E-13	1.16E-13

rn220	3.01E-14	3.15E-14	3.16E-14	3.18E-14	3.19E-14	3.05E-14
rn222	1.91E-07	1.92E-07	1.93E-07	1.95E-07	1.96E-07	1.96E-07
ra222	3.89E-41	4.17E-26	4.19E-26	4.21E-26	4.23E-26	3.95E-41
ra223	2.85E-08	2.86E-08	2.87E-08	2.88E-08	2.89E-08	2.90E-08
ra224	1.71E-10	1.79E-10	1.80E-10	1.81E-10	1.81E-10	1.74E-10
ra225	1.59E-07	1.61E-07	1.62E-07	1.64E-07	1.65E-07	1.65E-07
ra226	2.91E-02	2.93E-02	2.96E-02	2.98E-02	3.00E-02	3.00E-02
ra228	1.52E-10	1.54E-10	1.55E-10	1.57E-10	1.58E-10	1.58E-10
ac225	1.08E-07	1.09E-07	1.10E-07	1.11E-07	1.12E-07	1.12E-07
ac227	1.98E-05	1.99E-05	1.99E-05	2.00E-05	2.01E-05	2.01E-05
ac228	1.86E-14	1.88E-14	1.90E-14	1.91E-14	1.93E-14	1.93E-14
th226	1.90E-39	2.03E-24	2.04E-24	2.05E-24	2.06E-24	1.93E-39
th227	4.60E-08	4.61E-08	4.63E-08	4.65E-08	4.67E-08	4.67E-08
th228	3.26E-08	3.42E-08	3.43E-08	3.45E-08	3.46E-08	3.31E-08
th229	3.10E-02	3.13E-02	3.16E-02	3.19E-02	3.22E-02	3.22E-02
th230	1.41E+00	1.42E+00	1.43E+00	1.44E+00	1.45E+00	1.45E+00
th231	2.71E-09	3.50E-09	3.50E-09	3.51E-09	3.51E-09	2.71E-09
th232	3.72E-01	3.76E-01	3.80E-01	3.83E-01	3.87E-01	3.87E-01
th233	4.23E-28	4.27E-13	4.31E-13	4.35E-13	4.40E-13	4.40E-28
th234	5.36E-07	5.36E-07	5.36E-07	5.36E-07	5.36E-07	5.36E-07
pa231	2.98E-02	2.99E-02	3.00E-02	3.01E-02	3.02E-02	3.02E-02
pa232	6.36E-26	6.39E-11	6.41E-11	6.44E-11	6.47E-11	6.47E-26

1

sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 actinides page 257

power= 4.890E-04mw, burnup=2.5916E+04mwd, flux= 2.96E+07n/cm**2-sec

0 nuclide concentrations, gram atoms

basis = single reactor assembly

	charge	******* d	******* d	******* d	******* d	******* d
pa233	1.39E-06	1.39E-06	1.39E-06	1.39E-06	1.39E-06	1.39E-06
pa234m	1.81E-11	1.81E-11	1.81E-11	1.81E-11	1.81E-11	1.81E-11
pa234	8.07E-12	8.07E-12	8.07E-12	8.07E-12	8.07E-12	8.07E-12
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	1.84E-36	1.97E-21	1.98E-21	1.99E-21	2.00E-21	1.87E-36
u231	6.80E-32	6.84E-17	6.90E-17	6.95E-17	7.01E-17	7.01E-32
u232	1.16E-06	1.25E-06	1.25E-06	1.26E-06	1.26E-06	1.18E-06
u233	7.35E-01	7.41E-01	7.47E-01	7.52E-01	7.58E-01	7.58E-01
u234	1.02E+01	1.02E+01	1.02E+01	1.02E+01	1.02E+01	1.02E+01
u235	6.54E+02	6.54E+02	6.54E+02	6.54E+02	6.54E+02	6.54E+02
u236	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02
u237	3.11E-13	4.16E-07	4.16E-07	4.17E-07	4.17E-07	2.92E-13
u238	3.63E+04	3.63E+04	3.63E+04	3.63E+04	3.63E+04	3.63E+04
u239	3.77E-23	3.76E-08	3.77E-08	3.77E-08	3.77E-08	3.77E-23
u240	3.71E-34	3.83E-34	3.95E-34	4.08E-34	4.20E-34	4.20E-34
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	1.36E-14	1.02E-12	1.02E-12	1.02E-12	1.02E-12	1.16E-14
np236m	2.43E-28	2.43E-13	2.43E-13	2.43E-13	2.43E-13	2.43E-28
np236	2.63E-06	2.64E-06	2.64E-06	2.64E-06	2.65E-06	2.65E-06
np237	4.03E+01	4.03E+01	4.03E+01	4.03E+01	4.03E+01	4.03E+01
np238	4.36E-15	1.82E-07	1.82E-07	1.82E-07	1.82E-07	4.14E-15
np239	1.57E-13	5.44E-06	5.44E-06	5.44E-06	5.45E-06	1.54E-13
np240m	3.17E-36	3.27E-36	3.37E-36	3.48E-36	3.58E-36	3.59E-36
np240	3.66E-38	1.37E-16	1.37E-16	1.37E-16	1.37E-16	4.08E-38
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	3.22E-11	1.38E-10	1.38E-10	1.38E-10	1.38E-10	3.06E-11
pu237	3.17E-29	3.06E-14	3.05E-14	3.03E-14	3.02E-14	3.03E-29
pu238	2.61E-03	2.75E-03	2.75E-03	2.75E-03	2.76E-03	2.61E-03
pu239	2.59E+01	2.57E+01	2.56E+01	2.54E+01	2.53E+01	2.53E+01
pu240	2.81E-01	2.77E-01	2.73E-01	2.70E-01	2.67E-01	2.66E-01
pu241	1.01E-05	1.38E-05	1.36E-05	1.35E-05	1.33E-05	9.48E-06
pu242	4.84E-05	4.84E-05	4.84E-05	4.84E-05	4.85E-05	4.85E-05

```
      pu243   1.57E-29  1.25E-14  1.25E-14  1.25E-14  1.25E-14  1.58E-29
      pu244   1.85E-23  1.91E-23  1.97E-23  2.03E-23  2.09E-23  2.09E-23
      pu245    .00E+00  9.75E-35  1.01E-34  1.04E-34  1.07E-34   .00E+00
      pu246    .00E+00   .00E+00   .00E+00   .00E+00   .00E+00   .00E+00
      am239   1.43E-35  1.40E-20  1.39E-20  1.37E-20  1.36E-20  1.35E-35
      am240   6.52E-33  6.41E-18  6.34E-18  6.27E-18  6.20E-18  6.19E-33
      am241   4.21E-04  4.14E-04  4.09E-04  4.05E-04  4.00E-04  3.99E-04
      am242m  2.36E-08  2.39E-08  2.37E-08  2.34E-08  2.32E-08  2.24E-08
      am242   3.04E-13  1.90E-12  1.88E-12  1.86E-12  1.84E-12  2.89E-13
      am243   1.80E-07  1.79E-07  1.78E-07  1.77E-07  1.76E-07  1.76E-07
      am244m   .00E+00   .00E+00   .00E+00   .00E+00   .00E+00   .00E+00
      am244   1.67E-31  1.66E-16  1.65E-16  1.64E-16  1.64E-16  1.63E-31
      am245   2.54E-40  1.91E-35  1.97E-35  2.03E-35  2.10E-35  2.24E-40
      am246    .00E+00   .00E+00   .00E+00   .00E+00   .00E+00   .00E+00
      cm241    .00E+00  1.37E-23  1.35E-23  1.34E-23  1.32E-23   .00E+00
      cm242   6.15E-11  3.84E-10  3.80E-10  3.76E-10  3.72E-10  5.83E-11
      cm243   9.38E-16  1.09E-15  1.07E-15  1.06E-15  1.05E-15  8.87E-16
      cm244   2.02E-12  2.60E-12  2.59E-12  2.58E-12  2.57E-12  1.96E-12
1
      sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2                    actinides         page  258
        power= 4.890E-04mw, burnup=2.5916E+04mwd, flux= 2.96E+07n/cm**2-sec
0                                        nuclide concentrations, gram atoms
                                         basis = single reactor assembly
              charge ******* d ******* d ******* d ******* d ******* d
      cm245   7.13E-15  6.96E-15  6.80E-15  6.66E-15  6.51E-15  6.51E-15
      cm246   5.21E-17  5.06E-17  4.91E-17  4.77E-17  4.64E-17  4.63E-17
      cm247   9.05E-20  9.09E-20  9.12E-20  9.16E-20  9.20E-20  9.20E-20
      cm248   5.02E-22  5.11E-22  5.19E-22  5.27E-22  5.35E-22  5.35E-22
      cm249    .00E+00  1.97E-33  2.00E-33  2.03E-33  2.07E-33   .00E+00
      cm250   1.88E-37  1.90E-37  1.91E-37  1.93E-37  1.95E-37  1.95E-37
      cm251    .00E+00   .00E+00   .00E+00   .00E+00   .00E+00   .00E+00
    totals    3.73E+04  3.73E+04  3.73E+04  3.73E+04  3.73E+04  3.73E+04
0     flux              2.96E+07  2.96E+07  2.97E+07  2.97E+07  2.97E-08
0         1q array has      20 entries.
0         3q array has       1 entries.
0         3q array has       1 entries.
0         3q array has       1 entries.
0         4q array has       1 entries.
0        54q array has      12 entries.
1library information...

          cross-section data taken from position number 29 of library on unit 33.

          pass   1
          pass   0
          *scale-system control module sas2 library*
          used a time-dependent neutron spectrum, for each of the above passes
            pass 0 applies start-up fuel densiities
            pass n applies mid time densities of nth library interval
          first library updated was...
          pass   1
          pass   0
          *scale-system control module sas2 library*
          used a time-dependent neutron spectrum, for each of the above passes
            pass 0 applies start-up fuel densiities
            pass n applies mid time densities of nth library interval
          first library updated was...
          ********************************************************************************
          *                                                                              *
          *            prelim lwr origen-s binary working library--id = 1143             *
```

```
          *       made from modified card-image origen-s libraries of scale 4.2        *
          *    data from the light element, actinide, and fission product libraries    *
          *      decay data, including gamma and total energy, are from endf/b-vi       *
          *                                                                             *
          *      neutron flux spectrum factors and cross sections were produced from    *
          *    the "presas2" case updating all nuclides on the scale "burnup" library   *
          *                                                                             *
          *                 fission product yields are from endf/b-v                    *
          *                                                                             *
          *                photon libraries use an 18-energy-group structure            *
          *               the photon data are from the master photon data base,         *
          *                produced to include bremsstrahlung from uo2 matrix           *
          *                                                                             *
          *        see information above this box (if present) for later updates        *
          *                                                                             *
          *******************************************************************************
          *                                                                             *
0         *******************************************************************************
0                  .other identification and sizes of library.
0                   data set name:  ft33f001
0               8/29/1996    date library was produced
0                    1697    total number of nuclides in library
                      689    number of light-element nuclides
                      129    number of actinide nuclides
                      879    number of fission product nuclides
0                    7993    number of nonzero off-diagonal matrix elements
0         *******************************************************************************
1    sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2                                    page  259
         power=     .00mw, burnup=  26363.mwd, flux= 2.97E+07n/cm**2-sec
0                                          basis =
0    (note, k-infinities, clad and moderator absorptions are correct, only, if correctly weighted cross sections are applied.)
0                   initial       ******* d      ******* d      ******* d      ******* d      ******* d
     productions    1.276652E+06   1.276031E+06   1.275415E+06   1.274805E+06   1.274199E+06   1.274190E+06
     absorptions    1.042930E+06   1.042643E+06   1.042360E+06   1.042079E+06   1.041801E+06   1.041795E+06
     k infinity     1.224102E+00   1.223842E+00   1.223584E+00   1.223328E+00   1.223074E+00   1.223072E+00
0                   initial       ******* d      ******* d      ******* d      ******* d      ******* d
     actinide
     absorptions    1.022700E+06   1.022376E+06   1.022056E+06   1.021739E+06   1.021425E+06   1.021419E+06
     non-actinide
     abs. fracs.    1.939762E-02   1.943815E-02   1.947886E-02   1.951891E-02   1.955897E-02   1.955867E-02
1    sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2               fission products         page  260
0                                  fraction of total absorption rate
         power=     .00mw, burnup=  26363.mwd, flux= 2.97E+07n/cm**2-sec
0                initial ******* d ******* d ******* d ******* d ******* d

     sm149      5.43E-03  5.43E-03  5.43E-03  5.43E-03  5.43E-03  5.43E-03
     nd143      2.52E-03  2.53E-03  2.54E-03  2.55E-03  2.56E-03  2.56E-03
     eu151      2.04E-03  2.05E-03  2.05E-03  2.05E-03  2.06E-03  2.06E-03
     rh103      1.23E-03  1.23E-03  1.24E-03  1.24E-03  1.25E-03  1.25E-03
     xe131      8.18E-04  8.22E-04  8.25E-04  8.29E-04  8.33E-04  8.33E-04
     cs133      6.38E-04  6.41E-04  6.44E-04  6.47E-04  6.50E-04  6.50E-04
     sm147      4.67E-04  4.69E-04  4.71E-04  4.73E-04  4.75E-04  4.75E-04
     tc 99      4.09E-04  4.10E-04  4.11E-04  4.12E-04  4.14E-04  4.14E-04
     nd145      3.61E-04  3.62E-04  3.64E-04  3.66E-04  3.67E-04  3.67E-04
     sm152      2.90E-04  2.92E-04  2.93E-04  2.95E-04  2.96E-04  2.96E-04
     mo 95      2.50E-04  2.51E-04  2.52E-04  2.53E-04  2.55E-04  2.55E-04
     gd155      2.23E-04  2.23E-04  2.22E-04  2.22E-04  2.22E-04  2.22E-04
     sm150      1.92E-04  1.93E-04  1.94E-04  1.95E-04  1.96E-04  1.96E-04
     kr 83      1.54E-04  1.55E-04  1.55E-04  1.56E-04  1.57E-04  1.57E-04
     cs135      1.44E-04  1.45E-04  1.46E-04  1.46E-04  1.47E-04  1.47E-04
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eu153	1.19E-04	1.20E-04	1.20E-04	1.21E-04	1.21E-04	1.21E-04
ru101	1.12E-04	1.13E-04	1.13E-04	1.14E-04	1.14E-04	1.14E-04
pr141	1.09E-04	1.09E-04	1.10E-04	1.10E-04	1.11E-04	1.11E-04
cd113	1.02E-04	1.02E-04	1.01E-04	1.01E-04	1.01E-04	1.01E-04
la139	8.89E-05	8.93E-05	8.97E-05	9.01E-05	9.05E-05	9.05E-05
gd157	5.74E-05	5.73E-05	5.72E-05	5.71E-05	5.69E-05	5.69E-05
ag109	4.69E-05	4.71E-05	4.73E-05	4.75E-05	4.77E-05	4.77E-05
pd105	4.58E-05	4.60E-05	4.62E-05	4.64E-05	4.66E-05	4.66E-05
ba137	4.31E-05	4.33E-05	4.35E-05	4.37E-05	4.39E-05	4.39E-05
zr 93	3.44E-05	3.45E-05	3.47E-05	3.48E-05	3.50E-05	3.50E-05
i129	2.92E-05	2.94E-05	2.95E-05	2.96E-05	2.98E-05	2.98E-05
nd144	2.77E-05	2.79E-05	2.80E-05	2.81E-05	2.83E-05	2.83E-05
gd152	2.58E-05	2.60E-05	2.62E-05	2.64E-05	2.66E-05	2.66E-05
mo 97	2.02E-05	2.03E-05	2.04E-05	2.04E-05	2.05E-05	2.05E-05
pd108	1.12E-05	1.13E-05	1.14E-05	1.14E-05	1.15E-05	1.15E-05
ru 99	9.50E-06	9.64E-06	9.77E-06	9.91E-06	1.00E-05	1.00E-05
zr 91	9.25E-06	9.30E-06	9.34E-06	9.38E-06	9.42E-06	9.42E-06
y 89	8.86E-06	8.90E-06	8.94E-06	8.98E-06	9.02E-06	9.02E-06
ru102	8.47E-06	8.51E-06	8.55E-06	8.59E-06	8.63E-06	8.63E-06
ce142	7.42E-06	7.45E-06	7.48E-06	7.52E-06	7.55E-06	7.55E-06
nd148	7.13E-06	7.16E-06	7.19E-06	7.22E-06	7.26E-06	7.26E-06
sm151	6.62E-06	6.98E-06	6.99E-06	6.99E-06	6.99E-06	6.61E-06
nd146	6.03E-06	6.06E-06	6.09E-06	6.11E-06	6.14E-06	6.14E-06
pd107	5.67E-06	5.69E-06	5.72E-06	5.75E-06	5.77E-06	5.77E-06
in115	5.27E-06	5.29E-06	5.32E-06	5.34E-06	5.36E-06	5.36E-06
ba138	5.13E-06	5.15E-06	5.17E-06	5.20E-06	5.22E-06	5.22E-06
ce140	4.80E-06	4.82E-06	4.85E-06	4.87E-06	4.89E-06	4.89E-06
xe132	4.41E-06	4.43E-06	4.45E-06	4.47E-06	4.49E-06	4.49E-06
mo 98	2.93E-06	2.94E-06	2.95E-06	2.97E-06	2.98E-06	2.98E-06
mo100	2.86E-06	2.88E-06	2.89E-06	2.90E-06	2.92E-06	2.92E-06
xe134	2.84E-06	2.85E-06	2.86E-06	2.87E-06	2.89E-06	2.89E-06
zr 92	2.24E-06	2.25E-06	2.26E-06	2.27E-06	2.28E-06	2.28E-06
i127	2.14E-06	2.15E-06	2.16E-06	2.17E-06	2.18E-06	2.18E-06
ru104	1.96E-06	1.97E-06	1.97E-06	1.98E-06	1.99E-06	1.99E-06

1 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 fission products page 261
0 fraction of total absorption rate
power= .00mw, burnup= 26363.mwd, flux= 2.97E+07n/cm**2-sec
0 initial ******* d ******* d ******* d ******* d ******* d

zr 96	1.74E-06	1.75E-06	1.76E-06	1.77E-06	1.78E-06	1.78E-06
nd150	1.61E-06	1.62E-06	1.63E-06	1.64E-06	1.64E-06	1.64E-06
xe136	1.54E-06	1.54E-06	1.55E-06	1.56E-06	1.57E-06	1.57E-06
gd154	1.35E-06	1.37E-06	1.38E-06	1.39E-06	1.40E-06	1.40E-06
cd111	1.27E-06	1.28E-06	1.28E-06	1.29E-06	1.30E-06	1.30E-06
br 81	1.13E-06	1.14E-06	1.14E-06	1.15E-06	1.15E-06	1.15E-06
rb 85	1.08E-06	1.09E-06	1.09E-06	1.10E-06	1.10E-06	1.10E-06
ba135	9.92E-07	1.01E-06	1.02E-06	1.04E-06	1.05E-06	1.05E-06
zr 94	9.45E-07	9.49E-07	9.54E-07	9.58E-07	9.62E-07	9.62E-07
zr 90	8.73E-07	8.77E-07	8.81E-07	8.85E-07	8.89E-07	8.89E-07
sm154	7.67E-07	7.71E-07	7.74E-07	7.78E-07	7.81E-07	7.81E-07
te130	7.11E-07	7.14E-07	7.18E-07	7.21E-07	7.24E-07	7.24E-07
rb 87	6.23E-07	6.26E-07	6.29E-07	6.32E-07	6.34E-07	6.34E-07
pd106	4.73E-07	4.75E-07	4.77E-07	4.79E-07	4.82E-07	4.82E-07
se 77	4.59E-07	4.61E-07	4.63E-07	4.65E-07	4.67E-07	4.67E-07
gd156	4.53E-07	4.56E-07	4.58E-07	4.60E-07	4.63E-07	4.63E-07
ru100	3.56E-07	3.59E-07	3.62E-07	3.65E-07	3.68E-07	3.68E-07
kr 84	2.97E-07	2.98E-07	3.00E-07	3.01E-07	3.03E-07	3.03E-07
dy161	2.80E-07	2.81E-07	2.83E-07	2.84E-07	2.85E-07	2.85E-07
nd142	2.66E-07	2.68E-07	2.70E-07	2.73E-07	2.75E-07	2.75E-07
ba134	2.53E-07	2.55E-07	2.57E-07	2.59E-07	2.62E-07	2.62E-07

sb121	2.44E-07	2.45E-07	2.46E-07	2.47E-07	2.48E-07	2.48E-07
sm148	2.29E-07	2.32E-07	2.34E-07	2.36E-07	2.38E-07	2.38E-07
se 79	2.19E-07	2.19E-07	2.20E-07	2.21E-07	2.22E-07	2.22E-07
sb123	1.97E-07	1.98E-07	1.99E-07	2.00E-07	2.01E-07	2.01E-07
pd104	1.73E-07	1.74E-07	1.76E-07	1.78E-07	1.79E-07	1.79E-07
kr 86	1.66E-07	1.66E-07	1.67E-07	1.68E-07	1.69E-07	1.69E-07
nb 93	1.57E-07	1.60E-07	1.62E-07	1.64E-07	1.67E-07	1.67E-07
te128	1.61E-07	1.61E-07	1.62E-07	1.63E-07	1.64E-07	1.64E-07
tb159	1.21E-07	1.21E-07	1.22E-07	1.22E-07	1.23E-07	1.23E-07
se 80	1.10E-07	1.10E-07	1.11E-07	1.11E-07	1.12E-07	1.12E-07
te125	1.10E-07	1.10E-07	1.11E-07	1.11E-07	1.12E-07	1.12E-07
gd158	9.53E-08	9.58E-08	9.63E-08	9.67E-08	9.72E-08	9.72E-08
cd112	8.56E-08	8.60E-08	8.64E-08	8.68E-08	8.72E-08	8.72E-08
ag107	8.04E-08	8.16E-08	8.29E-08	8.42E-08	8.56E-08	8.56E-08
br 79	7.75E-08	7.86E-08	7.97E-08	8.08E-08	8.20E-08	8.20E-08
cd110	6.61E-08	6.68E-08	6.75E-08	6.82E-08	6.89E-08	6.89E-08
dy162	6.64E-08	6.68E-08	6.71E-08	6.75E-08	6.79E-08	6.79E-08
dy164	6.20E-08	6.23E-08	6.25E-08	6.28E-08	6.30E-08	6.30E-08
sn117	6.00E-08	6.02E-08	6.05E-08	6.08E-08	6.11E-08	6.11E-08
mo 96	5.72E-08	5.77E-08	5.83E-08	5.88E-08	5.93E-08	5.93E-08
li 6	5.58E-08	5.61E-08	5.63E-08	5.65E-08	5.67E-08	5.67E-08
cd114	5.10E-08	5.13E-08	5.15E-08	5.18E-08	5.20E-08	5.20E-08
xe129	4.80E-08	4.87E-08	4.95E-08	5.02E-08	5.09E-08	5.09E-08
sn119	4.56E-08	4.58E-08	4.60E-08	4.62E-08	4.64E-08	4.64E-08
eu152	4.64E-08	6.69E-08	6.71E-08	6.72E-08	6.74E-08	4.62E-08
pd110	4.24E-08	4.26E-08	4.28E-08	4.30E-08	4.32E-08	4.32E-08
sn115	4.17E-08	4.19E-08	4.21E-08	4.23E-08	4.25E-08	4.25E-08
sr 88	3.04E-08	3.05E-08	3.07E-08	3.08E-08	3.09E-08	3.09E-08

1 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 fission products page 262
0 fraction of total absorption rate
power= .00mw, burnup= 26363.mwd, flux= 2.97E+07n/cm**2-sec
0 initial ******* d ******* d ******* d ******* d ******* d

xe130	2.79E-08	2.82E-08	2.84E-08	2.86E-08	2.89E-08	2.89E-08
te126	2.53E-08	2.57E-08	2.60E-08	2.63E-08	2.67E-08	2.67E-08
ba136	2.30E-08	2.31E-08	2.33E-08	2.35E-08	2.36E-08	2.36E-08
se 82	2.09E-08	2.10E-08	2.11E-08	2.12E-08	2.13E-08	2.13E-08
kr 82	1.65E-08	1.66E-08	1.67E-08	1.68E-08	1.69E-08	1.69E-08
dy163	1.66E-08	1.66E-08	1.67E-08	1.68E-08	1.69E-08	1.69E-08
se 78	1.64E-08	1.65E-08	1.66E-08	1.66E-08	1.67E-08	1.67E-08
sn126	1.64E-08	1.65E-08	1.65E-08	1.65E-08	1.66E-08	1.66E-08
sn124	1.44E-08	1.45E-08	1.45E-08	1.46E-08	1.47E-08	1.47E-08
as 75	9.63E-09	9.68E-09	9.72E-09	9.76E-09	9.81E-09	9.81E-09
in113	8.30E-09	8.34E-09	8.37E-09	8.41E-09	8.45E-09	8.45E-09
eu155	7.80E-09	2.20E-08	2.20E-08	2.20E-08	2.20E-08	7.50E-09
sn118	5.79E-09	5.82E-09	5.85E-09	5.87E-09	5.90E-09	5.90E-09
sn122	5.02E-09	5.04E-09	5.06E-09	5.08E-09	5.11E-09	5.11E-09
cd116	4.87E-09	4.90E-09	4.92E-09	4.94E-09	4.96E-09	4.96E-09
pm147	5.26E-09	3.31E-08	3.32E-08	3.32E-08	3.32E-08	4.93E-09
sn120	3.68E-09	3.70E-09	3.72E-09	3.73E-09	3.75E-09	3.75E-09
eu154	3.52E-09	6.23E-09	6.27E-09	6.30E-09	6.34E-09	3.53E-09
ge 73	2.77E-09	2.79E-09	2.80E-09	2.81E-09	2.83E-09	2.83E-09
dy160	1.76E-09	1.77E-09	1.79E-09	1.81E-09	1.82E-09	1.82E-09
ho165	1.69E-09	1.70E-09	1.71E-09	1.73E-09	1.74E-09	1.74E-09
sr 90	1.71E-09	2.04E-09	2.04E-09	2.04E-09	2.04E-09	1.70E-09
gd160	1.35E-09	1.36E-09	1.37E-09	1.37E-09	1.38E-09	1.38E-09
xe128	1.02E-09	1.03E-09	1.04E-09	1.05E-09	1.06E-09	1.06E-09
ge 76	9.37E-10	9.42E-10	9.46E-10	9.50E-10	9.55E-10	9.55E-10
sr 86	4.72E-10	4.76E-10	4.80E-10	4.85E-10	4.89E-10	4.89E-10
sn116	3.83E-10	3.86E-10	3.90E-10	3.93E-10	3.97E-10	3.97E-10

cs137	3.93E-10	4.63E-10	4.63E-10	4.63E-10	4.63E-10	3.91E-10
te124	3.27E-10	3.29E-10	3.32E-10	3.34E-10	3.36E-10	3.36E-10
nb 94	1.75E-10	1.77E-10	1.78E-10	1.80E-10	1.82E-10	1.82E-10
te122	1.62E-10	1.63E-10	1.65E-10	1.66E-10	1.68E-10	1.68E-10
sr 87	1.57E-10	1.58E-10	1.59E-10	1.61E-10	1.62E-10	1.62E-10
se 76	1.31E-10	1.32E-10	1.33E-10	1.34E-10	1.35E-10	1.35E-10
kr 80	8.06E-11	8.20E-11	8.34E-11	8.48E-11	8.62E-11	8.62E-11
er166	7.83E-11	7.87E-11	7.91E-11	7.96E-11	8.00E-11	8.00E-11
ge 74	5.55E-11	5.58E-11	5.60E-11	5.63E-11	5.65E-11	5.65E-11
cs134	5.60E-11	5.94E-10	5.97E-10	6.00E-10	6.03E-10	5.25E-11
kr 85	4.35E-11	6.85E-11	6.85E-11	6.86E-11	6.86E-11	4.29E-11
ge 72	4.12E-11	4.14E-11	4.16E-11	4.18E-11	4.20E-11	4.20E-11
er167	1.04E-11	1.05E-11	1.06E-11	1.07E-11	1.08E-11	1.08E-11
te123	8.65E-12	8.76E-12	8.87E-12	8.99E-12	9.10E-12	9.10E-12
cd108	6.10E-12	6.22E-12	6.34E-12	6.46E-12	6.58E-12	6.58E-12
y 90	1.63E-12	1.94E-12	1.94E-12	1.94E-12	1.94E-12	1.62E-12
sb125	3.60E-13	2.13E-12	2.13E-12	2.13E-12	2.13E-12	3.37E-13
be 9	1.17E-13	1.17E-13	1.18E-13	1.18E-13	1.19E-13	1.19E-13
ce144	1.43E-13	7.25E-11	7.25E-11	7.25E-11	7.25E-11	1.15E-13
sn114	1.03E-13	1.04E-13	1.05E-13	1.06E-13	1.07E-13	1.07E-13
li 7	4.86E-14	4.88E-14	4.90E-14	4.93E-14	4.95E-14	4.95E-14
ru106	3.88E-14	4.60E-12	4.59E-12	4.59E-12	4.58E-12	3.26E-14

1 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 fission products page 263
0 fraction of total absorption rate
power= .00mw, burnup= 26363.mwd, flux= 2.97E+07n/cm**2-sec
0 initial ******* d ******* d ******* d ******* d ******* d

sb126	1.88E-14	1.96E-14	1.96E-14	1.96E-14	1.97E-14	1.89E-14
cd109	6.54E-19	3.04E-17	3.10E-17	3.16E-17	3.22E-17	6.00E-19
te127m	8.17E-20	1.08E-12	1.08E-12	1.08E-12	1.08E-12	5.46E-20

1 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 light elements page 264
power= 4.890E-04mw, burnup=2.6363E+04mwd, flux= 2.97E+07n/cm**2-sec
0 nuclide concentrations, gram atoms
basis = single reactor assembly

	charge ******* d	******* d	******* d	******* d	******* d	******* d
h 1	1.54E-03	1.55E-03	1.56E-03	1.56E-03	1.57E-03	1.57E-03
h 2	4.62E-06	4.64E-06	4.66E-06	4.68E-06	4.70E-06	4.70E-06
h 3	5.09E-12	7.56E-12	7.57E-12	7.58E-12	7.59E-12	5.04E-12
h 4	.00E+00	3.84E-36	3.84E-36	3.85E-36	3.86E-36	.00E+00
he 3	1.88E-08	1.89E-08	1.89E-08	1.89E-08	1.90E-08	1.90E-08
he 4	2.56E-04	2.57E-04	2.59E-04	2.60E-04	2.61E-04	2.61E-04
he 6	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ne 20	3.08E-05	3.09E-05	3.11E-05	3.12E-05	3.13E-05	3.13E-05
ne 21	1.43E-08	1.44E-08	1.46E-08	1.47E-08	1.48E-08	1.48E-08
ne 22	2.03E-07	2.04E-07	2.05E-07	2.06E-07	2.06E-07	2.06E-07
ne 23	8.87E-31	8.86E-16	8.87E-16	8.87E-16	8.88E-16	8.88E-31
na 22	8.13E-13	5.26E-12	5.26E-12	5.26E-12	5.26E-12	7.61E-13
na 23	7.53E+03	7.53E+03	7.53E+03	7.53E+03	7.53E+03	7.53E+03
na 24	3.23E-24	3.23E-09	3.23E-09	3.23E-09	3.24E-09	3.24E-24
na 24m	5.31E-31	5.31E-16	5.31E-16	5.31E-16	5.32E-16	5.32E-31
na 25	5.18E-39	5.22E-24	5.26E-24	5.31E-24	5.36E-24	5.36E-39
mg 24	1.98E-01	1.99E-01	2.00E-01	2.01E-01	2.02E-01	2.02E-01
mg 25	1.48E-06	1.49E-06	1.51E-06	1.52E-06	1.53E-06	1.53E-06
mg 26	4.61E-06	4.63E-06	4.65E-06	4.67E-06	4.69E-06	4.69E-06
mg 27	2.65E-28	2.64E-13	2.65E-13	2.65E-13	2.65E-13	2.65E-28
mg 28	.00E+00	6.74E-26	6.75E-26	6.75E-26	6.76E-26	.00E+00
al 27	4.99E+04	4.99E+04	4.99E+04	4.99E+04	4.99E+04	4.99E+04
al 28	2.40E-26	2.40E-11	2.40E-11	2.40E-11	2.40E-11	2.40E-26
al 29	4.23E-37	4.26E-22	4.30E-22	4.34E-22	4.38E-22	4.38E-37

	al 30	.00E+00	1.43E-31	1.45E-31	1.46E-31	1.48E-31	.00E+00
	si 28	5.78E-01	5.80E-01	5.83E-01	5.85E-01	5.87E-01	5.87E-01
	si 29	1.35E-05	1.36E-05	1.37E-05	1.38E-05	1.40E-05	1.40E-05
	si 30	3.37E-10	3.41E-10	3.46E-10	3.50E-10	3.55E-10	3.55E-10
	si 31	3.02E-38	3.06E-23	3.10E-23	3.14E-23	3.18E-23	3.18E-38
	si 32	6.43E-30	6.70E-30	6.81E-30	6.90E-30	7.00E-30	6.79E-30
	totals	5.75E+04	5.75E+04	5.75E+04	5.75E+04	5.75E+04	5.75E+04
0	flux		2.97E+07	2.97E+07	2.97E+07	2.97E+07	2.97E-08
1							

sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 actinides page 265
power= 4.890E-04mw, burnup=2.6363E+04mwd, flux= 2.97E+07n/cm**2-sec

0 nuclide concentrations, gram atoms
basis = single reactor assembly

	charge	******* d	******* d	******* d	******* d	******* d
he 4	6.30E+01	6.36E+01	6.42E+01	6.47E+01	6.53E+01	6.53E+01
pb206	4.78E-01	4.86E-01	4.94E-01	5.02E-01	5.11E-01	5.11E-01
pb207	2.75E-02	2.79E-02	2.83E-02	2.87E-02	2.91E-02	2.91E-02
pb208	9.13E-04	9.21E-04	9.29E-04	9.37E-04	9.45E-04	9.45E-04
pb209	1.51E-09	1.53E-09	1.54E-09	1.56E-09	1.57E-09	1.57E-09
pb210	4.18E-04	4.20E-04	4.23E-04	4.26E-04	4.29E-04	4.29E-04
pb211	6.35E-11	6.36E-11	6.39E-11	6.41E-11	6.43E-11	6.44E-11
pb212	2.10E-11	2.21E-11	2.22E-11	2.22E-11	2.23E-11	2.13E-11
pb214	9.54E-10	9.61E-10	9.68E-10	9.74E-10	9.81E-10	9.81E-10
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	9.12E-02	9.30E-02	9.48E-02	9.66E-02	9.84E-02	9.85E-02
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	2.57E-07	2.59E-07	2.61E-07	2.62E-07	2.64E-07	2.64E-07
bi211	3.76E-12	3.77E-12	3.79E-12	3.80E-12	3.81E-12	3.82E-12
bi212	2.00E-12	2.09E-12	2.10E-12	2.11E-12	2.12E-12	2.02E-12
bi213	3.54E-10	3.57E-10	3.60E-10	3.63E-10	3.67E-10	3.67E-10
bi214	7.09E-10	7.14E-10	7.18E-10	7.23E-10	7.28E-10	7.28E-10
po210	7.10E-06	7.15E-06	7.19E-06	7.24E-06	7.29E-06	7.29E-06
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	4.16E-17	4.17E-17	4.18E-17	4.20E-17	4.21E-17	4.22E-17
po212	1.05E-22	1.10E-22	1.10E-22	1.11E-22	1.11E-22	1.06E-22
po213	5.32E-19	5.37E-19	5.41E-19	5.46E-19	5.51E-19	5.51E-19
po214	9.75E-17	9.82E-17	9.88E-17	9.95E-17	1.00E-16	1.00E-16
po215	5.22E-17	5.23E-17	5.25E-17	5.27E-17	5.29E-17	5.30E-17
po216	7.96E-17	8.35E-17	8.39E-17	8.42E-17	8.46E-17	8.08E-17
po218	1.10E-10	1.11E-10	1.12E-10	1.13E-10	1.13E-10	1.13E-10
rn218	3.64E-44	3.91E-29	3.93E-29	3.95E-29	3.96E-29	3.64E-44
rn219	1.16E-13	1.16E-13	1.17E-13	1.17E-13	1.18E-13	1.18E-13
rn220	3.05E-14	3.20E-14	3.22E-14	3.23E-14	3.24E-14	3.10E-14
rn222	1.96E-07	1.97E-07	1.99E-07	2.00E-07	2.02E-07	2.02E-07
ra222	3.95E-41	4.24E-26	4.26E-26	4.28E-26	4.30E-26	4.01E-41
ra223	2.90E-08	2.90E-08	2.91E-08	2.92E-08	2.93E-08	2.94E-08
ra224	1.74E-10	1.82E-10	1.83E-10	1.84E-10	1.84E-10	1.76E-10
ra225	1.65E-07	1.67E-07	1.68E-07	1.70E-07	1.71E-07	1.71E-07
ra226	3.00E-02	3.02E-02	3.04E-02	3.06E-02	3.08E-02	3.08E-02
ra228	1.58E-10	1.60E-10	1.61E-10	1.63E-10	1.64E-10	1.64E-10
ac225	1.12E-07	1.13E-07	1.14E-07	1.15E-07	1.16E-07	1.16E-07
ac227	2.01E-05	2.02E-05	2.03E-05	2.03E-05	2.04E-05	2.04E-05
ac228	1.93E-14	1.95E-14	1.97E-14	1.99E-14	2.00E-14	2.00E-14
th226	1.93E-39	2.07E-24	2.08E-24	2.09E-24	2.10E-24	1.96E-39
th227	4.67E-08	4.68E-08	4.70E-08	4.72E-08	4.74E-08	4.74E-08
th228	3.31E-08	3.48E-08	3.49E-08	3.51E-08	3.52E-08	3.36E-08
th229	3.22E-02	3.25E-02	3.28E-02	3.30E-02	3.33E-02	3.33E-02
th230	1.45E+00	1.46E+00	1.47E+00	1.48E+00	1.49E+00	1.49E+00
th231	2.71E-09	3.52E-09	3.52E-09	3.53E-09	3.53E-09	2.70E-09
th232	3.87E-01	3.90E-01	3.94E-01	3.98E-01	4.01E-01	4.01E-01

th233	4.40E-28	4.44E-13	4.48E-13	4.52E-13	4.57E-13	4.57E-28
th234	5.36E-07	5.36E-07	5.36E-07	5.36E-07	5.36E-07	5.36E-07
pa231	3.02E-02	3.03E-02	3.05E-02	3.06E-02	3.07E-02	3.07E-02
pa232	6.47E-26	6.50E-11	6.52E-11	6.55E-11	6.58E-11	6.58E-26

1

sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 actinides page 266
power= 4.890E-04mw, burnup=2.6363E+04mwd, flux= 2.97E+07n/cm**2-sec

0 nuclide concentrations, gram atoms
basis = single reactor assembly

	charge	******* d	******* d	******* d	******* d	******* d
pa233	1.39E-06	1.39E-06	1.39E-06	1.39E-06	1.39E-06	1.39E-06
pa234m	1.81E-11	1.81E-11	1.81E-11	1.81E-11	1.81E-11	1.81E-11
pa234	8.07E-12	8.07E-12	8.07E-12	8.07E-12	8.07E-12	8.07E-12
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	1.87E-36	2.01E-21	2.02E-21	2.03E-21	2.04E-21	1.90E-36
u231	7.01E-32	7.05E-17	7.11E-17	7.16E-17	7.22E-17	7.22E-32
u232	1.18E-06	1.27E-06	1.27E-06	1.28E-06	1.28E-06	1.19E-06
u233	7.58E-01	7.63E-01	7.69E-01	7.74E-01	7.80E-01	7.80E-01
u234	1.02E+01	1.02E+01	1.02E+01	1.02E+01	1.02E+01	1.02E+01
u235	6.54E+02	6.54E+02	6.54E+02	6.54E+02	6.54E+02	6.54E+02
u236	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02
u237	2.92E-13	4.17E-07	4.17E-07	4.18E-07	4.18E-07	2.76E-13
u238	3.63E+04	3.63E+04	3.63E+04	3.63E+04	3.63E+04	3.63E+04
u239	3.77E-23	3.77E-08	3.77E-08	3.77E-08	3.77E-08	3.77E-23
u240	4.20E-34	4.33E-34	4.46E-34	4.59E-34	4.72E-34	4.72E-34
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	1.16E-14	1.02E-12	1.02E-12	1.02E-12	1.02E-12	9.88E-15
np236m	2.43E-28	2.43E-13	2.43E-13	2.43E-13	2.43E-13	2.43E-28
np236	2.65E-06	2.65E-06	2.66E-06	2.66E-06	2.67E-06	2.67E-06
np237	4.03E+01	4.03E+01	4.03E+01	4.03E+01	4.02E+01	4.02E+01
np238	4.14E-15	1.82E-07	1.82E-07	1.82E-07	1.82E-07	3.95E-15
np239	1.54E-13	5.45E-06	5.45E-06	5.45E-06	5.45E-06	1.52E-13
np240m	3.59E-36	3.69E-36	3.80E-36	3.92E-36	4.03E-36	4.03E-36
np240	4.08E-38	1.37E-16	1.37E-16	1.38E-16	1.38E-16	4.53E-38
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	3.06E-11	1.38E-10	1.38E-10	1.38E-10	1.38E-10	2.92E-11
pu237	3.03E-29	3.00E-14	2.99E-14	2.98E-14	2.97E-14	2.95E-29
pu238	2.61E-03	2.75E-03	2.76E-03	2.76E-03	2.76E-03	2.60E-03
pu239	2.53E+01	2.52E+01	2.50E+01	2.49E+01	2.48E+01	2.48E+01
pu240	2.66E-01	2.63E-01	2.60E-01	2.57E-01	2.55E-01	2.55E-01
pu241	9.48E-06	1.31E-05	1.30E-05	1.29E-05	1.27E-05	8.96E-06
pu242	4.85E-05	4.85E-05	4.85E-05	4.85E-05	4.85E-05	4.85E-05
pu243	1.58E-29	1.25E-14	1.25E-14	1.25E-14	1.26E-14	1.59E-29
pu244	2.09E-23	2.16E-23	2.22E-23	2.28E-23	2.35E-23	2.35E-23
pu245	.00E+00	1.10E-34	1.14E-34	1.17E-34	1.21E-34	.00E+00
pu246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am239	1.35E-35	1.33E-20	1.32E-20	1.31E-20	1.30E-20	1.29E-35
am240	6.19E-33	6.09E-18	6.04E-18	5.98E-18	5.92E-18	5.91E-33
am241	3.99E-04	3.93E-04	3.90E-04	3.86E-04	3.82E-04	3.81E-04
am242m	2.24E-08	2.27E-08	2.26E-08	2.24E-08	2.21E-08	2.14E-08
am242	2.89E-13	1.81E-12	1.79E-12	1.78E-12	1.76E-12	2.76E-13
am243	1.76E-07	1.75E-07	1.75E-07	1.74E-07	1.73E-07	1.73E-07
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	1.63E-31	1.63E-16	1.62E-16	1.62E-16	1.61E-16	1.61E-31
am245	2.24E-40	2.16E-35	2.23E-35	2.29E-35	2.36E-35	1.94E-40
am246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm241	.00E+00	1.30E-23	1.29E-23	1.28E-23	1.27E-23	.00E+00
cm242	5.83E-11	3.65E-10	3.62E-10	3.59E-10	3.55E-10	5.57E-11
cm243	8.87E-16	1.03E-15	1.03E-15	1.02E-15	1.01E-15	8.44E-16
cm244	1.96E-12	2.56E-12	2.55E-12	2.54E-12	2.53E-12	1.92E-12

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1
     sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2                    actinides        page  267
       power= 4.890E-04mw, burnup=2.6363E+04mwd, flux= 2.97E+07n/cm**2-sec
0                                        nuclide concentrations, gram atoms
                                         basis = single reactor assembly
             charge ******* d ******* d ******* d ******* d ******* d
     cm245   6.51E-15  6.37E-15  6.24E-15  6.12E-15  6.00E-15  6.00E-15
     cm246   4.63E-17  4.51E-17  4.39E-17  4.27E-17  4.16E-17  4.15E-17
     cm247   9.20E-20  9.23E-20  9.27E-20  9.30E-20  9.33E-20  9.33E-20
     cm248   5.35E-22  5.44E-22  5.52E-22  5.60E-22  5.69E-22  5.69E-22
     cm249    .00E+00  2.10E-33  2.13E-33  2.16E-33  2.20E-33   .00E+00
     cm250   1.95E-37  1.97E-37  1.99E-37  2.01E-37  2.03E-37  2.03E-37
     cm251    .00E+00   .00E+00   .00E+00   .00E+00   .00E+00   .00E+00
   totals    3.73E+04  3.73E+04  3.73E+04  3.73E+04  3.73E+04  3.73E+04
0    flux              2.97E+07  2.97E+07  2.97E+07  2.97E+07  2.97E-08
0        1q array has      20 entries.
0        3q array has       1 entries.
0        3q array has       1 entries.
0        3q array has       1 entries.
0        4q array has       1 entries.
0       54q array has      12 entries.
1library information...

          cross-section data taken from position number  1 of library on unit 15.

          pass
          pass   1
          pass   0
          *scale-system control module sas2 library*
          used a time-dependent neutron spectrum, for each of the above passes
            pass 0 applies start-up fuel densiities
            pass n applies mid time densities of nth library interval
          first library updated was...
          pass   1
          pass   0
          *scale-system control module sas2 library*
          used a time-dependent neutron spectrum, for each of the above passes
            pass 0 applies start-up fuel densiities
            pass n applies mid time densities of nth library interval
          first library updated was...
          ********************************************************************************
          *                                                                              *
          *            prelim lwr origen-s binary working library--id = 1143             *
          *          made from modified card-image origen-s libraries of scale 4.2       *
          *       data from the light element, actinide, and fission product libraries   *
          *         decay data, including gamma and total energy, are from endf/b-vi     *
          *                                                                              *
          *       neutron flux spectrum factors and cross sections were produced from    *
          *      the "presas2" case updating all nuclides on the scale "burnup" library  *
          *                                                                              *
          *                    fission product yields are from endf/b-v                  *
          *                                                                              *
          *              photon libraries use an 18-energy-group structure               *
          *             the photon data are from the master photon data base,            *
          *              produced to include bremsstrahlung from uo2 matrix              *
          *                                                                              *
          *         see information above this box (if present) for later updates        *
          *                                                                              *
          ********************************************************************************
          *                                                                              *
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0          ********************************************************************************
0                    .other identification and sizes of library.
0                     data set name:  ft15f001
0                   8/29/1996    date library was produced
0                        1697    total number of nuclides in library
                          689    number of light-element nuclides
                          129    number of actinide nuclides
                          879    number of fission product nuclides
0                        7993    number of nonzero off-diagonal matrix elements
0          ********************************************************************************
1     sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2                                    page  268
          power=    .00mw, burnup=  26809.mwd, flux= 2.97E+07n/cm**2-sec
0                                      basis =
0     (note, k-infinities, clad and moderator absorptions are correct, only, if correctly weighted cross sections are applied.)
0                     initial      ******* d      ******* d      ******* d      ******* d
      productions   1.274810E+06   1.274209E+06   1.273613E+06   1.273022E+06   1.272436E+06
      absorptions   1.042014E+06   1.041739E+06   1.041467E+06   1.041197E+06   1.040930E+06
      k infinity    1.223409E+00   1.223155E+00   1.222903E+00   1.222653E+00   1.222404E+00
0                     initial      ******* d      ******* d      ******* d      ******* d
      actinide
      absorptions   1.021634E+06   1.021322E+06   1.021013E+06   1.020707E+06   1.020404E+06
      non-actinide
      abs. fracs.   1.955879E-02   1.959932E-02   1.963931E-02   1.967925E-02   1.971906E-02
1     sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2              fission products         page  269
0                                  fraction of total absorption rate
          power=    .00mw, burnup=  26809.mwd, flux= 2.97E+07n/cm**2-sec
0               initial ******* d ******* d ******* d ******* d

      sm149     5.43E-03  5.43E-03  5.43E-03  5.42E-03  5.42E-03
      nd143     2.56E-03  2.58E-03  2.59E-03  2.60E-03  2.61E-03
      eu151     2.06E-03  2.06E-03  2.06E-03  2.07E-03  2.07E-03
      rh103     1.25E-03  1.25E-03  1.26E-03  1.26E-03  1.27E-03
      xe131     8.32E-04  8.36E-04  8.40E-04  8.43E-04  8.47E-04
      cs133     6.50E-04  6.53E-04  6.56E-04  6.59E-04  6.61E-04
      sm147     4.75E-04  4.77E-04  4.79E-04  4.81E-04  4.83E-04
      tc 99     4.13E-04  4.15E-04  4.16E-04  4.17E-04  4.18E-04
      nd145     3.67E-04  3.69E-04  3.70E-04  3.72E-04  3.74E-04
      sm152     2.96E-04  2.97E-04  2.99E-04  3.00E-04  3.02E-04
      mo 95     2.55E-04  2.56E-04  2.57E-04  2.58E-04  2.59E-04
      gd155     2.22E-04  2.22E-04  2.21E-04  2.21E-04  2.21E-04
      sm150     1.96E-04  1.96E-04  1.97E-04  1.98E-04  1.99E-04
      kr 83     1.57E-04  1.57E-04  1.58E-04  1.59E-04  1.59E-04
      cs135     1.47E-04  1.48E-04  1.48E-04  1.49E-04  1.50E-04
      eu153     1.21E-04  1.22E-04  1.23E-04  1.23E-04  1.24E-04
      ru101     1.14E-04  1.15E-04  1.15E-04  1.16E-04  1.16E-04
      pr141     1.11E-04  1.11E-04  1.12E-04  1.12E-04  1.13E-04
      cd113     1.01E-04  1.01E-04  1.01E-04  1.01E-04  1.01E-04
      la139     9.05E-05  9.09E-05  9.13E-05  9.17E-05  9.21E-05
      gd157     5.70E-05  5.68E-05  5.67E-05  5.66E-05  5.65E-05
      ag109     4.77E-05  4.80E-05  4.82E-05  4.84E-05  4.86E-05
      pd105     4.66E-05  4.68E-05  4.71E-05  4.73E-05  4.75E-05
      ba137     4.39E-05  4.41E-05  4.43E-05  4.45E-05  4.47E-05
      zr 93     3.49E-05  3.51E-05  3.52E-05  3.54E-05  3.55E-05
       i129     2.98E-05  2.99E-05  3.00E-05  3.02E-05  3.03E-05
      nd144     2.83E-05  2.84E-05  2.85E-05  2.87E-05  2.88E-05
      gd152     2.66E-05  2.68E-05  2.69E-05  2.71E-05  2.73E-05
      mo 97     2.05E-05  2.06E-05  2.07E-05  2.08E-05  2.09E-05
      pd108     1.15E-05  1.15E-05  1.16E-05  1.16E-05  1.17E-05
      ru 99     1.00E-05  1.02E-05  1.03E-05  1.05E-05  1.06E-05
      zr 91     9.43E-06  9.47E-06  9.51E-06  9.55E-06  9.59E-06
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y 89	9.02E-06	9.06E-06	9.10E-06	9.14E-06	9.18E-06
ru102	8.63E-06	8.67E-06	8.71E-06	8.75E-06	8.79E-06
ce142	7.55E-06	7.59E-06	7.62E-06	7.66E-06	7.69E-06
nd148	7.26E-06	7.29E-06	7.32E-06	7.36E-06	7.39E-06
sm151	6.62E-06	7.00E-06	7.00E-06	7.01E-06	7.01E-06
nd146	6.14E-06	6.17E-06	6.20E-06	6.23E-06	6.26E-06
pd107	5.78E-06	5.80E-06	5.83E-06	5.86E-06	5.88E-06
in115	5.36E-06	5.39E-06	5.41E-06	5.43E-06	5.46E-06
ba138	5.22E-06	5.25E-06	5.27E-06	5.29E-06	5.32E-06
ce140	4.89E-06	4.91E-06	4.94E-06	4.96E-06	4.98E-06
xe132	4.49E-06	4.51E-06	4.53E-06	4.55E-06	4.57E-06
mo 98	2.98E-06	2.99E-06	3.00E-06	3.02E-06	3.03E-06
mo100	2.92E-06	2.93E-06	2.94E-06	2.96E-06	2.97E-06
xe134	2.89E-06	2.90E-06	2.91E-06	2.93E-06	2.94E-06
zr 92	2.28E-06	2.29E-06	2.30E-06	2.32E-06	2.33E-06
i127	2.18E-06	2.19E-06	2.20E-06	2.21E-06	2.22E-06
ru104	1.99E-06	2.00E-06	2.01E-06	2.02E-06	2.03E-06

1 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 fission products page 270
0 fraction of total absorption rate
power= .00mw, burnup= 26809.mwd, flux= 2.97E+07n/cm**2-sec
0 initial ******* d ******* d ******* d ******* d

zr 96	1.78E-06	1.78E-06	1.79E-06	1.80E-06	1.81E-06
nd150	1.64E-06	1.65E-06	1.66E-06	1.67E-06	1.67E-06
xe136	1.57E-06	1.57E-06	1.58E-06	1.59E-06	1.59E-06
gd154	1.40E-06	1.42E-06	1.43E-06	1.44E-06	1.46E-06
cd111	1.30E-06	1.30E-06	1.31E-06	1.31E-06	1.32E-06
br 81	1.15E-06	1.16E-06	1.16E-06	1.17E-06	1.17E-06
rb 85	1.10E-06	1.11E-06	1.11E-06	1.12E-06	1.12E-06
ba135	1.05E-06	1.07E-06	1.08E-06	1.10E-06	1.11E-06
zr 94	9.62E-07	9.66E-07	9.71E-07	9.75E-07	9.79E-07
zr 90	8.89E-07	8.93E-07	8.97E-07	9.01E-07	9.05E-07
sm154	7.82E-07	7.85E-07	7.89E-07	7.92E-07	7.96E-07
te130	7.25E-07	7.28E-07	7.31E-07	7.34E-07	7.38E-07
rb 87	6.34E-07	6.37E-07	6.40E-07	6.43E-07	6.46E-07
pd106	4.82E-07	4.84E-07	4.86E-07	4.88E-07	4.90E-07
se 77	4.67E-07	4.69E-07	4.71E-07	4.73E-07	4.75E-07
gd156	4.62E-07	4.65E-07	4.67E-07	4.69E-07	4.72E-07
ru100	3.68E-07	3.71E-07	3.74E-07	3.77E-07	3.80E-07
kr 84	3.03E-07	3.04E-07	3.05E-07	3.07E-07	3.08E-07
dy161	2.85E-07	2.87E-07	2.88E-07	2.89E-07	2.90E-07
xe135	2.86E-22	2.86E-07	2.86E-07	2.86E-07	2.86E-07
nd142	2.75E-07	2.78E-07	2.80E-07	2.83E-07	2.85E-07
ba134	2.62E-07	2.64E-07	2.66E-07	2.69E-07	2.71E-07
sb121	2.48E-07	2.49E-07	2.51E-07	2.52E-07	2.53E-07
sm148	2.38E-07	2.40E-07	2.42E-07	2.44E-07	2.46E-07
se 79	2.22E-07	2.23E-07	2.23E-07	2.24E-07	2.25E-07
sb123	2.01E-07	2.02E-07	2.02E-07	2.03E-07	2.04E-07
pd104	1.79E-07	1.81E-07	1.82E-07	1.84E-07	1.85E-07
nb 93	1.67E-07	1.69E-07	1.72E-07	1.74E-07	1.76E-07
kr 86	1.69E-07	1.70E-07	1.70E-07	1.71E-07	1.72E-07
te128	1.64E-07	1.64E-07	1.65E-07	1.66E-07	1.67E-07
tb159	1.23E-07	1.24E-07	1.24E-07	1.25E-07	1.25E-07
se 80	1.12E-07	1.12E-07	1.13E-07	1.13E-07	1.14E-07
te125	1.12E-07	1.12E-07	1.13E-07	1.13E-07	1.14E-07
gd158	9.72E-08	9.76E-08	9.81E-08	9.86E-08	9.90E-08
ag107	8.56E-08	8.69E-08	8.82E-08	8.96E-08	9.09E-08
cd112	8.72E-08	8.76E-08	8.80E-08	8.84E-08	8.88E-08
br 79	8.20E-08	8.31E-08	8.43E-08	8.54E-08	8.66E-08
cd110	6.89E-08	6.96E-08	7.03E-08	7.10E-08	7.17E-08

dy162	6.79E-08	6.82E-08	6.86E-08	6.89E-08	6.93E-08
eu152	4.62E-08	6.76E-08	6.77E-08	6.78E-08	6.80E-08
dy164	6.30E-08	6.33E-08	6.35E-08	6.37E-08	6.40E-08
sn117	6.11E-08	6.14E-08	6.16E-08	6.19E-08	6.22E-08
mo 96	5.93E-08	5.98E-08	6.03E-08	6.08E-08	6.14E-08
li 6	5.67E-08	5.70E-08	5.72E-08	5.74E-08	5.76E-08
xe129	5.10E-08	5.17E-08	5.24E-08	5.32E-08	5.39E-08
cd114	5.20E-08	5.23E-08	5.25E-08	5.28E-08	5.30E-08
sn119	4.64E-08	4.66E-08	4.69E-08	4.71E-08	4.73E-08
pd110	4.32E-08	4.34E-08	4.36E-08	4.38E-08	4.40E-08
sn115	4.25E-08	4.27E-08	4.29E-08	4.30E-08	4.32E-08

1 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 fission products page 271
0 fraction of total absorption rate
power= .00mw, burnup= 26809.mwd, flux= 2.97E+07n/cm**2-sec
0 initial ******* d ******* d ******* d ******* d

pm147	4.93E-09	3.32E-08	3.32E-08	3.32E-08	3.32E-08
sr 88	3.09E-08	3.11E-08	3.12E-08	3.14E-08	3.15E-08
xe130	2.89E-08	2.91E-08	2.94E-08	2.96E-08	2.99E-08
te126	2.67E-08	2.70E-08	2.74E-08	2.77E-08	2.81E-08
ba136	2.36E-08	2.38E-08	2.40E-08	2.41E-08	2.43E-08
eu155	7.50E-09	2.20E-08	2.19E-08	2.19E-08	2.19E-08
se 82	2.13E-08	2.14E-08	2.15E-08	2.16E-08	2.17E-08
kr 82	1.69E-08	1.70E-08	1.71E-08	1.72E-08	1.73E-08
dy163	1.69E-08	1.70E-08	1.71E-08	1.72E-08	1.73E-08
se 78	1.67E-08	1.68E-08	1.69E-08	1.69E-08	1.70E-08
sn126	1.66E-08	1.66E-08	1.66E-08	1.66E-08	1.67E-08
sn124	1.46E-08	1.47E-08	1.48E-08	1.48E-08	1.49E-08
as 75	9.81E-09	9.85E-09	9.90E-09	9.94E-09	9.98E-09
in113	8.45E-09	8.49E-09	8.53E-09	8.57E-09	8.61E-09
eu154	3.53E-09	6.37E-09	6.40E-09	6.44E-09	6.47E-09
sn118	5.90E-09	5.93E-09	5.95E-09	5.98E-09	6.01E-09
sn122	5.11E-09	5.13E-09	5.16E-09	5.18E-09	5.20E-09
cd116	4.96E-09	4.98E-09	5.01E-09	5.03E-09	5.05E-09
sn120	3.75E-09	3.77E-09	3.79E-09	3.80E-09	3.82E-09
ge 73	2.83E-09	2.84E-09	2.85E-09	2.87E-09	2.88E-09
sr 90	1.70E-09	2.04E-09	2.04E-09	2.04E-09	2.04E-09
dy160	1.82E-09	1.84E-09	1.86E-09	1.88E-09	1.89E-09
ho165	1.74E-09	1.75E-09	1.76E-09	1.77E-09	1.79E-09
gd160	1.38E-09	1.39E-09	1.39E-09	1.40E-09	1.41E-09
rh105	1.28E-24	1.28E-09	1.28E-09	1.28E-09	1.28E-09
xe128	1.06E-09	1.07E-09	1.08E-09	1.08E-09	1.09E-09
ge 76	9.55E-10	9.59E-10	9.63E-10	9.67E-10	9.72E-10
cs134	5.25E-11	6.06E-10	6.09E-10	6.11E-10	6.14E-10
sr 86	4.89E-10	4.93E-10	4.97E-10	5.01E-10	5.06E-10
cs137	3.91E-10	4.63E-10	4.63E-10	4.63E-10	4.63E-10
sn116	3.97E-10	4.00E-10	4.04E-10	4.07E-10	4.11E-10
te124	3.36E-10	3.39E-10	3.41E-10	3.44E-10	3.46E-10
pr143	3.24E-25	3.24E-10	3.24E-10	3.24E-10	3.24E-10
xe133	2.50E-25	2.50E-10	2.50E-10	2.50E-10	2.50E-10
ce141	1.97E-25	1.97E-10	1.97E-10	1.97E-10	1.97E-10
nb 94	1.82E-10	1.84E-10	1.86E-10	1.88E-10	1.90E-10
te122	1.68E-10	1.69E-10	1.71E-10	1.72E-10	1.74E-10
sr 87	1.62E-10	1.63E-10	1.64E-10	1.65E-10	1.66E-10
se 76	1.35E-10	1.36E-10	1.37E-10	1.38E-10	1.39E-10
pm149	1.22E-25	1.22E-10	1.22E-10	1.22E-10	1.22E-10
nd147	1.13E-25	1.13E-10	1.13E-10	1.13E-10	1.13E-10
kr 80	8.62E-11	8.77E-11	8.92E-11	9.07E-11	9.22E-11
er166	8.00E-11	8.05E-11	8.09E-11	8.13E-11	8.18E-11
ce144	1.15E-13	7.26E-11	7.26E-11	7.26E-11	7.26E-11

kr 85	4.29E-11	6.86E-11	6.87E-11	6.87E-11	6.87E-11
ge 74	5.66E-11	5.68E-11	5.71E-11	5.73E-11	5.76E-11
ru103	4.72E-26	4.72E-11	4.72E-11	4.72E-11	4.72E-11
ge 72	4.20E-11	4.22E-11	4.24E-11	4.26E-11	4.28E-11
zr 95	6.72E-24	1.98E-11	1.98E-11	1.98E-11	1.98E-11

1 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 fission products page 272

0 fraction of total absorption rate

power= .00mw, burnup= 26809.mwd, flux= 2.97E+07n/cm**2-sec

0

	initial	******* d	******* d	******* d	******* d
nb 95	1.38E-23	1.85E-11	1.85E-11	1.85E-11	1.85E-11
y 91	4.10E-25	1.72E-11	1.72E-11	1.72E-11	1.72E-11
pm151	1.43E-26	1.43E-11	1.43E-11	1.43E-11	1.43E-11
er167	1.08E-11	1.09E-11	1.10E-11	1.11E-11	1.13E-11
te123	9.10E-12	9.22E-12	9.34E-12	9.46E-12	9.58E-12
cd108	6.59E-12	6.71E-12	6.84E-12	6.97E-12	7.10E-12
sm153	6.70E-27	6.70E-12	6.71E-12	6.72E-12	6.73E-12
eu156	6.00E-27	5.99E-12	5.99E-12	5.98E-12	5.97E-12
ba140	5.79E-27	5.79E-12	5.79E-12	5.79E-12	5.79E-12
ru106	3.26E-14	4.57E-12	4.57E-12	4.56E-12	4.56E-12
sr 89	4.25E-27	3.66E-12	3.66E-12	3.66E-12	3.67E-12
kr 87	2.75E-27	2.75E-12	2.75E-12	2.75E-12	2.75E-12
ce143	2.12E-27	2.12E-12	2.12E-12	2.12E-12	2.13E-12
sb125	3.37E-13	2.12E-12	2.12E-12	2.12E-12	2.12E-12
y 90	1.62E-12	1.94E-12	1.94E-12	1.95E-12	1.95E-12
la140	1.86E-27	1.86E-12	1.86E-12	1.86E-12	1.86E-12
mo 99	1.61E-27	1.61E-12	1.61E-12	1.61E-12	1.61E-12
te127m	5.33E-20	1.08E-12	1.08E-12	1.08E-12	1.08E-12
i131	8.47E-28	8.47E-13	8.47E-13	8.47E-13	8.47E-13
te129m	2.35E-28	2.35E-13	2.35E-13	2.35E-13	2.35E-13
pm148m	8.86E-29	2.11E-13	2.11E-13	2.11E-13	2.11E-13
be 9	1.19E-13	1.19E-13	1.20E-13	1.21E-13	1.21E-13
sn114	1.07E-13	1.08E-13	1.09E-13	1.10E-13	1.11E-13
ag111	6.85E-29	6.83E-14	6.82E-14	6.81E-14	6.80E-14
eu157	5.73E-29	5.72E-14	5.72E-14	5.71E-14	5.70E-14
cs136	5.04E-29	5.05E-14	5.07E-14	5.08E-14	5.10E-14
li 7	4.95E-14	4.97E-14	5.00E-14	5.02E-14	5.04E-14
tb160	3.33E-25	3.67E-14	3.69E-14	3.71E-14	3.72E-14
cd115m	3.33E-29	3.32E-14	3.32E-14	3.32E-14	3.32E-14
sb126	1.89E-14	1.97E-14	1.97E-14	1.98E-14	1.98E-14
pr142	1.56E-29	1.57E-14	1.58E-14	1.58E-14	1.59E-14
pm148	1.81E-30	6.40E-15	6.40E-15	6.40E-15	6.40E-15
ru105	4.47E-30	4.47E-15	4.47E-15	4.46E-15	4.46E-15
sn125	3.93E-30	3.93E-15	3.93E-15	3.93E-15	3.93E-15
i130	2.66E-30	2.67E-15	2.68E-15	2.69E-15	2.70E-15
rb 88	1.54E-30	1.54E-15	1.55E-15	1.55E-15	1.55E-15
sn123	8.46E-22	1.28E-15	1.28E-15	1.28E-15	1.28E-15
sb124	7.03E-29	1.26E-15	1.27E-15	1.27E-15	1.28E-15
i135	1.26E-30	1.26E-15	1.26E-15	1.26E-15	1.26E-15
te132	1.19E-30	1.19E-15	1.19E-15	1.20E-15	1.20E-15
rb 86	8.94E-31	8.98E-16	9.02E-16	9.06E-16	9.10E-16
te134	7.12E-31	7.12E-16	7.12E-16	7.12E-16	7.13E-16
dy165	3.69E-31	3.69E-16	3.70E-16	3.70E-16	3.70E-16
in117m	3.18E-31	3.18E-16	3.18E-16	3.17E-16	3.17E-16
cs134m	1.14E-31	1.15E-16	1.15E-16	1.16E-16	1.16E-16
in117	9.49E-32	9.48E-17	9.48E-17	9.47E-17	9.47E-17
cd109	6.06E-19	3.28E-17	3.34E-17	3.40E-17	3.47E-17
cd118	1.69E-32	1.69E-17	1.69E-17	1.69E-17	1.68E-17
ge 75	1.08E-32	1.08E-17	1.08E-17	1.08E-17	1.08E-17

1 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 fission products page 273

0 fraction of total absorption rate
power= .00mw, burnup= 26809.mwd, flux= 2.97E+07n/cm**2-sec
0 initial ******* d ******* d ******* d ******* d

ag110	2.70E-24	7.90E-18	7.94E-18	7.98E-18	8.02E-18
in119m	4.14E-33	4.14E-18	4.14E-18	4.14E-18	4.14E-18
in119	3.27E-34	3.36E-19	3.36E-19	3.36E-19	3.36E-19
in120	.00E+00	5.34E-23	5.34E-23	5.34E-23	5.34E-23
in120m	.00E+00	8.05E-24	8.04E-24	8.03E-24	8.02E-24

1
sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 light elements page 274
power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 nuclide concentrations, gram atoms
basis = single reactor assembly

	charge ******* d	******* d	******* d	******* d	******* d
h 1	1.57E-03	1.58E-03	1.58E-03	1.59E-03	1.60E-03
h 2	4.70E-06	4.72E-06	4.74E-06	4.76E-06	4.78E-06
h 3	5.04E-12	7.59E-12	7.60E-12	7.61E-12	7.62E-12
h 4	.00E+00	3.86E-36	3.87E-36	3.87E-36	3.88E-36
he 3	1.90E-08	1.90E-08	1.90E-08	1.91E-08	1.91E-08
he 4	2.61E-04	2.62E-04	2.63E-04	2.64E-04	2.65E-04
he 6	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ne 20	3.13E-05	3.15E-05	3.16E-05	3.17E-05	3.19E-05
ne 21	1.48E-08	1.49E-08	1.50E-08	1.52E-08	1.53E-08
ne 22	2.06E-07	2.07E-07	2.08E-07	2.09E-07	2.10E-07
ne 23	8.88E-31	8.87E-16	8.87E-16	8.87E-16	8.88E-16
na 22	7.61E-13	5.26E-12	5.26E-12	5.26E-12	5.26E-12
na 23	7.53E+03	7.53E+03	7.53E+03	7.53E+03	7.53E+03
na 24	3.24E-24	3.23E-09	3.24E-09	3.24E-09	3.24E-09
na 24m	5.32E-31	5.31E-16	5.32E-16	5.32E-16	5.32E-16
na 25	5.36E-39	5.40E-24	5.45E-24	5.49E-24	5.54E-24
mg 24	2.02E-01	2.03E-01	2.04E-01	2.04E-01	2.05E-01
mg 25	1.53E-06	1.54E-06	1.56E-06	1.57E-06	1.58E-06
mg 26	4.69E-06	4.71E-06	4.73E-06	4.75E-06	4.77E-06
mg 27	2.65E-28	2.65E-13	2.65E-13	2.65E-13	2.65E-13
mg 28	.00E+00	6.76E-26	6.76E-26	6.77E-26	6.77E-26
al 27	4.99E+04	4.99E+04	4.99E+04	4.99E+04	4.99E+04
al 28	2.40E-26	2.40E-11	2.40E-11	2.40E-11	2.40E-11
al 29	4.38E-37	4.41E-22	4.45E-22	4.49E-22	4.53E-22
al 30	.00E+00	1.50E-31	1.52E-31	1.54E-31	1.56E-31
si 28	5.87E-01	5.90E-01	5.92E-01	5.95E-01	5.97E-01
si 29	1.40E-05	1.41E-05	1.42E-05	1.43E-05	1.44E-05
si 30	3.55E-10	3.59E-10	3.64E-10	3.68E-10	3.73E-10
si 31	3.18E-38	3.23E-23	3.27E-23	3.31E-23	3.35E-23
si 32	6.79E-30	7.08E-30	7.19E-30	7.29E-30	7.39E-30
totals	5.75E+04	5.75E+04	5.75E+04	5.75E+04	5.75E+04
0 flux		2.97E+07	2.97E+07	2.97E+07	2.97E+07

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 actinides page 275
power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 nuclide concentrations, gram atoms
basis = single reactor assembly

	charge ******* d	******* d	******* d	******* d	******* d
he 4	6.53E+01	6.59E+01	6.65E+01	6.70E+01	6.76E+01
pb206	5.11E-01	5.19E-01	5.28E-01	5.36E-01	5.45E-01
pb207	2.91E-02	2.95E-02	2.99E-02	3.03E-02	3.08E-02
pb208	9.45E-04	9.53E-04	9.61E-04	9.69E-04	9.77E-04
pb209	1.57E-09	1.58E-09	1.60E-09	1.61E-09	1.62E-09
pb210	4.29E-04	4.32E-04	4.35E-04	4.37E-04	4.40E-04
pb211	6.44E-11	6.46E-11	6.48E-11	6.50E-11	6.53E-11

pb212	2.13E-11	2.24E-11	2.25E-11	2.26E-11	2.27E-11
pb214	9.81E-10	9.87E-10	9.93E-10	1.00E-09	1.01E-09
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	9.85E-02	1.00E-01	1.02E-01	1.04E-01	1.06E-01
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	2.64E-07	2.66E-07	2.68E-07	2.69E-07	2.71E-07
bi211	3.82E-12	3.83E-12	3.84E-12	3.85E-12	3.87E-12
bi212	2.02E-12	2.13E-12	2.14E-12	2.14E-12	2.15E-12
bi213	3.67E-10	3.70E-10	3.73E-10	3.76E-10	3.79E-10
bi214	7.28E-10	7.33E-10	7.38E-10	7.42E-10	7.47E-10
po210	7.29E-06	7.34E-06	7.39E-06	7.43E-06	7.48E-06
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	4.22E-17	4.23E-17	4.24E-17	4.26E-17	4.27E-17
po212	1.06E-22	1.12E-22	1.12E-22	1.13E-22	1.13E-22
po213	5.51E-19	5.56E-19	5.61E-19	5.65E-19	5.70E-19
po214	1.00E-16	1.01E-16	1.01E-16	1.02E-16	1.03E-16
po215	5.30E-17	5.31E-17	5.32E-17	5.34E-17	5.36E-17
po216	8.08E-17	8.49E-17	8.53E-17	8.56E-17	8.59E-17
po218	1.13E-10	1.14E-10	1.15E-10	1.16E-10	1.16E-10
rn218	3.64E-44	3.98E-29	3.99E-29	4.01E-29	4.03E-29
rn219	1.18E-13	1.18E-13	1.18E-13	1.19E-13	1.19E-13
rn220	3.10E-14	3.26E-14	3.27E-14	3.28E-14	3.30E-14
rn222	2.02E-07	2.03E-07	2.04E-07	2.05E-07	2.07E-07
ra222	4.01E-41	4.32E-26	4.34E-26	4.36E-26	4.38E-26
ra223	2.94E-08	2.94E-08	2.96E-08	2.97E-08	2.98E-08
ra224	1.76E-10	1.85E-10	1.86E-10	1.87E-10	1.87E-10
ra225	1.71E-07	1.73E-07	1.74E-07	1.76E-07	1.77E-07
ra226	3.08E-02	3.10E-02	3.12E-02	3.14E-02	3.16E-02
ra228	1.64E-10	1.66E-10	1.67E-10	1.69E-10	1.70E-10
ac225	1.16E-07	1.17E-07	1.18E-07	1.19E-07	1.20E-07
ac227	2.04E-05	2.05E-05	2.06E-05	2.06E-05	2.07E-05
ac228	2.00E-14	2.02E-14	2.04E-14	2.06E-14	2.08E-14
th226	1.96E-39	2.11E-24	2.12E-24	2.13E-24	2.13E-24
th227	4.74E-08	4.75E-08	4.77E-08	4.79E-08	4.80E-08
th228	3.36E-08	3.54E-08	3.55E-08	3.56E-08	3.58E-08
th229	3.33E-02	3.36E-02	3.39E-02	3.42E-02	3.45E-02
th230	1.49E+00	1.50E+00	1.50E+00	1.51E+00	1.52E+00
th231	2.70E-09	3.54E-09	3.54E-09	3.55E-09	3.55E-09
th232	4.01E-01	4.05E-01	4.08E-01	4.12E-01	4.16E-01
th233	4.57E-28	4.61E-13	4.65E-13	4.70E-13	4.74E-13
th234	5.36E-07	5.36E-07	5.36E-07	5.36E-07	5.36E-07
pa231	3.07E-02	3.08E-02	3.09E-02	3.10E-02	3.11E-02
pa232	6.58E-26	6.61E-11	6.63E-11	6.66E-11	6.68E-11

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 actinides page 276
power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec

0 nuclide concentrations, gram atoms
basis = single reactor assembly

	charge	******* d	******* d	******* d	******* d
pa233	1.39E-06	1.39E-06	1.39E-06	1.39E-06	1.39E-06
pa234m	1.81E-11	1.81E-11	1.81E-11	1.81E-11	1.81E-11
pa234	8.07E-12	8.07E-12	8.07E-12	8.07E-12	8.07E-12
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	1.90E-36	2.04E-21	2.05E-21	2.06E-21	2.07E-21
u231	7.22E-32	7.26E-17	7.32E-17	7.37E-17	7.42E-17
u232	1.19E-06	1.29E-06	1.29E-06	1.30E-06	1.30E-06
u233	7.80E-01	7.85E-01	7.91E-01	7.96E-01	8.02E-01
u234	1.02E+01	1.02E+01	1.02E+01	1.02E+01	1.02E+01
u235	6.54E+02	6.54E+02	6.54E+02	6.53E+02	6.53E+02
u236	1.95E+02	1.95E+02	1.96E+02	1.96E+02	1.96E+02

u237	2.76E-13	4.18E-07	4.18E-07	4.19E-07	4.19E-07
u238	3.63E+04	3.63E+04	3.63E+04	3.63E+04	3.63E+04
u239	3.77E-23	3.77E-08	3.77E-08	3.77E-08	3.78E-08
u240	4.72E-34	4.86E-34	4.99E-34	5.13E-34	5.27E-34
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	9.88E-15	1.02E-12	1.02E-12	1.02E-12	1.02E-12
np236m	2.43E-28	2.42E-13	2.42E-13	2.42E-13	2.43E-13
np236	2.67E-06	2.67E-06	2.67E-06	2.68E-06	2.68E-06
np237	4.02E+01	4.02E+01	4.02E+01	4.02E+01	4.02E+01
np238	3.95E-15	1.82E-07	1.82E-07	1.82E-07	1.82E-07
np239	1.52E-13	5.45E-06	5.45E-06	5.46E-06	5.46E-06
np240m	4.03E-36	4.14E-36	4.26E-36	4.38E-36	4.50E-36
np240	4.53E-38	1.38E-16	1.38E-16	1.38E-16	1.38E-16
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	2.92E-11	1.37E-10	1.38E-10	1.38E-10	1.38E-10
pu237	2.95E-29	2.95E-14	2.94E-14	2.93E-14	2.92E-14
pu238	2.60E-03	2.75E-03	2.76E-03	2.76E-03	2.76E-03
pu239	2.48E+01	2.47E+01	2.45E+01	2.44E+01	2.43E+01
pu240	2.55E-01	2.52E-01	2.49E-01	2.47E-01	2.45E-01
pu241	8.96E-06	1.26E-05	1.25E-05	1.23E-05	1.22E-05
pu242	4.85E-05	4.85E-05	4.85E-05	4.86E-05	4.86E-05
pu243	1.59E-29	1.26E-14	1.26E-14	1.26E-14	1.26E-14
pu244	2.35E-23	2.42E-23	2.49E-23	2.56E-23	2.63E-23
pu245	.00E+00	1.24E-34	1.28E-34	1.31E-34	1.35E-34
pu246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am239	1.29E-35	1.27E-20	1.27E-20	1.25E-20	1.24E-20
am240	5.91E-33	5.83E-18	5.79E-18	5.74E-18	5.69E-18
am241	3.81E-04	3.76E-04	3.73E-04	3.70E-04	3.67E-04
am242m	2.14E-08	2.17E-08	2.16E-08	2.15E-08	2.13E-08
am242	2.76E-13	1.73E-12	1.72E-12	1.71E-12	1.69E-12
am243	1.73E-07	1.73E-07	1.72E-07	1.72E-07	1.71E-07
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	1.61E-31	1.60E-16	1.60E-16	1.60E-16	1.59E-16
am245	1.94E-40	2.43E-35	2.50E-35	2.57E-35	2.64E-35
am246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm241	.00E+00	1.25E-23	1.24E-23	1.23E-23	1.22E-23
cm242	5.57E-11	3.50E-10	3.47E-10	3.45E-10	3.42E-10
cm243	8.44E-16	9.91E-16	9.85E-16	9.77E-16	9.69E-16
cm244	1.92E-12	2.52E-12	2.51E-12	2.51E-12	2.50E-12

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 actinides page 277
power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec

0 nuclide concentrations, gram atoms
basis = single reactor assembly

	charge ******* d	******* d	******* d	******* d	
cm245	6.00E-15	5.89E-15	5.78E-15	5.68E-15	5.58E-15
cm246	4.15E-17	4.05E-17	3.95E-17	3.85E-17	3.76E-17
cm247	9.33E-20	9.36E-20	9.39E-20	9.42E-20	9.45E-20
cm248	5.69E-22	5.77E-22	5.86E-22	5.94E-22	6.02E-22
cm249	.00E+00	2.23E-33	2.26E-33	2.30E-33	2.33E-33
cm250	2.03E-37	2.05E-37	2.07E-37	2.09E-37	2.11E-37
cm251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
totals	3.73E+04	3.73E+04	3.73E+04	3.73E+04	3.73E+04
0 flux		2.97E+07	2.97E+07	2.97E+07	2.97E+07

0 .results on logical unit no. 71, position 1, for time step 4, subcase31. (run position 1, case position 1)
title: sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 light elements page 278
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec

0 nuclide concentrations, grams

basis =single reactor assembly

	initial******* d	******* d	******* d	******* d	******* d	******* d	******* d
h 1	1.60E-03	1.60E-03	1.60E-03	1.60E-03	1.60E-03	1.60E-03	1.60E-03
h 2	9.57E-06	9.57E-06	9.57E-06	9.57E-06	9.57E-06	9.57E-06	9.57E-06
he 4	1.06E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03
ne 20	6.37E-04	6.37E-04	6.37E-04	6.37E-04	6.37E-04	6.37E-04	6.37E-04
ne 22	4.62E-06	4.62E-06	4.62E-06	4.62E-06	4.62E-06	4.62E-06	4.62E-06
na 23	1.73E+05	1.73E+05	1.73E+05	1.73E+05	1.73E+05	1.73E+05	1.73E+05
mg 24	4.92E+00	4.92E+00	4.92E+00	4.92E+00	4.92E+00	4.92E+00	4.92E+00
mg 25	3.96E-05	3.96E-05	3.96E-05	3.96E-05	3.96E-05	3.96E-05	3.96E-05
mg 26	1.24E-04	1.24E-04	1.24E-04	1.24E-04	1.24E-04	1.24E-04	1.24E-04
al 27	1.35E+06	1.35E+06	1.35E+06	1.35E+06	1.35E+06	1.35E+06	1.35E+06
si 28	1.67E+01	1.67E+01	1.67E+01	1.67E+01	1.67E+01	1.67E+01	1.67E+01
si 29	4.19E-04	4.19E-04	4.19E-04	4.19E-04	4.19E-04	4.19E-04	4.19E-04
total	1.52E+06	1.52E+06	1.52E+06	1.52E+06	1.52E+06	1.52E+06	1.52E+06

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 light elements page 279
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 element radioactivity, curies
basis =single reactor assembly

	initial******* d	******* d	******* d	******* d	******* d	******* d	******* d
totals	3.01E+00	3.86E-15	2.33E-15	1.41E-15	8.51E-16	5.14E-16	3.10E-16

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 light elements page 280
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 element thermal power, watts
basis =single reactor assembly

	initial******* d	******* d	******* d	******* d	******* d	******* d	******* d
totals	5.62E-02	1.13E-18	6.84E-19	4.13E-19	2.49E-19	1.51E-19	9.10E-20

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 light elements page 281
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 nuclide gamma power, watts
basis =single reactor assembly

	initial******* d	******* d	******* d	******* d	******* d	******* d	******* d
total	3.90E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 actinides page 282
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 nuclide concentrations, gram atoms
basis = single reactor assembly

	initial******* d	******* d	******* d	******* d	******* d	******* d	******* d
he 4	6.76E+01	7.11E+01	7.43E+01	7.72E+01	7.98E+01	8.23E+01	8.45E+01
pb206	5.45E-01	6.03E-01	6.64E-01	7.27E-01	7.92E-01	8.59E-01	9.28E-01
pb207	3.08E-02	3.35E-02	3.62E-02	3.90E-02	4.17E-02	4.44E-02	4.72E-02
pb208	9.77E-04	9.79E-04	9.79E-04	9.79E-04	9.79E-04	9.79E-04	9.79E-04
pb210	4.40E-04	4.58E-04	4.75E-04	4.92E-04	5.07E-04	5.21E-04	5.35E-04
bi209	1.06E-01	1.19E-01	1.33E-01	1.47E-01	1.62E-01	1.78E-01	1.94E-01
po210	7.48E-06	7.79E-06	8.08E-06	8.35E-06	8.61E-06	8.86E-06	9.09E-06
ra226	3.16E-02	3.29E-02	3.41E-02	3.53E-02	3.64E-02	3.74E-02	3.84E-02
ac227	2.07E-05	2.07E-05	2.06E-05	2.06E-05	2.06E-05	2.06E-05	2.06E-05
th229	3.45E-02	3.64E-02	3.83E-02	4.02E-02	4.21E-02	4.40E-02	4.58E-02
th230	1.52E+00	1.58E+00	1.64E+00	1.69E+00	1.74E+00	1.79E+00	1.83E+00
th232	4.16E-01	4.40E-01	4.64E-01	4.88E-01	5.12E-01	5.36E-01	5.61E-01
th234	5.36E-07	5.36E-07	5.36E-07	5.36E-07	5.36E-07	5.36E-07	5.36E-07
pa231	3.11E-02	3.11E-02	3.10E-02	3.10E-02	3.10E-02	3.10E-02	3.10E-02
pa233	1.39E-06	1.39E-06	1.38E-06	1.38E-06	1.38E-06	1.38E-06	1.38E-06
u233	8.02E-01	8.41E-01	8.80E-01	9.17E-01	9.54E-01	9.91E-01	1.03E+00
u234	1.02E+01	1.01E+01	9.99E+00	9.90E+00	9.81E+00	9.72E+00	9.63E+00
u235	6.53E+02	6.56E+02	6.58E+02	6.61E+02	6.63E+02	6.64E+02	6.66E+02

u236	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02
u238	3.63E+04	3.63E+04	3.63E+04	3.63E+04	3.63E+04	3.63E+04	3.63E+04
np236	2.68E-06	2.62E-06	2.55E-06	2.49E-06	2.43E-06	2.37E-06	2.31E-06
np237	4.02E+01	4.01E+01	4.01E+01	4.00E+01	4.00E+01	3.99E+01	3.99E+01
pu239	2.43E+01	2.16E+01	1.91E+01	1.70E+01	1.50E+01	1.33E+01	1.18E+01
pu240	2.45E-01	1.58E-01	1.02E-01	6.54E-02	4.21E-02	2.71E-02	1.75E-02
pu242	4.86E-05	4.82E-05	4.78E-05	4.75E-05	4.71E-05	4.67E-05	4.64E-05
total	3.73E+04	3.73E+04	3.73E+04	3.73E+04	3.73E+04	3.73E+04	3.73E+04

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 actinides page 283
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 element concentrations, gram atoms
basis = single reactor assembly

	initial	******* d	******* d	******* d	******* d	******* d	******* d
he	6.76E+01	7.11E+01	7.43E+01	7.72E+01	7.98E+01	8.23E+01	8.45E+01
pb	5.77E-01	6.38E-01	7.02E-01	7.68E-01	8.35E-01	9.05E-01	9.76E-01
bi	1.06E-01	1.19E-01	1.33E-01	1.47E-01	1.62E-01	1.78E-01	1.94E-01
po	7.48E-06	7.79E-06	8.08E-06	8.35E-06	8.61E-06	8.86E-06	9.09E-06
ra	3.16E-02	3.29E-02	3.41E-02	3.53E-02	3.64E-02	3.74E-02	3.84E-02
ac	2.08E-05	2.08E-05	2.08E-05	2.08E-05	2.07E-05	2.08E-05	2.08E-05
th	1.97E+00	2.06E+00	2.14E+00	2.22E+00	2.30E+00	2.37E+00	2.44E+00
pa	3.11E-02	3.11E-02	3.10E-02	3.10E-02	3.10E-02	3.10E-02	3.10E-02
u	3.71E+04	3.71E+04	3.71E+04	3.71E+04	3.71E+04	3.71E+04	3.71E+04
np	4.02E+01	4.01E+01	4.01E+01	4.00E+01	4.00E+01	3.99E+01	3.99E+01
pu	2.45E+01	2.17E+01	1.92E+01	1.70E+01	1.51E+01	1.34E+01	1.19E+01
totals	3.73E+04	3.73E+04	3.73E+04	3.73E+04	3.73E+04	3.73E+04	3.73E+04

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 actinides page 284
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 nuclide concentrations, grams
basis =single reactor assembly

	initial	******* d	******* d	******* d	******* d	******* d	******* d
he 4	2.70E+02	2.84E+02	2.97E+02	3.09E+02	3.19E+02	3.29E+02	3.38E+02
pb206	1.12E+02	1.24E+02	1.37E+02	1.50E+02	1.63E+02	1.77E+02	1.91E+02
pb207	6.37E+00	6.93E+00	7.50E+00	8.07E+00	8.63E+00	9.20E+00	9.76E+00
pb208	2.03E-01	2.04E-01	2.04E-01	2.04E-01	2.04E-01	2.04E-01	2.04E-01
pb210	9.24E-02	9.62E-02	9.98E-02	1.03E-01	1.06E-01	1.09E-01	1.12E-01
bi209	2.21E+01	2.48E+01	2.77E+01	3.07E+01	3.39E+01	3.72E+01	4.06E+01
bi210	5.69E-05	5.92E-05	6.14E-05	6.35E-05	6.55E-05	6.74E-05	6.91E-05
po210	1.57E-03	1.64E-03	1.70E-03	1.75E-03	1.81E-03	1.86E-03	1.91E-03
rn222	4.59E-05	4.78E-05	4.96E-05	5.13E-05	5.29E-05	5.44E-05	5.58E-05
ra223	6.64E-06	6.62E-06	6.62E-06	6.61E-06	6.61E-06	6.60E-06	6.60E-06
ra225	3.99E-05	4.21E-05	4.43E-05	4.65E-05	4.87E-05	5.09E-05	5.30E-05
ra226	7.14E+00	7.43E+00	7.71E+00	7.97E+00	8.22E+00	8.46E+00	8.68E+00
ac225	2.70E-05	2.85E-05	3.00E-05	3.14E-05	3.29E-05	3.44E-05	3.58E-05
ac227	4.70E-03	4.69E-03	4.68E-03	4.68E-03	4.68E-03	4.68E-03	4.68E-03
th227	1.09E-05	1.09E-05	1.09E-05	1.09E-05	1.09E-05	1.09E-05	1.09E-05
th229	7.90E+00	8.34E+00	8.77E+00	9.21E+00	9.64E+00	1.01E+01	1.05E+01
th230	3.50E+02	3.64E+02	3.77E+02	3.89E+02	4.01E+02	4.12E+02	4.22E+02
th231	8.21E-07	6.27E-07	6.29E-07	6.31E-07	6.33E-07	6.35E-07	6.36E-07
th232	9.64E+01	1.02E+02	1.08E+02	1.13E+02	1.19E+02	1.24E+02	1.30E+02
th234	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04
pa231	7.19E+00	7.18E+00	7.17E+00	7.16E+00	7.16E+00	7.16E+00	7.16E+00
pa233	3.24E-04	3.23E-04	3.23E-04	3.22E-04	3.22E-04	3.21E-04	3.21E-04
u233	1.87E+02	1.96E+02	2.05E+02	2.14E+02	2.22E+02	2.31E+02	2.39E+02
u234	2.38E+03	2.36E+03	2.34E+03	2.32E+03	2.30E+03	2.27E+03	2.25E+03
u235	1.54E+05	1.54E+05	1.55E+05	1.55E+05	1.56E+05	1.56E+05	1.56E+05
u236	4.62E+04	4.62E+04	4.62E+04	4.62E+04	4.62E+04	4.62E+04	4.62E+04
u238	8.63E+06	8.63E+06	8.63E+06	8.63E+06	8.63E+06	8.63E+06	8.63E+06
np236	6.33E-04	6.17E-04	6.02E-04	5.87E-04	5.73E-04	5.58E-04	5.45E-04

np237	9.53E+03	9.51E+03	9.50E+03	9.49E+03	9.48E+03	9.46E+03	9.45E+03
pu239	5.81E+03	5.15E+03	4.57E+03	4.05E+03	3.60E+03	3.19E+03	2.83E+03
pu240	5.87E+01	3.78E+01	2.44E+01	1.57E+01	1.01E+01	6.51E+00	4.19E+00
pu242	1.18E-02	1.17E-02	1.16E-02	1.15E-02	1.14E-02	1.13E-02	1.12E-02
am243	4.16E-05	2.81E-05	1.90E-05	1.28E-05	8.68E-06	5.86E-06	3.96E-06
total	8.85E+06	8.85E+06	8.85E+06	8.85E+06	8.85E+06	8.85E+06	8.85E+06

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 actinides page 285
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 element concentrations, grams
basis =single reactor assembly

	initial	d	d	d	d	d	d
he	2.70E+02	2.84E+02	2.97E+02	3.09E+02	3.19E+02	3.29E+02	3.38E+02
pb	1.19E+02	1.32E+02	1.45E+02	1.58E+02	1.72E+02	1.86E+02	2.01E+02
bi	2.21E+01	2.48E+01	2.77E+01	3.07E+01	3.39E+01	3.72E+01	4.06E+01
po	1.57E-03	1.64E-03	1.70E-03	1.75E-03	1.81E-03	1.86E-03	1.91E-03
rn	4.59E-05	4.78E-05	4.96E-05	5.13E-05	5.29E-05	5.44E-05	5.58E-05
ra	7.14E+00	7.43E+00	7.71E+00	7.97E+00	8.22E+00	8.46E+00	8.68E+00
ac	4.73E-03	4.72E-03	4.71E-03	4.71E-03	4.71E-03	4.71E-03	4.71E-03
th	4.55E+02	4.74E+02	4.93E+02	5.12E+02	5.29E+02	5.46E+02	5.62E+02
pa	7.19E+00	7.18E+00	7.17E+00	7.16E+00	7.16E+00	7.16E+00	7.16E+00
u	8.84E+06	8.84E+06	8.84E+06	8.84E+06	8.84E+06	8.84E+06	8.84E+06
np	9.53E+03	9.51E+03	9.50E+03	9.49E+03	9.48E+03	9.46E+03	9.45E+03
pu	5.87E+03	5.19E+03	4.59E+03	4.07E+03	3.61E+03	3.20E+03	2.83E+03
am	8.84E-02	1.43E-04	1.91E-05	1.28E-05	8.68E-06	5.86E-06	3.96E-06
totals	8.85E+06	8.85E+06	8.85E+06	8.85E+06	8.85E+06	8.85E+06	8.85E+06

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 actinides page 286
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 nuclide radioactivity, curies
basis =single reactor assembly

	initial	d	d	d	d	d	d
tl206	9.32E-06	9.70E-06	1.01E-05	1.04E-05	1.07E-05	1.10E-05	1.13E-05
tl207	3.39E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.37E-01	3.37E-01
tl208	2.40E-03	4.28E-06	4.50E-06	4.71E-06	4.93E-06	5.14E-06	5.36E-06
tl209	3.29E-02	3.47E-02	3.65E-02	3.83E-02	4.01E-02	4.19E-02	4.37E-02
pb209	1.56E+00	1.65E+00	1.74E+00	1.83E+00	1.91E+00	2.00E+00	2.08E+00
pb210	7.06E+00	7.35E+00	7.62E+00	7.88E+00	8.13E+00	8.36E+00	8.58E+00
pb211	3.40E-01	3.39E-01	3.39E-01	3.39E-01	3.38E-01	3.38E-01	3.38E-01
pb212	6.69E-03	1.19E-05	1.25E-05	1.31E-05	1.37E-05	1.43E-05	1.49E-05
pb214	7.06E+00	7.35E+00	7.63E+00	7.89E+00	8.13E+00	8.36E+00	8.58E+00
bi210	7.06E+00	7.35E+00	7.62E+00	7.88E+00	8.13E+00	8.36E+00	8.58E+00
bi211	3.40E-01	3.39E-01	3.39E-01	3.39E-01	3.38E-01	3.38E-01	3.38E-01
bi212	6.69E-03	1.19E-05	1.25E-05	1.31E-05	1.37E-05	1.43E-05	1.49E-05
bi213	1.56E+00	1.65E+00	1.74E+00	1.83E+00	1.91E+00	2.00E+00	2.08E+00
bi214	7.06E+00	7.35E+00	7.63E+00	7.89E+00	8.13E+00	8.36E+00	8.58E+00
po210	7.06E+00	7.35E+00	7.62E+00	7.88E+00	8.13E+00	8.36E+00	8.58E+00
po211	9.35E-04	9.33E-04	9.32E-04	9.31E-04	9.31E-04	9.31E-04	9.31E-04
po212	4.29E-03	7.64E-06	8.02E-06	8.40E-06	8.78E-06	9.17E-06	9.55E-06
po213	1.53E+00	1.62E+00	1.70E+00	1.79E+00	1.87E+00	1.95E+00	2.04E+00
po214	7.06E+00	7.35E+00	7.62E+00	7.88E+00	8.13E+00	8.36E+00	8.58E+00
po215	3.40E-01	3.39E-01	3.39E-01	3.39E-01	3.38E-01	3.38E-01	3.38E-01
po216	6.69E-03	1.19E-05	1.25E-05	1.31E-05	1.37E-05	1.43E-05	1.49E-05
po218	7.06E+00	7.35E+00	7.63E+00	7.89E+00	8.13E+00	8.36E+00	8.58E+00
at217	1.57E+00	1.65E+00	1.74E+00	1.83E+00	1.91E+00	2.00E+00	2.08E+00
rn219	3.40E-01	3.39E-01	3.39E-01	3.39E-01	3.38E-01	3.38E-01	3.38E-01
rn220	6.69E-03	1.19E-05	1.25E-05	1.31E-05	1.37E-05	1.43E-05	1.49E-05
rn222	7.06E+00	7.35E+00	7.63E+00	7.89E+00	8.13E+00	8.36E+00	8.58E+00
fr221	1.57E+00	1.65E+00	1.74E+00	1.83E+00	1.91E+00	2.00E+00	2.08E+00
fr223	4.69E-03	4.68E-03	4.68E-03	4.67E-03	4.67E-03	4.67E-03	4.67E-03

ra223	3.40E-01	3.39E-01	3.39E-01	3.39E-01	3.38E-01	3.38E-01	3.38E-01
ra224	6.69E-03	1.19E-05	1.25E-05	1.31E-05	1.37E-05	1.43E-05	1.49E-05
ra225	1.57E+00	1.65E+00	1.74E+00	1.83E+00	1.91E+00	2.00E+00	2.08E+00
ra226	7.06E+00	7.35E+00	7.63E+00	7.89E+00	8.13E+00	8.36E+00	8.58E+00
ra228	1.06E-05	1.12E-05	1.18E-05	1.24E-05	1.30E-05	1.37E-05	1.43E-05
ac225	1.57E+00	1.65E+00	1.74E+00	1.83E+00	1.91E+00	2.00E+00	2.08E+00
ac227	3.40E-01	3.39E-01	3.39E-01	3.39E-01	3.38E-01	3.38E-01	3.38E-01
ac228	1.06E-05	1.12E-05	1.18E-05	1.24E-05	1.30E-05	1.37E-05	1.43E-05
th227	3.35E-01	3.35E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01
th228	6.69E-03	1.19E-05	1.25E-05	1.31E-05	1.37E-05	1.43E-05	1.49E-05
th229	1.57E+00	1.65E+00	1.74E+00	1.83E+00	1.91E+00	2.00E+00	2.08E+00
th230	7.23E+00	7.51E+00	7.78E+00	8.03E+00	8.26E+00	8.49E+00	8.70E+00
th231	4.37E-01	3.33E-01	3.35E-01	3.36E-01	3.37E-01	3.38E-01	3.38E-01
th232	1.06E-05	1.12E-05	1.18E-05	1.24E-05	1.30E-05	1.37E-05	1.43E-05
th234	2.90E+00	2.90E+00	2.90E+00	2.90E+00	2.90E+00	2.90E+00	2.90E+00
pa231	3.40E-01	3.39E-01	3.39E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01
pa233	6.72E+00	6.71E+00	6.70E+00	6.69E+00	6.68E+00	6.67E+00	6.66E+00
pa234m	2.90E+00	2.90E+00	2.90E+00	2.90E+00	2.90E+00	2.90E+00	2.90E+00
pa234	3.77E-03	3.77E-03	3.77E-03	3.77E-03	3.77E-03	3.77E-03	3.77E-03
u232	6.68E-03	7.24E-07	7.06E-07	6.89E-07	6.72E-07	6.55E-07	6.39E-07
u233	1.80E+00	1.89E+00	1.98E+00	2.06E+00	2.14E+00	2.23E+00	2.31E+00
u234	1.48E+01	1.47E+01	1.45E+01	1.44E+01	1.43E+01	1.41E+01	1.40E+01
u235	3.32E-01	3.33E-01	3.35E-01	3.36E-01	3.37E-01	3.38E-01	3.38E-01
u236	2.99E+00	2.99E+00	2.99E+00	2.99E+00	2.99E+00	2.99E+00	2.99E+00

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 actinides page 287
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 nuclide radioactivity, curies
basis =single reactor assembly

	initial	******* d	******* d	******* d	******* d	******* d	******* d
u238	2.90E+00	2.90E+00	2.90E+00	2.90E+00	2.90E+00	2.90E+00	2.90E+00
np236	8.34E-06	8.14E-06	7.94E-06	7.74E-06	7.55E-06	7.36E-06	7.18E-06
np237	6.72E+00	6.71E+00	6.70E+00	6.69E+00	6.68E+00	6.67E+00	6.66E+00
np239	3.03E+02	5.61E-06	3.79E-06	2.56E-06	1.73E-06	1.17E-06	7.91E-07
pu236	1.70E-05	7.24E-07	7.06E-07	6.89E-07	6.72E-07	6.55E-07	6.39E-07
pu239	3.60E+02	3.20E+02	2.84E+02	2.52E+02	2.23E+02	1.98E+02	1.76E+02
pu240	1.33E+01	8.59E+00	5.53E+00	3.56E+00	2.29E+00	1.48E+00	9.51E-01
pu242	4.65E-05	4.61E-05	4.58E-05	4.54E-05	4.51E-05	4.47E-05	4.44E-05
am243	8.31E-06	5.61E-06	3.79E-06	2.56E-06	1.73E-06	1.17E-06	7.91E-07
total	1.14E+03	4.61E+02	4.25E+02	3.94E+02	3.67E+02	3.44E+02	3.24E+02

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 actinides page 288
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 element thermal power, watts
basis =single reactor assembly

	initial	******* d	******* d	******* d	******* d	******* d	******* d
tl	1.60E-03	1.58E-03	1.60E-03	1.63E-03	1.66E-03	1.69E-03	1.72E-03
pb	2.73E-02	2.84E-02	2.95E-02	3.05E-02	3.14E-02	3.23E-02	3.32E-02
bi	1.27E-01	1.32E-01	1.36E-01	1.41E-01	1.45E-01	1.48E-01	1.52E-01
po	9.03E-01	9.40E-01	9.76E-01	1.01E+00	1.04E+00	1.07E+00	1.10E+00
at	6.68E-02	7.05E-02	7.42E-02	7.79E-02	8.16E-02	8.52E-02	8.87E-02
rn	2.48E-01	2.58E-01	2.67E-01	2.75E-01	2.84E-01	2.91E-01	2.98E-01
fr	6.04E-02	6.38E-02	6.71E-02	7.05E-02	7.38E-02	7.71E-02	8.03E-02
ra	2.17E-01	2.26E-01	2.34E-01	2.41E-01	2.48E-01	2.55E-01	2.61E-01
ac	5.48E-02	5.78E-02	6.09E-02	6.39E-02	6.69E-02	6.99E-02	7.28E-02
th	2.66E-01	2.77E-01	2.87E-01	2.97E-01	3.06E-01	3.15E-01	3.23E-01
pa	4.17E-02	4.17E-02	4.16E-02	4.16E-02	4.16E-02	4.15E-02	4.15E-02
u	1.48E+00	6.41E-01	6.40E-01	6.39E-01	6.37E-01	6.36E-01	6.34E-01
np	1.01E+00	1.91E-01	1.91E-01	1.91E-01	1.91E-01	1.90E-01	1.90E-01
pu	1.20E+01	1.02E+01	8.99E+00	7.93E+00	7.01E+00	6.20E+00	5.49E+00

am	1.01E-02	1.34E-05	1.39E-07	8.25E-08	5.58E-08	3.77E-08	2.55E-08
totals	1.65E+01	1.31E+01	1.20E+01	1.10E+01	1.02E+01	9.42E+00	8.77E+00

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 actinides page 289
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 nuclide gamma power, watts
basis =single reactor assembly

	initial	d	d	d	d	d	d
tl207	4.42E-06	4.41E-06	4.41E-06	4.40E-06	4.40E-06	4.40E-06	4.40E-06
tl208	4.79E-05	8.53E-08	8.96E-08	9.39E-08	9.82E-08	1.02E-07	1.07E-07
tl209	4.13E-04	4.36E-04	4.59E-04	4.82E-04	5.05E-04	5.27E-04	5.49E-04
pb210	2.11E-04	2.20E-04	2.28E-04	2.36E-04	2.43E-04	2.50E-04	2.56E-04
pb211	1.36E-04	1.36E-04	1.36E-04	1.36E-04	1.36E-04	1.36E-04	1.36E-04
pb212	5.75E-06	1.02E-08	1.08E-08	1.13E-08	1.18E-08	1.23E-08	1.28E-08
pb214	1.05E-02	1.09E-02	1.13E-02	1.17E-02	1.21E-02	1.24E-02	1.27E-02
bi210	1.30E-08	1.35E-08	1.40E-08	1.45E-08	1.49E-08	1.54E-08	1.58E-08
bi211	9.43E-05	9.42E-05	9.40E-05	9.40E-05	9.39E-05	9.39E-05	9.39E-05
bi212	4.17E-06	7.43E-09	7.81E-09	8.18E-09	8.55E-09	8.92E-09	9.30E-09
bi213	1.17E-03	1.24E-03	1.30E-03	1.37E-03	1.43E-03	1.49E-03	1.56E-03
bi214	6.31E-02	6.57E-02	6.81E-02	7.05E-02	7.27E-02	7.47E-02	7.67E-02
po210	3.56E-07	3.70E-07	3.84E-07	3.97E-07	4.10E-07	4.21E-07	4.32E-07
po211	4.27E-08	4.26E-08	4.26E-08	4.25E-08	4.25E-08	4.25E-08	4.25E-08
po214	3.47E-06	3.62E-06	3.75E-06	3.88E-06	4.00E-06	4.11E-06	4.22E-06
po215	3.54E-07	3.53E-07	3.53E-07	3.52E-07	3.52E-07	3.52E-07	3.52E-07
rn219	1.13E-04	1.13E-04	1.13E-04	1.12E-04	1.12E-04	1.12E-04	1.12E-04
rn222	1.63E-05	1.70E-05	1.76E-05	1.82E-05	1.88E-05	1.93E-05	1.98E-05
fr221	2.75E-04	2.90E-04	3.05E-04	3.20E-04	3.35E-04	3.50E-04	3.65E-04
fr223	1.60E-06	1.59E-06	1.59E-06	1.59E-06	1.59E-06	1.59E-06	1.59E-06
ra223	2.71E-04	2.70E-04	2.70E-04	2.70E-04	2.70E-04	2.70E-04	2.70E-04
ra225	1.34E-04	1.41E-04	1.48E-04	1.56E-04	1.63E-04	1.70E-04	1.77E-04
ra226	3.02E-04	3.15E-04	3.26E-04	3.38E-04	3.48E-04	3.58E-04	3.67E-04
ac225	1.56E-04	1.65E-04	1.73E-04	1.82E-04	1.90E-04	1.99E-04	2.07E-04
ac227	3.89E-07	3.88E-07	3.88E-07	3.87E-07	3.87E-07	3.87E-07	3.87E-07
ac228	5.52E-08	5.84E-08	6.16E-08	6.48E-08	6.80E-08	7.12E-08	7.44E-08
th227	2.21E-04	2.20E-04	2.20E-04	2.20E-04	2.20E-04	2.20E-04	2.20E-04
th229	8.78E-04	9.26E-04	9.75E-04	1.02E-03	1.07E-03	1.12E-03	1.17E-03
th230	7.20E-05	7.48E-05	7.75E-05	8.00E-05	8.23E-05	8.46E-05	8.66E-05
th231	8.02E-05	6.13E-05	6.15E-05	6.17E-05	6.19E-05	6.20E-05	6.22E-05
th234	1.67E-04	1.67E-04	1.67E-04	1.67E-04	1.67E-04	1.67E-04	1.67E-04
pa231	8.06E-05	8.04E-05	8.03E-05	8.03E-05	8.02E-05	8.02E-05	8.02E-05
pa233	8.91E-03	8.89E-03	8.88E-03	8.86E-03	8.85E-03	8.84E-03	8.83E-03
pa234m	1.91E-04	1.91E-04	1.91E-04	1.91E-04	1.91E-04	1.91E-04	1.91E-04
pa234	4.38E-05	4.38E-05	4.38E-05	4.38E-05	4.38E-05	4.38E-05	4.38E-05
u233	1.32E-05	1.39E-05	1.45E-05	1.51E-05	1.58E-05	1.64E-05	1.69E-05
u234	1.41E-04	1.40E-04	1.39E-04	1.38E-04	1.36E-04	1.35E-04	1.34E-04
u235	3.27E-04	3.28E-04	3.30E-04	3.31E-04	3.32E-04	3.33E-04	3.33E-04
u236	3.01E-05	3.01E-05	3.01E-05	3.01E-05	3.01E-05	3.01E-05	3.01E-05
u238	2.32E-05	2.32E-05	2.32E-05	2.32E-05	2.32E-05	2.32E-05	2.32E-05
np236	7.27E-09	7.09E-09	6.92E-09	6.75E-09	6.58E-09	6.42E-09	6.26E-09
np237	1.40E-03	1.40E-03	1.39E-03	1.39E-03	1.39E-03	1.39E-03	1.39E-03
pu239	1.73E-03	1.54E-03	1.36E-03	1.21E-03	1.07E-03	9.51E-04	8.44E-04
pu240	1.30E-04	8.40E-05	5.41E-05	3.48E-05	2.24E-05	1.44E-05	9.30E-06
total	5.63E-01	9.42E-02	9.71E-02	9.98E-02	1.02E-01	1.05E-01	1.07E-01

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 fission products page 290
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 nuclide concentrations, grams
basis =single reactor assembly

	initial	d	d	d	d	d	d
li 6	3.17E-04	3.17E-04	3.17E-04	3.17E-04	3.17E-04	3.17E-04	3.17E-04

li 7	8.41E-06	8.41E-06	8.41E-06	8.41E-06	8.41E-06	8.41E-06	8.41E-06
be 9	1.62E-05	1.62E-05	1.62E-05	1.62E-05	1.62E-05	1.62E-05	1.62E-05
be 10	1.06E-04	1.06E-04	1.06E-04	1.05E-04	1.05E-04	1.05E-04	1.05E-04
zn 70	2.40E-06	2.40E-06	2.40E-06	2.40E-06	2.40E-06	2.40E-06	2.40E-06
ga 71	2.90E-05	2.90E-05	2.90E-05	2.90E-05	2.90E-05	2.90E-05	2.90E-05
ge 72	2.66E-03	2.66E-03	2.66E-03	2.66E-03	2.66E-03	2.66E-03	2.66E-03
ge 73	1.07E-02	1.07E-02	1.07E-02	1.07E-02	1.07E-02	1.07E-02	1.07E-02
ge 74	9.24E-03	9.24E-03	9.24E-03	9.24E-03	9.24E-03	9.24E-03	9.24E-03
as 75	1.04E-01	1.04E-01	1.04E-01	1.04E-01	1.04E-01	1.04E-01	1.04E-01
ge 76	3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01	3.39E-01
se 76	1.09E-04	1.09E-04	1.09E-04	1.09E-04	1.09E-04	1.09E-04	1.09E-04
se 77	7.55E-01	7.55E-01	7.55E-01	7.55E-01	7.55E-01	7.55E-01	7.55E-01
se 78	2.05E+00	2.05E+00	2.05E+00	2.05E+00	2.05E+00	2.05E+00	2.05E+00
se 79	3.80E+00	3.77E+00	3.74E+00	3.71E+00	3.67E+00	3.64E+00	3.61E+00
br 79	3.81E-01	4.14E-01	4.47E-01	4.80E-01	5.12E-01	5.44E-01	5.76E-01
se 80	1.23E+01	1.23E+01	1.23E+01	1.23E+01	1.23E+01	1.23E+01	1.23E+01
kr 80	3.99E-04	3.99E-04	3.99E-04	3.99E-04	3.99E-04	3.99E-04	3.99E-04
br 81	1.84E+01	1.84E+01	1.84E+01	1.84E+01	1.84E+01	1.84E+01	1.84E+01
kr 81	8.03E-07	7.92E-07	7.82E-07	7.71E-07	7.61E-07	7.50E-07	7.40E-07
se 82	3.13E+01	3.13E+01	3.13E+01	3.13E+01	3.13E+01	3.13E+01	3.13E+01
kr 82	3.52E-02	3.52E-02	3.52E-02	3.52E-02	3.52E-02	3.52E-02	3.52E-02
kr 83	5.03E+01	5.03E+01	5.03E+01	5.03E+01	5.03E+01	5.03E+01	5.03E+01
kr 84	1.06E+02	1.06E+02	1.06E+02	1.06E+02	1.06E+02	1.06E+02	1.06E+02
rb 85	1.20E+02	1.20E+02	1.20E+02	1.20E+02	1.20E+02	1.20E+02	1.20E+02
kr 86	1.94E+02	1.94E+02	1.94E+02	1.94E+02	1.94E+02	1.94E+02	1.94E+02
sr 86	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02
rb 87	2.54E+02	2.54E+02	2.54E+02	2.54E+02	2.54E+02	2.54E+02	2.54E+02
sr 87	6.56E-04	6.71E-04	6.87E-04	7.02E-04	7.17E-04	7.32E-04	7.48E-04
sr 88	3.67E+02	3.67E+02	3.67E+02	3.67E+02	3.67E+02	3.67E+02	3.67E+02
y 89	4.96E+02	4.96E+02	4.96E+02	4.96E+02	4.96E+02	4.96E+02	4.96E+02
zr 90	6.06E+02	6.06E+02	6.06E+02	6.06E+02	6.06E+02	6.06E+02	6.06E+02
zr 91	6.22E+02	6.22E+02	6.22E+02	6.22E+02	6.22E+02	6.22E+02	6.22E+02
zr 92	6.37E+02	6.37E+02	6.37E+02	6.37E+02	6.37E+02	6.37E+02	6.37E+02
zr 93	4.49E+02	4.48E+02	4.47E+02	4.46E+02	4.45E+02	4.44E+02	4.44E+02
nb 93	9.44E+00	1.03E+01	1.11E+01	1.20E+01	1.28E+01	1.37E+01	1.45E+01
nb 93m	4.73E-03	4.72E-03	4.71E-03	4.70E-03	4.70E-03	4.69E-03	4.68E-03
zr 94	7.10E+02	7.10E+02	7.10E+02	7.10E+02	7.10E+02	7.10E+02	7.10E+02
nb 94	5.49E-04	4.76E-04	4.13E-04	3.58E-04	3.10E-04	2.69E-04	2.34E-04
mo 95	7.23E+02	7.23E+02	7.23E+02	7.23E+02	7.23E+02	7.23E+02	7.23E+02
zr 96	7.13E+02	7.13E+02	7.13E+02	7.13E+02	7.13E+02	7.13E+02	7.13E+02
mo 96	3.07E+00	3.07E+00	3.07E+00	3.07E+00	3.07E+00	3.07E+00	3.07E+00
mo 97	6.53E+02	6.53E+02	6.53E+02	6.53E+02	6.53E+02	6.53E+02	6.53E+02
mo 98	6.81E+02	6.81E+02	6.81E+02	6.81E+02	6.81E+02	6.81E+02	6.81E+02
tc 98	2.01E-04	2.01E-04	2.01E-04	2.01E-04	2.01E-04	2.00E-04	2.00E-04
tc 99	6.21E+02	6.12E+02	6.04E+02	5.96E+02	5.88E+02	5.80E+02	5.72E+02
ru 99	9.96E+01	1.08E+02	1.16E+02	1.25E+02	1.33E+02	1.41E+02	1.48E+02
mo100	7.55E+02	7.55E+02	7.55E+02	7.55E+02	7.55E+02	7.55E+02	7.55E+02
ru100	5.50E+00	5.50E+00	5.50E+00	5.50E+00	5.50E+00	5.50E+00	5.50E+00
ru101	6.24E+02	6.24E+02	6.24E+02	6.24E+02	6.24E+02	6.24E+02	6.24E+02
ru102	5.39E+02	5.39E+02	5.39E+02	5.39E+02	5.39E+02	5.39E+02	5.39E+02
rh103	3.99E+02	3.99E+02	3.99E+02	3.99E+02	3.99E+02	3.99E+02	3.99E+02

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 fission products page 291
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 nuclide concentrations, grams
basis =single reactor assembly

	initial	******* d	******* d	******* d	******* d	******* d	******* d
ru104	2.69E+02	2.69E+02	2.69E+02	2.69E+02	2.69E+02	2.69E+02	2.69E+02
pd104	1.58E+01	1.58E+01	1.58E+01	1.58E+01	1.58E+01	1.58E+01	1.58E+01
pd105	1.64E+02	1.64E+02	1.64E+02	1.64E+02	1.64E+02	1.64E+02	1.64E+02

pd106	8.76E+01	8.76E+01	8.76E+01	8.76E+01	8.76E+01	8.76E+01	8.76E+01
pd107	4.54E+01	4.54E+01	4.54E+01	4.53E+01	4.53E+01	4.53E+01	4.53E+01
ag107	2.09E-01	2.29E-01	2.49E-01	2.69E-01	2.89E-01	3.10E-01	3.30E-01
pd108	2.60E+01	2.60E+01	2.60E+01	2.60E+01	2.60E+01	2.60E+01	2.60E+01
cd108	5.25E-04	5.25E-04	5.25E-04	5.25E-04	5.25E-04	5.25E-04	5.25E-04
ag109	1.84E+01	1.84E+01	1.84E+01	1.84E+01	1.84E+01	1.84E+01	1.84E+01
pd110	8.63E+00	8.63E+00	8.63E+00	8.63E+00	8.63E+00	8.63E+00	8.63E+00
cd110	5.61E-01	5.61E-01	5.61E-01	5.61E-01	5.61E-01	5.61E-01	5.61E-01
cd111	5.01E+00	5.01E+00	5.01E+00	5.01E+00	5.01E+00	5.01E+00	5.01E+00
cd112	3.25E+00	3.25E+00	3.25E+00	3.25E+00	3.25E+00	3.25E+00	3.25E+00
cd113	1.96E-01	1.96E-01	1.96E-01	1.96E-01	1.96E-01	1.96E-01	1.96E-01
in113	4.50E-02	4.50E-02	4.50E-02	4.50E-02	4.50E-02	4.50E-02	4.50E-02
cd114	4.91E+00	4.91E+00	4.91E+00	4.91E+00	4.91E+00	4.91E+00	4.91E+00
sn114	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04
in115	1.67E+00	1.67E+00	1.67E+00	1.67E+00	1.67E+00	1.67E+00	1.67E+00
sn115	8.75E-02	8.75E-02	8.75E-02	8.75E-02	8.75E-02	8.75E-02	8.75E-02
cd116	2.72E+00	2.72E+00	2.72E+00	2.72E+00	2.72E+00	2.72E+00	2.72E+00
sn116	7.57E-02	7.57E-02	7.57E-02	7.57E-02	7.57E-02	7.57E-02	7.57E-02
sn117	1.99E+00	1.99E+00	1.99E+00	1.99E+00	1.99E+00	1.99E+00	1.99E+00
sn118	1.88E+00	1.88E+00	1.88E+00	1.88E+00	1.88E+00	1.88E+00	1.88E+00
sn119	2.06E+00	2.06E+00	2.06E+00	2.06E+00	2.06E+00	2.06E+00	2.06E+00
sn120	2.05E+00	2.05E+00	2.05E+00	2.05E+00	2.05E+00	2.05E+00	2.05E+00
sb121	2.22E+00	2.22E+00	2.22E+00	2.22E+00	2.22E+00	2.22E+00	2.22E+00
sn122	2.63E+00	2.63E+00	2.63E+00	2.63E+00	2.63E+00	2.63E+00	2.63E+00
te122	3.56E-03	3.56E-03	3.56E-03	3.56E-03	3.56E-03	3.56E-03	3.56E-03
sb123	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00
te123	1.69E-06	1.69E-06	1.69E-06	1.69E-06	1.69E-06	1.69E-06	1.69E-06
sn124	4.46E+00	4.46E+00	4.46E+00	4.46E+00	4.46E+00	4.46E+00	4.46E+00
te124	5.36E-03	5.36E-03	5.36E-03	5.36E-03	5.36E-03	5.36E-03	5.36E-03
te125	5.20E+00	5.20E+00	5.20E+00	5.20E+00	5.20E+00	5.20E+00	5.20E+00
sn126	6.08E+00	5.91E+00	5.74E+00	5.57E+00	5.42E+00	5.26E+00	5.11E+00
te126	2.20E+00	2.38E+00	2.55E+00	2.71E+00	2.87E+00	3.02E+00	3.17E+00
i127	2.21E+01	2.21E+01	2.21E+01	2.21E+01	2.21E+01	2.21E+01	2.21E+01
te128	5.81E+01	5.81E+01	5.81E+01	5.81E+01	5.81E+01	5.81E+01	5.81E+01
xe128	3.17E-02	3.17E-02	3.17E-02	3.17E-02	3.17E-02	3.17E-02	3.17E-02
i129	1.23E+02	1.23E+02	1.23E+02	1.23E+02	1.23E+02	1.23E+02	1.23E+02
xe129	2.49E-01	2.71E-01	2.94E-01	3.17E-01	3.39E-01	3.62E-01	3.85E-01
te130	2.79E+02	2.79E+02	2.79E+02	2.79E+02	2.79E+02	2.79E+02	2.79E+02
xe130	5.45E-01	5.45E-01	5.45E-01	5.45E-01	5.45E-01	5.45E-01	5.45E-01
xe131	4.50E+02	4.50E+02	4.50E+02	4.50E+02	4.50E+02	4.50E+02	4.50E+02
xe132	7.09E+02	7.09E+02	7.09E+02	7.09E+02	7.09E+02	7.09E+02	7.09E+02
ba132	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.87E-06
cs133	1.06E+03	1.06E+03	1.06E+03	1.06E+03	1.06E+03	1.06E+03	1.06E+03
xe134	1.26E+03	1.26E+03	1.26E+03	1.26E+03	1.26E+03	1.26E+03	1.26E+03
ba134	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01	1.07E+01
cs135	1.05E+03	1.05E+03	1.05E+03	1.05E+03	1.05E+03	1.05E+03	1.05E+03
ba135	1.46E+01	1.60E+01	1.73E+01	1.86E+01	1.99E+01	2.12E+01	2.26E+01
xe136	1.03E+03	1.03E+03	1.03E+03	1.03E+03	1.03E+03	1.03E+03	1.03E+03
ba136	4.03E+00	4.03E+00	4.03E+00	4.03E+00	4.03E+00	4.03E+00	4.03E+00

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 fission products page 292
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 nuclide concentrations, grams
basis =single reactor assembly

	initial	******* d	******* d	******* d	******* d	******* d	******* d
ba137	1.04E+03	1.04E+03	1.04E+03	1.04E+03	1.04E+03	1.04E+03	1.04E+03
ba138	1.10E+03	1.10E+03	1.10E+03	1.10E+03	1.10E+03	1.10E+03	1.10E+03
la138	5.84E-03	5.84E-03	5.84E-03	5.84E-03	5.84E-03	5.84E-03	5.84E-03
la139	1.05E+03	1.05E+03	1.05E+03	1.05E+03	1.05E+03	1.05E+03	1.05E+03
ce140	1.05E+03	1.05E+03	1.05E+03	1.05E+03	1.05E+03	1.05E+03	1.05E+03

pr141	9.73E+02	9.73E+02	9.73E+02	9.73E+02	9.73E+02	9.73E+02	9.73E+02
ce142	9.88E+02	9.88E+02	9.88E+02	9.88E+02	9.88E+02	9.88E+02	9.88E+02
nd142	1.90E+00	1.90E+00	1.90E+00	1.90E+00	1.90E+00	1.90E+00	1.90E+00
nd143	9.53E+02	9.53E+02	9.53E+02	9.53E+02	9.53E+02	9.53E+02	9.53E+02
nd144	9.70E+02	9.70E+02	9.70E+02	9.70E+02	9.70E+02	9.70E+02	9.70E+02
nd145	6.66E+02	6.66E+02	6.66E+02	6.66E+02	6.66E+02	6.66E+02	6.66E+02
nd146	5.25E+02	5.25E+02	5.25E+02	5.25E+02	5.25E+02	5.25E+02	5.25E+02
sm146	8.37E-04	8.37E-04	8.37E-04	8.37E-04	8.37E-04	8.37E-04	8.37E-04
sm147	3.89E+02	3.89E+02	3.89E+02	3.89E+02	3.89E+02	3.89E+02	3.89E+02
nd148	2.98E+02	2.98E+02	2.98E+02	2.98E+02	2.98E+02	2.98E+02	2.98E+02
sm148	8.64E+00	8.64E+00	8.64E+00	8.64E+00	8.64E+00	8.64E+00	8.64E+00
sm149	8.79E+00	8.79E+00	8.79E+00	8.79E+00	8.79E+00	8.79E+00	8.79E+00
nd150	1.23E+02	1.23E+02	1.23E+02	1.23E+02	1.23E+02	1.23E+02	1.23E+02
sm150	1.85E+02	1.85E+02	1.85E+02	1.85E+02	1.85E+02	1.85E+02	1.85E+02
eu151	3.76E+01	3.76E+01	3.76E+01	3.76E+01	3.76E+01	3.76E+01	3.76E+01
sm152	7.57E+01	7.57E+01	7.57E+01	7.57E+01	7.57E+01	7.57E+01	7.57E+01
gd152	2.01E+01	2.01E+01	2.01E+01	2.01E+01	2.01E+01	2.01E+01	2.01E+01
eu153	3.65E+01	3.65E+01	3.65E+01	3.65E+01	3.65E+01	3.65E+01	3.65E+01
sm154	1.64E+01	1.64E+01	1.64E+01	1.64E+01	1.64E+01	1.64E+01	1.64E+01
gd154	2.15E+00	2.15E+00	2.15E+00	2.15E+00	2.15E+00	2.15E+00	2.15E+00
gd155	6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01	6.66E-01
gd156	1.12E+01	1.12E+01	1.12E+01	1.12E+01	1.12E+01	1.12E+01	1.12E+01
gd157	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02
gd158	3.07E+00	3.07E+00	3.07E+00	3.07E+00	3.07E+00	3.07E+00	3.07E+00
tb159	4.41E-01	4.41E-01	4.41E-01	4.41E-01	4.41E-01	4.41E-01	4.41E-01
gd160	1.79E-01	1.79E-01	1.79E-01	1.79E-01	1.79E-01	1.79E-01	1.79E-01
dy160	2.30E-03	2.30E-03	2.30E-03	2.30E-03	2.30E-03	2.30E-03	2.30E-03
dy161	7.00E-02	7.00E-02	7.00E-02	7.00E-02	7.00E-02	7.00E-02	7.00E-02
dy162	3.62E-02	3.62E-02	3.62E-02	3.62E-02	3.62E-02	3.62E-02	3.62E-02
dy163	1.35E-02	1.35E-02	1.35E-02	1.35E-02	1.35E-02	1.35E-02	1.35E-02
dy164	3.85E-03	3.85E-03	3.85E-03	3.85E-03	3.85E-03	3.85E-03	3.85E-03
ho165	2.94E-03	2.94E-03	2.94E-03	2.94E-03	2.94E-03	2.94E-03	2.94E-03
er166	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04	3.07E-04
er167	1.25E-06	1.25E-06	1.25E-06	1.25E-06	1.25E-06	1.25E-06	1.25E-06
er170	5.06E-07	5.06E-07	5.06E-07	5.06E-07	5.06E-07	5.06E-07	5.06E-07
yb171	7.02E-07	7.02E-07	7.02E-07	7.02E-07	7.02E-07	7.02E-07	7.02E-07
total	2.78E+04	2.78E+04	2.78E+04	2.78E+04	2.78E+04	2.78E+04	2.78E+04

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 fission products page 293
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 nuclide radioactivity, curies
basis =single reactor assembly

	initial*******	d *******	d *******	d *******	d *******	d *******	d *******
be 10	2.37E-06	2.36E-06	2.36E-06	2.36E-06	2.35E-06	2.35E-06	2.34E-06
se 79	5.22E-02	5.18E-02	5.13E-02	5.09E-02	5.04E-02	5.00E-02	4.95E-02
rb 87	2.18E-05	2.18E-05	2.18E-05	2.18E-05	2.18E-05	2.18E-05	2.18E-05
zr 93	1.13E+00	1.13E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00
nb 93m	1.13E+00	1.13E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00
nb 94	1.03E-04	8.92E-05	7.73E-05	6.71E-05	5.82E-05	5.05E-05	4.38E-05
tc 99	1.06E+01	1.05E+01	1.03E+01	1.02E+01	1.01E+01	9.92E+00	9.78E+00
pd107	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02
sn126	1.73E-01	1.68E-01	1.63E-01	1.58E-01	1.54E-01	1.49E-01	1.45E-01
sb126	2.51E-02	2.35E-02	2.28E-02	2.22E-02	2.15E-02	2.09E-02	2.03E-02
sb126m	1.74E-01	1.68E-01	1.63E-01	1.58E-01	1.54E-01	1.49E-01	1.45E-01
i129	2.18E-02	2.18E-02	2.18E-02	2.18E-02	2.18E-02	2.18E-02	2.18E-02
cs135	1.21E+00	1.21E+00	1.21E+00	1.21E+00	1.21E+00	1.21E+00	1.20E+00
ce142	2.37E-05	2.37E-05	2.37E-05	2.37E-05	2.37E-05	2.37E-05	2.37E-05
sm147	8.92E-06	8.92E-06	8.92E-06	8.92E-06	8.92E-06	8.92E-06	8.92E-06
total	2.54E+03	1.44E+01	1.42E+01	1.41E+01	1.39E+01	1.38E+01	1.36E+01

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 fission products page 294
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 element thermal power, watts
basis =single reactor assembly

	initial	d	d	d	d	d	d
se	3.90E-01	1.62E-05	1.61E-05	1.59E-05	1.58E-05	1.57E-05	1.55E-05
rb	2.97E+00	1.06E-08	1.06E-08	1.06E-08	1.06E-08	1.06E-08	1.06E-08
zr	1.45E+00	1.27E-04	1.27E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04
nb	2.64E+00	1.94E-04	1.94E-04	1.93E-04	1.93E-04	1.92E-04	1.92E-04
tc	8.85E-01	5.25E-03	5.18E-03	5.11E-03	5.04E-03	4.97E-03	4.91E-03
pd	5.94E-03	1.29E-06	1.29E-06	1.29E-06	1.28E-06	1.28E-06	1.28E-06
sn	2.29E-01	2.61E-04	2.54E-04	2.47E-04	2.40E-04	2.33E-04	2.26E-04
sb	9.16E-01	2.61E-03	2.53E-03	2.46E-03	2.39E-03	2.32E-03	2.26E-03
i	2.52E+00	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05
cs	2.21E+00	4.04E-04	4.04E-04	4.03E-04	4.03E-04	4.02E-04	4.02E-04
sm	3.66E-03	1.23E-07	1.23E-07	1.23E-07	1.23E-07	1.23E-07	1.23E-07
totals	3.15E+01	8.87E-03	8.72E-03	8.57E-03	8.42E-03	8.28E-03	8.13E-03

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sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 fission products page 295
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 nuclide gamma power, watts
basis =single reactor assembly

	initial	d	d	d	d	d	d
nb 93m	1.26E-05	1.25E-05	1.25E-05	1.25E-05	1.25E-05	1.25E-05	1.24E-05
nb 94	9.58E-07	8.31E-07	7.21E-07	6.25E-07	5.42E-07	4.70E-07	4.08E-07
tc 99	3.90E-08	3.85E-08	3.80E-08	3.75E-08	3.70E-08	3.64E-08	3.60E-08
sn126	1.34E-04	1.30E-04	1.26E-04	1.22E-04	1.19E-04	1.16E-04	1.12E-04
sb126	4.09E-04	3.83E-04	3.72E-04	3.62E-04	3.51E-04	3.41E-04	3.32E-04
sb126m	1.60E-03	1.54E-03	1.50E-03	1.46E-03	1.42E-03	1.38E-03	1.34E-03
i129	3.18E-06	3.18E-06	3.18E-06	3.17E-06	3.17E-06	3.17E-06	3.17E-06
total	1.56E+01	2.07E-03	2.01E-03	1.96E-03	1.90E-03	1.85E-03	1.80E-03

1
sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2 fission products page 296
decay, following reactor irradiation identified by: power= 9.787E-04mw, burnup=2.6809E+04mwd, flux= 6.14E+07n/cm**2-sec
0 element gamma power, watts
basis =single reactor assembly

	initial	d	d	d	d	d	d
nb	1.12E+00	1.34E-05	1.32E-05	1.31E-05	1.30E-05	1.29E-05	1.28E-05
tc	4.43E-01	3.99E-08	3.94E-08	3.89E-08	3.84E-08	3.79E-08	3.74E-08
sn	1.50E-01	1.30E-04	1.26E-04	1.22E-04	1.19E-04	1.16E-04	1.12E-04
sb	6.30E-01	1.93E-03	1.87E-03	1.82E-03	1.77E-03	1.72E-03	1.67E-03
i	1.65E+00	3.18E-06	3.18E-06	3.17E-06	3.17E-06	3.17E-06	3.17E-06
totals	1.56E+01	2.07E-03	2.01E-03	1.96E-03	1.90E-03	1.85E-03	1.80E-03

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photon spectrum as a function of time for light elements, cladding and structural materials

0 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2
power= .00 mw, burnup= 26809.mwd, flux= 6.14E+07 n**2-sec
0 spectrum of photon release rates, photons/sec
basis = single reactor assembly
0

emean	time after discharge						
(mev)	initial	d	d	d	d	d	d
1.00E-02	6.07E+10	3.25E-06	1.96E-06	1.18E-06	7.15E-07	4.32E-07	2.61E-07
3.00E-02	1.99E+10	6.32E-07	3.82E-07	2.30E-07	1.39E-07	8.41E-08	5.08E-08
5.50E-02	1.39E+10	2.12E-07	1.28E-07	7.73E-08	4.67E-08	2.82E-08	1.70E-08
8.50E-02	8.13E+09	3.81E-08	2.30E-08	1.39E-08	8.39E-09	5.07E-09	3.06E-09
1.20E-01	5.78E+09	4.45E-09	2.69E-09	1.62E-09	9.81E-10	5.92E-10	3.58E-10
1.70E-01	6.05E+09	7.20E-11	4.35E-11	2.63E-11	1.59E-11	9.59E-12	5.79E-12
3.00E-01	6.93E+09	2.44E-24	2.44E-24	2.44E-24	2.43E-24	2.43E-24	2.42E-24

	6.50E-01	3.42E+09	2.06E-26	2.06E-26	2.05E-26	2.05E-26	2.04E-26	2.04E-26
	1.13E+00	5.89E+08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
	1.58E+00	1.07E+11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
	2.00E+00	2.11E+07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
	2.40E+00	4.28E+06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
	2.80E+00	2.52E+10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
	3.25E+00	1.70E+03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
	3.75E+00	1.64E+07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
	4.25E+00	2.15E+05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
	4.75E+00	4.28E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
	5.50E+00	7.01E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
0	total	2.57E+11	4.13E-06	2.50E-06	1.51E-06	9.11E-07	5.50E-07	3.32E-07
0	mev/sec	2.48E+11	6.68E-08	4.04E-08	2.44E-08	1.47E-08	8.90E-09	5.38E-09

0 spectrum of energy release rates, mev/watt-sec
basis = single reactor assembly

0

emean		time after discharge					
(mev)	initial******* d	******* d	******* d	******* d	******* d	******* d	******* d
1.00E-02	6.20E+05	3.32E-11	2.00E-11	1.21E-11	7.31E-12	4.42E-12	2.67E-12
3.00E-02	6.11E+05	1.94E-11	1.17E-11	7.06E-12	4.27E-12	2.58E-12	1.56E-12
5.50E-02	7.82E+05	1.19E-11	7.19E-12	4.34E-12	2.62E-12	1.59E-12	9.57E-13
8.50E-02	7.06E+05	3.31E-12	2.00E-12	1.21E-12	7.29E-13	4.40E-13	2.66E-13
1.20E-01	7.08E+05	5.46E-13	3.30E-13	1.99E-13	1.20E-13	7.26E-14	4.39E-14
1.70E-01	1.05E+06	1.25E-14	7.56E-15	4.57E-15	2.76E-15	1.67E-15	1.01E-15
3.00E-01	2.12E+06	7.49E-28	7.48E-28	7.47E-28	7.45E-28	7.44E-28	7.42E-28
6.50E-01	2.27E+06	1.37E-29	1.37E-29	1.36E-29	1.36E-29	1.36E-29	1.36E-29
1.13E+00	6.77E+05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
1.58E+00	1.72E+08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
2.00E+00	4.32E+04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
2.40E+00	1.05E+04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
2.80E+00	7.20E+07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
3.25E+00	5.65E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
3.75E+00	6.28E+04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
4.25E+00	9.32E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
4.75E+00	2.08E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
5.50E+00	3.94E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
0 total	2.53E+08	6.83E-11	4.13E-11	2.49E-11	1.51E-11	9.09E-12	5.49E-12
0 gamma watts	3.97E-02	1.07E-20	6.47E-21	3.91E-21	2.36E-21	1.43E-21	8.62E-22

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photon spectrum as a function of time for fission products

0 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2
power= .00 mw, burnup= 26809.mwd, flux= 6.14E+07 n**2-sec

0 spectrum of photon release rates, photons/sec
basis = single reactor assembly

0

emean		time after discharge					
(mev)	initial******* d	******* d	******* d	******* d	******* d	******* d	******* d
1.00E-02	3.16E+13	2.94E+10	2.90E+10	2.87E+10	2.84E+10	2.81E+10	2.78E+10
3.00E-02	1.38E+13	7.89E+09	7.75E+09	7.62E+09	7.49E+09	7.36E+09	7.24E+09
5.50E-02	7.37E+12	3.33E+09	3.27E+09	3.21E+09	3.15E+09	3.10E+09	3.04E+09
8.50E-02	5.08E+12	3.93E+09	3.83E+09	3.73E+09	3.63E+09	3.54E+09	3.45E+09
1.20E-01	4.17E+12	4.54E+08	4.46E+08	4.37E+08	4.29E+08	4.21E+08	4.13E+08
1.70E-01	6.65E+12	2.56E+08	2.51E+08	2.45E+08	2.39E+08	2.34E+08	2.29E+08
3.00E-01	1.35E+13	4.43E+09	4.31E+09	4.18E+09	4.06E+09	3.95E+09	3.84E+09
6.50E-01	2.81E+13	1.61E+10	1.56E+10	1.52E+10	1.47E+10	1.43E+10	1.39E+10
1.13E+00	9.45E+12	3.06E+08	2.97E+08	2.89E+08	2.81E+08	2.73E+08	2.65E+08
1.58E+00	4.88E+12	2.25E+07	2.18E+07	2.12E+07	2.06E+07	2.00E+07	1.94E+07
2.00E+00	1.48E+12	6.06E+00	5.88E+00	5.72E+00	5.55E+00	5.40E+00	5.24E+00
2.40E+00	1.27E+12	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04

	2.80E+00	5.08E+11	2.84E-04	2.84E-04	2.84E-04	2.84E-04	2.84E-04	2.84E-04
	3.25E+00	2.94E+11	1.45E-04	1.45E-04	1.45E-04	1.45E-04	1.45E-04	1.45E-04
	3.75E+00	1.49E+11	7.28E-05	7.28E-05	7.28E-05	7.28E-05	7.28E-05	7.28E-05
	4.25E+00	1.63E+11	3.65E-05	3.65E-05	3.65E-05	3.65E-05	3.65E-05	3.65E-05
	4.75E+00	4.77E+10	1.83E-05	1.83E-05	1.83E-05	1.83E-05	1.83E-05	1.83E-05
	5.50E+00	3.56E+10	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05
0	total	1.28E+14	6.60E+10	6.48E+10	6.36E+10	6.24E+10	6.13E+10	6.02E+10
0	mev/sec	5.38E+13	1.33E+10	1.29E+10	1.26E+10	1.22E+10	1.19E+10	1.16E+10

0 spectrum of energy release rates, mev/watt-sec
basis = single reactor assembly

0

emean	time after discharge						
(mev)	initial******* d	******* d	******* d	******* d	******* d	******* d	******* d
1.00E-02	3.23E+08	3.00E+05	2.97E+05	2.93E+05	2.90E+05	2.87E+05	2.84E+05
3.00E-02	4.24E+08	2.42E+05	2.38E+05	2.34E+05	2.30E+05	2.26E+05	2.22E+05
5.50E-02	4.14E+08	1.87E+05	1.84E+05	1.80E+05	1.77E+05	1.74E+05	1.71E+05
8.50E-02	4.41E+08	3.41E+05	3.32E+05	3.24E+05	3.16E+05	3.08E+05	3.00E+05
1.20E-01	5.11E+08	5.57E+04	5.47E+04	5.36E+04	5.26E+04	5.16E+04	5.07E+04
1.70E-01	1.16E+09	4.46E+04	4.35E+04	4.25E+04	4.16E+04	4.06E+04	3.97E+04
3.00E-01	4.12E+09	1.36E+06	1.32E+06	1.28E+06	1.25E+06	1.21E+06	1.18E+06
6.50E-01	1.86E+10	1.07E+07	1.04E+07	1.01E+07	9.78E+06	9.50E+06	9.23E+06
1.13E+00	1.09E+10	3.52E+05	3.42E+05	3.32E+05	3.23E+05	3.13E+05	3.04E+05
1.58E+00	7.86E+09	3.61E+04	3.51E+04	3.41E+04	3.31E+04	3.22E+04	3.13E+04
2.00E+00	3.02E+09	1.24E-02	1.20E-02	1.17E-02	1.14E-02	1.10E-02	1.07E-02
2.40E+00	3.11E+09	1.33E-06	1.33E-06	1.33E-06	1.33E-06	1.33E-06	1.33E-06
2.80E+00	1.45E+09	8.13E-07	8.13E-07	8.13E-07	8.13E-07	8.13E-07	8.13E-07
3.25E+00	9.76E+08	4.82E-07	4.82E-07	4.82E-07	4.82E-07	4.82E-07	4.82E-07
3.75E+00	5.70E+08	2.79E-07	2.79E-07	2.79E-07	2.79E-07	2.79E-07	2.79E-07
4.25E+00	7.08E+08	1.59E-07	1.59E-07	1.59E-07	1.59E-07	1.59E-07	1.59E-07
4.75E+00	2.32E+08	8.89E-08	8.89E-08	8.89E-08	8.89E-08	8.89E-08	8.89E-08
5.50E+00	2.00E+08	7.63E-08	7.63E-08	7.63E-08	7.63E-08	7.63E-08	7.63E-08
0 total	5.50E+10	1.36E+07	1.32E+07	1.28E+07	1.25E+07	1.21E+07	1.18E+07
0 gamma watts	8.63E+00	2.13E-03	2.07E-03	2.01E-03	1.96E-03	1.91E-03	1.85E-03

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0 principal photon sources in group 1, photons/sec
mean energy = .0100 mev. nuclides exceeding 1.0E-03 of total group release rate (2.81E+10) at ******* d

nuclide	time after discharge						
	initial******* d	******* d	******* d	******* d	******* d	******* d	******* d
se 79	5.14E+07	5.09E+07	5.05E+07	5.00E+07	4.96E+07	4.92E+07	4.87E+07
zr 93	2.70E+08	2.70E+08	2.69E+08	2.69E+08	2.68E+08	2.68E+08	2.67E+08
nb 93m	7.87E+09	7.86E+09	7.84E+09	7.83E+09	7.81E+09	7.80E+09	7.78E+09
tc 99	1.76E+10	1.73E+10	1.71E+10	1.69E+10	1.66E+10	1.64E+10	1.62E+10
sn126	6.09E+08	5.91E+08	5.74E+08	5.58E+08	5.42E+08	5.27E+08	5.12E+08
sb126	1.44E+08	1.35E+08	1.31E+08	1.27E+08	1.24E+08	1.20E+08	1.17E+08
sb126m	1.89E+09	1.82E+09	1.77E+09	1.72E+09	1.67E+09	1.62E+09	1.58E+09
i129	4.21E+07	4.21E+07	4.21E+07	4.21E+07	4.21E+07	4.21E+07	4.21E+07
cs135	1.26E+09	1.26E+09	1.26E+09	1.25E+09	1.25E+09	1.25E+09	1.25E+09

0 principal photon sources in group 2, photons/sec
mean energy = .0300 mev. nuclides exceeding 1.0E-03 of total group release rate (7.36E+09) at ******* d

nuclide	time after discharge						
	initial******* d	******* d	******* d	******* d	******* d	******* d	******* d
se 79	1.06E+07	1.05E+07	1.04E+07	1.03E+07	1.02E+07	1.01E+07	1.00E+07
zr 93	2.02E+07	2.01E+07	2.01E+07	2.01E+07	2.00E+07	2.00E+07	2.00E+07
tc 99	4.25E+09	4.19E+09	4.14E+09	4.08E+09	4.02E+09	3.97E+09	3.91E+09
sn126	2.14E+09	2.08E+09	2.02E+09	1.97E+09	1.91E+09	1.86E+09	1.80E+09
sb126	5.53E+07	5.18E+07	5.03E+07	4.89E+07	4.75E+07	4.62E+07	4.49E+07
sb126m	6.75E+08	6.51E+08	6.33E+08	6.15E+08	5.97E+08	5.80E+08	5.64E+08
i129	6.17E+08	6.17E+08	6.17E+08	6.16E+08	6.16E+08	6.16E+08	6.16E+08
cs135	2.67E+08	2.66E+08	2.66E+08	2.66E+08	2.65E+08	2.65E+08	2.65E+08

0 principal photon sources in group 3, photons/sec

mean energy = .0550 mev. nuclides exceeding 1.0E-03 of total group release rate (3.10E+09) at ******* d

nuclide	initial	******* d	******* d	******* d	******* d	******* d	******* d
	time after discharge						
se 79	3.83E+06	3.80E+06	3.77E+06	3.73E+06	3.70E+06	3.67E+06	3.64E+06
tc 99	2.05E+09	2.02E+09	2.00E+09	1.97E+09	1.94E+09	1.92E+09	1.89E+09
sn126	7.85E+08	7.63E+08	7.41E+08	7.20E+08	7.00E+08	6.80E+08	6.61E+08
sb126	2.72E+07	2.55E+07	2.48E+07	2.41E+07	2.34E+07	2.27E+07	2.21E+07
sb126m	4.02E+08	3.87E+08	3.76E+08	3.66E+08	3.55E+08	3.45E+08	3.35E+08
i129	2.26E+07	2.26E+07	2.26E+07	2.26E+07	2.26E+07	2.26E+07	2.25E+07
cs135	1.06E+08	1.06E+08	1.06E+08	1.06E+08	1.05E+08	1.05E+08	1.05E+08

0 principal photon sources in group 4, photons/sec

mean energy = .0850 mev. nuclides exceeding 1.0E-03 of total group release rate (3.54E+09) at ******* d

nuclide	initial	******* d	******* d	******* d	******* d	******* d	******* d
	time after discharge						
tc 99	7.29E+08	7.19E+08	7.09E+08	7.00E+08	6.90E+08	6.81E+08	6.72E+08
sn126	3.03E+09	2.95E+09	2.86E+09	2.78E+09	2.70E+09	2.63E+09	2.55E+09
sb126	1.43E+07	1.34E+07	1.30E+07	1.26E+07	1.23E+07	1.19E+07	1.16E+07
sb126m	2.27E+08	2.19E+08	2.12E+08	2.06E+08	2.00E+08	1.95E+08	1.89E+08
cs135	2.74E+07	2.73E+07	2.73E+07	2.73E+07	2.72E+07	2.72E+07	2.72E+07

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0 principal photon sources in group 5, photons/sec

mean energy = .1200 mev. nuclides exceeding 1.0E-03 of total group release rate (4.21E+08) at ******* d

nuclide	initial	******* d	******* d	******* d	******* d	******* d	******* d
	time after discharge						
tc 99	2.85E+08	2.81E+08	2.77E+08	2.74E+08	2.70E+08	2.66E+08	2.63E+08
sn126	8.05E+06	7.82E+06	7.59E+06	7.38E+06	7.17E+06	6.96E+06	6.77E+06
sb126	9.16E+06	8.58E+06	8.33E+06	8.10E+06	7.87E+06	7.64E+06	7.43E+06
sb126m	1.55E+08	1.50E+08	1.46E+08	1.42E+08	1.37E+08	1.34E+08	1.30E+08
cs135	6.59E+06	6.59E+06	6.58E+06	6.57E+06	6.56E+06	6.55E+06	6.54E+06

0 principal photon sources in group 6, photons/sec

mean energy = .1700 mev. nuclides exceeding 1.0E-03 of total group release rate (2.34E+08) at ******* d

nuclide	initial	******* d	******* d	******* d	******* d	******* d	******* d
	time after discharge						
tc 99	9.51E+07	9.38E+07	9.26E+07	9.13E+07	9.01E+07	8.88E+07	8.76E+07
sn126	3.58E+06	3.48E+06	3.38E+06	3.29E+06	3.19E+06	3.10E+06	3.01E+06
sb126	1.07E+07	1.00E+07	9.72E+06	9.45E+06	9.18E+06	8.92E+06	8.66E+06
sb126m	1.54E+08	1.48E+08	1.44E+08	1.40E+08	1.36E+08	1.32E+08	1.28E+08
cs135	7.25E+05	7.24E+05	7.23E+05	7.22E+05	7.21E+05	7.20E+05	7.19E+05

0 principal photon sources in group 7, photons/sec

mean energy = .3000 mev. nuclides exceeding 1.0E-03 of total group release rate (3.95E+09) at ******* d

nuclide	initial	******* d	******* d	******* d	******* d	******* d	******* d
	time after discharge						
tc 99	7.02E+06	6.92E+06	6.83E+06	6.74E+06	6.64E+06	6.55E+06	6.47E+06
sb126	6.44E+08	6.03E+08	5.86E+08	5.69E+08	5.53E+08	5.37E+08	5.22E+08
sb126m	3.96E+09	3.82E+09	3.71E+09	3.61E+09	3.50E+09	3.40E+09	3.31E+09

0 principal photon sources in group 8, photons/sec

mean energy = .6500 mev. nuclides exceeding 1.0E-03 of total group release rate (1.43E+10) at ******* d

nuclide	initial	******* d	******* d	******* d	******* d	******* d	******* d
	time after discharge						
sb126	3.55E+09	3.32E+09	3.23E+09	3.14E+09	3.05E+09	2.96E+09	2.88E+09
sb126m	1.32E+10	1.27E+10	1.24E+10	1.20E+10	1.17E+10	1.13E+10	1.10E+10

0 principal photon sources in group 9, photons/sec

mean energy = 1.1250 mev. nuclides exceeding 1.0E-03 of total group release rate (2.73E+08) at ******* d

nuclide	initial	******* d	******* d	******* d	******* d	******* d	******* d
	time after discharge						
sb126	1.11E+08	1.04E+08	1.01E+08	9.83E+07	9.55E+07	9.28E+07	9.01E+07
sb126m	2.09E+08	2.02E+08	1.96E+08	1.91E+08	1.85E+08	1.80E+08	1.75E+08

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0 principal photon sources in group 10, photons/sec

mean energy = 1.5750 mev. nuclides exceeding 1.0E-03 of total group release rate (2.00E+07) at ******* d

```
    nuclide                                          time after discharge
              initial******* d ******* d ******* d ******* d ******* d ******* d
     sb126   2.60E+06  2.43E+06  2.37E+06  2.30E+06  2.23E+06  2.17E+06  2.11E+06
     sb126m  2.08E+07  2.00E+07  1.94E+07  1.89E+07  1.84E+07  1.78E+07  1.73E+07
0                    principal photon sources in group 11, photons/sec
       mean energy = 2.0000 mev.  nuclides exceeding  1.0E-03 of total group release rate (5.40E+00) at ******* d
    nuclide                                          time after discharge
              initial******* d ******* d ******* d ******* d ******* d ******* d
     sb126   3.77E-02  3.53E-02  3.43E-02  3.33E-02  3.24E-02  3.15E-02  3.06E-02
     sb126m  6.24E+00  6.02E+00  5.85E+00  5.68E+00  5.52E+00  5.36E+00  5.21E+00
0                    principal photon sources in group 12, photons/sec
       mean energy = 2.4000 mev.  nuclides exceeding  1.0E-03 of total group release rate (5.41E-04) at ******* d
    nuclide                                          time after discharge
              initial******* d ******* d ******* d ******* d ******* d ******* d
     ce142   3.93E-04  3.93E-04  3.93E-04  3.93E-04  3.93E-04  3.93E-04  3.93E-04
     sm147   1.48E-04  1.48E-04  1.48E-04  1.48E-04  1.48E-04  1.48E-04  1.48E-04
0                    principal photon sources in group 13, photons/sec
       mean energy = 2.8000 mev.  nuclides exceeding  1.0E-03 of total group release rate (2.84E-04) at ******* d
    nuclide                                          time after discharge
              initial******* d ******* d ******* d ******* d ******* d ******* d
     ce142   2.06E-04  2.06E-04  2.06E-04  2.06E-04  2.06E-04  2.06E-04  2.06E-04
     sm147   7.76E-05  7.76E-05  7.76E-05  7.76E-05  7.76E-05  7.76E-05  7.76E-05
0                    principal photon sources in group 14, photons/sec
       mean energy = 3.2500 mev.  nuclides exceeding  1.0E-03 of total group release rate (1.45E-04) at ******* d
    nuclide                                          time after discharge
              initial******* d ******* d ******* d ******* d ******* d ******* d
     ce142   1.05E-04  1.05E-04  1.05E-04  1.05E-04  1.05E-04  1.05E-04  1.05E-04
     sm147   3.96E-05  3.96E-05  3.96E-05  3.96E-05  3.96E-05  3.96E-05  3.96E-05
0                    principal photon sources in group 15, photons/sec
       mean energy = 3.7500 mev.  nuclides exceeding  1.0E-03 of total group release rate (7.28E-05) at ******* d
    nuclide                                          time after discharge
              initial******* d ******* d ******* d ******* d ******* d ******* d
     ce142   5.29E-05  5.29E-05  5.29E-05  5.29E-05  5.29E-05  5.29E-05  5.29E-05
     sm147   1.99E-05  1.99E-05  1.99E-05  1.99E-05  1.99E-05  1.99E-05  1.99E-05
1                                                                                                    page 302
0                    principal photon sources in group 16, photons/sec
       mean energy = 4.2500 mev.  nuclides exceeding  1.0E-03 of total group release rate (3.65E-05) at ******* d
    nuclide                                          time after discharge
              initial******* d ******* d ******* d ******* d ******* d ******* d
     ce142   2.65E-05  2.65E-05  2.65E-05  2.65E-05  2.65E-05  2.65E-05  2.65E-05
     sm147   9.97E-06  9.97E-06  9.97E-06  9.97E-06  9.97E-06  9.97E-06  9.97E-06
0                    principal photon sources in group 17, photons/sec
       mean energy = 4.7500 mev.  nuclides exceeding  1.0E-03 of total group release rate (1.83E-05) at ******* d
    nuclide                                          time after discharge
              initial******* d ******* d ******* d ******* d ******* d ******* d
     ce142   1.33E-05  1.33E-05  1.33E-05  1.33E-05  1.33E-05  1.33E-05  1.33E-05
     sm147   5.00E-06  5.00E-06  5.00E-06  5.00E-06  5.00E-06  5.00E-06  5.00E-06
0                    principal photon sources in group 18, photons/sec
       mean energy = 5.5000 mev.  nuclides exceeding  1.0E-03 of total group release rate (1.36E-05) at ******* d
    nuclide                                          time after discharge
              initial******* d ******* d ******* d ******* d ******* d ******* d
     ce142   9.86E-06  9.86E-06  9.86E-06  9.86E-06  9.86E-06  9.86E-06  9.86E-06
     sm147   3.71E-06  3.71E-06  3.71E-06  3.71E-06  3.71E-06  3.71E-06  3.71E-06
1                                                                                                    page 303
               photon spectrum as a function of time for heavy metals and their daughters

0                          sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2
                                power=     .00 mw, burnup=  26809.mwd, flux= 6.14E+07 n**2-sec
0                                    actinide photon release rates, photons/sec
                                   basis = single reactor assembly
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0

emean (mev)	time after discharge initial******* d	******* d	******* d	******* d	******* d	******* d	******* d
1.00E-02	1.77E+13	1.74E+12	1.67E+12	1.61E+12	1.56E+12	1.51E+12	1.48E+12
3.00E-02	1.13E+12	1.36E+11	1.39E+11	1.43E+11	1.46E+11	1.49E+11	1.52E+11
5.50E-02	1.40E+12	9.02E+10	9.24E+10	9.46E+10	9.68E+10	9.88E+10	1.01E+11
8.50E-02	6.52E+12	2.77E+11	2.82E+11	2.87E+11	2.92E+11	2.96E+11	3.01E+11
1.20E-01	6.51E+12	5.47E+10	5.56E+10	5.65E+10	5.74E+10	5.83E+10	5.92E+10
1.70E-01	2.54E+11	5.20E+10	5.34E+10	5.47E+10	5.59E+10	5.71E+10	5.83E+10
3.00E-01	3.75E+12	3.52E+11	3.60E+11	3.68E+11	3.75E+11	3.82E+11	3.88E+11
6.50E-01	3.51E+11	1.85E+11	1.92E+11	1.99E+11	2.05E+11	2.11E+11	2.16E+11
1.13E+00	2.99E+11	8.36E+10	8.67E+10	8.96E+10	9.24E+10	9.50E+10	9.74E+10
1.58E+00	9.21E+10	9.58E+10	9.94E+10	1.03E+11	1.06E+11	1.09E+11	1.12E+11
2.00E+00	1.91E+10	1.99E+10	2.06E+10	2.13E+10	2.20E+10	2.26E+10	2.32E+10
2.40E+00	1.13E+10	1.18E+10	1.22E+10	1.26E+10	1.30E+10	1.34E+10	1.37E+10
2.80E+00	4.32E+08	3.64E+08	3.78E+08	3.90E+08	4.03E+08	4.14E+08	4.25E+08
3.25E+00	9.02E+07	9.38E+07	9.74E+07	1.01E+08	1.04E+08	1.07E+08	1.10E+08
3.75E+00	9.55E+03	8.41E+03	7.73E+03	7.28E+03	6.97E+03	6.75E+03	6.60E+03
4.25E+00	5.45E+03	4.81E+03	4.42E+03	4.16E+03	3.98E+03	3.86E+03	3.78E+03
4.75E+00	3.12E+03	2.75E+03	2.53E+03	2.38E+03	2.28E+03	2.21E+03	2.17E+03
5.50E+00	2.78E+03	2.45E+03	2.25E+03	2.12E+03	2.04E+03	1.98E+03	1.94E+03
0 total	3.81E+13	3.10E+12	3.06E+12	3.04E+12	3.02E+12	3.01E+12	3.00E+12
0 mev/sec	3.57E+12	6.06E+11	6.25E+11	6.43E+11	6.60E+11	6.76E+11	6.91E+11

0 actinide energy release rates, mev/watt-sec
basis = single reactor assembly

0

emean (mev)	time after discharge initial******* d	******* d	******* d	******* d	******* d	******* d	******* d
1.00E-02	1.81E+08	1.78E+07	1.70E+07	1.64E+07	1.59E+07	1.55E+07	1.51E+07
3.00E-02	3.48E+07	4.16E+06	4.27E+06	4.38E+06	4.48E+06	4.57E+06	4.67E+06
5.50E-02	7.87E+07	5.07E+06	5.20E+06	5.32E+06	5.44E+06	5.55E+06	5.66E+06
8.50E-02	5.66E+08	2.41E+07	2.45E+07	2.49E+07	2.53E+07	2.57E+07	2.61E+07
1.20E-01	7.99E+08	6.70E+06	6.82E+06	6.93E+06	7.04E+06	7.15E+06	7.26E+06
1.70E-01	4.41E+07	9.03E+06	9.27E+06	9.50E+06	9.72E+06	9.93E+06	1.01E+07
3.00E-01	1.15E+09	1.08E+08	1.10E+08	1.13E+08	1.15E+08	1.17E+08	1.19E+08
6.50E-01	2.33E+08	1.23E+08	1.28E+08	1.32E+08	1.36E+08	1.40E+08	1.44E+08
1.13E+00	3.44E+08	9.61E+07	9.96E+07	1.03E+08	1.06E+08	1.09E+08	1.12E+08
1.58E+00	1.48E+08	1.54E+08	1.60E+08	1.66E+08	1.71E+08	1.76E+08	1.80E+08
2.00E+00	3.91E+07	4.07E+07	4.22E+07	4.36E+07	4.50E+07	4.62E+07	4.74E+07
2.40E+00	2.77E+07	2.88E+07	2.99E+07	3.09E+07	3.19E+07	3.28E+07	3.37E+07
2.80E+00	1.24E+06	1.04E+06	1.08E+06	1.12E+06	1.15E+06	1.18E+06	1.22E+06
3.25E+00	2.99E+05	3.12E+05	3.23E+05	3.34E+05	3.45E+05	3.55E+05	3.64E+05
3.75E+00	3.66E+01	3.22E+01	2.96E+01	2.79E+01	2.67E+01	2.59E+01	2.53E+01
4.25E+00	2.37E+01	2.09E+01	1.92E+01	1.81E+01	1.73E+01	1.68E+01	1.64E+01
4.75E+00	1.52E+01	1.34E+01	1.23E+01	1.16E+01	1.11E+01	1.08E+01	1.05E+01
5.50E+00	1.56E+01	1.38E+01	1.27E+01	1.19E+01	1.14E+01	1.11E+01	1.09E+01
0 total	3.65E+09	6.19E+08	6.38E+08	6.57E+08	6.74E+08	6.91E+08	7.06E+08
0 gamma watts	5.72E-01	9.71E-02	1.00E-01	1.03E-01	1.06E-01	1.08E-01	1.11E-01

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neutron source intensity as a function of time

0 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2
alpha-n neutron source, neutrons/sec/basis
basis = single reactor assembly

	initial ******* d	******* d	******* d	******* d	******* d	******* d
pb210	1.71E-05	1.78E-05	1.85E-05	1.91E-05	1.97E-05	2.02E-05	2.08E-05
bi210	4.36E-03	4.54E-03	4.71E-03	4.87E-03	5.02E-03	5.16E-03	5.30E-03
bi211	5.39E+02	5.38E+02	5.38E+02	5.37E+02	5.37E+02	5.37E+02	5.37E+02

bi212	2.93E+00	5.22E-03	5.49E-03	5.75E-03	6.01E-03	6.27E-03	6.53E-03
bi213	3.62E+01	3.82E+01	4.02E+01	4.22E+01	4.42E+01	4.62E+01	4.81E+01
bi214	1.98E+00	2.06E+00	2.14E+00	2.21E+00	2.28E+00	2.34E+00	2.40E+00
po210	5.37E+03	5.59E+03	5.80E+03	6.00E+03	6.18E+03	6.36E+03	6.53E+03
po211	2.14E+00	2.13E+00	2.13E+00	2.13E+00	2.13E+00	2.12E+00	2.12E+00
po212	1.50E+01	2.68E-02	2.81E-02	2.94E-02	3.08E-02	3.21E-02	3.35E-02
po213	4.78E+03	5.04E+03	5.31E+03	5.57E+03	5.84E+03	6.10E+03	6.35E+03
po214	1.76E+04	1.83E+04	1.90E+04	1.97E+04	2.03E+04	2.09E+04	2.14E+04
po215	7.62E+02	7.61E+02	7.60E+02	7.59E+02	7.59E+02	7.58E+02	7.58E+02
po216	1.17E+01	2.09E-02	2.19E-02	2.30E-02	2.40E-02	2.51E-02	2.61E-02
po218	8.39E+03	8.73E+03	9.06E+03	9.37E+03	9.66E+03	9.93E+03	1.02E+04
at217	3.10E+03	3.27E+03	3.44E+03	3.61E+03	3.78E+03	3.95E+03	4.12E+03
rn218	2.63E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rn219	6.06E+02	6.05E+02	6.04E+02	6.04E+02	6.03E+02	6.03E+02	6.03E+02
rn220	9.28E+00	1.65E-02	1.74E-02	1.82E-02	1.90E-02	1.99E-02	2.07E-02
rn222	6.12E+03	6.38E+03	6.61E+03	6.84E+03	7.05E+03	7.25E+03	7.44E+03
fr221	2.26E+03	2.39E+03	2.51E+03	2.64E+03	2.76E+03	2.88E+03	3.00E+03
fr223	2.30E-04	2.29E-04	2.29E-04	2.29E-04	2.29E-04	2.29E-04	2.29E-04
ra222	2.04E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ra223	3.51E+02	3.50E+02	3.50E+02	3.49E+02	3.49E+02	3.49E+02	3.49E+02
ra224	6.56E+00	1.17E-02	1.23E-02	1.29E-02	1.34E-02	1.40E-02	1.46E-02
ra226	3.58E+03	3.73E+03	3.87E+03	4.00E+03	4.12E+03	4.24E+03	4.35E+03
ac225	1.62E+03	1.71E+03	1.81E+03	1.90E+03	1.98E+03	2.07E+03	2.16E+03
ac227	2.59E+00	2.58E+00	2.58E+00	2.58E+00	2.57E+00	2.57E+00	2.57E+00
ac228	1.85E-10	1.96E-10	2.06E-10	2.17E-10	2.28E-10	2.38E-10	2.49E-10
th226	1.84E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th227	3.87E+02	3.86E+02	3.86E+02	3.86E+02	3.85E+02	3.85E+02	3.85E+02
th228	5.53E+00	9.86E-03	1.04E-02	1.08E-02	1.13E-02	1.18E-02	1.23E-02
th229	9.49E+02	1.00E+03	1.05E+03	1.11E+03	1.16E+03	1.21E+03	1.26E+03
th230	3.38E+03	3.51E+03	3.64E+03	3.75E+03	3.87E+03	3.97E+03	4.07E+03
th232	2.35E-03	2.49E-03	2.63E-03	2.77E-03	2.90E-03	3.04E-03	3.18E-03
pa231	2.06E+02	2.06E+02	2.06E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02
u230	1.45E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u231	1.07E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u232	5.15E+00	5.59E-04	5.45E-04	5.31E-04	5.18E-04	5.05E-04	4.93E-04
u233	9.52E+02	9.99E+02	1.04E+03	1.09E+03	1.13E+03	1.18E+03	1.22E+03
u234	7.45E+03	7.38E+03	7.31E+03	7.25E+03	7.18E+03	7.11E+03	7.05E+03
u235	1.23E+02	1.23E+02	1.23E+02	1.24E+02	1.24E+02	1.25E+02	1.25E+02
u236	1.17E+03	1.17E+03	1.17E+03	1.17E+03	1.17E+03	1.17E+03	1.17E+03
u238	8.30E+02	8.30E+02	8.30E+02	8.30E+02	8.30E+02	8.30E+02	8.30E+02
np235	2.86E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np237	3.20E+03	3.19E+03	3.19E+03	3.18E+03	3.18E+03	3.18E+03	3.17E+03
pu236	1.75E-02	7.47E-04	7.29E-04	7.11E-04	6.93E-04	6.76E-04	6.59E-04
pu237	2.85E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	9.75E+03	1.80E-10	1.67E-19	2.18E-28	.00E+00	.00E+00	.00E+00

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neutron source intensity as a function of time

0 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2
alpha-n neutron source, neutrons/sec/basis
basis = single reactor assembly

initial ******* d ******* d ******* d ******* d ******* d ******* d

pu239	2.45E+05	2.18E+05	1.93E+05	1.71E+05	1.52E+05	1.35E+05	1.20E+05
pu240	9.15E+03	5.89E+03	3.79E+03	2.44E+03	1.57E+03	1.01E+03	6.52E+02
pu241	4.05E-03	2.22E-15	1.58E-15	1.13E-15	8.02E-16	5.71E-16	4.07E-16
pu242	2.60E-02	2.58E-02	2.56E-02	2.54E-02	2.52E-02	2.51E-02	2.49E-02
pu244	5.01E-23	5.90E-23	6.78E-23	7.66E-23	8.53E-23	9.39E-23	1.02E-22
am239	3.39E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

am240	5.32E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am241	2.61E+02	3.40E-01	4.29E-04	5.40E-07	7.34E-10	3.97E-11	2.76E-11
am242m	1.74E-04	2.22E-13	2.83E-22	3.68E-31	.00E+00	.00E+00	.00E+00
am243	6.23E-03	4.21E-03	2.84E-03	1.92E-03	1.30E-03	8.78E-04	5.93E-04
cm241	5.44E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm242	3.33E-01	6.89E-11	8.78E-20	1.11E-28	.00E+00	.00E+00	.00E+00
cm243	1.32E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm244	5.23E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm245	1.96E-10	1.39E-10	9.91E-11	7.06E-11	5.02E-11	3.58E-11	2.55E-11
cm246	2.28E-12	1.24E-12	6.74E-13	3.66E-13	1.99E-13	1.08E-13	5.86E-14
cm247	1.24E-18	1.24E-18	1.24E-18	1.24E-18	1.24E-18	1.24E-18	1.24E-18
cm248	3.72E-19	3.69E-19	3.66E-19	3.63E-19	3.60E-19	3.57E-19	3.54E-19
bk249	7.86E-26	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf249	7.42E-21	1.96E-24	5.28E-28	.00E+00	.00E+00	.00E+00	.00E+00
cf250	3.48E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf251	2.44E-28	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
0 total	3.38E+05	3.00E+05	2.76E+05	2.55E+05	2.37E+05	2.21E+05	2.08E+05

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neutron source intensity as a function of time

0 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2
spontaneous fission neutron source, neutrons/sec/basis
basis = single reactor assembly

	initial *******	d *******	d *******	d *******	d *******	d *******	d
th230	8.67E-02	9.01E-02	9.33E-02	9.64E-02	9.92E-02	1.02E-01	1.04E-01
pa231	2.58E-02	2.58E-02	2.58E-02	2.57E-02	2.57E-02	2.57E-02	2.57E-02
u232	3.17E-04	3.43E-08	3.35E-08	3.26E-08	3.18E-08	3.10E-08	3.03E-08
u234	1.60E+01	1.59E+01	1.57E+01	1.56E+01	1.54E+01	1.53E+01	1.52E+01
u235	1.50E+00	1.51E+00	1.51E+00	1.52E+00	1.52E+00	1.52E+00	1.53E+00
u236	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02
u237	1.65E-10	8.13E-29	5.79E-29	4.12E-29	2.93E-29	2.09E-29	1.49E-29
u238	1.17E+05	1.17E+05	1.17E+05	1.17E+05	1.17E+05	1.17E+05	1.17E+05
u239	1.15E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	1.00E-07	9.79E-08	9.55E-08	9.31E-08	9.08E-08	8.86E-08	8.64E-08
np238	2.37E-09	6.51E-26	8.29E-35	.00E+00	.00E+00	.00E+00	.00E+00
np239	2.35E-06	4.36E-14	2.95E-14	1.99E-14	1.35E-14	9.10E-15	6.15E-15
pu236	1.18E-03	5.06E-05	4.93E-05	4.81E-05	4.69E-05	4.57E-05	4.46E-05
pu238	1.80E+03	3.32E-11	3.08E-20	3.92E-29	4.94E-38	.00E+00	.00E+00
pu239	1.31E+02	1.17E+02	1.03E+02	9.17E+01	8.14E+01	7.22E+01	6.40E+01
pu240	6.08E+04	3.92E+04	2.52E+04	1.62E+04	1.05E+04	6.74E+03	4.34E+03
pu241	1.46E-04	8.00E-17	5.70E-17	4.06E-17	2.89E-17	2.06E-17	1.46E-17
pu242	2.03E+01	2.01E+01	2.00E+01	1.98E+01	1.97E+01	1.95E+01	1.94E+01
pu243	2.02E-13	5.36E-29	5.36E-29	5.36E-29	5.36E-29	5.36E-29	5.36E-29
pu244	1.20E-17	1.41E-17	1.62E-17	1.83E-17	2.04E-17	2.25E-17	2.45E-17
am241	1.00E-01	1.31E-04	1.65E-07	2.08E-10	2.83E-13	1.53E-14	1.06E-14
am242m	8.28E-04	1.05E-12	1.34E-21	1.71E-30	2.18E-39	.00E+00	.00E+00
am242	5.54E-06	1.14E-15	1.46E-24	1.91E-33	.00E+00	.00E+00	.00E+00
am243	2.87E-05	1.94E-05	1.31E-05	8.85E-06	5.98E-06	4.04E-06	2.73E-06
am244	7.08E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm242	1.66E+00	3.44E-10	4.38E-19	5.58E-28	.00E+00	.00E+00	.00E+00
cm243	2.87E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm244	6.82E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm245	5.30E-11	3.78E-11	2.69E-11	1.91E-11	1.36E-11	9.70E-12	6.90E-12
cm246	8.24E-08	4.47E-08	2.43E-08	1.32E-08	7.17E-09	3.89E-09	2.11E-09
cm248	6.09E-12	6.04E-12	5.99E-12	5.94E-12	5.89E-12	5.84E-12	5.79E-12
cm250	3.25E-25	2.75E-25	2.33E-25	1.97E-25	1.67E-25	1.42E-25	1.20E-25
bk249	4.34E-22	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf249	4.51E-21	1.19E-24	3.15E-28	8.30E-32	2.19E-35	5.75E-39	.00E+00

	cf250	2.92E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
0	total	1.80E+05	1.57E+05	1.43E+05	1.34E+05	1.28E+05	1.24E+05	1.22E+05
0	total	5.18E+05	4.56E+05	4.18E+05	3.88E+05	3.65E+05	3.45E+05	3.29E+05

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alpha-n neutron source spectrum as a function of time
(using reaction spectra for uranium dioxide)

0 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2
alpha-n neutron spectra, neutrons/sec/basis
basis = single reactor assembly

	boundaries, mev	initial	******* d	******* d	******* d	******* d	******* d	******* d
1	6.43E+00 - 2.00E+01	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
2	3.00E+00 - 6.43E+00	6.551E+04	7.948E+04	6.965E+04	6.438E+04	5.983E+04	5.589E+04	5.246E+04
3	1.85E+00 - 3.00E+00	1.856E+05	1.578E+05	1.442E+05	1.333E+05	1.239E+05	1.157E+05	1.086E+05
4	1.40E+00 - 1.85E+00	4.984E+04	3.679E+04	3.606E+04	3.333E+04	3.098E+04	2.893E+04	2.716E+04
5	9.00E-01 - 1.40E+00	2.804E+04	1.950E+04	1.923E+04	1.778E+04	1.652E+04	1.543E+04	1.449E+04
6	4.00E-01 - 9.00E-01	8.144E+03	5.431E+03	5.460E+03	5.047E+03	4.691E+03	4.382E+03	4.113E+03
7	1.00E-01 - 4.00E-01	1.273E+03	8.592E+02	9.616E+02	8.888E+02	8.260E+02	7.716E+02	7.243E+02
8	1.70E-02 - 1.00E-01	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
9	3.00E-03 - 1.70E-02	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
10	5.50E-04 - 3.00E-03	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
11	1.00E-04 - 5.50E-04	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
12	3.00E-05 - 1.00E-04	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
13	1.00E-05 - 3.00E-05	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
14	3.05E-06 - 1.00E-05	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
15	1.77E-06 - 3.05E-06	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
16	1.30E-06 - 1.77E-06	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
17	1.13E-06 - 1.30E-06	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
18	1.00E-06 - 1.13E-06	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
19	8.00E-07 - 1.00E-06	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
20	4.00E-07 - 8.00E-07	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
21	3.25E-07 - 4.00E-07	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
22	2.25E-07 - 3.25E-07	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
23	1.00E-07 - 2.25E-07	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
24	5.00E-08 - 1.00E-07	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
25	3.00E-08 - 5.00E-08	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
26	1.00E-08 - 3.00E-08	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
27	1.00E-11 - 1.00E-08	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
0		3.384E+05	2.999E+05	2.756E+05	2.547E+05	2.367E+05	2.211E+05	2.076E+05

1 page 308

spontaneous fission neutron source spectrum as a function of time

0 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2
spontaneous fission neutron spectra, neutrons/sec/basis
basis = single reactor assembly

	boundaries, mev	initial	******* d	******* d	******* d	******* d	******* d	******* d
1	6.43E+00 - 2.00E+01	3.438E+03	2.967E+03	2.684E+03	2.514E+03	2.405E+03	2.335E+03	2.290E+03
2	3.00E+00 - 6.43E+00	3.768E+04	3.279E+04	2.988E+04	2.800E+04	2.678E+04	2.600E+04	2.550E+04
3	1.85E+00 - 3.00E+00	4.106E+04	3.558E+04	3.231E+04	3.027E+04	2.896E+04	2.811E+04	2.757E+04
4	1.40E+00 - 1.85E+00	2.327E+04	2.036E+04	1.865E+04	1.748E+04	1.672E+04	1.623E+04	1.592E+04
5	9.00E-01 - 1.40E+00	3.194E+04	2.792E+04	2.555E+04	2.393E+04	2.290E+04	2.223E+04	2.180E+04
6	4.00E-01 - 9.00E-01	3.559E+04	3.086E+04	2.803E+04	2.626E+04	2.512E+04	2.439E+04	2.391E+04
7	1.00E-01 - 4.00E-01	7.026E+03	6.065E+03	5.488E+03	5.142E+03	4.919E+03	4.775E+03	4.683E+03
8	1.70E-02 - 1.00E-01	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
9	3.00E-03 - 1.70E-02	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00

10	5.50E-04 - 3.00E-03	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
11	1.00E-04 - 5.50E-04	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
12	3.00E-05 - 1.00E-04	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
13	1.00E-05 - 3.00E-05	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
14	3.05E-06 - 1.00E-05	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
15	1.77E-06 - 3.05E-06	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
16	1.30E-06 - 1.77E-06	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
17	1.13E-06 - 1.30E-06	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
18	1.00E-06 - 1.13E-06	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
19	8.00E-07 - 1.00E-06	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
20	4.00E-07 - 8.00E-07	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
21	3.25E-07 - 4.00E-07	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
22	2.25E-07 - 3.25E-07	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
23	1.00E-07 - 2.25E-07	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
24	5.00E-08 - 1.00E-07	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
25	3.00E-08 - 5.00E-08	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
26	1.00E-08 - 3.00E-08	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
27	1.00E-11 - 1.00E-08	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
0		1.800E+05	1.565E+05	1.426E+05	1.336E+05	1.278E+05	1.241E+05	1.217E+05

1

total (alpha-n plus spon. fission) neutron source spectrum as a function of time
(using reaction spectra for uranium dioxide)

0 sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2
neutron spectra, neutrons/sec/basis
basis = single reactor assembly

	boundaries, mev	initial ******* d	******* d	******* d	******* d	******* d	******* d
1	6.43E+00 - 2.00E+01	3.438E+03	2.967E+03	2.684E+03	2.514E+03	2.405E+03	2.335E+03	2.290E+03
2	3.00E+00 - 6.43E+00	1.032E+05	1.123E+05	9.953E+04	9.238E+04	8.661E+04	8.189E+04	7.796E+04
3	1.85E+00 - 3.00E+00	2.266E+05	1.934E+05	1.765E+05	1.636E+05	1.529E+05	1.438E+05	1.362E+05
4	1.40E+00 - 1.85E+00	7.311E+04	5.716E+04	5.471E+04	5.081E+04	4.769E+04	4.516E+04	4.308E+04
5	9.00E-01 - 1.40E+00	5.998E+04	4.742E+04	4.478E+04	4.171E+04	3.942E+04	3.766E+04	3.628E+04
6	4.00E-01 - 9.00E-01	4.373E+04	3.629E+04	3.349E+04	3.131E+04	2.981E+04	2.877E+04	2.803E+04
7	1.00E-01 - 4.00E-01	8.299E+03	6.925E+03	6.449E+03	6.031E+03	5.745E+03	5.547E+03	5.407E+03
8	1.70E-02 - 1.00E-01	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
9	3.00E-03 - 1.70E-02	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
10	5.50E-04 - 3.00E-03	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
11	1.00E-04 - 5.50E-04	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
12	3.00E-05 - 1.00E-04	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
13	1.00E-05 - 3.00E-05	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
14	3.05E-06 - 1.00E-05	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
15	1.77E-06 - 3.05E-06	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
16	1.30E-06 - 1.77E-06	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
17	1.13E-06 - 1.30E-06	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
18	1.00E-06 - 1.13E-06	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
19	8.00E-07 - 1.00E-06	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
20	4.00E-07 - 8.00E-07	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
21	3.25E-07 - 4.00E-07	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
22	2.25E-07 - 3.25E-07	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
23	1.00E-07 - 2.25E-07	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
24	5.00E-08 - 1.00E-07	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
25	3.00E-08 - 5.00E-08	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
26	1.00E-08 - 3.00E-08	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
27	1.00E-11 - 1.00E-08	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00	.000E+00
0		5.184E+05	4.564E+05	4.182E+05	3.883E+05	3.646E+05	3.452E+05	3.292E+05

1

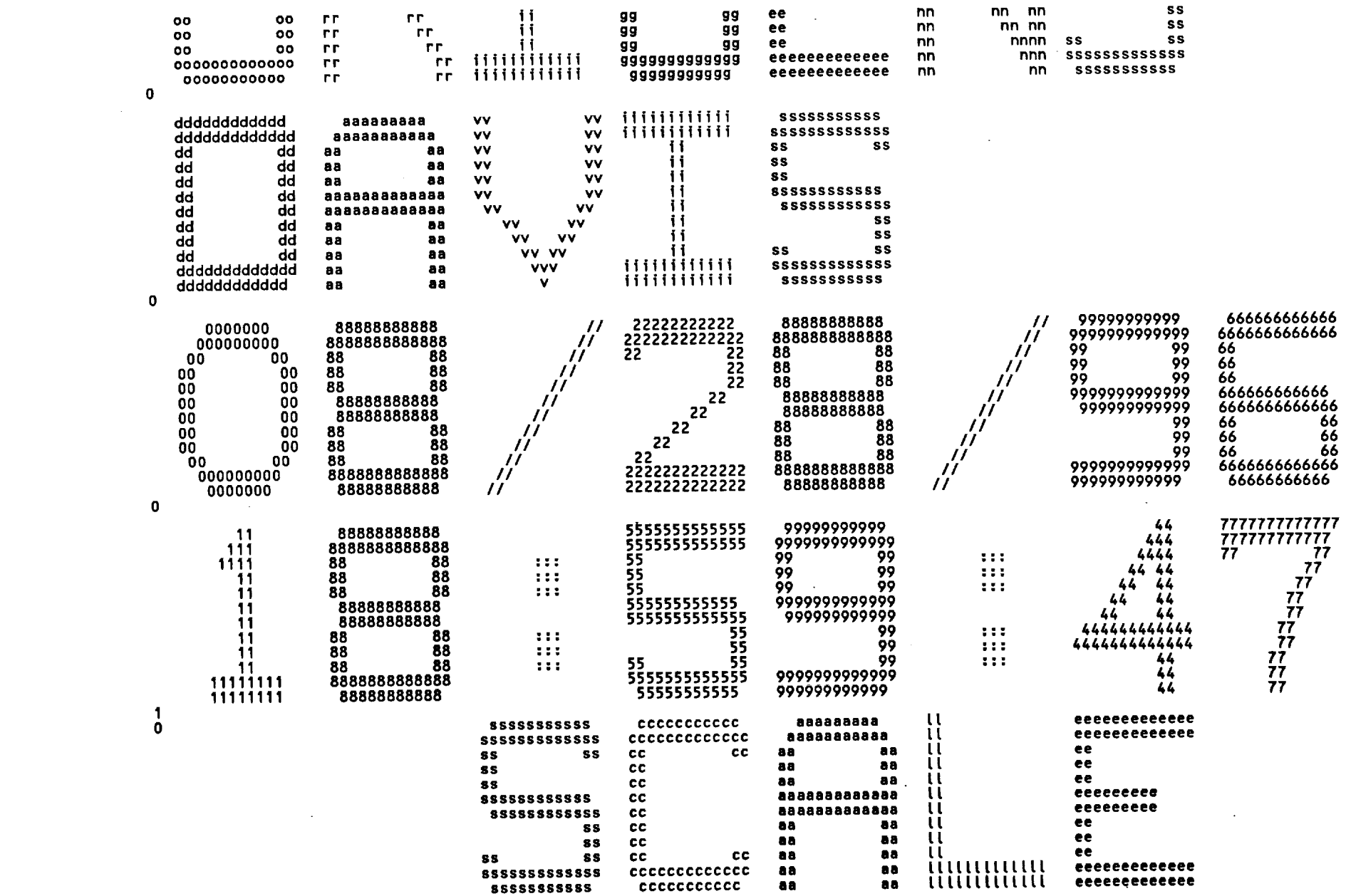
1 * gamma sources determined *

0case applies the following photon data base

```
                    master photon library
                    in binary mode
0    the sources include photons of nuclides for...

       light elements
       actinides
       fission products
1                       gamma source spectrum for gamma lines (sas2)
0                                    9131250.00  day time of the requested nuclides
0                            energy interval in mev       photons / second     mev / second
0
                        1.0000E-02 to       5.0000E-02        6.9808E+11        2.0942E+10
                        5.0000E-02 to       1.0000E-01        3.8584E+11        2.8938E+10
                        1.0000E-01 to       2.0000E-01        1.1289E+11        1.6934E+10
                        2.0000E-01 to       3.0000E-01        1.4488E+11        3.6220E+10
                        3.0000E-01 to       4.0000E-01        2.2971E+11        8.0400E+10
                        4.0000E-01 to       6.0000E-01        4.4709E+10        2.2354E+10
                        6.0000E-01 to       8.0000E-01        1.7332E+11        1.2132E+11
                        8.0000E-01 to       1.0000E+00        2.0805E+10        1.8725E+10
                        1.0000E+00 to       1.3300E+00        8.4120E+10        9.7999E+10
                        1.3300E+00 to       1.6600E+00        4.4072E+10        6.5888E+10
                        1.6600E+00 to       2.0000E+00        7.0645E+10        1.2928E+11
                        2.0000E+00 to       2.5000E+00        2.6955E+10        6.0650E+10
                        2.5000E+00 to       3.0000E+00        4.4295E+08        1.2181E+09
                        3.0000E+00 to       4.0000E+00        1.0172E+08        3.5601E+08
                        4.0000E+00 to       5.0000E+00        5.8590E+03        2.6366E+04
                        5.0000E+00 to       6.5000E+00        2.3016E+03        1.3234E+04
                        6.5000E+00 to       8.0000E+00        4.4274E+02        3.2099E+03
                        8.0000E+00 to       1.0000E+01        9.2729E+01        8.3456E+02
0                       totals                                2.0366E+12        7.0123E+11
0
0                       total energy from nuclides with spectrum data    =   7.0123E+11
0                       total energy from nuclides with no spectrum data =   5.7340E+01
1
0  .results on logical unit no. 71, position  2, for time step  6, subcase32. (run position 1, case position 2)
   title: sas2h: far-field crit based on b&w 15x15, 3.00wt%, 20gwd/mtu 40% h2o/ 8% uo2
0     .terminated logical unit no. 71 with zero flag record.
1  * normal termination of execution *
```

```
1          primary module access and input record ( scale driver - 95/03/29 - 09:06:37 )
-    module origens  will be called
       0$$  a8 26 a11 71 e
       1$$ 1  1t
        DBF Fuel 8% UO2 in Tuff (47% water) 1K yr burn
       3$$ 21 0 1 e
       '   3$$ 21 0 1  a33  -88
       2t
       35$$ 0  t
       '  54$$ a8 1 e
       '   56$$ 0 7 a5 1 a13 -1 a15 3 0 4 e   5t
       56$$ 0 7 a13 -1 a15 3 0 4 e   5t
       Part B 8% UO2 in Tuff (47%  H2O) DBF Fuel  1K yr burn
       per critical mass 10.1 MT UO2
       60**  0 1 90 365.25 730.5 1826.25  3652.5
       '  61** f1-20
       '  65$$ a4 1 2z 1 2z 1 5z 1 2z 1
       '   a25 1 2z 1 2z 1 5z 1 2z 1
       '   a46 1 2z 1 2z 1 5z 1 2z 1 e
       65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
       6t
       '   56$$ 0 -6 a10 1  e  t
       56$$ 0 10 a10 7 a14 5 a17 4 e  57** 10  e  5t
       60**  15 20 30 50 100 150 200 250 300 400
       '  61** f1-20
       '  65$$ a4 1 2z 1 2z 1 5z 1 2z 1
       '   a25 1 2z 1 2z 1 5z 1 2z 1
       '   a46 1 2z 1 2z 1 5z 1 2z 1 e
       65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
       6t
       56$$ 0 10 a10 10 a14 5 a17 4 e  57** 400  e  5t
       60**  500 1+3 2+3 4+3 6+3 8+3 1+4 1.2+4 1.4+4 1.6+4
       '    61** f1-20
       65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
       6t
       56$$ 0 10 a10 10 a14 5 a17 4 e  57** 1.6+4  e  5t
       60**  1.8+4 2.0+4 2.2+4 2.4+4 2.6+4 2.8+4 3+4 3.2+4 3.6+4 3.8+4
       '  61** f1-20
       65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
       6t
       56$$ 0 10 a10 10 a14 5 a17 4 e  57** 3.8+4  e  5t
       60**  4+4 4.5+4 5+4 5.5+4 6+4 6.5+4 7+4 1+5 2+5 2.5+5
       '    61** f1-20
       65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
       6t
       56$$ 0 3 a10 10 a14 5 a17 4 e  57** 2.5+5  e  5t
       60**  3+5 5+5 999999
       '  61** f1-20
       65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
       6t
       '   56$$ 0 -10 a10 1 e  t
       56$$ f0  t
 0   module origens  is finished. completion code     0. cpu time used     7.00 (seconds).
 1   oooooooooo     rrrrrrrrrrr    iiiiiiiiiii     ggggggggggg     eeeeeeeeeeeee   nn          nn   sssssssssss
    oooooooooooo    rrrrrrrrrrrr   iiiiiiiiiii    ggggggggggggg    eeeeeeeeeeeee   nnn         nn  sssssssssssss
    oo          oo  rr          rr        ii      gg          gg  ee              nnnn        nn  ss          ss
    oo          oo  rr          rr        ii      gg              ee              nn nn       nn  ss
    oo          oo  rr          rr        ii      gg              ee              nn   nn     nn  ss
    oo          oo  rrrrrrrrrrrr          ii      gg    ggggggg   eeeeeeeee       nn    nn    nn  sssssssssss
    oo          oo  rrrrrrrrrrrr          ii      gg    ggggggg   eeeeeeeee       nn     nn   nn   sssssssssss
```



```
                    ********************************************************************************
                    ********************************************************************************
                    ********************************************************************************
                    *****                                                                      *****
                    *****                  program verification information                   *****
                    *****                                                                      *****
                    *****                 code system:    scale  version:    4.3             *****
                    *****                                                                      *****
                    ********************************************************************************
                    ********************************************************************************
                    *****                                                                      *****
                    *****                                                                      *****
                    *****              program:  origen                                        *****
                    *****                                                                      *****
                    *****         creation date:  03/13/96                                     *****
                    *****                                                                      *****
                    *****              library:  /usr1/ornl/Scale/bin                          *****
                    *****                                                                      *****
                    *****                                                                      *****
                    *****             test code:  origens                                      *****
                    *****                                                                      *****
                    *****               version:  3.0                                          *****
                    *****                                                                      *****
                    *****               jobname:  davis                                        *****
                    *****                                                                      *****
                    *****     date of execution:  08/28/96                                     *****
                    *****                                                                      *****
                    *****     time of execution:  18:59:48                                     *****
                    *****                                                                      *****
                    *****                                                                      *****
                    ********************************************************************************
                    ********************************************************************************
                    ********************************************************************************
1
1          * input echo * (with break between col. 1-72 and 73-80)
0       note:  only comments are permitted after column 72.
0-------------------only this is used as input data.-------------------          comment or title end
0.............................columns 1-72.............................                ..73-80.

 0$$  a8 26 a11 71 e
 1$$ 1  1t
  DBF Fuel 8% UO2 in Tuff (47% water) 1K yr burn
 3$$ 21 0 1 e
 '   3$$ 21 0 1  a33  -88
 2t
 35$$ 0  t
 '  54$$ a8 1 e
 '   56$$ 0 7 a5 1 a13 -1 a15 3 0 4 e   5t
 56$$ 0 7 a13 -1 a15 3 0 4 e   5t
 Part B 8% UO2 in Tuff (47%  H2O) DBF Fuel  1K yr burn
 per critical mass 10.1 MT UO2
 60**  0 1 90 365.25 730.5 1826.25  3652.5
 '  61** f1-20
 '  65$$ a4 1 2z 1 2z 1 5z 1 2z 1
 '   a25 1 2z 1 2z 1 5z 1 2z 1
```

```
 '   a46 1 2z 1 2z 1 5z 1 2z 1 e
 65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
 6t
 '   56$$ 0 -6 a10 1  e  t
 56$$ 0 10 a10 7 a14 5 a17 4 e  57** 10  e  5t
 60**  15 20 30 50 100 150 200 250 300 400
 '  61** f1-20
 '  65$$ a4 1 2z 1 2z 1 5z 1 2z 1
 '   a25 1 2z 1 2z 1 5z 1 2z 1
 '   a46 1 2z 1 2z 1 5z 1 2z 1 e
 65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
 6t
 56$$ 0 10 a10 10 a14 5 a17 4 e  57** 400  e  5t
 60**  500 1+3 2+3 4+3 6+3 8+3 1+4 1.2+4 1.4+4 1.6+4
 '    61** f1-20
 65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
 6t
 56$$ 0 10 a10 10 a14 5 a17 4 e  57** 1.6+4  e  5t
 60**  1.8+4 2.0+4 2.2+4 2.4+4 2.6+4 2.8+4 3+4 3.2+4 3.6+4 3.8+4
 '  61** f1-20
 65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
 6t
 56$$ 0 10 a10 10 a14 5 a17 4 e  57** 3.8+4  e  5t
 60**  4+4 4.5+4 5+4 5.5+4 6+4 6.5+4 7+4 1+5 2+5 2.5+5
 '    61** f1-20
 65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
 6t
 56$$ 0 3 a10 10 a14 5 a17 4 e  57** 2.5+5  e  5t
 60**  3+5 5+5 999999
 '  61** f1-20
 65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
 6t
 '   56$$ 0 -10 a10 1 e  t
 56$$ f0  t
0when job "fails", make sure no fido input.....................................is out here!

0    0$ array     12 entries read
0    1$ array      1 entries read
0    1t
0         dbl. prec. machine word applied has, at least, a 16 significant figure accuracy.
0             short-lived split test fraction, qxn =    9.1188E-04
0             half-norm of matrix used, axn =    7.0000E+00
0             4-place-accuracy-retention ratio, ratio4 =    6.4516E-13
    3$$ 21 0 1  a33  -88
0    3$ array     33 entries read
0    2t
1library information...

          cross-section data taken from position number  1 of library on unit 21.

          pass   1
          pass   0
          *scale-system control module sas2 library*
          used a time-dependent neutron spectrum, for each of the above passes
            pass 0 applies start-up fuel densiities
            pass n applies mid time densities of nth library interval
          first library updated was...
          ********************************************************************************
          *                                                                              *
          *            prelim lwr origen-s binary working library--id = 1143             *
```

```
          *      made from modified card-image origen-s libraries of scale 4.2      *
          *   data from the light element, actinide, and fission product libraries  *
          *     decay data, including gamma and total energy, are from endf/b-vi    *
          *                                                                         *
          *    neutron flux spectrum factors and cross sections were produced from  *
          *   the "presas2" case updating all nuclides on the scale "burnup" library *
          *                                                                         *
          *               fission product yields are from endf/b-v                  *
          *                                                                         *
          *             photon libraries use an 18-energy-group structure           *
          *            the photon data are from the master photon data base,        *
          *             produced to include bremsstrahlung from uo2 matrix          *
          *                                                                         *
          *      see information above this box (if present) for later updates      *
          *                                                                         *
          ***************************************************************************
          *                                                                         *
0         ***************************************************************************
0                  .other identification and sizes of library.
0                   data set name:  /usr1/ornl/Scale/data/prlimlwr
0               3/13/1996    date library was produced
0                    1697    total number of nuclides in library
                      689    number of light-element nuclides
                      129    number of actinide nuclides
                      879    number of fission product nuclides
0                    7935    number of nonzero off-diagonal matrix elements
0         ***************************************************************************
0obtaining data from position no.    1 on unit no.   71
1
```

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn   actinides   page 1

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
he 4	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.14E+00	1.15E+00	1.15E+00
tl206	1.30E-16	1.30E-16	1.30E-16	1.31E-16	1.31E-16	1.31E-16	1.31E-16	1.32E-16	1.33E-16
tl207	3.99E-11	3.99E-11	3.99E-11	3.99E-11	3.99E-11	4.00E-11	4.01E-11	4.02E-11	4.04E-11
tl208	1.54E-12	1.54E-12	1.54E-12	1.58E-12	1.55E-12	1.54E-12	1.52E-12	1.48E-12	1.41E-12
tl209	6.69E-14	6.69E-14	6.69E-14	6.69E-14	6.69E-14	6.70E-14	6.72E-14	6.75E-14	6.82E-14
pb206	2.89E-03	2.89E-03	2.89E-03	2.89E-03	2.89E-03	2.89E-03	2.90E-03	2.93E-03	2.97E-03
pb207	1.48E-03	1.48E-03	1.48E-03	1.48E-03	1.48E-03	1.49E-03	1.49E-03	1.50E-03	1.51E-03
pb208	2.56E-04	2.56E-04	2.56E-04	2.56E-04	2.56E-04	2.57E-04	2.57E-04	2.59E-04	2.61E-04
pb209	2.83E-10	2.83E-10	2.83E-10	2.69E-10	2.83E-10	2.83E-10	2.84E-10	2.85E-10	2.88E-10
pb210	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.81E-04	2.82E-04	2.82E-04	2.84E-04	2.87E-04
pb211	3.09E-10	3.09E-10	3.09E-10	3.09E-10	3.09E-10	3.10E-10	3.10E-10	3.11E-10	3.12E-10
pb212	9.15E-10	9.15E-10	9.15E-10	9.14E-10	9.17E-10	9.11E-10	9.03E-10	8.78E-10	8.37E-10
pb214	6.96E-10	6.96E-10	6.96E-10	6.96E-10	6.96E-10	6.97E-10	6.99E-10	7.03E-10	7.09E-10
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	1.77E-04	1.77E-04	1.77E-04	1.77E-04	1.78E-04	1.78E-04	1.78E-04	1.80E-04	1.83E-04
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	1.73E-07	1.73E-07	1.73E-07	1.73E-07	1.73E-07	1.74E-07	1.74E-07	1.75E-07	1.77E-07
bi211	1.83E-11	1.83E-11	1.83E-11	1.83E-11	1.83E-11	1.84E-11	1.84E-11	1.84E-11	1.85E-11
bi212	8.68E-11	8.68E-11	8.68E-11	8.86E-11	8.70E-11	8.64E-11	8.57E-11	8.33E-11	7.94E-11
bi213	6.73E-11	6.73E-11	6.73E-11	6.73E-11	6.73E-11	6.74E-11	6.75E-11	6.79E-11	6.86E-11
bi214	5.17E-10	5.17E-10	5.17E-10	5.17E-10	5.17E-10	5.18E-10	5.19E-10	5.22E-10	5.27E-10
po210	4.78E-06	4.78E-06	4.78E-06	4.78E-06	4.76E-06	4.73E-06	4.74E-06	4.79E-06	4.88E-06
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	2.02E-16	2.02E-16	2.02E-16	2.02E-16	2.02E-16	2.03E-16	2.03E-16	2.04E-16	2.05E-16
po212	4.56E-21	4.56E-21	4.56E-21	4.66E-21	4.57E-21	4.54E-21	4.50E-21	4.38E-21	4.17E-21
po213	1.01E-19	1.01E-19	1.01E-19	1.01E-19	1.01E-19	1.01E-19	1.02E-19	1.02E-19	1.03E-19
po214	7.11E-17	7.11E-17	7.11E-17	7.11E-17	7.11E-17	7.12E-17	7.14E-17	7.18E-17	7.24E-17

po215	2.59E-16	2.59E-16	2.59E-16	2.59E-16	2.58E-16	2.59E-16	2.59E-16	2.60E-16	2.62E-16
po216	3.53E-15	3.53E-15	3.53E-15	3.53E-15	3.54E-15	3.51E-15	3.48E-15	3.39E-15	3.23E-15
po218	8.20E-11	8.20E-11	8.20E-11	8.21E-11	8.21E-11	8.22E-11	8.24E-11	8.28E-11	8.36E-11
at217	8.09E-16	8.09E-16	8.09E-16	8.10E-16	8.10E-16	8.11E-16	8.12E-16	8.17E-16	8.25E-16
rn218	1.34E-26	1.34E-26	1.34E-26	1.29E-26	6.66E-28	6.92E-32	3.58E-37	.00E+00	.00E+00
rn219	5.86E-13	5.86E-13	5.86E-13	5.86E-13	5.86E-13	5.87E-13	5.88E-13	5.90E-13	5.93E-13
rn220	1.38E-12	1.38E-12	1.38E-12	1.38E-12	1.38E-12	1.37E-12	1.36E-12	1.32E-12	1.26E-12
rn222	1.48E-07	1.48E-07	1.48E-07	1.48E-07	1.48E-07	1.49E-07	1.49E-07	1.50E-07	1.51E-07
fr221	7.50E-12	7.50E-12	7.50E-12	7.50E-12	7.50E-12	7.52E-12	7.53E-12	7.58E-12	7.65E-12
fr223	2.72E-12	2.72E-12	2.72E-12	2.72E-12	2.72E-12	2.72E-12	2.72E-12	2.73E-12	2.75E-12
ra222	1.48E-23	1.48E-23	1.48E-23	1.43E-23	7.37E-25	7.65E-29	3.95E-34	.00E+00	.00E+00
ra223	1.49E-07	1.49E-07	1.49E-07	1.49E-07	1.49E-07	1.49E-07	1.49E-07	1.50E-07	1.51E-07
ra224	7.98E-09	7.98E-09	7.98E-09	7.98E-09	8.00E-09	7.95E-09	7.88E-09	7.66E-09	7.30E-09
ra225	3.32E-08	3.32E-08	3.32E-08	3.32E-08	3.32E-08	3.33E-08	3.34E-08	3.36E-08	3.39E-08
ra226	2.31E-02	2.31E-02	2.31E-02	2.31E-02	2.31E-02	2.31E-02	2.32E-02	2.33E-02	2.35E-02
ra228	4.79E-10	4.79E-10	4.79E-10	4.79E-10	4.79E-10	4.80E-10	4.80E-10	4.81E-10	4.84E-10
ac225	2.24E-08	2.24E-08	2.24E-08	2.24E-08	2.25E-08	2.25E-08	2.25E-08	2.27E-08	2.29E-08
ac227	1.05E-04	1.05E-04	1.05E-04	1.05E-04	1.05E-04	1.05E-04	1.05E-04	1.06E-04	1.06E-04
ac228	5.85E-14	5.85E-14	5.85E-14	5.85E-14	5.85E-14	5.85E-14	5.86E-14	5.88E-14	5.91E-14
th226	7.34E-22	7.34E-22	7.34E-22	7.11E-22	3.66E-23	3.80E-27	1.96E-32	.00E+00	.00E+00
th227	2.45E-07	2.45E-07	2.45E-07	2.45E-07	2.44E-07	2.45E-07	2.45E-07	2.46E-07	2.47E-07
th228	1.55E-06	1.55E-06	1.55E-06	1.55E-06	1.55E-06	1.54E-06	1.53E-06	1.49E-06	1.42E-06
th229	6.58E-03	6.58E-03	6.58E-03	6.58E-03	6.58E-03	6.59E-03	6.60E-03	6.64E-03	6.71E-03
th230	5.88E+00	5.88E+00	5.88E+00	5.88E+00	5.88E+00	5.88E+00	5.89E+00	5.91E+00	5.94E+00
th231	7.18E-07	7.18E-07	7.18E-07	7.05E-07	6.91E-07	6.91E-07	6.91E-07	6.91E-07	6.91E-07

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 2

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
th232	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.20E+00	1.21E+00	1.21E+00
th233	1.10E-11	1.10E-11	1.10E-11	4.01E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th234	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04
pa231	1.66E-01	1.66E-01	1.66E-01	1.66E-01	1.67E-01	1.67E-01	1.67E-01	1.67E-01	1.68E-01
pa232	2.86E-09	2.86E-09	2.86E-09	1.69E-09	6.00E-30	.00E+00	.00E+00	.00E+00	.00E+00
pa233	3.39E-04	3.39E-04	3.39E-04	3.39E-04	3.39E-04	3.39E-04	3.39E-04	3.39E-04	3.39E-04
pa234m	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09
pa234	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	7.24E-19	7.24E-19	7.24E-19	7.00E-19	3.61E-20	3.74E-24	1.94E-29	.00E+00	.00E+00
u231	2.38E-15	2.38E-15	2.38E-15	2.01E-15	8.46E-22	1.62E-41	.00E+00	.00E+00	.00E+00
u232	5.63E-05	5.63E-05	5.63E-05	5.63E-05	5.62E-05	5.58E-05	5.53E-05	5.38E-05	5.12E-05
u233	3.16E+00	3.16E+00	3.16E+00	3.16E+00	3.16E+00	3.16E+00	3.16E+00	3.17E+00	3.19E+00
u234	2.15E+03	2.15E+03	2.15E+03	2.15E+03	2.15E+03	2.15E+03	2.15E+03	2.15E+03	2.15E+03
u235	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05
u236	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04
u237	7.38E-04	7.38E-04	7.38E-04	6.66E-04	7.16E-08	6.28E-11	5.98E-11	5.18E-11	4.07E-11
u238	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06
u239	7.58E-05	7.58E-05	7.58E-05	2.56E-23	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	.00E+00	.00E+00	.00E+00	5.38E-42	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	2.03E-09	2.03E-09	2.03E-09	2.03E-09	1.73E-09	1.07E-09	5.66E-10	8.32E-11	3.41E-12
np236m	4.85E-10	4.85E-10	4.85E-10	2.31E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	4.62E-05	4.62E-05	4.62E-05	4.62E-05	4.62E-05	4.62E-05	4.62E-05	4.62E-05	4.62E-05
np237	9.97E+03	9.97E+03	9.97E+03	9.97E+03	9.97E+03	9.97E+03	9.97E+03	9.97E+03	9.97E+03
np238	3.68E-04	3.68E-04	3.68E-04	2.65E-04	1.38E-12	1.38E-12	1.37E-12	1.35E-12	1.32E-12
np239	1.10E-02	1.10E-02	1.10E-02	8.22E-03	8.61E-14	5.15E-14	5.15E-14	5.14E-14	5.14E-14
np240m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np240	2.23E-12	2.23E-12	2.23E-12	2.21E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pu236	2.63E-07	2.63E-07	2.63E-07	2.63E-07	2.48E-07	2.07E-07	1.63E-07	7.98E-08	2.42E-08
pu237	6.35E-11	6.35E-11	6.35E-11	6.26E-11	1.60E-11	2.34E-13	8.61E-16	4.30E-23	2.91E-35
pu238	5.57E+00	5.57E+00	5.57E+00	5.57E+00	5.56E+00	5.52E+00	5.48E+00	5.35E+00	5.14E+00
pu239	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03
pu240	5.49E+00	5.49E+00	5.49E+00	5.49E+00	5.49E+00	5.49E+00	5.49E+00	5.49E+00	5.48E+00
pu241	2.17E-03	2.17E-03	2.17E-03	2.17E-03	2.15E-03	2.07E-03	1.97E-03	1.71E-03	1.34E-03
pu242	2.20E-05	2.20E-05	2.20E-05	2.20E-05	2.20E-05	2.20E-05	2.20E-05	2.20E-05	2.21E-05
pu243	4.65E-14	4.65E-14	4.65E-14	1.62E-15	5.09E-34	5.09E-34	5.09E-34	5.09E-34	5.09E-34
pu244	3.94E-31	3.94E-31	3.94E-31	3.94E-31	3.95E-31	3.98E-31	4.02E-31	4.14E-31	4.33E-31
pu245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am239	6.66E-18	6.66E-18	6.66E-18	1.64E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am240	3.06E-15	3.06E-15	3.06E-15	2.21E-15	5.11E-28	.00E+00	.00E+00	.00E+00	.00E+00
am241	2.45E-02	2.45E-02	2.45E-02	2.45E-02	2.45E-02	2.45E-02	2.46E-02	2.47E-02	2.49E-02
am242m	7.60E-06	7.60E-06	7.60E-06	7.60E-06	7.59E-06	7.56E-06	7.52E-06	7.41E-06	7.23E-06
am242	9.49E-10	9.49E-10	9.49E-10	3.99E-10	9.79E-11	9.75E-11	9.70E-11	9.56E-11	9.33E-11
am243	5.98E-08	5.98E-08	5.98E-08	5.98E-08	5.98E-08	5.98E-08	5.98E-08	5.98E-08	5.97E-08
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	4.56E-16	4.56E-16	4.56E-16	8.78E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm241	5.50E-20	5.50E-20	5.50E-20	5.39E-20	8.21E-21	2.45E-23	1.09E-26	9.55E-37	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 3

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
cm242	1.92E-07	1.92E-07	1.92E-07	1.91E-07	1.37E-07	5.62E-08	2.73E-08	1.94E-08	1.88E-08
cm243	7.14E-14	7.14E-14	7.14E-14	7.14E-14	7.10E-14	6.97E-14	6.80E-14	6.32E-14	5.60E-14
cm244	6.42E-12	6.42E-12	6.42E-12	6.42E-12	6.36E-12	6.18E-12	5.95E-12	5.30E-12	4.38E-12
cm245	1.21E-15	1.21E-15	1.21E-15	1.21E-15	1.21E-15	1.21E-15	1.21E-15	1.21E-15	1.21E-15
cm246	1.04E-18	1.04E-18	1.04E-18	1.04E-18	1.04E-18	1.04E-18	1.04E-18	1.04E-18	1.04E-18
cm247	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23
cm248	2.11E-27	2.11E-27	2.11E-27	2.11E-27	2.11E-27	2.11E-27	2.11E-27	2.11E-27	2.11E-27
cm249	6.59E-38	6.59E-38	6.59E-38	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk249	4.73E-34	4.73E-34	4.73E-34	4.72E-34	3.89E-34	2.15E-34	9.73E-35	9.06E-36	1.74E-37
bk250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf249	3.21E-32	3.21E-32	3.21E-32	3.21E-32	3.22E-32	3.23E-32	3.24E-32	3.23E-32	3.20E-32
cf250	3.59E-36	3.59E-36	3.59E-36	3.59E-36	3.55E-36	3.41E-36	3.23E-36	2.76E-36	2.12E-36
cf251	1.14E-38	1.14E-38	1.14E-38	1.14E-38	1.14E-38	1.14E-38	1.14E-38	1.13E-38	1.13E-38
cf252	1.77E-42	1.77E-42	1.77E-42	1.77E-42	1.77E-42	1.41E-42	1.06E-42	3.53E-43	.00E+00
cf253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
s250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 4

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
he 4	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tl206	2.84E-08	2.84E-08	2.84E-08	2.84E-08	2.84E-08	2.84E-08	2.85E-08	2.87E-08	2.89E-08

tl207	7.61E-03	7.61E-03	7.61E-03	7.61E-03	7.60E-03	7.62E-03	7.63E-03	7.65E-03	7.69E-03
tl208	4.57E-04	4.57E-04	4.57E-04	4.67E-04	4.58E-04	4.55E-04	4.51E-04	4.39E-04	4.18E-04
tl209	2.74E-05	2.74E-05	2.74E-05	2.74E-05	2.74E-05	2.74E-05	2.75E-05	2.76E-05	2.79E-05
pb206	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb207	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb209	1.30E-03	1.30E-03	1.30E-03	1.24E-03	1.30E-03	1.31E-03	1.31E-03	1.32E-03	1.33E-03
pb210	2.15E-02	2.15E-02	2.15E-02	2.15E-02	2.15E-02	2.15E-02	2.16E-02	2.17E-02	2.19E-02
pb211	7.63E-03	7.63E-03	7.63E-03	7.63E-03	7.62E-03	7.64E-03	7.65E-03	7.67E-03	7.71E-03
pb212	1.27E-03	1.27E-03	1.27E-03	1.27E-03	1.28E-03	1.27E-03	1.26E-03	1.22E-03	1.16E-03
pb214	2.28E-02	2.28E-02	2.28E-02	2.28E-02	2.28E-02	2.29E-02	2.29E-02	2.30E-02	2.33E-02
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	2.15E-02	2.15E-02	2.15E-02	2.15E-02	2.15E-02	2.15E-02	2.16E-02	2.17E-02	2.19E-02
bi211	7.63E-03	7.63E-03	7.63E-03	7.63E-03	7.62E-03	7.64E-03	7.65E-03	7.67E-03	7.71E-03
bi212	1.27E-03	1.27E-03	1.27E-03	1.30E-03	1.28E-03	1.27E-03	1.26E-03	1.22E-03	1.16E-03
bi213	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.31E-03	1.31E-03	1.32E-03	1.33E-03
bi214	2.28E-02	2.28E-02	2.28E-02	2.28E-02	2.28E-02	2.29E-02	2.29E-02	2.30E-02	2.33E-02
po210	2.15E-02	2.15E-02	2.15E-02	2.15E-02	2.14E-02	2.13E-02	2.13E-02	2.15E-02	2.19E-02
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	2.10E-05	2.10E-05	2.10E-05	2.10E-05	2.10E-05	2.10E-05	2.10E-05	2.11E-05	2.12E-05
po212	8.14E-04	8.14E-04	8.14E-04	8.32E-04	8.17E-04	8.11E-04	8.04E-04	7.82E-04	7.45E-04
po213	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.28E-03	1.29E-03	1.30E-03
po214	2.28E-02	2.28E-02	2.28E-02	2.28E-02	2.28E-02	2.29E-02	2.29E-02	2.30E-02	2.33E-02
po215	7.63E-03	7.63E-03	7.63E-03	7.63E-03	7.62E-03	7.64E-03	7.65E-03	7.67E-03	7.71E-03
po216	1.27E-03	1.27E-03	1.27E-03	1.27E-03	1.28E-03	1.27E-03	1.26E-03	1.22E-03	1.16E-03
po218	2.28E-02	2.28E-02	2.28E-02	2.28E-02	2.28E-02	2.29E-02	2.29E-02	2.31E-02	2.33E-02
at217	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.31E-03	1.31E-03	1.32E-03	1.33E-03
rn218	1.98E-14	1.98E-14	1.98E-14	1.91E-14	9.86E-16	1.02E-19	5.29E-25	.00E+00	.00E+00
rn219	7.63E-03	7.63E-03	7.63E-03	7.63E-03	7.62E-03	7.64E-03	7.65E-03	7.67E-03	7.71E-03
rn220	1.27E-03	1.27E-03	1.27E-03	1.27E-03	1.28E-03	1.27E-03	1.26E-03	1.22E-03	1.16E-03
rn222	2.28E-02	2.28E-02	2.28E-02	2.28E-02	2.28E-02	2.29E-02	2.29E-02	2.31E-02	2.33E-02
fr221	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.31E-03	1.31E-03	1.32E-03	1.33E-03
fr223	1.05E-04	1.05E-04	1.05E-04	1.05E-04	1.05E-04	1.05E-04	1.05E-04	1.06E-04	1.06E-04
ra222	1.98E-14	1.98E-14	1.98E-14	1.91E-14	9.86E-16	1.02E-19	5.29E-25	.00E+00	.00E+00
ra223	7.63E-03	7.63E-03	7.63E-03	7.63E-03	7.62E-03	7.64E-03	7.65E-03	7.67E-03	7.71E-03
ra224	1.27E-03	1.27E-03	1.27E-03	1.27E-03	1.28E-03	1.27E-03	1.26E-03	1.22E-03	1.16E-03
ra225	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.31E-03	1.31E-03	1.32E-03	1.33E-03
ra226	2.28E-02	2.28E-02	2.28E-02	2.28E-02	2.28E-02	2.29E-02	2.29E-02	2.31E-02	2.33E-02
ra228	1.31E-07	1.31E-07	1.31E-07	1.31E-07	1.31E-07	1.31E-07	1.31E-07	1.31E-07	1.32E-07
ac225	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.31E-03	1.31E-03	1.32E-03	1.33E-03
ac227	7.62E-03	7.62E-03	7.62E-03	7.62E-03	7.62E-03	7.63E-03	7.63E-03	7.66E-03	7.70E-03
ac228	1.31E-07	1.31E-07	1.31E-07	1.31E-07	1.31E-07	1.31E-07	1.31E-07	1.31E-07	1.32E-07
th226	1.98E-14	1.98E-14	1.98E-14	1.91E-14	9.86E-16	1.02E-19	5.29E-25	.00E+00	.00E+00
th227	7.52E-03	7.52E-03	7.52E-03	7.52E-03	7.52E-03	7.54E-03	7.55E-03	7.57E-03	7.61E-03
th228	1.27E-03	1.27E-03	1.27E-03	1.27E-03	1.27E-03	1.26E-03	1.25E-03	1.22E-03	1.16E-03
th229	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.31E-03	1.31E-03	1.32E-03	1.33E-03
th230	1.21E-01	1.21E-01	1.21E-01	1.21E-01	1.21E-01	1.21E-01	1.22E-01	1.22E-01	1.22E-01
th231	3.82E-01	3.82E-01	3.82E-01	3.75E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 5

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
th232	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.33E-07
th233	3.99E-04	3.99E-04	3.99E-04	1.45E-23	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th234	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00
pa231	7.87E-03	7.87E-03	7.87E-03	7.87E-03	7.87E-03	7.87E-03	7.88E-03	7.90E-03	7.94E-03
pa232	1.23E-03	1.23E-03	1.23E-03	7.25E-04	2.58E-24	.00E+00	.00E+00	.00E+00	.00E+00

pa233	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.04E+00	7.03E+00	7.03E+00	7.03E+00
pa234m	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00
pa234	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.79E-03	3.78E-03	3.78E-03	3.78E-03
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	1.98E-14	1.98E-14	1.98E-14	1.91E-14	9.85E-16	1.02E-19	5.28E-25	.00E+00	.00E+00
u231	3.20E-10	3.20E-10	3.20E-10	2.71E-10	1.14E-16	.00E+00	.00E+00	.00E+00	.00E+00
u232	1.24E-03	1.24E-03	1.24E-03	1.24E-03	1.24E-03	1.23E-03	1.22E-03	1.19E-03	1.13E-03
u233	3.04E-02	3.04E-02	3.04E-02	3.04E-02	3.04E-02	3.05E-02	3.05E-02	3.06E-02	3.08E-02
u234	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01
u235	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01
u236	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00
u237	6.03E+01	6.03E+01	6.03E+01	5.44E+01	5.85E-03	5.13E-06	4.89E-06	4.23E-06	3.32E-06
u238	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00
u239	2.54E+03	2.54E+03	2.54E+03	8.57E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	2.85E-06	2.85E-06	2.85E-06	2.84E-06	2.43E-06	1.50E-06	7.94E-07	1.17E-07	4.78E-09
np236m	2.86E-04	2.86E-04	2.86E-04	1.37E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	6.09E-07	6.09E-07	6.09E-07	6.09E-07	6.09E-07	6.09E-07	6.09E-07	6.09E-07	6.09E-07
np237	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00
np238	9.55E+01	9.55E+01	9.55E+01	6.88E+01	3.58E-07	3.57E-07	3.55E-07	3.50E-07	3.41E-07
np239	2.54E+03	2.54E+03	2.54E+03	1.91E+03	2.00E-08	1.19E-08	1.19E-08	1.19E-08	1.19E-08
np240m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np240	2.82E-05	2.82E-05	2.82E-05	2.80E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	1.37E-04	1.37E-04	1.37E-04	1.37E-04	1.30E-04	1.08E-04	8.53E-05	4.17E-05	1.27E-05
pu237	7.75E-07	7.75E-07	7.75E-07	7.63E-07	1.95E-07	2.85E-09	1.05E-11	5.24E-19	3.65E-31
pu238	9.54E+01	9.54E+01	9.54E+01	9.54E+01	9.52E+01	9.46E+01	9.39E+01	9.17E+01	8.81E+01
pu239	7.15E+01	7.15E+01	7.15E+01	7.15E+01	7.15E+01	7.15E+01	7.15E+01	7.15E+01	7.15E+01
pu240	1.25E+00	1.25E+00	1.25E+00	1.25E+00	1.25E+00	1.25E+00	1.25E+00	1.25E+00	1.24E+00
pu241	2.25E-01	2.25E-01	2.25E-01	2.25E-01	2.22E-01	2.14E-01	2.04E-01	1.77E-01	1.39E-01
pu242	8.70E-08	8.70E-08	8.70E-08	8.70E-08	8.70E-08	8.70E-08	8.71E-08	8.71E-08	8.73E-08
pu243	1.21E-07	1.21E-07	1.21E-07	4.22E-09	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27
pu244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am239	7.35E-12	7.35E-12	7.35E-12	1.81E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am240	7.86E-10	7.86E-10	7.86E-10	5.67E-10	1.31E-22	.00E+00	.00E+00	.00E+00	.00E+00
am241	8.40E-02	8.40E-02	8.40E-02	8.40E-02	8.40E-02	8.42E-02	8.44E-02	8.49E-02	8.55E-02
am242m	7.96E-05	7.96E-05	7.96E-05	7.96E-05	7.95E-05	7.92E-05	7.88E-05	7.77E-05	7.58E-05
am242	7.67E-04	7.67E-04	7.67E-04	3.23E-04	7.92E-05	7.89E-05	7.85E-05	7.73E-05	7.55E-05
am243	1.19E-08	1.19E-08	1.19E-08	1.19E-08	1.19E-08	1.19E-08	1.19E-08	1.19E-08	1.19E-08
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	5.80E-10	5.80E-10	5.80E-10	1.12E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm241	9.09E-16	9.09E-16	9.09E-16	8.90E-16	1.36E-16	4.04E-19	1.80E-22	2.28E-32	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 6

0 nuclide radioactivity, curies

basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
cm242	6.34E-04	6.34E-04	6.34E-04	6.33E-04	4.55E-04	1.86E-04	9.06E-05	6.43E-05	6.24E-05
cm243	3.69E-12	3.69E-12	3.69E-12	3.69E-12	3.67E-12	3.60E-12	3.51E-12	3.27E-12	2.89E-12
cm244	5.20E-10	5.20E-10	5.20E-10	5.20E-10	5.15E-10	5.00E-10	4.81E-10	4.29E-10	3.54E-10
cm245	2.08E-16	2.08E-16	2.08E-16	2.08E-16	2.08E-16	2.08E-16	2.08E-16	2.08E-16	2.08E-16
cm246	3.19E-19	3.19E-19	3.19E-19	3.19E-19	3.19E-19	3.19E-19	3.19E-19	3.19E-19	3.19E-19
cm247	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27
cm248	8.92E-30	8.92E-30	8.92E-30	8.92E-30	8.92E-30	8.92E-30	8.92E-30	8.92E-30	8.92E-30
cm249	7.76E-31	7.76E-31	7.76E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

cm250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk249	7.76E-31	7.76E-31	7.76E-31	7.76E-31	6.39E-31	3.42E-31	1.60E-31	2.28E-32	.00E+00
bk250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf249	1.37E-31	1.37E-31	1.37E-31	1.37E-31	1.37E-31	1.37E-31	1.37E-31	1.37E-31	1.37E-31
cf250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf252	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
s250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	5.45E+03	5.45E+03	5.45E+03	2.24E+03	2.08E+02	2.08E+02	2.07E+02	2.05E+02	2.01E+02

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn

0 fission products page 7

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
h 3	3.84E-05	3.84E-05	3.84E-05	3.84E-05	3.79E-05	3.63E-05	3.44E-05	2.90E-05	2.19E-05
li 6	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05
li 7	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07
be 9	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07
be 10	5.90E-06	5.90E-06	5.90E-06	5.90E-06	5.90E-06	5.90E-06	5.90E-06	5.90E-06	5.90E-06
c 14	1.12E-06	1.12E-06	1.12E-06	1.12E-06	1.12E-06	1.12E-06	1.12E-06	1.12E-06	1.12E-06
ni 66	1.25E-13	1.25E-13	1.25E-13	9.23E-14	1.55E-25	.00E+00	.00E+00	.00E+00	.00E+00
cu 66	1.95E-16	1.95E-16	1.95E-16	1.44E-16	2.42E-28	.00E+00	.00E+00	.00E+00	.00E+00
zn 66	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08
cu 67	2.51E-14	2.51E-14	2.51E-14	1.92E-14	7.66E-25	.00E+00	.00E+00	.00E+00	.00E+00
zn 67	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09
zn 68	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10
zn 69	5.71E-16	5.71E-16	5.71E-16	1.48E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69m	6.78E-15	6.78E-15	6.78E-15	2.02E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 69	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09
zn 70	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08
ga 70	4.14E-18	4.14E-18	4.14E-18	1.27E-38	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 70	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11
zn 71	1.53E-15	1.53E-15	1.53E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71m	6.32E-13	6.32E-13	6.32E-13	9.48E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 71	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06
ge 71	1.54E-17	1.54E-17	1.54E-17	1.45E-17	6.59E-20	3.74E-27	9.08E-37	.00E+00	.00E+00
ge 71m	1.59E-25	1.59E-25	1.59E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 72	5.56E-18	5.56E-18	5.56E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 72	8.64E-15	8.64E-15	8.64E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 72	3.24E-14	3.24E-14	3.24E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 72	9.98E-10	9.98E-10	9.98E-10	6.98E-10	1.04E-23	.00E+00	.00E+00	.00E+00	.00E+00
ga 72	3.03E-10	3.03E-10	3.03E-10	2.63E-10	4.51E-24	.00E+00	.00E+00	.00E+00	.00E+00
ge 72	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04
co 73	3.80E-18	3.80E-18	3.80E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 73	1.67E-15	1.67E-15	1.67E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 73	8.39E-14	8.39E-14	8.39E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 73	5.97E-13	5.97E-13	5.97E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 73	4.48E-10	4.48E-10	4.48E-10	1.47E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04
ge 73m	1.26E-14	1.26E-14	1.26E-14	4.12E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 74	5.73E-19	5.73E-19	5.73E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ni 74	2.38E-15	2.38E-15	2.38E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 74	1.67E-14	1.67E-14	1.67E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 74	7.42E-12	7.42E-12	7.42E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 74	1.08E-11	1.08E-11	1.08E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 74	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04
co 75	9.79E-20	9.79E-20	9.79E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 75	2.94E-16	2.94E-16	2.94E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 75	3.71E-14	3.71E-14	3.71E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 75	2.27E-12	2.27E-12	2.27E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 75	3.24E-11	3.24E-11	3.24E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75	1.28E-09	1.28E-09	1.28E-09	7.65E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75m	6.30E-13	6.30E-13	6.30E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 75	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03
ni 76	1.50E-16	1.50E-16	1.50E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 76	9.66E-15	9.66E-15	9.66E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 8

0 nuclide concentrations, grams

basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
zn 76	3.36E-12	3.36E-12	3.36E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 76	2.71E-11	2.71E-11	2.71E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 76	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02
as 76	6.47E-12	6.47E-12	6.47E-12	3.44E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 76	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06
ni 77	8.19E-18	8.19E-18	8.19E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 77	5.95E-15	5.95E-15	5.95E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 77	1.48E-12	1.48E-12	1.48E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 77	2.15E-11	2.15E-11	2.15E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77	2.38E-08	2.38E-08	2.38E-08	5.47E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77m	8.81E-11	8.81E-11	8.81E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 77	2.66E-07	2.66E-07	2.66E-07	1.88E-07	5.41E-24	.00E+00	.00E+00	.00E+00	.00E+00
se 77	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02
se 77m	1.06E-13	1.06E-13	1.06E-13	7.50E-14	2.16E-30	.00E+00	.00E+00	.00E+00	.00E+00
ni 78	1.57E-18	1.57E-18	1.57E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 78	7.49E-16	7.49E-16	7.49E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 78	1.22E-12	1.22E-12	1.22E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 78	1.68E-11	1.68E-11	1.68E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 78	2.64E-08	2.64E-08	2.64E-08	3.14E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 78	2.74E-08	2.74E-08	2.74E-08	4.69E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 78	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01
cu 79	1.76E-16	1.76E-16	1.76E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 79	4.26E-13	4.26E-13	4.26E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 79	1.33E-11	1.33E-11	1.33E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 79	1.87E-10	1.87E-10	1.87E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 79	5.63E-09	5.63E-09	5.63E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 79	2.28E-01	2.28E-01	2.28E-01	2.28E-01	2.28E-01	2.28E-01	2.28E-01	2.28E-01	2.28E-01
se 79m	2.42E-09	2.42E-09	2.42E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 79	2.39E-04	2.39E-04	2.39E-04	2.39E-04	2.39E-04	2.40E-04	2.40E-04	2.41E-04	2.44E-04
br 79m	4.15E-18	4.15E-18	4.15E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 79	6.90E-19	6.90E-19	6.90E-19	4.29E-19	1.89E-37	.00E+00	.00E+00	.00E+00	.00E+00
cu 80	9.79E-18	9.79E-18	9.79E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 80	6.09E-14	6.09E-14	6.09E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 80	4.49E-12	4.49E-12	4.49E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 80	8.32E-10	8.32E-10	8.32E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 80	4.69E-10	4.69E-10	4.69E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 80	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01
br 80	2.73E-14	2.73E-14	2.73E-14	4.75E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80m	2.86E-13	2.86E-13	2.86E-13	6.64E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 80	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07

cu 81	7.00E-19	7.00E-19	7.00E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 81	2.75E-15	2.75E-15	2.75E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 81	2.25E-12	2.25E-12	2.25E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 81	2.34E-10	2.34E-10	2.34E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 81	1.47E-09	1.47E-09	1.47E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81	5.11E-08	5.11E-08	5.11E-08	1.30E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81m	1.02E-08	1.02E-08	1.02E-08	2.74E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 81	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00
kr 81	2.02E-08	2.02E-08	2.02E-08	2.02E-08	2.02E-08	2.02E-08	2.02E-08	2.02E-08	2.02E-08
kr 81m	1.66E-18	1.66E-18	1.66E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 82	8.77E-16	8.77E-16	8.77E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 82	1.02E-12	1.02E-12	1.02E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 9

0 nuclide concentrations, grams

basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
ge 82	1.51E-10	1.51E-10	1.51E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82	9.97E-10	9.97E-10	9.97E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82m	2.62E-10	2.62E-10	2.62E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 82	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00
br 82	3.62E-09	3.62E-09	3.62E-09	2.26E-09	1.39E-27	.00E+00	.00E+00	.00E+00	.00E+00
br 82m	3.89E-12	3.89E-12	3.89E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 82	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04
zn 83	1.54E-17	1.54E-17	1.54E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 83	3.56E-14	3.56E-14	3.56E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 83	2.58E-11	2.58E-11	2.58E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 83	1.16E-09	1.16E-09	1.16E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83	7.89E-08	7.89E-08	7.89E-08	2.89E-27	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83m	4.80E-09	4.80E-09	4.80E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 83	1.14E-06	1.14E-06	1.14E-06	1.21E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 83	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00
kr 83m	8.69E-07	8.69E-07	8.69E-07	3.98E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 84	2.18E-13	2.18E-13	2.18E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 84	9.82E-12	9.82E-12	9.82E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 84	3.46E-10	3.46E-10	3.46E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 84	4.87E-08	4.87E-08	4.87E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84	4.95E-07	4.95E-07	4.95E-07	1.28E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84m	2.17E-09	2.17E-09	2.17E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 84	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00
ga 85	1.15E-16	1.15E-16	1.15E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 85	3.30E-13	3.30E-13	3.30E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 85	8.15E-11	8.15E-11	8.15E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85	4.10E-09	4.10E-09	4.10E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85m	2.18E-09	2.18E-09	2.18E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 85	5.27E-08	5.27E-08	5.27E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85	2.24E-02	2.24E-02	2.24E-02	2.24E-02	2.20E-02	2.10E-02	1.97E-02	1.62E-02	1.17E-02
kr 85m	4.93E-06	4.93E-06	4.93E-06	1.22E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 85	6.73E+00	6.73E+00	6.73E+00	6.73E+00	6.73E+00	6.74E+00	6.74E+00	6.74E+00	6.74E+00
ge 86	6.59E-14	6.59E-14	6.59E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 86	2.17E-11	2.17E-11	2.17E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 86	5.01E-09	5.01E-09	5.01E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86	2.17E-08	2.17E-08	2.17E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86m	2.96E-10	2.96E-10	2.96E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 86	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01
rb 86	8.75E-09	8.75E-09	8.75E-09	8.43E-09	3.08E-10	1.10E-14	1.38E-20	2.75E-38	.00E+00
rb 86m	1.57E-14	1.57E-14	1.57E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 86	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05
ge 87	6.58E-13	6.58E-13	6.58E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 87	5.08E-12	5.08E-12	5.08E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

se 87	1.10E-09	1.10E-09	1.10E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 87	2.87E-08	2.87E-08	2.87E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 87	2.94E-06	2.94E-06	2.94E-06	6.20E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 87	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01
sr 87	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05
sr 87m	2.19E-12	2.19E-12	2.19E-12	5.90E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 88	8.42E-16	8.42E-16	8.42E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 88	1.11E-12	1.11E-12	1.11E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 88	1.47E-10	1.47E-10	1.47E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 10

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
br 88	8.72E-09	8.72E-09	8.72E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 88	9.40E-06	9.40E-06	9.40E-06	2.68E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 88	1.00E-06	1.00E-06	1.00E-06	3.13E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 88	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01
as 89	7.12E-15	7.12E-15	7.12E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 89	1.39E-11	1.39E-11	1.39E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 89	1.54E-09	1.54E-09	1.54E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 89	2.29E-07	2.29E-07	2.29E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 89	1.15E-06	1.15E-06	1.15E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 89	5.56E-03	5.56E-03	5.56E-03	5.49E-03	1.62E-03	3.72E-05	2.49E-07	7.43E-14	9.92E-25
y 89	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01
y 89m	1.94E-12	1.94E-12	1.94E-12	1.88E-12	5.54E-13	1.27E-14	8.50E-17	2.54E-23	3.39E-34
as 90	3.76E-17	3.76E-17	3.76E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 90	2.99E-12	2.99E-12	2.99E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 90	3.54E-10	3.54E-10	3.54E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 90	4.29E-08	4.29E-08	4.29E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90	1.85E-07	1.85E-07	1.85E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90m	8.80E-08	8.80E-08	8.80E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 90	1.38E+00	1.38E+00	1.38E+00	1.38E+00	1.37E+00	1.35E+00	1.31E+00	1.22E+00	1.08E+00
y 90	3.59E-04	3.59E-04	3.59E-04	3.59E-04	3.57E-04	3.50E-04	3.42E-04	3.17E-04	2.81E-04
y 90m	3.16E-13	3.16E-13	3.16E-13	1.72E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90	3.28E+01	3.28E+01	3.28E+01	3.28E+01	3.28E+01	3.28E+01	3.28E+01	3.29E+01	3.31E+01
zr 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 91	1.48E-13	1.48E-13	1.48E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 91	4.09E-11	4.09E-11	4.09E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 91	7.88E-09	7.88E-09	7.88E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	8.88E-08	8.88E-08	8.88E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 91	5.45E-05	5.45E-05	5.45E-05	9.51E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91	8.04E-03	8.04E-03	8.04E-03	7.99E-03	2.79E-03	1.07E-04	1.41E-06	3.25E-12	1.30E-21
y 91m	2.75E-06	2.75E-06	2.75E-06	5.26E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 91	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01
nb 91	1.05E-11	1.05E-11	1.05E-11	1.05E-11	1.05E-11	1.05E-11	1.05E-11	1.04E-11	1.04E-11
se 92	6.05E-15	6.05E-15	6.05E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 92	3.82E-12	3.82E-12	3.82E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 92	8.81E-10	8.81E-10	8.81E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 92	5.95E-09	5.95E-09	5.95E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 92	1.57E-05	1.57E-05	1.57E-05	3.38E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 92	2.06E-05	2.06E-05	2.06E-05	6.51E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 92	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01
nb 92	2.25E-09	2.25E-09	2.25E-09	2.25E-09	2.25E-09	2.25E-09	2.25E-09	2.25E-09	2.25E-09
se 93	1.52E-17	1.52E-17	1.52E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 93	1.93E-13	1.93E-13	1.93E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 93	1.97E-10	1.97E-10	1.97E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 93	5.72E-09	5.72E-09	5.72E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 93	7.67E-07	7.67E-07	7.67E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 93	4.23E-05	4.23E-05	4.23E-05	8.24E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

zr 93	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01
nb 93	5.52E-03	5.52E-03	5.52E-03	5.52E-03	5.52E-03	5.53E-03	5.54E-03	5.58E-03	5.63E-03
nb 93m	2.63E-04	2.63E-04	2.63E-04	2.63E-04	2.63E-04	2.63E-04	2.63E-04	2.64E-04	2.65E-04
br 94	8.29E-15	8.29E-15	8.29E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 94	1.40E-11	1.40E-11	1.40E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 94	1.37E-09	1.37E-09	1.37E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 11

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
sr 94	1.26E-07	1.26E-07	1.26E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 94	2.00E-06	2.00E-06	2.00E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 94	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01
nb 94	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05
nb 94m	7.73E-14	7.73E-14	7.73E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 95	6.54E-17	6.54E-17	6.54E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 95	2.48E-12	2.48E-12	2.48E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 95	9.17E-11	9.17E-11	9.17E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 95	3.82E-08	3.82E-08	3.82E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 95	1.14E-06	1.14E-06	1.14E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 95	1.01E-02	1.01E-02	1.01E-02	1.00E-02	3.82E-03	1.94E-04	3.72E-06	2.62E-11	6.76E-20
nb 95	5.53E-03	5.53E-03	5.53E-03	5.53E-03	3.48E-03	2.29E-04	4.61E-06	3.15E-11	8.13E-20
nb 95m	6.34E-06	6.34E-06	6.34E-06	6.33E-06	2.53E-06	1.29E-07	2.47E-09	1.74E-14	4.48E-23
mo 95	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01
br 96	1.30E-17	1.30E-17	1.30E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 96	1.90E-13	1.90E-13	1.90E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 96	1.24E-11	1.24E-11	1.24E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 96	1.19E-09	1.19E-09	1.19E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 96	1.02E-08	1.02E-08	1.02E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 96	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01
nb 96	1.41E-08	1.41E-08	1.41E-08	6.93E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 96	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02
kr 97	5.88E-16	5.88E-16	5.88E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 97	3.86E-12	3.86E-12	3.86E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 97	2.51E-10	2.51E-10	2.51E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 97	4.97E-09	4.97E-09	4.97E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 97	9.91E-05	9.91E-05	9.91E-05	3.70E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97	7.07E-06	7.07E-06	7.07E-06	2.65E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97m	9.27E-08	9.27E-08	9.27E-08	3.47E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 97	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01
kr 98	3.02E-16	3.02E-16	3.02E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 98	1.16E-13	1.16E-13	1.16E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 98	1.40E-10	1.40E-10	1.40E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 98	6.80E-10	6.80E-10	6.80E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 98	5.18E-08	5.18E-08	5.18E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98	4.84E-09	4.84E-09	4.84E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98m	1.93E-08	1.93E-08	1.93E-08	6.84E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 98	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01
tc 98	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.87E-06
rb 99	1.39E-15	1.39E-15	1.39E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 99	2.93E-11	2.93E-11	2.93E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 99	1.05E-09	1.05E-09	1.05E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 99	3.50E-09	3.50E-09	3.50E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 99	1.61E-08	1.61E-08	1.61E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 99m	1.11E-07	1.11E-07	1.11E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 99	4.30E-04	4.30E-04	4.30E-04	3.34E-04	5.93E-14	.00E+00	.00E+00	.00E+00	.00E+00
tc 99	3.95E+01	3.95E+01	3.95E+01	3.95E+01	3.95E+01	3.95E+01	3.95E+01	3.95E+01	3.95E+01
tc 99m	3.45E-05	3.45E-05	3.45E-05	2.93E-05	5.23E-15	.00E+00	.00E+00	.00E+00	.00E+00
ru 99	6.62E-02	6.62E-02	6.62E-02	6.62E-02	6.62E-02	6.63E-02	6.65E-02	6.68E-02	6.75E-02

rb100	6.17E-16	6.17E-16	6.17E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr100	1.37E-12	1.37E-12	1.37E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y100	1.27E-10	1.27E-10	1.27E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 12

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
zr100	1.23E-08	1.23E-08	1.23E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100	2.70E-09	2.70E-09	2.70E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100m	1.82E-10	1.82E-10	1.82E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo100	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01
tc100	2.54E-11	2.54E-11	2.54E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru100	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02
rb101	4.22E-18	4.22E-18	4.22E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr101	2.55E-13	2.55E-13	2.55E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y101	6.30E-11	6.30E-11	6.30E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr101	1.89E-09	1.89E-09	1.89E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb101	1.07E-08	1.07E-08	1.07E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo101	1.36E-06	1.36E-06	1.36E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc101	1.32E-06	1.32E-06	1.32E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru101	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01
sr102	8.69E-14	8.69E-14	8.69E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y102	7.06E-11	7.06E-11	7.06E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr102	2.13E-09	2.13E-09	2.13E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb102	1.58E-09	1.58E-09	1.58E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo102	8.94E-07	8.94E-07	8.94E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102	6.96E-09	6.96E-09	6.96E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102m	1.64E-10	1.64E-10	1.64E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru102	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01
rh102	7.16E-09	7.16E-09	7.16E-09	7.16E-09	6.75E-09	5.64E-09	4.44E-09	2.17E-09	6.56E-10
pd102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr103	1.01E-16	1.01E-16	1.01E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y103	6.36E-12	6.36E-12	6.36E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr103	2.75E-10	2.75E-10	2.75E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb103	1.09E-09	1.09E-09	1.09E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo103	6.49E-08	6.49E-08	6.49E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc103	5.33E-08	5.33E-08	5.33E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru103	3.34E-03	3.34E-03	3.34E-03	3.28E-03	6.81E-04	5.28E-06	8.36E-09	3.31E-17	3.29E-31
rh103	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01
rh103m	3.30E-06	3.30E-06	3.30E-06	3.25E-06	6.75E-07	5.23E-09	8.28E-12	3.28E-20	3.26E-34
sr104	4.34E-17	4.34E-17	4.34E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y104	2.42E-14	2.42E-14	2.42E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr104	1.21E-10	1.21E-10	1.21E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb104	1.26E-09	1.26E-09	1.26E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo104	3.60E-08	3.60E-08	3.60E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc104	6.79E-07	6.79E-07	6.79E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru104	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01
rh104	1.82E-10	1.82E-10	1.82E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104m	8.18E-11	8.18E-11	8.18E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd104	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02
y105	2.60E-16	2.60E-16	2.60E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr105	1.43E-11	1.43E-11	1.43E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb105	2.84E-10	2.84E-10	2.84E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo105	1.20E-08	1.20E-08	1.20E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc105	1.61E-07	1.61E-07	1.61E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru105	5.65E-06	5.65E-06	5.65E-06	1.37E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105	4.50E-05	4.50E-05	4.50E-05	3.21E-05	2.11E-23	.00E+00	.00E+00	.00E+00	.00E+00
rh105m	4.52E-09	4.52E-09	4.52E-09	1.10E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd105	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00

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0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 13

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
y106	2.67E-18	2.67E-18	2.67E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr106	2.85E-13	2.85E-13	2.85E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb106	8.70E-12	8.70E-12	8.70E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo106	1.21E-09	1.21E-09	1.21E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc106	5.76E-09	5.76E-09	5.76E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru106	5.31E-03	5.31E-03	5.31E-03	5.30E-03	4.49E-03	2.69E-03	1.36E-03	1.76E-04	5.84E-06
rh106	4.93E-09	4.93E-09	4.93E-09	4.92E-09	4.17E-09	2.49E-09	1.26E-09	1.63E-10	5.42E-12
rh106m	2.99E-11	2.99E-11	2.99E-11	1.38E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd106	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00
ag106	6.35E-20	6.35E-20	6.35E-20	5.51E-38	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y107	2.51E-20	2.51E-20	2.51E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr107	7.39E-16	7.39E-16	7.39E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb107	1.09E-12	1.09E-12	1.09E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo107	1.56E-10	1.56E-10	1.56E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc107	1.30E-09	1.30E-09	1.30E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru107	1.59E-08	1.59E-08	1.59E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh107	9.19E-08	9.19E-08	9.19E-08	1.19E-27	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd107	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00
pd107m	2.76E-14	2.76E-14	2.76E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag107	7.17E-05	7.17E-05	7.17E-05	7.17E-05	7.18E-05	7.19E-05	7.20E-05	7.25E-05	7.32E-05
zr108	4.53E-17	4.53E-17	4.53E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb108	9.13E-15	9.13E-15	9.13E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo108	6.35E-12	6.35E-12	6.35E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc108	9.27E-11	9.27E-11	9.27E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru108	9.72E-09	9.72E-09	9.72E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108	6.04E-10	6.04E-10	6.04E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108m	1.36E-10	1.36E-10	1.36E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd108	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01
ag108	4.45E-16	4.45E-16	4.45E-16	1.15E-18	1.15E-18	1.14E-18	1.14E-18	1.12E-18	1.09E-18
ag108m	3.72E-10	3.72E-10	3.72E-10	3.72E-10	3.72E-10	3.70E-10	3.68E-10	3.62E-10	3.53E-10
cd108	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08
zr109	1.26E-20	1.26E-20	1.26E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb109	5.18E-16	5.18E-16	5.18E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo109	6.08E-13	6.08E-13	6.08E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc109	7.19E-12	7.19E-12	7.19E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru109	6.79E-10	6.79E-10	6.79E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109	1.74E-09	1.74E-09	1.74E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109m	5.44E-10	5.44E-10	5.44E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109	1.08E-06	1.08E-06	1.08E-06	3.20E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109m	1.06E-11	1.06E-11	1.06E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01
ag109m	8.64E-10	8.64E-10	8.64E-10	2.57E-10	1.13E-19	7.46E-20	4.32E-20	8.36E-21	5.42E-22
cd109	1.30E-13	1.30E-13	1.30E-13	1.30E-13	1.14E-13	7.53E-14	4.36E-14	8.44E-15	5.47E-16
nb110	1.05E-17	1.05E-17	1.05E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo110	1.87E-13	1.87E-13	1.87E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc110	1.11E-12	1.11E-12	1.11E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru110	1.64E-10	1.64E-10	1.64E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110	3.99E-12	3.99E-12	3.99E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110m	3.48E-10	3.48E-10	3.48E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd110	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01
ag110	1.60E-12	1.60E-12	1.60E-12	9.14E-16	7.14E-16	3.32E-16	1.21E-16	5.77E-18	3.63E-20
ag110m	5.91E-08	5.91E-08	5.91E-08	5.89E-08	4.60E-08	2.14E-08	7.78E-09	3.72E-10	2.34E-12

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0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 14

nuclide concentrations, grams

basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
cd110	6.84E-04	6.84E-04	6.84E-04	6.84E-04	6.84E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04
nb111	1.24E-19	1.24E-19	1.24E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo111	3.56E-15	3.56E-15	3.56E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc111	7.46E-13	7.46E-13	7.46E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru111	8.16E-12	8.16E-12	8.16E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh111	9.02E-11	9.02E-11	9.02E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111	1.19E-08	1.19E-08	1.19E-08	1.25E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111m	4.63E-09	4.63E-09	4.63E-09	2.25E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111	5.47E-06	5.47E-06	5.47E-06	5.00E-06	1.27E-09	9.58E-21	1.67E-35	.00E+00	.00E+00
ag111m	5.50E-10	5.50E-10	5.50E-10	7.19E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd111	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01
cd111m	2.24E-15	2.24E-15	2.24E-15	2.70E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb112	2.35E-21	2.35E-21	2.35E-21	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo112	1.21E-15	1.21E-15	1.21E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc112	3.94E-14	3.94E-14	3.94E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru112	1.04E-11	1.04E-11	1.04E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh112	8.44E-12	8.44E-12	8.44E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd112	4.87E-07	4.87E-07	4.87E-07	2.21E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag112	7.26E-08	7.26E-08	7.26E-08	3.86E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd112	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01
mo113	5.61E-18	5.61E-18	5.61E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc113	1.71E-14	1.71E-14	1.71E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru113	4.11E-12	4.11E-12	4.11E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh113	4.08E-12	4.08E-12	4.08E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd113	5.68E-10	5.68E-10	5.68E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113	1.14E-07	1.14E-07	1.14E-07	5.18E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113m	7.94E-11	7.94E-11	7.94E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd113	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02
cd113m	4.47E-05	4.47E-05	4.47E-05	4.47E-05	4.42E-05	4.26E-05	4.05E-05	3.50E-05	2.73E-05
in113	2.11E-03	2.11E-03	2.11E-03	2.11E-03	2.11E-03	2.11E-03	2.12E-03	2.12E-03	2.13E-03
in113m	3.36E-18	3.36E-18	3.36E-18	1.47E-22	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo114	4.79E-18	4.79E-18	4.79E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc114	8.44E-16	8.44E-16	8.44E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru114	4.47E-12	4.47E-12	4.47E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh114	4.46E-12	4.46E-12	4.46E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd114	7.64E-10	7.64E-10	7.64E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag114	2.43E-11	2.43E-11	2.43E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd114	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01
in114	1.92E-15	1.92E-15	1.92E-15	1.36E-15	3.92E-16	8.31E-18	5.00E-20	1.09E-26	8.59E-38
in114m	8.58E-11	8.58E-11	8.58E-11	8.46E-11	2.43E-11	5.16E-13	3.11E-15	6.77E-22	5.34E-33
sn114	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07
mo115	6.93E-21	6.93E-21	6.93E-21	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc115	3.56E-17	3.56E-17	3.56E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru115	1.07E-13	1.07E-13	1.07E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh115	1.08E-11	1.08E-11	1.08E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd115	1.50E-10	1.50E-10	1.50E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115	3.61E-09	3.61E-09	3.61E-09	7.90E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115m	2.16E-11	2.16E-11	2.16E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115	7.77E-07	7.77E-07	7.77E-07	5.72E-07	5.40E-19	.00E+00	.00E+00	.00E+00	.00E+00
cd115m	6.70E-07	6.70E-07	6.70E-07	6.60E-07	1.65E-07	2.29E-09	7.85E-12	3.15E-19	1.48E-31
in115	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02
in115m	6.52E-08	6.52E-08	6.52E-08	5.22E-08	7.66E-14	1.06E-15	3.64E-18	1.46E-25	6.79E-38

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 15

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
sn115	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03

tc116	6.70E-18	6.70E-18	6.70E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru116	7.01E-14	7.01E-14	7.01E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh116	7.37E-13	7.37E-13	7.37E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd116	6.85E-11	6.85E-11	6.85E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116	9.38E-10	9.38E-10	9.38E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116m	4.57E-12	4.57E-12	4.57E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd116	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01
in116	5.77E-14	5.77E-14	5.77E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in116m	4.98E-11	4.98E-11	4.98E-11	4.92E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn116	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04
tc117	9.89E-20	9.89E-20	9.89E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru117	1.94E-15	1.94E-15	1.94E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh117	3.15E-13	3.15E-13	3.15E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd117	1.55E-11	1.55E-11	1.55E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117	1.50E-10	1.50E-10	1.50E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117m	1.10E-11	1.10E-11	1.10E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117	3.21E-08	3.21E-08	3.21E-08	4.04E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117m	8.63E-09	8.63E-09	8.63E-09	6.14E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117	6.74E-09	6.74E-09	6.74E-09	4.28E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117m	2.28E-08	2.28E-08	2.28E-08	1.36E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn117	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02
sn117m	9.64E-09	9.64E-09	9.64E-09	9.29E-09	9.96E-11	8.04E-17	6.61E-25	.00E+00	.00E+00
tc118	1.59E-21	1.59E-21	1.59E-21	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru118	5.39E-16	5.39E-16	5.39E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh118	1.67E-14	1.67E-14	1.67E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd118	4.68E-12	4.68E-12	4.68E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118	1.00E-11	1.00E-11	1.00E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118m	3.78E-12	3.78E-12	3.78E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd118	1.30E-08	1.30E-08	1.30E-08	3.13E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118	2.15E-11	2.15E-11	2.15E-11	5.20E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118m	4.51E-13	4.51E-13	4.51E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn118	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02
ru119	2.12E-17	2.12E-17	2.12E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh119	9.99E-15	9.99E-15	9.99E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd119	1.93E-12	1.93E-12	1.93E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag119	7.45E-12	7.45E-12	7.45E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119	5.40E-10	5.40E-10	5.40E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119m	1.79E-10	1.79E-10	1.79E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119	2.57E-10	2.57E-10	2.57E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119m	3.26E-09	3.26E-09	3.26E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn119	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01
sn119m	4.22E-07	4.22E-07	4.22E-07	4.21E-07	3.41E-07	1.78E-07	7.50E-08	5.62E-09	7.47E-11
ru120	4.59E-18	4.59E-18	4.59E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh120	7.13E-16	7.13E-16	7.13E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd120	2.04E-12	2.04E-12	2.04E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag120	2.82E-12	2.82E-12	2.82E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd120	2.37E-10	2.37E-10	2.37E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120	1.45E-11	1.45E-11	1.45E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120m	1.71E-12	1.71E-12	1.71E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn120	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01
rh121	2.57E-16	2.57E-16	2.57E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 16

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
pd121	1.25E-13	1.25E-13	1.25E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag121	1.43E-12	1.43E-12	1.43E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd121	6.61E-11	6.61E-11	6.61E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121	6.31E-12	6.31E-12	6.31E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

in121m	1.15E-09	1.15E-09	1.15E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121	5.03E-07	5.03E-07	5.03E-07	2.74E-07	2.49E-09	2.46E-09	2.43E-09	2.34E-09	2.20E-09
sn121m	5.73E-05	5.73E-05	5.73E-05	5.73E-05	5.71E-05	5.65E-05	5.58E-05	5.38E-05	5.05E-05
sb121	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01
rh122	1.21E-17	1.21E-17	1.21E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd122	8.80E-14	8.80E-14	8.80E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag122	4.56E-13	4.56E-13	4.56E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd122	2.80E-11	2.80E-11	2.80E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122	8.52E-12	8.52E-12	8.52E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122m	3.40E-12	3.40E-12	3.40E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn122	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01
sb122	2.20E-10	2.20E-10	2.20E-10	1.70E-10	2.04E-20	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	2.56E-14	2.56E-14	2.56E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te122	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05
rh123	1.21E-18	1.21E-18	1.21E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd123	2.80E-15	2.80E-15	2.80E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag123	1.37E-13	1.37E-13	1.37E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd123	3.15E-11	3.15E-11	3.15E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123	2.30E-11	2.30E-11	2.30E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123m	5.13E-11	5.13E-11	5.13E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123	7.15E-06	7.15E-06	7.15E-06	7.11E-06	4.41E-06	1.01E-06	1.42E-07	3.96E-10	2.20E-14
sn123m	1.35E-08	1.35E-08	1.35E-08	2.09E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb123	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01
te123	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09
te123m	8.01E-13	8.01E-13	8.01E-13	7.96E-13	4.76E-13	9.66E-14	1.16E-14	2.04E-17	5.20E-22
pd124	2.93E-15	2.93E-15	2.93E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag124	8.19E-14	8.19E-14	8.19E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd124	5.74E-12	5.74E-12	5.74E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in124	3.07E-11	3.07E-11	3.07E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn124	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01
sb124	2.74E-08	2.74E-08	2.74E-08	2.71E-08	9.74E-09	4.09E-10	6.10E-12	2.02E-17	1.49E-26
sb124m	1.18E-13	1.18E-13	1.18E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te124	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04
pd125	1.99E-16	1.99E-16	1.99E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag125	4.38E-14	4.38E-14	4.38E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd125	5.88E-12	5.88E-12	5.88E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125	1.16E-11	1.16E-11	1.16E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125m	4.20E-11	4.20E-11	4.20E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125	2.92E-06	2.92E-06	2.92E-06	2.71E-06	4.51E-09	1.15E-17	4.50E-29	.00E+00	.00E+00
sn125m	4.67E-09	4.67E-09	4.67E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb125	1.01E-03	1.01E-03	1.01E-03	1.01E-03	9.48E-04	7.83E-04	6.08E-04	2.84E-04	7.97E-05
te125	2.51E-01	2.51E-01	2.51E-01	2.51E-01	2.51E-01	2.51E-01	2.51E-01	2.52E-01	2.52E-01
te125m	1.35E-05	1.35E-05	1.35E-05	1.35E-05	1.32E-05	1.11E-05	8.63E-06	4.03E-06	1.13E-06
pd126	6.79E-17	6.79E-17	6.79E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag126	8.14E-15	8.14E-15	8.14E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd126	2.43E-12	2.43E-12	2.43E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in126	1.53E-11	1.53E-11	1.53E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn126	3.65E-01	3.65E-01	3.65E-01	3.65E-01	3.65E-01	3.65E-01	3.65E-01	3.65E-01	3.65E-01

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 17

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
sb126	7.28E-08	7.28E-08	7.28E-08	6.98E-08	1.77E-08	1.73E-08	1.73E-08	1.73E-08	1.73E-08
sb126m	2.13E-10	2.13E-10	2.13E-10	1.32E-10	1.32E-10	1.32E-10	1.32E-10	1.32E-10	1.32E-10
te126	3.53E-03	3.53E-03	3.53E-03	3.53E-03	3.53E-03	3.53E-03	3.53E-03	3.54E-03	3.55E-03
xe126	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11
ag127	4.83E-15	4.83E-15	4.83E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd127	2.15E-12	2.15E-12	2.15E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127	1.41E-11	1.41E-11	1.41E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

in127m	4.62E-11	4.62E-11	4.62E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127	1.35E-07	1.35E-07	1.35E-07	4.89E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127m	7.21E-09	7.21E-09	7.21E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb127	1.64E-05	1.64E-05	1.64E-05	1.38E-05	1.51E-12	4.53E-34	.00E+00	.00E+00	.00E+00
te127	1.65E-06	1.65E-06	1.65E-06	1.54E-06	1.66E-07	2.89E-08	2.83E-09	2.67E-12	2.41E-17
te127m	8.12E-05	8.12E-05	8.12E-05	8.12E-05	4.75E-05	8.25E-06	8.09E-07	7.62E-10	6.89E-15
i127	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00
xe127	1.53E-16	1.53E-16	1.53E-16	1.50E-16	2.75E-17	1.45E-19	1.39E-22	1.20E-31	.00E+00
ag128	1.07E-15	1.07E-15	1.07E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd128	3.74E-12	3.74E-12	3.74E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in128	3.28E-11	3.28E-11	3.28E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn128	4.66E-07	4.66E-07	4.66E-07	2.15E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128	2.99E-07	2.99E-07	2.99E-07	5.07E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128m	8.36E-08	8.36E-08	8.36E-08	4.60E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te128	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00
i128	1.35E-11	1.35E-11	1.35E-11	6.02E-29	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe128	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05
cd129	4.50E-13	4.50E-13	4.50E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in129	2.38E-11	2.38E-11	2.38E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129	1.43E-08	1.43E-08	1.43E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129m	5.96E-08	5.96E-08	5.96E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb129	4.68E-06	4.68E-06	4.68E-06	1.08E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129	1.16E-06	1.16E-06	1.16E-06	1.76E-07	2.30E-08	7.85E-11	4.19E-14	6.38E-24	.00E+00
te129m	1.59E-04	1.59E-04	1.59E-04	1.56E-04	2.49E-05	8.51E-08	4.55E-11	6.92E-21	3.01E-37
i129	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00
xe129	1.42E-04	1.42E-04	1.42E-04	1.42E-04	1.42E-04	1.43E-04	1.43E-04	1.44E-04	1.45E-04
xe129m	9.71E-14	9.71E-14	9.71E-14	8.98E-14	8.70E-17	4.16E-26	1.78E-38	.00E+00	.00E+00
cd130	2.90E-13	2.90E-13	2.90E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in130	1.25E-11	1.25E-11	1.25E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn130	9.87E-08	9.87E-08	9.87E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130	2.20E-07	2.20E-07	2.20E-07	2.33E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130m	2.16E-07	2.16E-07	2.16E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te130	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01
i130	9.68E-09	9.68E-09	9.68E-09	2.53E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130m	4.86E-11	4.86E-11	4.86E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe130	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03
cd131	7.83E-15	7.83E-15	7.83E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in131	3.68E-12	3.68E-12	3.68E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn131	1.42E-08	1.42E-08	1.42E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb131	1.41E-06	1.41E-06	1.41E-06	2.02E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131	1.53E-06	1.53E-06	1.53E-06	2.96E-08	1.09E-29	.00E+00	.00E+00	.00E+00	.00E+00
te131m	1.64E-05	1.64E-05	1.64E-05	9.46E-06	3.49E-27	.00E+00	.00E+00	.00E+00	.00E+00
i131	7.93E-04	7.93E-04	7.93E-04	7.36E-04	3.48E-07	1.72E-17	3.65E-31	.00E+00	.00E+00
xe131	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01
xe131m	1.27E-05	1.27E-05	1.27E-05	1.27E-05	2.00E-07	2.30E-14	1.32E-23	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 18

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
cd132	1.12E-15	1.12E-15	1.12E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in132	6.33E-13	6.33E-13	6.33E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn132	1.03E-08	1.03E-08	1.03E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132	1.33E-07	1.33E-07	1.33E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132m	1.01E-07	1.01E-07	1.01E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te132	4.81E-04	4.81E-04	4.81E-04	3.89E-04	2.33E-12	.00E+00	.00E+00	.00E+00	.00E+00
i132	1.41E-05	1.41E-05	1.41E-05	1.17E-05	7.01E-14	.00E+00	.00E+00	.00E+00	.00E+00
xe132	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01
cs132	5.43E-11	5.43E-11	5.43E-11	4.88E-11	3.57E-15	5.81E-28	.00E+00	.00E+00	.00E+00
ba132	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08

in133	6.36E-15	6.36E-15	6.36E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn133	1.04E-10	1.04E-10	1.04E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb133	1.45E-07	1.45E-07	1.45E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133	1.15E-06	1.15E-06	1.15E-06	3.27E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133m	4.26E-06	4.26E-06	4.26E-06	6.42E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133	2.00E-04	2.00E-04	2.00E-04	9.24E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133m	1.43E-09	1.43E-09	1.43E-09	1.78E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133	1.21E-03	1.21E-03	1.21E-03	1.17E-03	1.01E-08	1.59E-24	.00E+00	.00E+00	.00E+00
xe133m	1.47E-05	1.47E-05	1.47E-05	1.35E-05	1.04E-17	.00E+00	.00E+00	.00E+00	.00E+00
cs133	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01
ba133	9.60E-12	9.60E-12	9.60E-12	9.60E-12	9.45E-12	8.99E-12	8.42E-12	6.91E-12	4.97E-12
in134	7.11E-16	7.11E-16	7.11E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn134	8.67E-12	8.67E-12	8.67E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134	1.59E-10	1.59E-10	1.59E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134m	1.19E-09	1.19E-09	1.19E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te134	6.95E-06	6.95E-06	6.95E-06	2.96E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134	9.79E-06	9.79E-06	9.79E-06	2.49E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134m	3.13E-08	3.13E-08	3.13E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01
xe134m	7.71E-12	7.71E-12	7.71E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134	1.90E-04	1.90E-04	1.90E-04	1.90E-04	1.75E-04	1.36E-04	9.70E-05	3.54E-05	6.59E-06
cs134m	2.32E-09	2.32E-09	2.32E-09	7.64E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba134	3.19E-02	3.19E-02	3.19E-02	3.19E-02	3.20E-02	3.20E-02	3.20E-02	3.21E-02	3.21E-02
sn135	2.62E-13	2.62E-13	2.62E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb135	1.16E-10	1.16E-10	1.16E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te135	2.55E-08	2.55E-08	2.55E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i135	6.03E-05	6.03E-05	6.03E-05	4.80E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135	8.72E-05	8.72E-05	8.72E-05	3.19E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135m	4.32E-07	4.32E-07	4.32E-07	3.04E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs135	5.79E+01	5.79E+01	5.79E+01	5.79E+01	5.79E+01	5.79E+01	5.79E+01	5.79E+01	5.79E+01
cs135m	4.87E-11	4.87E-11	4.87E-11	3.23E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135	8.74E-03	8.74E-03	8.74E-03	8.74E-03	8.74E-03	8.76E-03	8.77E-03	8.83E-03	8.91E-03
ba135m	1.08E-12	1.08E-12	1.08E-12	6.03E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn136	3.40E-14	3.40E-14	3.40E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb136	7.19E-12	7.19E-12	7.19E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te136	1.15E-08	1.15E-08	1.15E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136	1.11E-07	1.11E-07	1.11E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136m	2.86E-08	2.86E-08	2.86E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe136	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01
cs136	3.71E-06	3.71E-06	3.71E-06	3.52E-06	3.24E-08	1.64E-14	7.22E-23	.00E+00	.00E+00
ba136	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02
ba136m	1.13E-13	1.13E-13	1.13E-13	1.07E-13	9.84E-16	4.97E-22	2.19E-30	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 19

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
sb137	1.01E-11	1.01E-11	1.01E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te137	6.92E-10	6.92E-10	6.92E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i137	3.30E-08	3.30E-08	3.30E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe137	5.76E-07	5.76E-07	5.76E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs137	2.44E+00	2.44E+00	2.44E+00	2.44E+00	2.43E+00	2.39E+00	2.33E+00	2.18E+00	1.94E+00
ba137	5.40E+01	5.40E+01	5.40E+01	5.40E+01	5.40E+01	5.40E+01	5.41E+01	5.42E+01	5.45E+01
ba137m	3.73E-07	3.73E-07	3.73E-07	3.73E-07	3.71E-07	3.64E-07	3.56E-07	3.32E-07	2.96E-07
sb138	1.35E-14	1.35E-14	1.35E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te138	5.28E-11	5.28E-11	5.28E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i138	4.38E-09	4.38E-09	4.38E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe138	2.21E-06	2.21E-06	2.21E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138	5.29E-06	5.29E-06	5.29E-06	3.18E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138m	1.15E-08	1.15E-08	1.15E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ba138	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01
la138	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04
sb139	1.14E-15	1.14E-15	1.14E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te139	2.85E-12	2.85E-12	2.85E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i139	9.57E-10	9.57E-10	9.57E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe139	8.48E-08	8.48E-08	8.48E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs139	1.45E-06	1.45E-06	1.45E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba139	1.34E-05	1.34E-05	1.34E-05	1.14E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la139	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01
ce139	1.48E-10	1.48E-10	1.48E-10	1.47E-10	9.38E-11	2.34E-11	3.72E-12	1.49E-14	1.51E-18
pr139	2.52E-16	2.52E-16	2.52E-16	5.81E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te140	7.08E-13	7.08E-13	7.08E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i140	8.19E-11	8.19E-11	8.19E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe140	2.16E-08	2.16E-08	2.16E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs140	1.53E-07	1.53E-07	1.53E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba140	2.90E-03	2.90E-03	2.90E-03	2.75E-03	2.18E-05	6.95E-12	1.67E-20	.00E+00	.00E+00
la140	3.82E-04	3.82E-04	3.82E-04	3.78E-04	3.30E-06	1.05E-12	2.52E-21	.00E+00	.00E+00
ce140	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01
pr140	1.02E-14	1.02E-14	1.02E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te141	1.59E-15	1.59E-15	1.59E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i141	3.81E-12	3.81E-12	3.81E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe141	9.98E-10	9.98E-10	9.98E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs141	4.67E-08	4.67E-08	4.67E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba141	2.67E-06	2.67E-06	2.67E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la141	3.44E-05	3.44E-05	3.44E-05	5.36E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce141	6.85E-03	6.85E-03	6.85E-03	6.74E-03	1.01E-03	2.85E-06	1.18E-09	8.37E-20	1.02E-36
pr141	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01
nd141	5.71E-16	5.71E-16	5.71E-16	7.14E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te142	1.64E-15	1.64E-15	1.64E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i142	5.70E-13	5.70E-13	5.70E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe142	2.53E-10	2.53E-10	2.53E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs142	1.95E-09	1.95E-09	1.95E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba142	1.55E-06	1.55E-06	1.55E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la142	1.36E-05	1.36E-05	1.36E-05	2.67E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce142	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01
pr142	3.58E-08	3.58E-08	3.58E-08	1.50E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr142m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd142	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03
i143	6.94E-15	6.94E-15	6.94E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 20

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
xe143	2.61E-11	2.61E-11	2.61E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs143	1.14E-09	1.14E-09	1.14E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba143	3.25E-08	3.25E-08	3.25E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la143	2.12E-06	2.12E-06	2.12E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce143	2.99E-04	2.99E-04	2.99E-04	1.82E-04	5.96E-24	.00E+00	.00E+00	.00E+00	.00E+00
pr143	2.95E-03	2.95E-03	2.95E-03	2.92E-03	3.31E-05	2.58E-11	2.02E-19	.00E+00	.00E+00
nd143	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01
i144	8.63E-17	8.63E-17	8.63E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe144	4.72E-12	4.72E-12	4.72E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs144	1.66E-10	1.66E-10	1.66E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba144	2.17E-08	2.17E-08	2.17E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la144	9.45E-08	9.45E-08	9.45E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce144	5.76E-02	5.76E-02	5.76E-02	5.74E-02	4.63E-02	2.37E-02	9.74E-03	6.78E-04	7.97E-06
pr144	2.43E-06	2.43E-06	2.43E-06	2.42E-06	1.95E-06	9.98E-07	4.10E-07	2.85E-08	3.36E-10
pr144m	1.42E-08	1.42E-08	1.42E-08	1.41E-08	1.14E-08	5.82E-09	2.39E-09	1.66E-10	1.96E-12
nd144	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01

i145	3.42E-18	3.42E-18	3.42E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe145	2.28E-13	2.28E-13	2.28E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs145	1.83E-11	1.83E-11	1.83E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba145	3.50E-09	3.50E-09	3.50E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la145	3.88E-08	3.88E-08	3.88E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce145	3.06E-07	3.06E-07	3.06E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr145	3.65E-05	3.65E-05	3.65E-05	2.28E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd145	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01
pm145	6.31E-11	6.31E-11	6.31E-11	6.31E-11	6.30E-11	6.22E-11	6.05E-11	5.44E-11	4.48E-11
sm145	2.98E-12	2.98E-12	2.98E-12	2.98E-12	2.48E-12	1.42E-12	6.73E-13	7.21E-14	1.74E-15
xe146	1.38E-14	1.38E-14	1.38E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs146	2.94E-12	2.94E-12	2.94E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba146	9.93E-10	9.93E-10	9.93E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la146	6.72E-09	6.72E-09	6.72E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce146	1.05E-06	1.05E-06	1.05E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr146	1.89E-06	1.89E-06	1.89E-06	4.83E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd146	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01
pm146	1.19E-10	1.19E-10	1.19E-10	1.19E-10	1.16E-10	1.05E-10	9.29E-11	6.38E-11	3.41E-11
sm146	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06
xe147	1.38E-17	1.38E-17	1.38E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs147	4.58E-14	4.58E-14	4.58E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba147	3.50E-11	3.50E-11	3.50E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la147	1.84E-09	1.84E-09	1.84E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce147	5.43E-08	5.43E-08	5.43E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr147	8.12E-07	8.12E-07	8.12E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd147	9.44E-04	9.44E-04	9.44E-04	8.87E-04	3.22E-06	9.16E-14	8.88E-24	.00E+00	.00E+00
pm147	8.22E-02	8.22E-02	8.22E-02	8.22E-02	7.80E-02	6.39E-02	4.91E-02	2.22E-02	5.92E-03
sm147	2.17E+01	2.17E+01	2.17E+01	2.17E+01	2.17E+01	2.17E+01	2.17E+01	2.17E+01	2.18E+01
cs148	3.02E-15	3.02E-15	3.02E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba148	4.56E-12	4.56E-12	4.56E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la148	1.29E-10	1.29E-10	1.29E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce148	3.81E-08	3.81E-08	3.81E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr148	1.01E-07	1.01E-07	1.01E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd148	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01
pm148	6.15E-09	6.15E-09	6.15E-09	5.43E-09	6.22E-11	6.12E-13	1.33E-15	1.37E-23	6.38E-37
pm148m	4.09E-08	4.09E-08	4.09E-08	4.02E-08	9.03E-09	8.90E-11	1.94E-13	1.99E-21	9.70E-35

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 21

0 nuclide concentrations, grams

basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
sm148	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02
cs149	2.57E-17	2.57E-17	2.57E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba149	4.67E-13	4.67E-13	4.67E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la149	7.38E-11	7.38E-11	7.38E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce149	1.81E-09	1.81E-09	1.81E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr149	6.42E-08	6.42E-08	6.42E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd149	3.01E-06	3.01E-06	3.01E-06	2.00E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm149	9.26E-05	9.26E-05	9.26E-05	7.00E-05	5.40E-17	.00E+00	.00E+00	.00E+00	.00E+00
sm149	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00
eu149	2.04E-14	2.04E-14	2.04E-14	2.03E-14	1.05E-14	1.35E-15	8.86E-17	2.53E-20	3.12E-26
cs150	1.68E-18	1.68E-18	1.68E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba150	4.88E-14	4.88E-14	4.88E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la150	2.41E-12	2.41E-12	2.41E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce150	5.40E-10	5.40E-10	5.40E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr150	1.65E-09	1.65E-09	1.65E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd150	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00
pm150	1.94E-10	1.94E-10	1.94E-10	3.91E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00
eu150	3.32E-09	3.32E-09	3.32E-09	3.32E-09	3.31E-09	3.26E-09	3.20E-09	3.02E-09	2.74E-09

ba151	1.53E-16	1.53E-16	1.53E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la151	3.71E-13	3.71E-13	3.71E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce151	3.29E-11	3.29E-11	3.29E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr151	2.46E-09	2.46E-09	2.46E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd151	1.46E-07	1.46E-07	1.46E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm151	2.01E-05	2.01E-05	2.01E-05	1.13E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm151	5.49E-01	5.49E-01	5.49E-01	5.49E-01	5.48E-01	5.45E-01	5.40E-01	5.28E-01	5.08E-01
eu151	3.50E+00	3.50E+00	3.50E+00	3.50E+00	3.50E+00	3.50E+00	3.51E+00	3.52E+00	3.54E+00
ba152	1.60E-18	1.60E-18	1.60E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la152	3.06E-15	3.06E-15	3.06E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce152	3.49E-11	3.49E-11	3.49E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr152	2.89E-10	2.89E-10	2.89E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd152	8.40E-08	8.40E-08	8.40E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152	3.08E-08	3.08E-08	3.08E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152m	1.05E-09	1.05E-09	1.05E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm152	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00
eu152	4.61E-03	4.61E-03	4.61E-03	4.61E-03	4.55E-03	4.38E-03	4.16E-03	3.56E-03	2.74E-03
eu152m	2.04E-07	2.04E-07	2.04E-07	3.43E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	7.30E-02	7.30E-02	7.30E-02	7.30E-02	7.30E-02	7.30E-02	7.31E-02	7.32E-02	7.35E-02
la153	1.04E-15	1.04E-15	1.04E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce153	1.45E-12	1.45E-12	1.45E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr153	6.85E-11	6.85E-11	6.85E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd153	4.69E-09	4.69E-09	4.69E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm153	2.54E-08	2.54E-08	2.54E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm153	1.33E-05	1.33E-05	1.33E-05	9.31E-06	1.19E-19	.00E+00	.00E+00	.00E+00	.00E+00
eu153	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00
gd153	1.86E-07	1.86E-07	1.86E-07	1.86E-07	1.44E-07	6.53E-08	2.29E-08	9.86E-10	5.22E-12
la154	1.19E-17	1.19E-17	1.19E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce154	1.74E-13	1.74E-13	1.74E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr154	2.43E-12	2.43E-12	2.43E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd154	1.09E-09	1.09E-09	1.09E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154	3.28E-09	3.28E-09	3.28E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154m	7.29E-10	7.29E-10	7.29E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 22

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
sm154	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01
eu154	1.39E-04	1.39E-04	1.39E-04	1.39E-04	1.36E-04	1.28E-04	1.18E-04	9.27E-05	6.19E-05
gd154	5.53E-03	5.53E-03	5.53E-03	5.53E-03	5.53E-03	5.54E-03	5.55E-03	5.57E-03	5.60E-03
la155	6.03E-20	6.03E-20	6.03E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce155	3.63E-15	3.63E-15	3.63E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr155	4.68E-13	4.68E-13	4.68E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd155	1.48E-10	1.48E-10	1.48E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm155	7.52E-10	7.52E-10	7.52E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm155	2.30E-08	2.30E-08	2.30E-08	8.71E-28	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu155	2.53E-03	2.53E-03	2.53E-03	2.53E-03	2.44E-03	2.19E-03	1.88E-03	1.21E-03	5.76E-04
gd155m	5.62E-18	5.62E-18	5.62E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155	2.79E-01	2.79E-01	2.79E-01	2.79E-01	2.79E-01	2.79E-01	2.80E-01	2.80E-01	2.81E-01
ce156	3.07E-16	3.07E-16	3.07E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr156	1.84E-14	1.84E-14	1.84E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd156	4.34E-11	4.34E-11	4.34E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm156	7.45E-11	7.45E-11	7.45E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm156	2.57E-07	2.57E-07	2.57E-07	4.38E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu156	1.00E-05	1.00E-05	1.00E-05	9.78E-06	1.69E-07	5.91E-13	3.39E-20	.00E+00	.00E+00
gd156	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01
ce157	5.23E-18	5.23E-18	5.23E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr157	2.62E-15	2.62E-15	2.62E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd157	1.14E-12	1.14E-12	1.14E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pm157	1.28E-10	1.28E-10	1.28E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm157	1.81E-09	1.81E-09	1.81E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu157	2.08E-07	2.08E-07	2.08E-07	7.02E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd157	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02
pr158	6.01E-17	6.01E-17	6.01E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd158	1.99E-13	1.99E-13	1.99E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm158	1.90E-12	1.90E-12	1.90E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm158	5.66E-10	5.66E-10	5.66E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu158	5.05E-09	5.05E-09	5.05E-09	2.05E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd158	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02
pr159	2.71E-18	2.71E-18	2.71E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd159	4.06E-15	4.06E-15	4.06E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm159	2.90E-13	2.90E-13	2.90E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm159	9.07E-11	9.07E-11	9.07E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu159	7.62E-10	7.62E-10	7.62E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd159	4.75E-08	4.75E-08	4.75E-08	1.97E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb159	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02
nd160	3.20E-16	3.20E-16	3.20E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm160	7.67E-15	7.67E-15	7.67E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm160	1.11E-11	1.11E-11	1.11E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu160	1.05E-11	1.05E-11	1.05E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd160	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03
tb160	2.95E-09	2.95E-09	2.95E-09	2.92E-09	1.24E-09	8.88E-11	2.68E-12	7.34E-17	1.83E-24
dy160	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06
nd161	5.18E-18	5.18E-18	5.18E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm161	1.03E-15	1.03E-15	1.03E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm161	1.39E-13	1.39E-13	1.39E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu161	3.00E-12	3.00E-12	3.00E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd161	1.97E-11	1.97E-11	1.97E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb161	5.39E-08	5.39E-08	5.39E-08	4.87E-08	6.39E-12	6.27E-24	7.30E-40	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 23

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
dy161	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03
pm162	2.89E-17	2.89E-17	2.89E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm162	2.80E-14	2.80E-14	2.80E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu162	2.71E-12	2.71E-12	2.71E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd162	1.58E-11	1.58E-11	1.58E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162	1.48E-11	1.48E-11	1.48E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	3.22E-12	3.22E-12	3.22E-12	1.85E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy162	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04
sm163	6.00E-16	6.00E-16	6.00E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu163	2.54E-14	2.54E-14	2.54E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd163	9.86E-13	9.86E-13	9.86E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163	1.38E-11	1.38E-11	1.38E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy163	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04
sm164	5.62E-17	5.62E-17	5.62E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu164	6.70E-16	6.70E-16	6.70E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd164	4.10E-12	4.10E-12	4.10E-12	4.18E-32	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	7.38E-13	7.38E-13	7.38E-13	6.72E-33	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy164	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05
sm165	1.06E-18	1.06E-18	1.06E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu165	9.59E-17	9.59E-17	9.59E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	3.69E-14	3.69E-14	3.69E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	2.01E-13	2.01E-13	2.01E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165	1.50E-11	1.50E-11	1.50E-11	1.23E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	1.10E-13	1.10E-13	1.10E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ho165	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05
dy166	6.00E-11	6.00E-11	6.00E-11	4.89E-11	6.47E-19	.00E+00	.00E+00	.00E+00	.00E+00
ho166	2.00E-11	2.00E-11	2.00E-11	1.89E-11	3.16E-19	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	2.84E-08	2.84E-08	2.84E-08	2.84E-08	2.84E-08	2.84E-08	2.84E-08	2.83E-08	2.82E-08
er166	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06
er167	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09
er167m	1.36E-20	1.36E-20	1.36E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09
yb168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er169	2.81E-13	2.81E-13	2.81E-13	2.61E-13	3.68E-16	5.65E-25	1.14E-36	.00E+00	.00E+00
tm169	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09
yb169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er170	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09
tm170	1.96E-14	1.96E-14	1.96E-14	1.95E-14	1.21E-14	2.73E-15	3.82E-16	1.04E-18	5.51E-23
tm170m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb170	1.95E-11	1.95E-11	1.95E-11	1.95E-11	1.95E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11
er171	1.53E-14	1.53E-14	1.53E-14	1.68E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	3.49E-11	3.49E-11	3.49E-11	3.49E-11	3.20E-11	2.44E-11	1.70E-11	5.75E-12	9.46E-13
yb171	8.49E-09	8.49E-09	8.49E-09	8.49E-09	8.49E-09	8.50E-09	8.51E-09	8.52E-09	8.52E-09
er172	7.43E-14	7.43E-14	7.43E-14	5.30E-14	4.82E-27	.00E+00	.00E+00	.00E+00	.00E+00
tm172	9.95E-14	9.95E-14	9.95E-14	9.52E-14	2.58E-23	.00E+00	.00E+00	.00E+00	.00E+00
yb172	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09
total	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 24

0 nuclide radioactivity, curies

basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
h 3	3.72E-01	3.72E-01	3.72E-01	3.72E-01	3.67E-01	3.51E-01	3.32E-01	2.81E-01	2.12E-01
li 6	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
li 7	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
be 9	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
be 10	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07
c 14	5.01E-06	5.01E-06	5.01E-06	5.01E-06	5.01E-06	5.01E-06	5.01E-06	5.01E-06	5.00E-06
ni 66	1.09E-07	1.09E-07	1.09E-07	8.03E-08	1.35E-19	.00E+00	.00E+00	.00E+00	.00E+00
cu 66	1.09E-07	1.09E-07	1.09E-07	8.04E-08	1.35E-19	.00E+00	.00E+00	.00E+00	.00E+00
zn 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 67	1.90E-08	1.90E-08	1.90E-08	1.45E-08	5.80E-19	.00E+00	.00E+00	.00E+00	.00E+00
zn 67	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 68	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69	2.76E-08	2.76E-08	2.76E-08	7.17E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69m	2.24E-08	2.24E-08	2.24E-08	6.68E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 69	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 70	5.27E-10	5.27E-10	5.27E-10	1.62E-30	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71	1.65E-06	1.65E-06	1.65E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71m	7.05E-06	7.05E-06	7.05E-06	1.06E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 71	2.48E-12	2.48E-12	2.48E-12	2.34E-12	1.06E-14	6.02E-22	1.37E-31	.00E+00	.00E+00
ge 71m	1.24E-12	1.24E-12	1.24E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 72	7.06E-06	7.06E-06	7.06E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 72	3.54E-04	3.54E-04	3.54E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 72	7.83E-04	7.83E-04	7.83E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 72	9.34E-04	9.34E-04	9.34E-04	6.53E-04	9.71E-18	.00E+00	.00E+00	.00E+00	.00E+00
ga 72	9.35E-04	9.35E-04	9.35E-04	8.13E-04	1.39E-17	.00E+00	.00E+00	.00E+00	.00E+00
ge 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 73	4.55E-06	4.55E-06	4.55E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 73	5.27E-04	5.27E-04	5.27E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 73	2.54E-03	2.54E-03	2.54E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

zn 73	3.93E-03	3.93E-03	3.93E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 73	3.96E-03	3.96E-03	3.96E-03	1.29E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73m	3.91E-03	3.91E-03	3.91E-03	1.28E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 74	9.51E-07	9.51E-07	9.51E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 74	4.03E-04	4.03E-04	4.03E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 74	3.92E-03	3.92E-03	3.92E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 74	1.18E-02	1.18E-02	1.18E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 74	3.40E-03	3.40E-03	3.40E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 75	1.80E-07	1.80E-07	1.80E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 75	1.91E-04	1.91E-04	1.91E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 75	6.02E-03	6.02E-03	6.02E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 75	3.35E-02	3.35E-02	3.35E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 75	3.87E-02	3.87E-02	3.87E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75	3.89E-02	3.89E-02	3.89E-02	2.32E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75m	1.99E-03	1.99E-03	1.99E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 76	7.32E-05	7.32E-05	7.32E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 76	5.51E-03	5.51E-03	5.51E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 25

0 nuclide radioactivity, curies

basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
zn 76	8.90E-02	8.90E-02	8.90E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 76	1.24E-01	1.24E-01	1.24E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 76	1.01E-05	1.01E-05	1.01E-05	5.39E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 77	1.16E-05	1.16E-05	1.16E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 77	2.86E-03	2.86E-03	2.86E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 77	1.05E-01	1.05E-01	1.05E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 77	2.39E-01	2.39E-01	2.39E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77	8.58E-02	8.58E-02	8.58E-02	1.97E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77m	2.44E-01	2.44E-01	2.44E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 77	2.79E-01	2.79E-01	2.79E-01	1.97E-01	5.67E-18	.00E+00	.00E+00	.00E+00	.00E+00
se 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 77m	8.93E-04	8.93E-04	8.93E-04	6.30E-04	1.81E-20	.00E+00	.00E+00	.00E+00	.00E+00
ni 78	1.73E-06	1.73E-06	1.73E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 78	9.19E-04	9.19E-04	9.19E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 78	1.20E-01	1.20E-01	1.20E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 78	4.78E-01	4.78E-01	4.78E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 78	7.24E-01	7.24E-01	7.24E-01	8.59E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 78	7.30E-01	7.30E-01	7.30E-01	1.25E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 79	1.86E-04	1.86E-04	1.86E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 79	6.08E-02	6.08E-02	6.08E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 79	6.33E-01	6.33E-01	6.33E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 79	1.40E+00	1.40E+00	1.40E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 79	1.49E+00	1.49E+00	1.49E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 79	3.12E-03	3.12E-03	3.12E-03	3.12E-03	3.12E-03	3.12E-03	3.12E-03	3.12E-03	3.12E-03
se 79m	1.47E+00	1.47E+00	1.47E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 79m	1.22E-07	1.22E-07	1.22E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 79	7.82E-13	7.82E-13	7.82E-13	4.86E-13	2.05E-31	.00E+00	.00E+00	.00E+00	.00E+00
cu 80	1.54E-05	1.54E-05	1.54E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 80	1.59E-02	1.59E-02	1.59E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 80	3.82E-01	3.82E-01	3.82E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 80	3.98E+00	3.98E+00	3.98E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

as 80	4.35E+00	4.35E+00	4.35E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80	3.64E-06	3.64E-06	3.64E-06	6.31E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80m	2.54E-06	2.54E-06	2.54E-06	5.89E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 81	1.31E-06	1.31E-06	1.31E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 81	3.13E-03	3.13E-03	3.13E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 81	2.55E-01	2.55E-01	2.55E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 81	4.29E+00	4.29E+00	4.29E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 81	6.17E+00	6.17E+00	6.17E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81	6.43E+00	6.43E+00	6.43E+00	1.64E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81m	4.12E-01	4.12E-01	4.12E-01	1.11E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 81	4.18E-10	4.18E-10	4.18E-10	4.18E-10	4.18E-10	4.18E-10	4.18E-10	4.18E-10	4.18E-10
kr 81m	1.78E-08	1.78E-08	1.78E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 82	9.52E-04	9.52E-04	9.52E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 82	2.34E-01	2.34E-01	2.34E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part.B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 26

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
ge 82	4.53E+00	4.53E+00	4.53E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82	7.18E+00	7.18E+00	7.18E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82m	2.65E+00	2.65E+00	2.65E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 82	3.92E-03	3.92E-03	3.92E-03	2.45E-03	1.50E-21	.00E+00	.00E+00	.00E+00	.00E+00
br 82m	1.46E-03	1.46E-03	1.46E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 83	2.50E-05	2.50E-05	2.50E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 83	1.56E-02	1.56E-02	1.56E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 83	1.84E+00	1.84E+00	1.84E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 83	1.18E+01	1.18E+01	1.18E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83	8.02E+00	8.02E+00	8.02E+00	2.93E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83m	9.30E+00	9.30E+00	9.30E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 83	1.80E+01	1.80E+01	1.80E+01	1.91E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 83m	1.79E+01	1.79E+01	1.79E+01	8.23E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 84	2.98E-01	2.98E-01	2.98E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 84	1.10E+00	1.10E+00	1.10E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 84	8.45E+00	8.45E+00	8.45E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 84	3.41E+01	3.41E+01	3.41E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84	3.49E+01	3.49E+01	3.49E+01	9.05E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84m	8.11E-01	8.11E-01	8.11E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 85	1.76E-04	1.76E-04	1.76E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 85	1.76E-01	1.76E-01	1.76E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 85	5.34E+00	5.34E+00	5.34E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85	1.72E+01	1.72E+01	1.72E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85m	1.52E+01	1.52E+01	1.52E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 85	4.06E+01	4.06E+01	4.06E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85	8.79E+00	8.79E+00	8.79E+00	8.78E+00	8.65E+00	8.24E+00	7.72E+00	6.36E+00	4.60E+00
kr 85m	4.06E+01	4.06E+01	4.06E+01	1.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 86	3.51E-02	3.51E-02	3.51E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 86	3.16E+00	3.16E+00	3.16E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 86	4.30E+01	4.30E+01	4.30E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86	5.17E+01	5.17E+01	5.17E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86m	8.63E+00	8.63E+00	8.63E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

rb 86	7.13E-04	7.13E-04	7.13E-04	6.87E-04	2.51E-05	8.97E-10	1.13E-15	.00E+00	.00E+00
rb 86m	3.37E-05	3.37E-05	3.37E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 87	6.38E-01	6.38E-01	6.38E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 87	2.20E+00	2.20E+00	2.20E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 87	2.55E+01	2.55E+01	2.55E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 87	6.69E+01	6.69E+01	6.69E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 87	8.33E+01	8.33E+01	8.33E+01	1.76E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 87	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06
sr 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 87m	2.81E-05	2.81E-05	2.81E-05	7.57E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 88	8.37E-04	8.37E-04	8.37E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 88	1.06E+00	1.06E+00	1.06E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 88	1.25E+01	1.25E+01	1.25E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 27

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
br 88	6.78E+01	6.78E+01	6.78E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 88	1.18E+02	1.18E+02	1.18E+02	3.37E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 88	1.21E+02	1.21E+02	1.21E+02	3.76E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 89	7.45E-03	7.45E-03	7.45E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 89	4.30E+00	4.30E+00	4.30E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 89	4.47E+01	4.47E+01	4.47E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 89	1.52E+02	1.52E+02	1.52E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 89	1.60E+02	1.60E+02	1.60E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 89	1.61E+02	1.61E+02	1.61E+02	1.59E+02	4.70E+01	1.08E+00	7.22E-03	2.16E-09	2.88E-20
y 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89m	1.53E-02	1.53E-02	1.53E-02	1.48E-02	4.37E-03	1.00E-04	6.71E-07	2.01E-13	2.68E-24
as 90	5.17E-05	5.17E-05	5.17E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 90	8.77E-01	8.77E-01	8.77E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 90	2.31E+01	2.31E+01	2.31E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 90	1.67E+02	1.67E+02	1.67E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90	1.52E+02	1.52E+02	1.52E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90m	4.28E+01	4.28E+01	4.28E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 90	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.94E+02	1.90E+02	1.86E+02	1.72E+02	1.52E+02
y 90	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.94E+02	1.90E+02	1.86E+02	1.72E+02	1.52E+02
y 90m	3.46E-06	3.46E-06	3.46E-06	1.88E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 91	6.81E-02	6.81E-02	6.81E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 91	8.45E+00	8.45E+00	8.45E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 91	1.14E+02	1.14E+02	1.14E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	1.89E+02	1.89E+02	1.89E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 91	1.97E+02	1.97E+02	1.97E+02	3.44E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91	1.97E+02	1.97E+02	1.97E+02	1.96E+02	6.84E+01	2.62E+00	3.46E-02	7.97E-08	3.20E-17
y 91m	1.14E+02	1.14E+02	1.14E+02	2.19E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 91	6.06E-11	6.06E-11	6.06E-11	6.06E-11	6.06E-11	6.05E-11	6.05E-11	6.03E-11	6.00E-11
se 92	4.41E-03	4.41E-03	4.41E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 92	1.28E+00	1.28E+00	1.28E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 92	5.84E+01	5.84E+01	5.84E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 92	1.62E+02	1.62E+02	1.62E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 92	1.97E+02	1.97E+02	1.97E+02	4.25E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 92	1.99E+02	1.99E+02	1.99E+02	6.27E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 92	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13
se 93	1.91E-05	1.91E-05	1.91E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

br 93	1.33E-01	1.33E-01	1.33E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 93	1.85E+01	1.85E+01	1.85E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 93	1.22E+02	1.22E+02	1.22E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 93	2.09E+02	2.09E+02	2.09E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 93	1.41E+02	1.41E+02	1.41E+02	2.75E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 93	6.41E-02	6.41E-02	6.41E-02	6.41E-02	6.41E-02	6.41E-02	6.41E-02	6.41E-02	6.41E-02
nb 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 93m	6.26E-02	6.26E-02	6.26E-02	6.26E-02	6.26E-02	6.27E-02	6.27E-02	6.29E-02	6.31E-02
br 94	8.99E-03	8.99E-03	8.99E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 94	7.98E+00	7.98E+00	7.98E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 94	6.09E+01	6.09E+01	6.09E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 28

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
sr 94	2.01E+02	2.01E+02	2.01E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 94	2.14E+02	2.14E+02	2.14E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 94	1.92E-06	1.92E-06	1.92E-06	1.92E-06	1.92E-06	1.92E-06	1.92E-06	1.92E-06	1.91E-06
nb 94m	2.47E-05	2.47E-05	2.47E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 95	7.27E-05	7.27E-05	7.27E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 95	3.78E-01	3.78E-01	3.78E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 95	2.84E+01	2.84E+01	2.84E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 95	1.81E+02	1.81E+02	1.81E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 95	2.15E+02	2.15E+02	2.15E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 95	2.17E+02	2.17E+02	2.17E+02	2.15E+02	8.21E+01	4.17E+00	7.99E-02	5.62E-07	1.45E-15
nb 95	2.17E+02	2.17E+02	2.17E+02	2.17E+02	1.37E+02	8.99E+00	1.81E-01	1.24E-06	3.20E-15
nb 95m	2.41E+00	2.41E+00	2.41E+00	2.41E+00	9.65E-01	4.90E-02	9.39E-04	6.61E-09	1.71E-17
mo 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 96	1.72E-05	1.72E-05	1.72E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 96	7.62E-02	7.62E-02	7.62E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 96	7.30E+00	7.30E+00	7.30E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 96	1.32E+02	1.32E+02	1.32E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 96	2.02E+02	2.02E+02	2.02E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 96	1.98E-02	1.98E-02	1.98E-02	9.69E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 97	6.84E-04	6.84E-04	6.84E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 97	2.61E+00	2.61E+00	2.61E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 97	6.95E+01	6.95E+01	6.95E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 97	1.65E+02	1.65E+02	1.65E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 97	1.90E+02	1.90E+02	1.90E+02	7.09E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97	1.90E+02	1.90E+02	1.90E+02	7.12E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97m	1.80E+02	1.80E+02	1.80E+02	6.72E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 98	2.17E-04	2.17E-04	2.17E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 98	1.17E-01	1.17E-01	1.17E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 98	2.48E+01	2.48E+01	2.48E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 98	1.22E+02	1.22E+02	1.22E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 98	1.94E+02	1.94E+02	1.94E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98	1.95E+02	1.95E+02	1.95E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98m	7.22E-01	7.22E-01	7.22E-01	2.56E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc 98	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.23E-09
rb 99	2.69E-03	2.69E-03	2.69E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 99	1.23E+01	1.23E+01	1.23E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 99	8.11E+01	8.11E+01	8.11E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 99	1.90E+02	1.90E+02	1.90E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 99	1.23E+02	1.23E+02	1.23E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

nb 99m	8.11E+01	8.11E+01	8.11E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 99	2.06E+02	2.06E+02	2.06E+02	1.60E+02	2.85E-08	.00E+00	.00E+00	.00E+00	.00E+00
tc 99	6.76E-01	6.76E-01	6.76E-01	6.76E-01	6.76E-01	6.76E-01	6.76E-01	6.76E-01	6.76E-01
tc 99m	1.82E+02	1.82E+02	1.82E+02	1.54E+02	2.76E-08	.00E+00	.00E+00	.00E+00	.00E+00
ru 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb100	7.08E-04	7.08E-04	7.08E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr100	7.63E-01	7.63E-01	7.63E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y100	1.96E+01	1.96E+01	1.96E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 29

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
zr100	1.96E+02	1.96E+02	1.96E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100	2.03E+02	2.03E+02	2.03E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100m	6.91E+00	6.91E+00	6.91E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc100	1.81E-01	1.81E-01	1.81E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb101	5.03E-06	5.03E-06	5.03E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr101	1.47E-01	1.47E-01	1.47E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y101	1.41E+01	1.41E+01	1.41E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr101	1.06E+02	1.06E+02	1.06E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb101	1.68E+02	1.68E+02	1.68E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo101	1.73E+02	1.73E+02	1.73E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc101	1.73E+02	1.73E+02	1.73E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr102	3.35E-02	3.35E-02	3.35E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y102	8.68E+00	8.68E+00	8.68E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr102	8.12E+01	8.12E+01	8.12E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb102	1.35E+02	1.35E+02	1.35E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo102	1.46E+02	1.46E+02	1.46E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102	1.46E+02	1.46E+02	1.46E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102m	6.95E-02	6.95E-02	6.95E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh102	8.66E-06	8.66E-06	8.66E-06	8.65E-06	8.16E-06	6.82E-06	5.37E-06	2.62E-06	7.93E-07
pd102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr103	9.29E-05	9.29E-05	9.29E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y103	2.68E+00	2.68E+00	2.68E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr103	2.32E+01	2.32E+01	2.32E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb103	7.97E+01	7.97E+01	7.97E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo103	1.05E+02	1.05E+02	1.05E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc103	1.08E+02	1.08E+02	1.08E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru103	1.08E+02	1.08E+02	1.08E+02	1.06E+02	2.20E+01	1.71E-01	2.70E-04	1.07E-12	1.06E-26
rh103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103m	1.07E+02	1.07E+02	1.07E+02	1.06E+02	2.20E+01	1.70E-01	2.69E-04	1.07E-12	1.06E-26
sr104	2.89E-05	2.89E-05	2.89E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y104	2.05E-02	2.05E-02	2.05E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr104	5.08E+00	5.08E+00	5.08E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb104	2.84E+01	2.84E+01	2.84E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo104	6.52E+01	6.52E+01	6.52E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc104	6.72E+01	6.72E+01	6.72E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104	4.67E-01	4.67E-01	4.67E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104m	3.41E-02	3.41E-02	3.41E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y105	1.90E-04	1.90E-04	1.90E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr105	3.12E+00	3.12E+00	3.12E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb105	1.04E+01	1.04E+01	1.04E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo105	3.64E+01	3.64E+01	3.64E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

tc105	3.79E+01	3.79E+01	3.79E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru105	3.80E+01	3.80E+01	3.80E+01	9.23E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105	3.80E+01	3.80E+01	3.80E+01	2.71E+01	1.78E-17	.00E+00	.00E+00	.00E+00	.00E+00
rh105m	1.08E+01	1.08E+01	1.08E+01	2.63E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 30

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
y106	3.18E-06	3.18E-06	3.18E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr106	3.35E-02	3.35E-02	3.35E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb106	9.26E-01	9.26E-01	9.26E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo106	1.53E+01	1.53E+01	1.53E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc106	1.70E+01	1.70E+01	1.70E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru106	1.76E+01	1.76E+01	1.76E+01	1.76E+01	1.49E+01	8.91E+00	4.51E+00	5.84E-01	1.94E-02
rh106	1.76E+01	1.76E+01	1.76E+01	1.76E+01	1.49E+01	8.91E+00	4.51E+00	5.84E-01	1.94E-02
rh106m	4.08E-04	4.08E-04	4.08E-04	1.89E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag106	4.69E-12	4.69E-12	4.69E-12	4.06E-30	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y107	2.87E-08	2.87E-08	2.87E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr107	3.21E-04	3.21E-04	3.21E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb107	1.50E-01	1.50E-01	1.50E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo107	4.69E+00	4.69E+00	4.69E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc107	6.45E+00	6.45E+00	6.45E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru107	7.44E+00	7.44E+00	7.44E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh107	7.45E+00	7.45E+00	7.45E+00	9.66E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd107	7.17E-04	7.17E-04	7.17E-04	7.17E-04	7.17E-04	7.17E-04	7.17E-04	7.17E-04	7.17E-04
pd107m	1.37E-04	1.37E-04	1.37E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr108	1.25E-05	1.25E-05	1.25E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb108	3.94E-03	3.94E-03	3.94E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo108	4.43E-01	4.43E-01	4.43E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc108	1.87E+00	1.87E+00	1.87E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru108	3.72E+00	3.72E+00	3.72E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108	3.76E+00	3.76E+00	3.76E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108m	3.95E-02	3.95E-02	3.95E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag108	3.27E-07	3.27E-07	3.27E-07	8.45E-10	8.43E-10	8.40E-10	8.35E-10	8.22E-10	8.00E-10
ag108m	9.71E-09	9.71E-09	9.71E-09	9.71E-09	9.70E-09	9.66E-09	9.60E-09	9.45E-09	9.19E-09
cd108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr109	1.00E-08	1.00E-08	1.00E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb109	1.70E-04	1.70E-04	1.70E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo109	4.47E-02	4.47E-02	4.47E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc109	5.32E-01	5.32E-01	5.32E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru109	2.01E+00	2.01E+00	2.01E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109	2.25E+00	2.25E+00	2.25E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109m	1.13E+00	1.13E+00	1.13E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109	2.26E+00	2.26E+00	2.26E+00	6.73E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109m	3.89E-03	3.89E-03	3.89E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109m	2.26E+00	2.26E+00	2.26E+00	6.73E-01	2.95E-10	1.95E-10	1.13E-10	2.19E-11	1.42E-12
cd109	3.37E-10	3.37E-10	3.37E-10	3.37E-10	2.95E-10	1.95E-10	1.13E-10	2.19E-11	1.42E-12
nb110	8.33E-06	8.33E-06	8.33E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo110	6.92E-03	6.92E-03	6.92E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc110	1.37E-01	1.37E-01	1.37E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru110	1.12E+00	1.12E+00	1.12E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110	1.30E-01	1.30E-01	1.30E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110m	1.25E+00	1.25E+00	1.25E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ag110	6.67E-03	6.67E-03	6.67E-03	3.81E-06	2.98E-06	1.39E-06	5.03E-07	2.41E-08	1.51E-10
ag110m	2.81E-04	2.81E-04	2.81E-04	2.80E-04	2.19E-04	1.02E-04	3.70E-05	1.77E-06	1.11E-08

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 31

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
cd110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb111	7.35E-08	7.35E-08	7.35E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo111	7.77E-04	7.77E-04	7.77E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc111	3.83E-02	3.83E-02	3.83E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru111	5.19E-01	5.19E-01	5.19E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh111	8.34E-01	8.34E-01	8.34E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111	8.64E-01	8.64E-01	8.64E-01	9.08E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111m	2.38E-02	2.38E-02	2.38E-02	1.16E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111	8.65E-01	8.65E-01	8.65E-01	7.90E-01	2.00E-04	1.51E-15	2.65E-30	.00E+00	.00E+00
ag111m	8.63E-01	8.63E-01	8.63E-01	1.13E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd111m	7.81E-08	7.81E-08	7.81E-08	9.40E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb112	2.73E-09	2.73E-09	2.73E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo112	1.25E-04	1.25E-04	1.25E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc112	9.19E-03	9.19E-03	9.19E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru112	2.90E-01	2.90E-01	2.90E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh112	5.67E-01	5.67E-01	5.67E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd112	6.47E-01	6.47E-01	6.47E-01	2.94E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag112	6.48E-01	6.48E-01	6.48E-01	3.45E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo113	2.45E-06	2.45E-06	2.45E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc113	2.61E-03	2.61E-03	2.61E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru113	1.37E-01	1.37E-01	1.37E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh113	4.53E-01	4.53E-01	4.53E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd113	6.10E-01	6.10E-01	6.10E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113	5.90E-01	5.90E-01	5.90E-01	2.68E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113m	1.15E-01	1.15E-01	1.15E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd113	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14
cd113m	1.00E-02	1.00E-02	1.00E-02	1.00E-02	9.91E-03	9.55E-03	9.10E-03	7.85E-03	6.14E-03
in113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in113m	5.62E-11	5.62E-11	5.62E-11	2.47E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo114	1.26E-06	1.26E-06	1.26E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc114	4.13E-04	4.13E-04	4.13E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru114	5.44E-02	5.44E-02	5.44E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh114	2.60E-01	2.60E-01	2.60E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd114	5.15E-01	5.15E-01	5.15E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag114	5.23E-01	5.23E-01	5.23E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in114	2.64E-06	2.64E-06	2.64E-06	1.87E-06	5.39E-07	1.14E-08	6.88E-11	1.50E-17	1.18E-28
in114m	1.99E-06	1.99E-06	1.99E-06	1.96E-06	5.64E-07	1.20E-08	7.19E-11	1.57E-17	1.24E-28
sn114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo115	5.40E-09	5.40E-09	5.40E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc115	1.29E-05	1.29E-05	1.29E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru115	1.20E-02	1.20E-02	1.20E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh115	1.27E-01	1.27E-01	1.27E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd115	3.87E-01	3.87E-01	3.87E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115	2.95E-01	2.95E-01	2.95E-01	6.46E-23	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115m	1.18E-01	1.18E-01	1.18E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115	3.96E-01	3.96E-01	3.96E-01	2.92E-01	2.75E-13	.00E+00	.00E+00	.00E+00	.00E+00
cd115m	1.71E-02	1.71E-02	1.71E-02	1.68E-02	4.21E-03	5.84E-05	2.00E-07	8.03E-15	3.77E-27
in115	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13
in115m	3.96E-01	3.96E-01	3.96E-01	3.17E-01	4.66E-07	6.46E-09	2.21E-11	8.86E-19	4.11E-31

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 32

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
sn115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc116	5.64E-06	5.64E-06	5.64E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru116	4.01E-03	4.01E-03	4.01E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh116	7.55E-02	7.55E-02	7.55E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd116	5.24E-01	5.24E-01	5.24E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116	5.68E-01	5.68E-01	5.68E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116m	4.28E-02	4.28E-02	4.28E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in116	3.98E-04	3.98E-04	3.98E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in116m	1.49E-03	1.49E-03	1.49E-03	1.47E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc117	6.29E-08	6.29E-08	6.29E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru117	5.45E-04	5.45E-04	5.45E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh117	2.49E-02	2.49E-02	2.49E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd117	2.99E-01	2.99E-01	2.99E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117	1.99E-01	1.99E-01	1.99E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117m	1.99E-01	1.99E-01	1.99E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117	3.45E-01	3.45E-01	3.45E-01	4.35E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117m	6.88E-02	6.88E-02	6.88E-02	4.89E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117	2.47E-01	2.47E-01	2.47E-01	1.57E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117m	3.15E-01	3.15E-01	3.15E-01	1.88E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn117m	7.91E-04	7.91E-04	7.91E-04	7.63E-04	8.17E-06	6.60E-12	5.43E-20	.00E+00	.00E+00
tc118	1.86E-09	1.86E-09	1.86E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru118	7.78E-05	7.78E-05	7.78E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh118	5.05E-03	5.05E-03	5.05E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd118	1.44E-01	1.44E-01	1.44E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118	2.55E-01	2.55E-01	2.55E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118m	1.81E-01	1.81E-01	1.81E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd118	4.11E-01	4.11E-01	4.11E-01	9.93E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118	4.12E-01	4.12E-01	4.12E-01	9.95E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118m	1.62E-04	1.62E-04	1.62E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru119	1.03E-05	1.03E-05	1.03E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh119	2.04E-03	2.04E-03	2.04E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd119	1.04E-01	1.04E-01	1.04E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag119	3.37E-01	3.37E-01	3.37E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119	3.17E-01	3.17E-01	3.17E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119m	1.29E-01	1.29E-01	1.29E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119	1.69E-01	1.69E-01	1.69E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119m	2.86E-01	2.86E-01	2.86E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn119m	1.58E-03	1.58E-03	1.58E-03	1.58E-03	1.28E-03	6.66E-04	2.81E-04	2.10E-05	2.80E-07
ru120	1.23E-06	1.23E-06	1.23E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh120	3.89E-04	3.89E-04	3.89E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd120	4.91E-02	4.91E-02	4.91E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag120	2.27E-01	2.27E-01	2.27E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd120	4.39E-01	4.39E-01	4.39E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120	4.42E-01	4.42E-01	4.42E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120m	3.48E-03	3.48E-03	3.48E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh121	9.62E-05	9.62E-05	9.62E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 33

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
pd121	1.82E-02	1.82E-02	1.82E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag121	1.67E-01	1.67E-01	1.67E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd121	4.57E-01	4.57E-01	4.57E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121	2.55E-02	2.55E-02	2.55E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121m	4.62E-01	4.62E-01	4.62E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121	4.81E-01	4.81E-01	4.81E-01	2.62E-01	2.38E-03	2.36E-03	2.33E-03	2.24E-03	2.10E-03
sn121m	3.08E-03	3.08E-03	3.08E-03	3.08E-03	3.07E-03	3.04E-03	3.00E-03	2.89E-03	2.71E-03
sb121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh122	1.05E-05	1.05E-05	1.05E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd122	5.77E-03	5.77E-03	5.77E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag122	8.78E-02	8.78E-02	8.78E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd122	4.95E-01	4.95E-01	4.95E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122	5.25E-01	5.25E-01	5.25E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122m	3.06E-02	3.06E-02	3.06E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb122	8.72E-05	8.72E-05	8.72E-05	6.75E-05	8.08E-15	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	9.37E-06	9.37E-06	9.37E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh123	8.25E-07	8.25E-07	8.25E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd123	8.56E-04	8.56E-04	8.56E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag123	3.22E-02	3.22E-02	3.22E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd123	3.24E-01	3.24E-01	3.24E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123	3.52E-01	3.52E-01	3.52E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123m	9.86E-02	9.86E-02	9.86E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123	5.88E-02	5.88E-02	5.88E-02	5.84E-02	3.62E-02	8.28E-03	1.17E-03	3.26E-06	1.81E-10
sn123m	5.17E-01	5.17E-01	5.17E-01	7.98E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te123	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19
te123m	7.11E-09	7.11E-09	7.11E-09	7.07E-09	4.22E-09	8.57E-10	1.03E-10	1.81E-13	4.62E-18
pd124	5.19E-04	5.19E-04	5.19E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag124	2.99E-02	2.99E-02	2.99E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd124	5.80E-01	5.80E-01	5.80E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in124	8.82E-01	8.82E-01	8.82E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb124	4.80E-04	4.80E-04	4.80E-04	4.75E-04	1.70E-04	7.16E-06	1.07E-07	3.54E-13	2.61E-22
sb124m	1.15E-04	1.15E-04	1.15E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd125	1.08E-04	1.08E-04	1.08E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag125	1.19E-02	1.19E-02	1.19E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd125	3.43E-01	3.43E-01	3.43E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125	4.48E-01	4.48E-01	4.48E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125m	3.11E-01	3.11E-01	3.11E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125	3.16E-01	3.16E-01	3.16E-01	2.94E-01	4.89E-04	1.24E-12	4.88E-24	.00E+00	.00E+00
sn125m	7.38E-01	7.38E-01	7.38E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb125	1.05E+00	1.05E+00	1.05E+00	1.05E+00	9.94E-01	8.21E-01	6.37E-01	2.97E-01	8.35E-02
te125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te125m	2.43E-01	2.43E-01	2.43E-01	2.43E-01	2.37E-01	2.00E-01	1.55E-01	7.26E-02	2.04E-02
pd126	2.41E-05	2.41E-05	2.41E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag126	5.22E-03	5.22E-03	5.22E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd126	4.30E-01	4.30E-01	4.30E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in126	9.44E-01	9.44E-01	9.44E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn126	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 34

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
sb126	6.09E-03	6.09E-03	6.09E-03	5.84E-03	1.48E-03	1.45E-03	1.45E-03	1.45E-03	1.45E-03
sb126m	1.67E-02	1.67E-02	1.67E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02

te126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag127	2.45E-03	2.45E-03	2.45E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd127	3.34E-01	3.34E-01	3.34E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127	1.09E+00	1.09E+00	1.09E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127m	1.09E+00	1.09E+00	1.09E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127	1.58E+00	1.58E+00	1.58E+00	5.75E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127m	2.59E+00	2.59E+00	2.59E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb127	4.38E+00	4.38E+00	4.38E+00	3.69E+00	4.05E-07	1.21E-28	.00E+00	.00E+00	.00E+00
te127	4.36E+00	4.36E+00	4.36E+00	4.06E+00	4.39E-01	7.63E-02	7.48E-03	7.04E-06	6.37E-11
te127m	7.66E-01	7.66E-01	7.66E-01	7.66E-01	4.48E-01	7.79E-02	7.63E-03	7.19E-06	6.50E-11
i127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe127	4.31E-12	4.31E-12	4.31E-12	4.23E-12	7.77E-13	4.11E-15	3.92E-18	3.40E-27	.00E+00
ag128	1.00E-03	1.00E-03	1.00E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd128	3.13E-01	3.13E-01	3.13E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in128	3.21E+00	3.21E+00	3.21E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn128	1.16E+01	1.16E+01	1.16E+01	5.36E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128	8.12E-01	8.12E-01	8.12E-01	1.38E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128m	1.18E+01	1.18E+01	1.18E+01	6.50E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i128	7.95E-04	7.95E-04	7.95E-04	3.54E-21	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd129	1.32E-01	1.32E-01	1.32E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in129	3.53E+00	3.53E+00	3.53E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129	9.67E+00	9.67E+00	9.67E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129m	1.30E+01	1.30E+01	1.30E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb129	2.58E+01	2.58E+01	2.58E+01	5.99E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129	2.43E+01	2.43E+01	2.43E+01	3.68E+00	4.81E-01	1.64E-03	8.78E-07	1.34E-16	.00E+00
te129m	4.78E+00	4.78E+00	4.78E+00	4.71E+00	7.50E-01	2.57E-03	1.37E-06	2.09E-16	.00E+00
i129	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03
xe129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe129m	1.11E-08	1.11E-08	1.11E-08	1.02E-08	9.91E-12	4.74E-21	.00E+00	.00E+00	.00E+00
cd130	5.29E-02	5.29E-02	5.29E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in130	3.40E+00	3.40E+00	3.40E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn130	3.84E+01	3.84E+01	3.84E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130	8.06E+00	8.06E+00	8.06E+00	8.55E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130m	4.97E+01	4.97E+01	4.97E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130	1.89E-02	1.89E-02	1.89E-02	4.94E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130m	7.81E-03	7.81E-03	7.81E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd131	6.35E-03	6.35E-03	6.35E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in131	1.17E+00	1.17E+00	1.17E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn131	3.14E+01	3.14E+01	3.14E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb131	8.78E+01	8.78E+01	8.78E+01	1.26E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131	8.80E+01	8.80E+01	8.80E+01	1.70E+00	6.26E-22	.00E+00	.00E+00	.00E+00	.00E+00
te131m	1.31E+01	1.31E+01	1.31E+01	7.55E+00	2.78E-21	.00E+00	.00E+00	.00E+00	.00E+00
i131	9.83E+01	9.83E+01	9.83E+01	9.13E+01	4.32E-02	2.14E-12	4.52E-26	.00E+00	.00E+00
xe131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131m	1.07E+00	1.07E+00	1.07E+00	1.07E+00	1.67E-02	1.92E-09	1.10E-18	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 35

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
cd132	7.08E-04	7.08E-04	7.08E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in132	2.91E-01	2.91E-01	2.91E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn132	2.20E+01	2.20E+01	2.20E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132	4.51E+01	4.51E+01	4.51E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132m	5.14E+01	5.14E+01	5.14E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

te132	1.46E+02	1.46E+02	1.46E+02	1.18E+02	7.07E-07	.00E+00	.00E+00	.00E+00	.00E+00
i132	1.47E+02	1.47E+02	1.47E+02	1.22E+02	7.29E-07	.00E+00	.00E+00	.00E+00	.00E+00
xe132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs132	8.29E-06	8.29E-06	8.29E-06	7.45E-06	5.46E-10	8.88E-23	.00E+00	.00E+00	.00E+00
ba132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in133	4.84E-03	4.84E-03	4.84E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn133	6.12E+00	6.12E+00	6.12E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb133	8.21E+01	8.21E+01	8.21E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133	1.30E+02	1.30E+02	1.30E+02	3.70E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133m	1.09E+02	1.09E+02	1.09E+02	1.64E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133	2.27E+02	2.27E+02	2.27E+02	1.05E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133m	1.35E+01	1.35E+01	1.35E+01	1.68E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133	2.27E+02	2.27E+02	2.27E+02	2.19E+02	1.89E-03	2.98E-19	.00E+00	.00E+00	.00E+00
xe133m	6.61E+00	6.61E+00	6.61E+00	6.05E+00	4.67E-12	.00E+00	.00E+00	.00E+00	.00E+00
cs133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba133	2.45E-09	2.45E-09	2.45E-09	2.45E-09	2.41E-09	2.30E-09	2.15E-09	1.77E-09	1.27E-09
in134	7.44E-04	7.44E-04	7.44E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn134	7.02E-01	7.02E-01	7.02E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134	1.58E+01	1.58E+01	1.58E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134m	9.64E+00	9.64E+00	9.64E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te134	2.33E+02	2.33E+02	2.33E+02	9.94E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134	2.61E+02	2.61E+02	2.61E+02	6.65E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134m	1.19E+01	1.19E+01	1.19E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134m	2.24E+00	2.24E+00	2.24E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.26E-01	1.76E-01	1.26E-01	4.58E-02	8.53E-03
cs134m	1.86E-02	1.86E-02	1.86E-02	6.14E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn135	5.23E-02	5.23E-02	5.23E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb135	5.67E+00	5.67E+00	5.67E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te135	1.12E+02	1.12E+02	1.12E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i135	2.13E+02	2.13E+02	2.13E+02	1.70E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135	2.22E+02	2.22E+02	2.22E+02	8.11E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135m	3.94E+01	3.94E+01	3.94E+01	2.77E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs135	6.67E-02	6.67E-02	6.67E-02	6.67E-02	6.67E-02	6.67E-02	6.67E-02	6.67E-02	6.67E-02
cs135m	1.28E-03	1.28E-03	1.28E-03	8.48E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135m	8.71E-07	8.71E-07	8.71E-07	4.88E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn136	3.93E-03	3.93E-03	3.93E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb136	7.28E-01	7.28E-01	7.28E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te136	5.47E+01	5.47E+01	5.47E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136	1.10E+02	1.10E+02	1.10E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136m	5.06E+01	5.06E+01	5.06E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs136	2.71E-01	2.71E-01	2.71E-01	2.57E-01	2.36E-03	1.19E-09	5.27E-18	.00E+00	.00E+00
ba136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136m	3.03E-02	3.03E-02	3.03E-02	2.87E-02	2.65E-04	1.34E-10	5.90E-19	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 36

0 nuclide radioactivity, curies

basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
sb137	1.74E+00	1.74E+00	1.74E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te137	1.63E+01	1.63E+01	1.63E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i137	1.11E+02	1.11E+02	1.11E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe137	2.07E+02	2.07E+02	2.07E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs137	2.12E+02	2.12E+02	2.12E+02	2.12E+02	2.11E+02	2.08E+02	2.03E+02	1.89E+02	1.69E+02
ba137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba137m	2.01E+02	2.01E+02	2.01E+02	2.01E+02	1.99E+02	1.96E+02	1.92E+02	1.79E+02	1.59E+02
sb138	6.36E-03	6.36E-03	6.36E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

te138	3.08E+00	3.08E+00	3.08E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i138	5.52E+01	5.52E+01	5.52E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe138	2.14E+02	2.14E+02	2.14E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138	2.24E+02	2.24E+02	2.24E+02	1.35E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138m	5.39E+00	5.39E+00	5.39E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la138	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12
sb139	4.25E-04	4.25E-04	4.25E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te139	3.98E-01	3.98E-01	3.98E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i139	3.38E+01	3.38E+01	3.38E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe139	1.73E+02	1.73E+02	1.73E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs139	2.12E+02	2.12E+02	2.12E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba139	2.14E+02	2.14E+02	2.14E+02	1.83E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce139	1.01E-06	1.01E-06	1.01E-06	1.00E-06	6.40E-07	1.60E-07	2.54E-08	1.02E-10	1.03E-14
pr139	1.29E-09	1.29E-09	1.29E-09	2.97E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te140	6.39E-02	6.39E-02	6.39E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i140	7.67E+00	7.67E+00	7.67E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe140	1.28E+02	1.28E+02	1.28E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs140	1.94E+02	1.94E+02	1.94E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba140	2.12E+02	2.12E+02	2.12E+02	2.01E+02	1.60E+00	5.09E-07	1.22E-15	.00E+00	.00E+00
la140	2.13E+02	2.13E+02	2.13E+02	2.10E+02	1.84E+00	5.86E-07	1.40E-15	.00E+00	.00E+00
ce140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr140	4.03E-06	4.03E-06	4.03E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te141	4.67E-04	4.67E-04	4.67E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i141	6.63E-01	6.63E-01	6.63E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe141	4.62E+01	4.62E+01	4.62E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs141	1.50E+02	1.50E+02	1.50E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba141	1.95E+02	1.95E+02	1.95E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la141	1.95E+02	1.95E+02	1.95E+02	3.04E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce141	1.95E+02	1.95E+02	1.95E+02	1.92E+02	2.88E+01	8.13E-02	3.36E-05	2.39E-15	2.28E-32
pr141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd141	5.10E-09	5.10E-09	5.10E-09	6.38E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te142	2.21E-04	2.21E-04	2.21E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i142	2.26E-01	2.26E-01	2.26E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe142	1.65E+01	1.65E+01	1.65E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs142	9.13E+01	9.13E+01	9.13E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba142	1.94E+02	1.94E+02	1.94E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la142	1.97E+02	1.97E+02	1.97E+02	3.89E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce142	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06
pr142	4.13E-02	4.13E-02	4.13E-02	1.73E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr142m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i143	1.36E-03	1.36E-03	1.36E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 37

0

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
xe143	2.15E+00	2.15E+00	2.15E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs143	5.06E+01	5.06E+01	5.06E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba143	1.77E+02	1.77E+02	1.77E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la143	1.98E+02	1.98E+02	1.98E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce143	1.99E+02	1.99E+02	1.99E+02	1.21E+02	3.96E-18	.00E+00	.00E+00	.00E+00	.00E+00
pr143	1.99E+02	1.99E+02	1.99E+02	1.97E+02	2.23E+00	1.73E-06	1.36E-14	.00E+00	.00E+00
nd143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i144	4.63E-05	4.63E-05	4.63E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe144	3.36E-01	3.36E-01	3.36E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs144	1.28E+01	1.28E+01	1.28E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba144	1.49E+02	1.49E+02	1.49E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

la144	1.81E+02	1.81E+02	1.81E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce144	1.83E+02	1.83E+02	1.83E+02	1.83E+02	1.47E+02	7.54E+01	3.10E+01	2.16E+00	2.54E-02
pr144	1.83E+02	1.83E+02	1.83E+02	1.83E+02	1.47E+02	7.54E+01	3.10E+01	2.16E+00	2.54E-02
pr144m	2.57E+00	2.57E+00	2.57E+00	2.56E+00	2.06E+00	1.06E+00	4.34E-01	3.02E-02	3.55E-04
nd144	6.10E-11	6.10E-11	6.10E-11	6.10E-11	6.10E-11	6.10E-11	6.10E-11	6.11E-11	6.11E-11
i145	1.38E-06	1.38E-06	1.38E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe145	1.97E-02	1.97E-02	1.97E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs145	2.40E+00	2.40E+00	2.40E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba145	6.32E+01	6.32E+01	6.32E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la145	1.22E+02	1.22E+02	1.22E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce145	1.32E+02	1.32E+02	1.32E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr145	1.32E+02	1.32E+02	1.32E+02	8.26E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm145	8.79E-09	8.79E-09	8.79E-09	8.79E-09	8.78E-09	8.67E-09	8.44E-09	7.58E-09	6.24E-09
sm145	7.91E-09	7.91E-09	7.91E-09	7.89E-09	6.58E-09	3.76E-09	1.78E-09	1.91E-10	4.62E-12
xe146	1.89E-03	1.89E-03	1.89E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs146	6.62E-01	6.62E-01	6.62E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba146	3.49E+01	3.49E+01	3.49E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la146	8.28E+01	8.28E+01	8.28E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce146	1.00E+02	1.00E+02	1.00E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr146	1.01E+02	1.01E+02	1.01E+02	2.58E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm146	5.29E-08	5.29E-08	5.29E-08	5.29E-08	5.13E-08	4.67E-08	4.12E-08	2.83E-08	1.51E-08
sm146	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11
xe147	5.34E-06	5.34E-06	5.34E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs147	6.45E-03	6.45E-03	6.45E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba147	3.84E+00	3.84E+00	3.84E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la147	3.22E+01	3.22E+01	3.22E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce147	7.40E+01	7.40E+01	7.40E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr147	7.64E+01	7.64E+01	7.64E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd147	7.64E+01	7.64E+01	7.64E+01	7.18E+01	2.61E-01	7.41E-09	7.19E-19	.00E+00	.00E+00
pm147	7.63E+01	7.63E+01	7.63E+01	7.63E+01	7.23E+01	5.92E+01	4.55E+01	2.06E+01	5.49E+00
sm147	4.98E-07	4.98E-07	4.98E-07	4.98E-07	4.98E-07	4.98E-07	4.98E-07	4.99E-07	4.99E-07
cs148	1.12E-03	1.12E-03	1.12E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba148	5.73E-01	5.73E-01	5.73E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la148	9.36E+00	9.36E+00	9.36E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce148	5.19E+01	5.19E+01	5.19E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr148	5.67E+01	5.67E+01	5.67E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm148	1.01E-03	1.01E-03	1.01E-03	8.93E-04	1.02E-05	1.01E-07	2.19E-10	2.25E-18	1.14E-31
pm148m	8.74E-04	8.74E-04	8.74E-04	8.60E-04	1.93E-04	1.90E-06	4.14E-09	4.26E-17	2.08E-30

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 38

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
sm148	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15
cs149	7.99E-06	7.99E-06	7.99E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba149	5.09E-02	5.09E-02	5.09E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la149	2.32E+00	2.32E+00	2.32E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce149	2.64E+01	2.64E+01	2.64E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr149	3.59E+01	3.59E+01	3.59E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd149	3.67E+01	3.67E+01	3.67E+01	2.43E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm149	3.67E+01	3.67E+01	3.67E+01	2.78E+01	2.14E-11	.00E+00	.00E+00	.00E+00	.00E+00
sm149	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12
eu149	1.93E-10	1.93E-10	1.93E-10	1.91E-10	9.85E-11	1.27E-11	8.34E-13	2.38E-16	2.94E-22
cs150	1.02E-06	1.02E-06	1.02E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba150	3.82E-03	3.82E-03	3.82E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la150	2.98E-01	2.98E-01	2.98E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce150	1.02E+01	1.02E+01	1.02E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pr150	2.00E+01	2.00E+01	2.00E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm150	1.52E-03	1.52E-03	1.52E-03	3.05E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu150	2.21E-07	2.21E-07	2.21E-07	2.21E-07	2.20E-07	2.17E-07	2.13E-07	2.01E-07	1.82E-07
ba151	3.44E-05	3.44E-05	3.44E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la151	3.85E-02	3.85E-02	3.85E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce151	2.41E+00	2.41E+00	2.41E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr151	9.72E+00	9.72E+00	9.72E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd151	1.46E+01	1.46E+01	1.46E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm151	1.47E+01	1.47E+01	1.47E+01	8.25E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm151	1.44E+01	1.44E+01	1.44E+01	1.44E+01	1.44E+01	1.43E+01	1.42E+01	1.39E+01	1.34E+01
eu151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba152	2.83E-07	2.83E-07	2.83E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la152	7.97E-04	7.97E-04	7.97E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce152	3.39E-01	3.39E-01	3.39E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr152	3.17E+00	3.17E+00	3.17E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd152	9.12E+00	9.12E+00	9.12E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152	9.29E+00	9.29E+00	9.29E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152m	1.73E-01	1.73E-01	1.73E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu152	8.14E-01	8.14E-01	8.14E-01	8.14E-01	8.04E-01	7.73E-01	7.34E-01	6.28E-01	4.84E-01
eu152m	4.52E-01	4.52E-01	4.52E-01	7.58E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	1.59E-12	1.59E-12	1.59E-12	1.59E-12	1.59E-12	1.59E-12	1.59E-12	1.60E-12	1.60E-12
la153	2.34E-04	2.34E-04	2.34E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce153	7.28E-02	7.28E-02	7.28E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr153	1.12E+00	1.12E+00	1.12E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd153	5.12E+00	5.12E+00	5.12E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm153	5.79E+00	5.79E+00	5.79E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm153	5.89E+00	5.89E+00	5.89E+00	4.12E+00	5.25E-14	.00E+00	.00E+00	.00E+00	.00E+00
eu153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd153	6.58E-04	6.58E-04	6.58E-04	6.56E-04	5.08E-04	2.31E-04	8.09E-05	3.49E-06	1.85E-08
la154	5.86E-06	5.86E-06	5.86E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce154	6.32E-03	6.32E-03	6.32E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr154	1.68E-01	1.68E-01	1.68E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd154	1.99E+00	1.99E+00	1.99E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154	2.33E+00	2.33E+00	2.33E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154m	3.32E-01	3.32E-01	3.32E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 39

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
sm154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu154	3.75E-02	3.75E-02	3.75E-02	3.75E-02	3.68E-02	3.46E-02	3.19E-02	2.51E-02	1.67E-02
gd154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la155	2.85E-08	2.85E-08	2.85E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce155	5.00E-04	5.00E-04	5.00E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr155	3.04E-02	3.04E-02	3.04E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd155	5.93E-01	5.93E-01	5.93E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm155	1.14E+00	1.14E+00	1.14E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm155	1.25E+00	1.25E+00	1.25E+00	4.74E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu155	1.25E+00	1.25E+00	1.25E+00	1.25E+00	1.20E+00	1.08E+00	9.29E-01	5.96E-01	2.84E-01
gd155m	1.32E-05	1.32E-05	1.32E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce156	3.72E-05	3.72E-05	3.72E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr156	3.50E-03	3.50E-03	3.50E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd156	1.60E-01	1.60E-01	1.60E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm156	4.12E-01	4.12E-01	4.12E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm156	5.49E-01	5.49E-01	5.49E-01	9.36E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

eu156	5.53E-01	5.53E-01	5.53E-01	5.39E-01	9.32E-03	3.26E-08	1.87E-15	.00E+00	.00E+00
gd156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce157	1.75E-06	1.75E-06	1.75E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr157	4.95E-04	4.95E-04	4.95E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd157	3.30E-02	3.30E-02	3.30E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm157	1.50E-01	1.50E-01	1.50E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm157	2.68E-01	2.68E-01	2.68E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu157	2.74E-01	2.74E-01	2.74E-01	9.23E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr158	2.55E-05	2.55E-05	2.55E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd158	5.27E-03	5.27E-03	5.27E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm158	3.57E-02	3.57E-02	3.57E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm158	1.22E-01	1.22E-01	1.22E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu158	1.31E-01	1.31E-01	1.31E-01	5.31E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr159	1.07E-06	1.07E-06	1.07E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd159	4.49E-04	4.49E-04	4.49E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm159	6.86E-03	6.86E-03	6.86E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm159	3.98E-02	3.98E-02	3.98E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu159	4.98E-02	4.98E-02	4.98E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd159	5.04E-02	5.04E-02	5.04E-02	2.10E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd160	2.87E-05	2.87E-05	2.87E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm160	7.42E-04	7.42E-04	7.42E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm160	1.08E-02	1.08E-02	1.08E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu160	1.69E-02	1.69E-02	1.69E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb160	3.33E-05	3.33E-05	3.33E-05	3.30E-05	1.40E-05	1.00E-06	3.02E-08	8.29E-13	2.07E-20
dy160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd161	1.17E-06	1.17E-06	1.17E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm161	9.10E-05	9.10E-05	9.10E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm161	2.03E-03	2.03E-03	2.03E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu161	5.00E-03	5.00E-03	5.00E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd161	6.30E-03	6.30E-03	6.30E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb161	6.33E-03	6.33E-03	6.33E-03	5.73E-03	7.51E-07	7.38E-19	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 40

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
dy161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm162	6.21E-06	6.21E-06	6.21E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm162	3.71E-04	3.71E-04	3.71E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu162	1.16E-03	1.16E-03	1.16E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd162	2.18E-03	2.18E-03	2.18E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162	2.21E-03	2.21E-03	2.21E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	2.79E-05	2.79E-05	2.79E-05	1.61E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm163	3.27E-05	3.27E-05	3.27E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu163	2.31E-04	2.31E-04	2.31E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd163	7.36E-04	7.36E-04	7.36E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163	8.19E-04	8.19E-04	8.19E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm164	2.79E-06	2.79E-06	2.79E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu164	3.01E-05	3.01E-05	3.01E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd164	2.17E-04	2.17E-04	2.17E-04	2.21E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	2.82E-04	2.82E-04	2.82E-04	2.57E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm165	1.61E-07	1.61E-07	1.61E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

eu165	4.84E-06	4.84E-06	4.84E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	5.97E-05	5.97E-05	5.97E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	1.08E-04	1.08E-04	1.08E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165	1.22E-04	1.22E-04	1.22E-04	1.00E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	9.97E-05	9.97E-05	9.97E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy166	1.39E-05	1.39E-05	1.39E-05	1.13E-05	1.50E-13	.00E+00	.00E+00	.00E+00	.00E+00
ho166	1.41E-05	1.41E-05	1.41E-05	1.33E-05	2.23E-13	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	5.10E-08	5.10E-08	5.10E-08	5.10E-08	5.10E-08	5.10E-08	5.09E-08	5.09E-08	5.07E-08
er166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er167	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er167m	4.02E-10	4.02E-10	4.02E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er169	2.31E-08	2.31E-08	2.31E-08	2.14E-08	3.03E-11	4.64E-20	9.13E-32	.00E+00	.00E+00
tm169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm170	1.17E-10	1.17E-10	1.17E-10	1.16E-10	7.20E-11	1.63E-11	2.28E-12	6.21E-15	3.29E-19
tm170m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er171	3.74E-08	3.74E-08	3.74E-08	4.09E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	3.81E-08	3.81E-08	3.81E-08	3.80E-08	3.48E-08	2.65E-08	1.85E-08	6.26E-09	1.03E-09
yb171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er172	2.75E-08	2.75E-08	2.75E-08	1.96E-08	1.78E-21	.00E+00	.00E+00	.00E+00	.00E+00
tm172	2.85E-08	2.85E-08	2.85E-08	2.73E-08	7.38E-18	.00E+00	.00E+00	.00E+00	.00E+00
yb172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	2.07E+04	2.07E+04	2.07E+04	4.80E+03	1.64E+03	1.06E+03	9.09E+02	7.62E+02	6.58E+02

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 41

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
he 4	1.15E+00	1.16E+00	1.17E+00	1.18E+00	1.21E+00	1.27E+00	1.32E+00	1.37E+00	1.41E+00	1.45E+00	1.54E+00
tl206	1.33E-16	1.34E-16	1.36E-16	1.38E-16	1.43E-16	1.57E-16	1.71E-16	1.85E-16	2.00E-16	2.15E-16	2.47E-16
tl207	4.04E-11	4.06E-11	4.08E-11	4.12E-11	4.20E-11	4.39E-11	4.59E-11	4.79E-11	4.99E-11	5.19E-11	5.58E-11
tl208	1.41E-12	1.34E-12	1.28E-12	1.16E-12	9.50E-13	5.78E-13	3.52E-13	2.14E-13	1.31E-13	7.96E-14	2.97E-14
tl209	6.82E-14	6.89E-14	6.95E-14	7.09E-14	7.36E-14	8.07E-14	8.80E-14	9.57E-14	1.04E-13	1.12E-13	1.29E-13
pb206	2.97E-03	3.02E-03	3.06E-03	3.15E-03	3.34E-03	3.84E-03	4.38E-03	4.96E-03	5.60E-03	6.29E-03	7.81E-03
pb207	1.51E-03	1.53E-03	1.55E-03	1.58E-03	1.64E-03	1.80E-03	1.98E-03	2.16E-03	2.34E-03	2.54E-03	2.95E-03
pb208	2.61E-04	2.63E-04	2.65E-04	2.70E-04	2.76E-04	2.89E-04	2.96E-04	3.01E-04	3.04E-04	3.06E-04	3.07E-04
pb209	2.88E-10	2.91E-10	2.94E-10	2.99E-10	3.11E-10	3.41E-10	3.72E-10	4.04E-10	4.38E-10	4.73E-10	5.47E-10
pb210	2.87E-04	2.90E-04	2.92E-04	2.98E-04	3.09E-04	3.38E-04	3.68E-04	3.99E-04	4.31E-04	4.64E-04	5.33E-04
pb211	3.12E-10	3.14E-10	3.15E-10	3.19E-10	3.25E-10	3.40E-10	3.55E-10	3.71E-10	3.86E-10	4.01E-10	4.32E-10
pb212	8.37E-10	7.97E-10	7.59E-10	6.87E-10	5.64E-10	3.43E-10	2.09E-10	1.27E-10	7.74E-11	4.72E-11	1.76E-11
pb214	7.09E-10	7.16E-10	7.22E-10	7.36E-10	7.62E-10	8.31E-10	9.03E-10	9.76E-10	1.05E-09	1.13E-09	1.29E-09
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	1.83E-04	1.85E-04	1.88E-04	1.94E-04	2.05E-04	2.36E-04	2.69E-04	3.05E-04	3.44E-04	3.87E-04	4.82E-04
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	1.77E-07	1.78E-07	1.80E-07	1.83E-07	1.90E-07	2.08E-07	2.26E-07	2.46E-07	2.65E-07	2.86E-07	3.28E-07
bi211	1.85E-11	1.86E-11	1.87E-11	1.89E-11	1.92E-11	2.01E-11	2.11E-11	2.20E-11	2.29E-11	2.38E-11	2.56E-11
bi212	7.94E-11	7.56E-11	7.20E-11	6.51E-11	5.35E-11	3.25E-11	1.98E-11	1.21E-11	7.34E-12	4.48E-12	1.67E-12
bi213	6.86E-11	6.93E-11	6.99E-11	7.13E-11	7.40E-11	8.11E-11	8.85E-11	9.62E-11	1.04E-10	1.13E-10	1.30E-10
bi214	5.27E-10	5.31E-10	5.36E-10	5.46E-10	5.66E-10	6.17E-10	6.70E-10	7.25E-10	7.82E-10	8.40E-10	9.62E-10
po210	4.88E-06	4.92E-06	4.97E-06	5.06E-06	5.25E-06	5.74E-06	6.25E-06	6.78E-06	7.32E-06	7.89E-06	9.06E-06
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	2.05E-16	2.06E-16	2.07E-16	2.09E-16	2.13E-16	2.23E-16	2.33E-16	2.43E-16	2.53E-16	2.63E-16	2.83E-16
po212	4.17E-21	3.97E-21	3.78E-21	3.42E-21	2.81E-21	1.71E-21	1.04E-21	6.33E-22	3.86E-22	2.35E-22	8.77E-23
po213	1.03E-19	1.04E-19	1.05E-19	1.07E-19	1.11E-19	1.22E-19	1.33E-19	1.45E-19	1.57E-19	1.69E-19	1.96E-19
po214	7.24E-17	7.31E-17	7.38E-17	7.51E-17	7.79E-17	8.49E-17	9.22E-17	9.97E-17	1.08E-16	1.16E-16	1.32E-16

po215	2.62E-16	2.63E-16	2.64E-16	2.67E-16	2.72E-16	2.85E-16	2.97E-16	3.10E-16	3.23E-16	3.36E-16	3.61E-16
po216	3.23E-15	3.08E-15	2.93E-15	2.65E-15	2.17E-15	1.32E-15	8.05E-16	4.90E-16	2.99E-16	1.82E-16	6.79E-17
po218	8.36E-11	8.44E-11	8.51E-11	8.67E-11	8.99E-11	9.80E-11	1.06E-10	1.15E-10	1.24E-10	1.33E-10	1.53E-10
at217	8.25E-16	8.33E-16	8.41E-16	8.58E-16	8.91E-16	9.76E-16	1.07E-15	1.16E-15	1.25E-15	1.35E-15	1.57E-15
rn218	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rn219	5.93E-13	5.96E-13	5.99E-13	6.04E-13	6.16E-13	6.45E-13	6.74E-13	7.03E-13	7.32E-13	7.61E-13	8.19E-13
rn220	1.26E-12	1.20E-12	1.14E-12	1.03E-12	8.49E-13	5.16E-13	3.14E-13	1.91E-13	1.17E-13	7.11E-14	2.65E-14
rn222	1.51E-07	1.53E-07	1.54E-07	1.57E-07	1.63E-07	1.77E-07	1.92E-07	2.08E-07	2.24E-07	2.41E-07	2.76E-07
fr221	7.65E-12	7.73E-12	7.80E-12	7.95E-12	8.26E-12	9.05E-12	9.87E-12	1.07E-11	1.16E-11	1.26E-11	1.45E-11
fr223	2.75E-12	2.76E-12	2.77E-12	2.80E-12	2.86E-12	2.99E-12	3.13E-12	3.26E-12	3.40E-12	3.53E-12	3.80E-12
ra222	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ra223	1.51E-07	1.51E-07	1.52E-07	1.54E-07	1.56E-07	1.64E-07	1.71E-07	1.79E-07	1.86E-07	1.93E-07	2.08E-07
ra224	7.30E-09	6.96E-09	6.62E-09	5.99E-09	4.92E-09	2.99E-09	1.82E-09	1.11E-09	6.75E-10	4.12E-10	1.53E-10
ra225	3.39E-08	3.42E-08	3.45E-08	3.52E-08	3.66E-08	4.01E-08	4.37E-08	4.75E-08	5.15E-08	5.56E-08	6.43E-08
ra226	2.35E-02	2.37E-02	2.40E-02	2.44E-02	2.53E-02	2.76E-02	2.99E-02	3.24E-02	3.49E-02	3.75E-02	4.29E-02
ra228	4.84E-10	4.86E-10	4.89E-10	4.94E-10	5.03E-10	5.28E-10	5.52E-10	5.76E-10	6.00E-10	6.24E-10	6.77E-10
ac225	2.29E-08	2.31E-08	2.33E-08	2.38E-08	2.47E-08	2.71E-08	2.95E-08	3.21E-08	3.48E-08	3.76E-08	4.35E-08
ac227	1.06E-04	1.07E-04	1.07E-04	1.08E-04	1.11E-04	1.16E-04	1.21E-04	1.26E-04	1.32E-04	1.37E-04	1.47E-04
ac228	5.91E-14	5.94E-14	5.97E-14	6.02E-14	6.14E-14	6.44E-14	6.73E-14	7.03E-14	7.33E-14	7.62E-14	8.26E-14
th226	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th227	2.47E-07	2.49E-07	2.50E-07	2.52E-07	2.57E-07	2.69E-07	2.81E-07	2.93E-07	3.06E-07	3.18E-07	3.42E-07
th228	1.42E-06	1.35E-06	1.29E-06	1.16E-06	9.55E-07	5.81E-07	3.54E-07	2.15E-07	1.31E-07	8.00E-08	2.98E-08
th229	6.71E-03	6.77E-03	6.84E-03	6.97E-03	7.24E-03	7.93E-03	8.66E-03	9.41E-03	1.02E-02	1.10E-02	1.27E-02
th230	5.94E+00	5.97E+00	6.00E+00	6.06E+00	6.17E+00	6.47E+00	6.76E+00	7.06E+00	7.35E+00	7.65E+00	8.24E+00
th231	6.91E-07	6.91E-07	6.91E-07	6.91E-07	6.91E-07	6.91E-07	6.91E-07	6.91E-07	6.91E-07	6.91E-07	6.91E-07

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 42

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
th232	1.21E+00	1.22E+00	1.23E+00	1.24E+00	1.26E+00	1.32E+00	1.38E+00	1.44E+00	1.50E+00	1.56E+00	1.68E+00
th233	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th234	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04
pa231	1.68E-01	1.69E-01	1.70E-01	1.71E-01	1.75E-01	1.83E-01	1.91E-01	1.99E-01	2.07E-01	2.15E-01	2.31E-01
pa232	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pa233	3.39E-04	3.39E-04	3.39E-04	3.39E-04	3.39E-04	3.39E-04	3.39E-04	3.39E-04	3.39E-04	3.39E-04	3.39E-04
pa234m	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09
pa234	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u231	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u232	5.12E-05	4.88E-05	4.64E-05	4.20E-05	3.45E-05	2.10E-05	1.28E-05	7.77E-06	4.73E-06	2.88E-06	1.07E-06
u233	3.19E+00	3.21E+00	3.22E+00	3.25E+00	3.32E+00	3.47E+00	3.63E+00	3.79E+00	3.95E+00	4.11E+00	4.42E+00
u234	2.15E+03	2.15E+03	2.15E+03	2.15E+03	2.15E+03	2.15E+03	2.15E+03	2.15E+03	2.15E+03	2.15E+03	2.15E+03
u235	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05
u236	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04
u237	4.07E-11	3.19E-11	2.51E-11	1.55E-11	5.89E-12	5.26E-13	4.70E-14	4.19E-15	3.75E-16	3.35E-17	2.67E-19
u238	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06
u239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	3.41E-12	1.39E-13	5.71E-15	9.58E-18	2.69E-23	3.57E-37	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	4.62E-05	4.62E-05	4.62E-05	4.62E-05	4.62E-05	4.62E-05	4.62E-05	4.61E-05	4.61E-05	4.61E-05	4.61E-05
np237	9.97E+03	9.97E+03	9.97E+03	9.97E+03	9.97E+03	9.97E+03	9.97E+03	9.97E+03	9.97E+03	9.97E+03	9.97E+03
np238	1.32E-12	1.28E-12	1.25E-12	1.19E-12	1.08E-12	8.45E-13	6.61E-13	5.17E-13	4.04E-13	3.16E-13	1.93E-13
np239	5.14E-14	5.14E-14	5.14E-14	5.13E-14	5.12E-14	5.10E-14	5.07E-14	5.05E-14	5.03E-14	5.00E-14	4.96E-14
np240m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pu236	2.42E-08	7.40E-09	2.31E-09	3.06E-10	1.05E-10	1.04E-10	1.04E-10	1.04E-10	1.04E-10	1.04E-10	1.03E-10
pu237	2.91E-35	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	5.14E+00	4.95E+00	4.75E+00	4.39E+00	3.75E+00	2.53E+00	1.70E+00	1.15E+00	7.72E-01	5.20E-01	2.36E-01
pu239	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.15E+03	1.14E+03	1.14E+03	1.14E+03
pu240	5.48E+00	5.48E+00	5.48E+00	5.47E+00	5.46E+00	5.43E+00	5.40E+00	5.37E+00	5.34E+00	5.32E+00	5.26E+00
pu241	1.34E-03	1.05E-03	8.27E-04	5.10E-04	1.94E-04	1.73E-05	1.55E-06	1.38E-07	1.24E-08	1.10E-09	8.80E-12
pu242	2.21E-05	2.21E-05	2.21E-05	2.22E-05	2.23E-05	2.25E-05	2.27E-05	2.28E-05	2.29E-05	2.30E-05	2.31E-05
pu243	5.09E-34	5.09E-34	5.09E-34	5.09E-34	5.09E-34	5.09E-34	5.09E-34	5.09E-34	5.09E-34	5.09E-34	5.09E-34
pu244	4.33E-31	4.52E-31	4.72E-31	5.11E-31	5.88E-31	7.82E-31	9.75E-31	1.17E-30	1.36E-30	1.56E-30	1.94E-30
pu245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am241	2.49E-02	2.50E-02	2.50E-02	2.49E-02	2.45E-02	2.28E-02	2.10E-02	1.94E-02	1.79E-02	1.65E-02	1.41E-02
am242m	7.23E-06	7.06E-06	6.89E-06	6.55E-06	5.94E-06	4.65E-06	3.63E-06	2.84E-06	2.22E-06	1.74E-06	1.06E-06
am242	9.33E-11	9.10E-11	8.88E-11	8.46E-11	7.66E-11	5.99E-11	4.69E-11	3.67E-11	2.87E-11	2.24E-11	1.37E-11
am243	5.97E-08	5.97E-08	5.97E-08	5.96E-08	5.95E-08	5.92E-08	5.90E-08	5.87E-08	5.84E-08	5.81E-08	5.76E-08
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 43

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
cm242	1.88E-08	1.84E-08	1.79E-08	1.71E-08	1.55E-08	1.21E-08	9.47E-09	7.40E-09	5.79E-09	4.53E-09	2.77E-09
cm243	5.60E-14	4.96E-14	4.39E-14	3.44E-14	2.12E-14	6.27E-15	1.86E-15	5.51E-16	1.63E-16	4.84E-17	4.25E-18
cm244	4.38E-12	3.61E-12	2.98E-12	2.03E-12	9.46E-13	1.39E-13	2.05E-14	3.03E-15	4.46E-16	6.57E-17	1.43E-18
cm245	1.21E-15	1.21E-15	1.21E-15	1.21E-15	1.21E-15	1.20E-15	1.20E-15	1.19E-15	1.19E-15	1.18E-15	1.17E-15
cm246	1.04E-18	1.04E-18	1.04E-18	1.03E-18	1.03E-18	1.02E-18	1.02E-18	1.01E-18	1.00E-18	9.94E-19	9.79E-19
cm247	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23
cm248	2.11E-27	2.11E-27	2.11E-27	2.11E-27	2.11E-27	2.11E-27	2.10E-27	2.10E-27	2.10E-27	2.10E-27	2.10E-27
cm249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk249	1.74E-37	3.32E-39	6.35E-41	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf249	3.20E-32	3.16E-32	3.13E-32	3.07E-32	2.95E-32	2.67E-32	2.42E-32	2.19E-32	1.99E-32	1.80E-32	1.48E-32
cf250	2.12E-36	1.62E-36	1.25E-36	7.33E-37	2.54E-37	1.80E-38	1.27E-39	8.97E-41	6.31E-42	3.50E-43	.00E+00
cf251	1.13E-38	1.12E-38	1.12E-38	1.11E-38	1.09E-38	1.05E-38	1.01E-38	9.75E-39	9.38E-39	9.03E-39	8.36E-39
cf252	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
fm250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 44

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
he 4	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tl206	2.89E-08	2.92E-08	2.95E-08	3.00E-08	3.12E-08	3.41E-08	3.71E-08	4.02E-08	4.34E-08	4.68E-08	5.37E-08

tl207	7.69E-03	7.73E-03	7.77E-03	7.84E-03	7.99E-03	8.37E-03	8.75E-03	9.13E-03	9.50E-03	9.88E-03	1.06E-02
tl208	4.18E-04	3.98E-04	3.79E-04	3.43E-04	2.82E-04	1.71E-04	1.04E-04	6.35E-05	3.87E-05	2.36E-05	8.79E-06
tl209	2.79E-05	2.82E-05	2.85E-05	2.90E-05	3.01E-05	3.30E-05	3.60E-05	3.92E-05	4.24E-05	4.58E-05	5.30E-05
pb206	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb207	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb209	1.33E-03	1.34E-03	1.35E-03	1.38E-03	1.43E-03	1.57E-03	1.72E-03	1.86E-03	2.02E-03	2.18E-03	2.52E-03
pb210	2.19E-02	2.21E-02	2.23E-02	2.27E-02	2.36E-02	2.58E-02	2.81E-02	3.05E-02	3.29E-02	3.54E-02	4.07E-02
pb211	7.71E-03	7.75E-03	7.79E-03	7.87E-03	8.02E-03	8.39E-03	8.77E-03	9.15E-03	9.53E-03	9.91E-03	1.07E-02
pb212	1.16E-03	1.11E-03	1.05E-03	9.55E-04	7.83E-04	4.76E-04	2.90E-04	1.77E-04	1.08E-04	6.56E-05	2.45E-05
pb214	2.33E-02	2.35E-02	2.37E-02	2.41E-02	2.50E-02	2.73E-02	2.96E-02	3.20E-02	3.45E-02	3.71E-02	4.25E-02
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	2.19E-02	2.21E-02	2.23E-02	2.28E-02	2.36E-02	2.58E-02	2.81E-02	3.05E-02	3.29E-02	3.54E-02	4.07E-02
bi211	7.71E-03	7.75E-03	7.79E-03	7.87E-03	8.02E-03	8.39E-03	8.77E-03	9.15E-03	9.53E-03	9.91E-03	1.07E-02
bi212	1.16E-03	1.11E-03	1.05E-03	9.55E-04	7.83E-04	4.76E-04	2.90E-04	1.77E-04	1.08E-04	6.56E-05	2.45E-05
bi213	1.33E-03	1.34E-03	1.35E-03	1.38E-03	1.43E-03	1.57E-03	1.72E-03	1.86E-03	2.02E-03	2.18E-03	2.52E-03
bi214	2.33E-02	2.35E-02	2.37E-02	2.41E-02	2.50E-02	2.73E-02	2.96E-02	3.20E-02	3.45E-02	3.71E-02	4.25E-02
po210	2.19E-02	2.21E-02	2.23E-02	2.28E-02	2.36E-02	2.58E-02	2.81E-02	3.05E-02	3.29E-02	3.54E-02	4.07E-02
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	2.12E-05	2.13E-05	2.14E-05	2.16E-05	2.20E-05	2.31E-05	2.41E-05	2.52E-05	2.62E-05	2.72E-05	2.93E-05
po212	7.45E-04	7.10E-04	6.76E-04	6.12E-04	5.02E-04	3.05E-04	1.86E-04	1.13E-04	6.89E-05	4.20E-05	1.57E-05
po213	1.30E-03	1.31E-03	1.33E-03	1.35E-03	1.40E-03	1.54E-03	1.68E-03	1.83E-03	1.98E-03	2.14E-03	2.47E-03
po214	2.33E-02	2.35E-02	2.37E-02	2.41E-02	2.50E-02	2.73E-02	2.96E-02	3.20E-02	3.45E-02	3.71E-02	4.25E-02
po215	7.71E-03	7.75E-03	7.79E-03	7.87E-03	8.02E-03	8.39E-03	8.77E-03	9.15E-03	9.53E-03	9.91E-03	1.07E-02
po216	1.16E-03	1.11E-03	1.05E-03	9.55E-04	7.83E-04	4.76E-04	2.90E-04	1.77E-04	1.08E-04	6.56E-05	2.45E-05
po218	2.33E-02	2.35E-02	2.37E-02	2.41E-02	2.50E-02	2.73E-02	2.96E-02	3.20E-02	3.45E-02	3.71E-02	4.25E-02
at217	1.33E-03	1.34E-03	1.35E-03	1.38E-03	1.43E-03	1.57E-03	1.72E-03	1.86E-03	2.02E-03	2.18E-03	2.52E-03
rn218	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rn219	7.71E-03	7.75E-03	7.79E-03	7.87E-03	8.02E-03	8.39E-03	8.77E-03	9.15E-03	9.53E-03	9.91E-03	1.07E-02
rn220	1.16E-03	1.11E-03	1.05E-03	9.55E-04	7.83E-04	4.76E-04	2.90E-04	1.77E-04	1.08E-04	6.56E-05	2.45E-05
rn222	2.33E-02	2.35E-02	2.37E-02	2.41E-02	2.50E-02	2.73E-02	2.96E-02	3.20E-02	3.45E-02	3.71E-02	4.25E-02
fr221	1.33E-03	1.34E-03	1.35E-03	1.38E-03	1.43E-03	1.57E-03	1.72E-03	1.86E-03	2.02E-03	2.18E-03	2.52E-03
fr223	1.06E-04	1.07E-04	1.07E-04	1.08E-04	1.10E-04	1.16E-04	1.21E-04	1.26E-04	1.31E-04	1.37E-04	1.47E-04
ra222	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ra223	7.71E-03	7.75E-03	7.79E-03	7.87E-03	8.02E-03	8.39E-03	8.77E-03	9.15E-03	9.53E-03	9.91E-03	1.07E-02
ra224	1.16E-03	1.11E-03	1.05E-03	9.55E-04	7.83E-04	4.76E-04	2.90E-04	1.77E-04	1.08E-04	6.56E-05	2.45E-05
ra225	1.33E-03	1.34E-03	1.35E-03	1.38E-03	1.43E-03	1.57E-03	1.72E-03	1.86E-03	2.02E-03	2.18E-03	2.52E-03
ra226	2.33E-02	2.35E-02	2.37E-02	2.41E-02	2.50E-02	2.73E-02	2.96E-02	3.20E-02	3.45E-02	3.71E-02	4.25E-02
ra228	1.32E-07	1.33E-07	1.33E-07	1.35E-07	1.37E-07	1.44E-07	1.51E-07	1.57E-07	1.64E-07	1.70E-07	1.85E-07
ac225	1.33E-03	1.34E-03	1.35E-03	1.38E-03	1.43E-03	1.57E-03	1.72E-03	1.86E-03	2.02E-03	2.18E-03	2.52E-03
ac227	7.70E-03	7.74E-03	7.78E-03	7.85E-03	8.01E-03	8.39E-03	8.77E-03	9.15E-03	9.53E-03	9.90E-03	1.07E-02
ac228	1.32E-07	1.33E-07	1.33E-07	1.35E-07	1.37E-07	1.44E-07	1.51E-07	1.57E-07	1.64E-07	1.70E-07	1.85E-07
th226	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th227	7.61E-03	7.64E-03	7.68E-03	7.76E-03	7.91E-03	8.28E-03	8.65E-03	9.02E-03	9.40E-03	9.77E-03	1.05E-02
th228	1.16E-03	1.11E-03	1.05E-03	9.55E-04	7.83E-04	4.76E-04	2.90E-04	1.77E-04	1.08E-04	6.56E-05	2.45E-05
th229	1.33E-03	1.34E-03	1.35E-03	1.38E-03	1.43E-03	1.57E-03	1.72E-03	1.86E-03	2.02E-03	2.18E-03	2.52E-03
th230	1.22E-01	1.23E-01	1.24E-01	1.25E-01	1.27E-01	1.33E-01	1.40E-01	1.46E-01	1.52E-01	1.58E-01	1.70E-01
th231	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 45

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
th232	1.33E-07	1.34E-07	1.34E-07	1.36E-07	1.38E-07	1.45E-07	1.52E-07	1.58E-07	1.65E-07	1.72E-07	1.85E-07
th233	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th234	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00
pa231	7.94E-03	7.98E-03	8.02E-03	8.09E-03	8.25E-03	8.63E-03	9.01E-03	9.38E-03	9.76E-03	1.01E-02	1.09E-02
pa232	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pa233	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00
pa234m	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00
pa234	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u231	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u232	1.13E-03	1.08E-03	1.03E-03	9.28E-04	7.61E-04	4.63E-04	2.82E-04	1.72E-04	1.04E-04	6.36E-05	2.36E-05
u233	3.08E-02	3.09E-02	3.11E-02	3.14E-02	3.20E-02	3.35E-02	3.50E-02	3.65E-02	3.81E-02	3.96E-02	4.26E-02
u234	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01
u235	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01	3.67E-01
u236	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00
u237	3.32E-06	2.61E-06	2.05E-06	1.26E-06	4.81E-07	4.29E-08	3.83E-09	3.42E-10	3.06E-11	2.73E-12	2.18E-14
u238	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00
u239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	4.78E-09	1.96E-10	8.01E-12	1.34E-14	3.78E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	6.09E-07	6.09E-07	6.09E-07	6.09E-07	6.09E-07	6.09E-07	6.08E-07	6.08E-07	6.08E-07	6.08E-07	6.07E-07
np237	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.03E+00
np238	3.41E-07	3.33E-07	3.25E-07	3.09E-07	2.80E-07	2.19E-07	1.71E-07	1.34E-07	1.05E-07	8.20E-08	5.01E-08
np239	1.19E-08	1.19E-08	1.19E-08	1.19E-08	1.19E-08	1.18E-08	1.18E-08	1.17E-08	1.17E-08	1.16E-08	1.15E-08
np240m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	1.27E-05	3.87E-06	1.21E-06	1.60E-07	5.51E-08	5.42E-08	5.41E-08	5.41E-08	5.41E-08	5.41E-08	5.41E-08
pu237	3.65E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	8.81E+01	8.47E+01	8.14E+01	7.53E+01	6.43E+01	4.33E+01	2.92E+01	1.96E+01	1.32E+01	8.91E+00	4.04E+00
pu239	7.15E+01	7.15E+01	7.15E+01	7.14E+01	7.14E+01	7.13E+01	7.12E+01	7.11E+01	7.10E+01	7.09E+01	7.07E+01
pu240	1.24E+00	1.24E+00	1.24E+00	1.24E+00	1.24E+00	1.23E+00	1.23E+00	1.22E+00	1.21E+00	1.21E+00	1.19E+00
pu241	1.39E-01	1.09E-01	8.56E-02	5.28E-02	2.01E-02	1.79E-03	1.60E-04	1.43E-05	1.28E-06	1.14E-07	9.11E-10
pu242	8.73E-08	8.74E-08	8.75E-08	8.77E-08	8.81E-08	8.90E-08	8.97E-08	9.02E-08	9.06E-08	9.10E-08	9.14E-08
pu243	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27
pu244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am241	8.55E-02	8.58E-02	8.59E-02	8.56E-02	8.40E-02	7.81E-02	7.21E-02	6.66E-02	6.14E-02	5.67E-02	4.83E-02
am242m	7.58E-05	7.40E-05	7.22E-05	6.87E-05	6.23E-05	4.87E-05	3.81E-05	2.98E-05	2.33E-05	1.82E-05	1.11E-05
am242	7.55E-05	7.36E-05	7.18E-05	6.84E-05	6.20E-05	4.85E-05	3.79E-05	2.97E-05	2.32E-05	1.81E-05	1.11E-05
am243	1.19E-08	1.19E-08	1.19E-08	1.19E-08	1.19E-08	1.18E-08	1.18E-08	1.17E-08	1.17E-08	1.16E-08	1.15E-08
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 46

0 nuclide radioactivity, curies

basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
cm242	6.24E-05	6.09E-05	5.94E-05	5.66E-05	5.13E-05	4.01E-05	3.14E-05	2.45E-05	1.92E-05	1.50E-05	9.17E-06
cm243	2.89E-12	2.56E-12	2.27E-12	1.78E-12	1.09E-12	3.24E-13	9.60E-14	2.85E-14	8.43E-15	2.50E-15	2.20E-16
cm244	3.54E-10	2.93E-10	2.42E-10	1.65E-10	7.66E-11	1.13E-11	1.66E-12	2.45E-13	3.61E-14	5.32E-15	1.16E-16
cm245	2.08E-16	2.08E-16	2.08E-16	2.07E-16	2.07E-16	2.06E-16	2.05E-16	2.05E-16	2.04E-16	2.03E-16	2.01E-16
cm246	3.19E-19	3.18E-19	3.18E-19	3.18E-19	3.17E-19	3.14E-19	3.12E-19	3.10E-19	3.08E-19	3.05E-19	3.01E-19
cm247	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27
cm248	8.92E-30	8.92E-30	8.92E-30	8.92E-30	8.92E-30	8.92E-30	8.92E-30	8.92E-30	8.92E-30	8.92E-30	8.92E-30
cm249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

cm250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf249	1.37E-31	1.37E-31	1.37E-31	1.37E-31	1.14E-31	1.14E-31	9.13E-32	9.13E-32	9.13E-32	6.85E-32	6.85E-32
cf250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf252	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
s250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	2.01E+02	1.98E+02	1.94E+02	1.88E+02	1.77E+02	1.56E+02	1.42E+02	1.32E+02	1.26E+02	1.21E+02	1.16E+02

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 47

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
h 3	2.19E-05	1.65E-05	1.25E-05	7.12E-06	2.31E-06	1.39E-07	8.36E-09	5.03E-10	3.02E-11	1.82E-12	6.58E-15
li 6	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05
li 7	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07
be 9	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07
be 10	5.90E-06	5.90E-06	5.90E-06	5.90E-06	5.90E-06	5.90E-06	5.90E-06	5.90E-06	5.90E-06	5.90E-06	5.90E-06
c 14	1.12E-06	1.12E-06	1.12E-06	1.12E-06	1.12E-06	1.11E-06	1.10E-06	1.10E-06	1.09E-06	1.08E-06	1.07E-06
ni 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 66	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08
cu 67	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 67	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09
zn 68	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10
zn 69	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 69	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09
zn 70	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08
ga 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 70	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11
zn 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 71	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06
ge 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 72	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04
co 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04
ge 73m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ni 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 74	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04
co 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 75	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03
ni 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 48

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
zn 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 76	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02
as 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 76	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06
ni 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 77	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02
se 77m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 78	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01
cu 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 79	2.28E-01	2.28E-01	2.28E-01	2.27E-01	2.27E-01	2.27E-01	2.27E-01	2.27E-01	2.27E-01	2.27E-01	2.27E-01
se 79m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 79	2.44E-04	2.46E-04	2.49E-04	2.53E-04	2.63E-04	2.87E-04	3.11E-04	3.35E-04	3.59E-04	3.82E-04	4.30E-04
br 79m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 80	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01
br 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 80	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07

cu 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 81	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00
kr 81	2.02E-08	2.02E-08	2.02E-08	2.02E-08	2.02E-08	2.02E-08	2.02E-08	2.02E-08	2.01E-08	2.01E-08	2.01E-08
kr 81m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 49

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	Initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
ge 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 82	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00
br 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 82m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 82	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04
zn 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 83	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00
kr 83m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 84	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00
ga 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85	1.17E-02	8.49E-03	6.14E-03	3.22E-03	8.83E-04	3.48E-05	1.37E-06	5.41E-08	2.13E-09	8.41E-11	1.31E-13
kr 85m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 85	6.74E+00	6.75E+00	6.75E+00	6.75E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00
ge 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 86	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01
rb 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 86m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 86	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05
ge 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

se 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 87	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01
sr 87	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.49E-05	2.49E-05
sr 87m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn
nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
br 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 88	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01
as 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 89	9.92E-25	1.32E-35	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01
y 89m	3.39E-34	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 90	1.08E+00	9.54E-01	8.44E-01	6.60E-01	4.03E-01	1.18E-01	3.43E-02	1.00E-02	2.93E-03	8.54E-04	7.28E-05
y 90	2.81E-04	2.48E-04	2.19E-04	1.71E-04	1.05E-04	3.06E-05	8.93E-06	2.61E-06	7.61E-07	2.22E-07	1.89E-08
y 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90	3.31E+01	3.32E+01	3.33E+01	3.35E+01	3.37E+01	3.40E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01
zr 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91	1.30E-21	5.23E-31	2.09E-40	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 91	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01
nb 91	1.04E-11	1.03E-11	1.03E-11	1.02E-11	9.96E-12	9.47E-12	9.00E-12	8.55E-12	8.12E-12	7.72E-12	6.97E-12
se 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 92	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01
nb 92	2.25E-09	2.25E-09	2.25E-09	2.25E-09	2.25E-09	2.25E-09	2.25E-09	2.25E-09	2.25E-09	2.25E-09	2.25E-09
se 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

zr 93	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01
nb 93	5.63E-03	5.69E-03	5.75E-03	5.86E-03	6.09E-03	6.67E-03	7.25E-03	7.82E-03	8.40E-03	8.98E-03	1.01E-02
nb 93m	2.65E-04	2.66E-04	2.66E-04	2.67E-04	2.68E-04	2.69E-04	2.69E-04	2.69E-04	2.69E-04	2.69E-04	2.69E-04
br 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 51

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
sr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 94	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01
nb 94	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.01E-05	1.01E-05	1.01E-05
nb 94m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 95	6.76E-20	1.74E-28	4.50E-37	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95	8.13E-20	2.10E-28	6.01E-39	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95m	4.48E-23	1.16E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 95	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01
br 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 96	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01
nb 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 96	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02
kr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 97	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01
kr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 98	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01
tc 98	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.87E-06
rb 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 99m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc 99	3.95E+01	3.95E+01	3.95E+01	3.95E+01	3.95E+01	3.95E+01	3.95E+01	3.95E+01	3.95E+01	3.95E+01	3.95E+01
tc 99m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru 99	6.75E-02	6.81E-02	6.88E-02	7.01E-02	7.27E-02	7.92E-02	8.57E-02	9.21E-02	9.86E-02	1.05E-01	1.18E-01

rb100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 52

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
zr100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo100	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01
tc100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru100	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02
rb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru101	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01
sr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru102	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01
rh102	6.56E-10	1.99E-10	6.01E-11	5.50E-12	4.62E-14	2.98E-19	1.92E-24	1.24E-29	8.00E-35	5.16E-40	.00E+00
pd102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru103	3.29E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01
rh103m	3.26E-34	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru104	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01
rh104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd104	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02
y105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd105	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00

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0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 53
nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
y106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru106	5.84E-06	1.94E-07	6.42E-09	7.07E-12	8.54E-18	1.37E-32	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106	5.42E-12	1.80E-13	5.96E-15	6.56E-18	7.93E-24	1.27E-38	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd106	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00
ag106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd107	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00
pd107m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag107	7.32E-05	7.39E-05	7.47E-05	7.62E-05	7.92E-05	8.66E-05	9.40E-05	1.01E-04	1.09E-04	1.16E-04	1.31E-04
zr108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd108	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01
ag108	1.09E-18	1.06E-18	1.03E-18	9.76E-19	8.75E-19	6.66E-19	5.07E-19	3.86E-19	2.94E-19	2.24E-19	1.29E-19
ag108m	3.53E-10	3.43E-10	3.34E-10	3.16E-10	2.83E-10	2.16E-10	1.64E-10	1.25E-10	9.51E-11	7.24E-11	4.20E-11
cd108	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08
zr109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01
ag109m	5.42E-22	3.51E-23	2.28E-24	9.55E-27	1.68E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd109	5.47E-16	3.54E-17	2.30E-18	9.64E-21	1.70E-25	2.22E-37	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd110	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01
ag110	3.63E-20	2.28E-22	1.44E-24	5.69E-29	8.91E-38	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag110m	2.34E-12	1.47E-14	9.27E-17	3.67E-21	5.75E-30	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 54
nuclide concentrations, grams

basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
cd110	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04
nb111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd111	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01
cd111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd112	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01
mo113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd113	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02
cd113m	2.73E-05	2.14E-05	1.67E-05	1.02E-05	3.83E-06	3.28E-07	2.81E-08	2.40E-09	2.06E-10	1.76E-11	1.29E-13
in113	2.13E-03	2.14E-03	2.14E-03	2.15E-03	2.15E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03
in113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd114	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01
in114	8.59E-38	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in114m	5.34E-33	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn114	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07
mo115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115m	1.48E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in115	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02
in115m	6.79E-38	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1
Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 55
0
nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
sn115	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03

tc116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd116	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01
in116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in116m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn116	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04
tc117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn117	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02
sn117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn118	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02
ru119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn119	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01
sn119m	7.47E-11	9.94E-13	1.32E-14	2.34E-18	7.32E-26	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn120	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01
rh121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 56

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	Initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
pd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

in121m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121	2.20E-09	2.06E-09	1.94E-09	1.71E-09	1.33E-09	7.07E-10	3.77E-10	2.01E-10	1.07E-10	5.69E-11	1.61E-11
sn121m	5.05E-05	4.74E-05	4.45E-05	3.92E-05	3.05E-05	1.62E-05	8.65E-06	4.61E-06	2.45E-06	1.31E-06	3.70E-07
sb121	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01
rh122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn122	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01
sb122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te122	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05
rh123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123	2.20E-14	1.22E-18	6.74E-23	2.07E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb123	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01
te123	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09
te123m	5.20E-22	1.32E-26	3.37E-31	2.19E-40	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn124	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01
sb124	1.49E-26	1.10E-35	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb124m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te124	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04
pd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb125	7.97E-05	2.24E-05	6.29E-06	4.96E-07	3.09E-09	9.47E-15	2.90E-20	8.88E-26	2.72E-31	8.33E-37	.00E+00
te125	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01
te125m	1.13E-06	3.18E-07	8.93E-08	7.05E-09	4.39E-11	1.34E-16	4.12E-22	1.26E-27	3.86E-33	.00E+00	.00E+00
pd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn126	3.65E-01	3.65E-01	3.65E-01	3.65E-01	3.65E-01	3.64E-01	3.64E-01	3.64E-01	3.64E-01	3.64E-01	3.64E-01

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 57

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
sb126	1.73E-08	1.73E-08	1.73E-08	1.73E-08	1.73E-08	1.73E-08	1.73E-08	1.73E-08	1.73E-08	1.73E-08	1.73E-08
sb126m	1.32E-10	1.32E-10	1.32E-10	1.32E-10	1.32E-10	1.32E-10	1.32E-10	1.32E-10	1.31E-10	1.31E-10	1.31E-10
te126	3.55E-03	3.56E-03	3.58E-03	3.60E-03	3.65E-03	3.78E-03	3.90E-03	4.03E-03	4.16E-03	4.28E-03	4.53E-03
xe126	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11
ag127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

in127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127	2.41E-17	2.18E-22	1.97E-27	1.65E-37	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127m	6.89E-15	6.23E-20	5.63E-25	4.60E-35	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i127	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00
xe127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te128	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00
i128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe128	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05
cd129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129m	3.01E-37	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i129	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00
xe129	1.45E-04	1.47E-04	1.48E-04	1.51E-04	1.57E-04	1.71E-04	1.85E-04	1.99E-04	2.14E-04	2.28E-04	2.57E-04
xe129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te130	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01
i130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe130	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03
cd131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01
xe131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 58

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
cd132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe132	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01
cs132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba132	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08

in133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs133	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01
ba133	4.97E-12	3.57E-12	2.57E-12	1.33E-12	3.56E-13	1.32E-14	4.90E-16	1.82E-17	6.74E-19	2.50E-20	3.44E-23
in134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01
xe134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134	6.59E-06	1.23E-06	2.28E-07	7.92E-09	9.52E-12	4.77E-19	2.39E-26	1.20E-33	5.99E-41	.00E+00	.00E+00
cs134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba134	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02
sn135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs135	5.79E+01	5.79E+01	5.79E+01	5.79E+01	5.79E+01	5.79E+01	5.79E+01	5.79E+01	5.79E+01	5.79E+01	5.79E+01
cs135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135	8.91E-03	9.00E-03	9.09E-03	9.26E-03	9.61E-03	1.05E-02	1.14E-02	1.22E-02	1.31E-02	1.40E-02	1.57E-02
ba135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe136	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01
cs136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02
ba136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 59

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	Initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
sb137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs137	1.94E+00	1.73E+00	1.54E+00	1.22E+00	7.69E-01	2.42E-01	7.63E-02	2.40E-02	7.56E-03	2.38E-03	2.36E-04
ba137	5.45E+01	5.47E+01	5.49E+01	5.52E+01	5.56E+01	5.62E+01	5.63E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01
ba137m	2.96E-07	2.64E-07	2.35E-07	1.86E-07	1.17E-07	3.70E-08	1.16E-08	3.67E-09	1.16E-09	3.64E-10	3.61E-11
sb138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ba138	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01
la138	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04
sb139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la139	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01
ce139	1.51E-18	1.53E-22	1.54E-26	1.58E-34	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce140	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01
pr140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce141	1.02E-36	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr141	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01
nd141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce142	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01
pr142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr142m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd142	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03
i143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
xe143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd143	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01
i144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce144	7.97E-06	9.38E-08	1.10E-09	1.53E-13	2.93E-21	1.49E-40	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144	3.36E-10	3.95E-12	4.65E-14	6.43E-18	1.23E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144m	1.96E-12	2.30E-14	2.71E-16	3.75E-20	7.19E-28	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd144	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01

i145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd145	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01
pm145	4.48E-11	3.68E-11	3.03E-11	2.05E-11	9.35E-12	1.32E-12	1.86E-13	2.63E-14	3.71E-15	5.23E-16	1.04E-17
sm145	1.74E-15	4.21E-17	1.02E-18	5.95E-22	2.03E-28	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd146	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01
pm146	3.41E-11	1.82E-11	9.73E-12	2.78E-12	2.26E-13	4.29E-16	8.14E-19	1.54E-21	2.92E-24	5.54E-27	1.99E-32
sm146	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06
xe147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm147	5.92E-03	1.58E-03	4.22E-04	3.00E-05	1.52E-07	2.78E-13	5.09E-19	9.32E-25	1.70E-30	3.12E-36	.00E+00
sm147	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01
cs148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd148	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01
pm148	6.38E-37	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm148m	9.70E-35	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 61

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
sm148	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02
cs149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm149	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00
eu149	3.12E-26	3.86E-32	4.77E-38	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd150	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00
pm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00
eu150	2.74E-09	2.49E-09	2.26E-09	1.86E-09	1.26E-09	4.79E-10	1.82E-10	6.92E-11	2.63E-11	9.98E-12	1.44E-12

ba151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm151	5.08E-01	4.89E-01	4.70E-01	4.36E-01	3.73E-01	2.54E-01	1.73E-01	1.18E-01	8.00E-02	5.44E-02	2.52E-02
eu151	3.54E+00	3.56E+00	3.58E+00	3.61E+00	3.67E+00	3.79E+00	3.88E+00	3.93E+00	3.97E+00	3.99E+00	4.02E+00
ba152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm152	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00
eu152	2.74E-03	2.11E-03	1.63E-03	9.69E-04	3.42E-04	2.54E-05	1.89E-06	1.40E-07	1.04E-08	7.72E-10	4.25E-12
eu152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	7.35E-02	7.36E-02	7.38E-02	7.40E-02	7.41E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02
la153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu153	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00
gd153	5.22E-12	2.77E-14	1.46E-16	4.11E-21	3.23E-30	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 62

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
sm154	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01
eu154	6.19E-05	4.14E-05	2.76E-05	1.23E-05	2.45E-06	4.34E-08	7.68E-10	1.36E-11	2.41E-13	4.26E-15	1.33E-18
gd154	5.60E-03	5.62E-03	5.64E-03	5.65E-03	5.66E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03
la155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu155	5.76E-04	2.75E-04	1.31E-04	2.98E-05	1.54E-06	9.37E-10	5.69E-13	3.46E-16	2.10E-19	1.28E-22	4.73E-29
gd155m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155	2.81E-01	2.81E-01	2.81E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01
ce156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd156	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01
ce157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pm157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd157	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02
pr158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd158	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02
pr159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb159	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02
nd160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd160	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03
tb160	1.83E-24	4.55E-32	1.13E-39	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy160	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06
nd161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 63

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
dy161	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03
pm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy162	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04
sm163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy163	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04
sm164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy164	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05
sm165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ho165	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05
dy166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	2.82E-08	2.82E-08	2.81E-08	2.79E-08	2.76E-08	2.68E-08	2.61E-08	2.53E-08	2.46E-08	2.39E-08	2.25E-08
er166	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06	2.82E-06
er167	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09
er167m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09
yb168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm169	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09
yb169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er170	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09
tm170	5.51E-23	2.92E-27	1.55E-31	4.35E-40	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm170m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb170	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11
er171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	9.46E-13	1.56E-13	2.56E-14	6.92E-16	5.07E-19	7.35E-27	1.07E-34	1.44E-42	.00E+00	.00E+00	.00E+00
yb171	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09
er172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb172	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09
total	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 64

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
h 3	2.12E-01	1.60E-01	1.21E-01	6.88E-02	2.24E-02	1.34E-03	8.09E-05	4.86E-06	2.92E-07	1.76E-08	6.36E-11
li 6	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
li 7	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
be 9	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
be 10	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07
c 14	5.00E-06	5.00E-06	5.00E-06	4.99E-06	4.98E-06	4.95E-06	4.92E-06	4.89E-06	4.86E-06	4.83E-06	4.77E-06
ni 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 67	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 67	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 68	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 69	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

zn 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 65

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
zn 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 77m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 79	3.12E-03	3.12E-03	3.12E-03	3.12E-03	3.12E-03	3.12E-03	3.12E-03	3.12E-03	3.12E-03	3.12E-03	3.12E-03
se 79m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 79m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

as 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 81	4.18E-10	4.18E-10	4.18E-10	4.18E-10	4.18E-10	4.18E-10	4.18E-10	4.18E-10	4.18E-10	4.18E-10	4.17E-10
kr 81m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 66

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
ge 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 82m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 83m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85	4.60E+00	3.33E+00	2.41E+00	1.26E+00	3.46E-01	1.37E-02	5.39E-04	2.12E-05	8.38E-07	3.30E-08	5.13E-11
kr 85m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

rb 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 86m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 87	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06
sr 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 87m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 67

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
br 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 89	2.88E-20	3.88E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89m	2.68E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 90	1.52E+02	1.35E+02	1.19E+02	9.31E+01	5.69E+01	1.66E+01	4.85E+00	1.42E+00	4.13E-01	1.21E-01	1.03E-02
y 90	1.52E+02	1.35E+02	1.19E+02	9.31E+01	5.69E+01	1.66E+01	4.85E+00	1.42E+00	4.13E-01	1.21E-01	1.03E-02
y 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91	3.20E-17	1.28E-26	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 91	6.00E-11	5.97E-11	5.94E-11	5.88E-11	5.76E-11	5.47E-11	5.20E-11	4.94E-11	4.70E-11	4.46E-11	4.03E-11
se 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 92	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13
se 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

br 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 93	6.41E-02	6.41E-02	6.41E-02	6.41E-02	6.41E-02	6.41E-02	6.41E-02	6.41E-02	6.41E-02	6.41E-02	6.41E-02
nb 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 93m	6.31E-02	6.33E-02	6.35E-02	6.37E-02	6.39E-02	6.41E-02	6.41E-02	6.41E-02	6.41E-02	6.41E-02	6.41E-02
br 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 68

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nuclide radioactivity, curies

basis =per critical mass 10.1 MT UO2

	Initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
sr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 94	1.91E-06	1.91E-06	1.91E-06	1.91E-06	1.91E-06	1.91E-06	1.91E-06	1.90E-06	1.90E-06	1.90E-06	1.89E-06
nb 94m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 95	1.45E-15	3.74E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95	3.20E-15	8.25E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95m	1.71E-17	4.40E-26	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc 98	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.23E-09
rb 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

nb 99m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc 99	6.76E-01	6.76E-01	6.76E-01	6.76E-01	6.76E-01	6.76E-01	6.76E-01	6.76E-01	6.76E-01	6.75E-01	6.75E-01
tc 99m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 69

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	Initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
zr100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh102	7.93E-07	2.40E-07	7.27E-08	6.66E-09	5.58E-11	3.60E-16	2.32E-21	1.50E-26	9.13E-32	.00E+00	.00E+00
pd102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru103	1.06E-26	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103m	1.06E-26	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

tc105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 70

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basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
y106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru106	1.94E-02	6.42E-04	2.13E-05	2.34E-08	2.83E-14	4.55E-29	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106	1.94E-02	6.42E-04	2.13E-05	2.34E-08	2.83E-14	4.55E-29	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd107	7.17E-04	7.17E-04	7.17E-04	7.17E-04	7.17E-04	7.17E-04	7.17E-04	7.17E-04	7.17E-04	7.17E-04	7.17E-04
pd107m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag108	8.00E-10	7.78E-10	7.57E-10	7.17E-10	6.43E-10	4.89E-10	3.72E-10	2.84E-10	2.16E-10	1.64E-10	9.52E-11
ag108m	9.19E-09	8.94E-09	8.70E-09	8.24E-09	7.39E-09	5.62E-09	4.28E-09	3.26E-09	2.48E-09	1.89E-09	1.09E-09
cd108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109m	1.42E-12	9.18E-14	5.95E-15	2.50E-17	4.40E-22	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd109	1.42E-12	9.18E-14	5.95E-15	2.50E-17	4.40E-22	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ag110	1.51E-10	9.52E-13	5.99E-15	2.37E-19	3.72E-28	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag110m	1.11E-08	7.00E-11	4.41E-13	1.74E-17	2.73E-26	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 71

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
cd110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd113	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14
cd113m	6.14E-03	4.80E-03	3.75E-03	2.30E-03	8.59E-04	7.36E-05	6.30E-06	5.39E-07	4.61E-08	3.95E-09	2.90E-11
in113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in114	1.18E-28	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in114m	1.24E-28	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115m	3.77E-27	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in115	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13
in115m	4.11E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 72

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
sn115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in116m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn119m	2.80E-07	3.72E-09	4.95E-11	8.76E-15	2.74E-22	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 73

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
pd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121	2.10E-03	1.98E-03	1.86E-03	1.64E-03	1.27E-03	6.77E-04	3.61E-04	1.92E-04	1.02E-04	5.45E-05	1.54E-05
sn121m	2.71E-03	2.55E-03	2.39E-03	2.11E-03	1.64E-03	8.72E-04	4.65E-04	2.47E-04	1.32E-04	7.02E-05	1.99E-05
sb121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123	1.81E-10	1.00E-14	5.54E-19	1.70E-27	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te123	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19
te123m	4.62E-18	1.18E-22	2.99E-27	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb124	2.61E-22	1.83E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb124m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb125	8.35E-02	2.35E-02	6.59E-03	5.20E-04	3.24E-06	9.92E-12	3.04E-17	9.31E-23	2.85E-28	.00E+00	.00E+00
te125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te125m	2.04E-02	5.73E-03	1.61E-03	1.27E-04	7.91E-07	2.42E-12	7.42E-18	2.27E-23	6.96E-29	.00E+00	.00E+00
pd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn126	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 74

0

Nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
sb126	1.45E-03	1.45E-03	1.45E-03	1.45E-03	1.45E-03	1.45E-03	1.45E-03	1.45E-03	1.45E-03	1.45E-03	1.44E-03
sb126m	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02

te126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127	6.37E-11	5.76E-16	5.21E-21	4.34E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127m	6.50E-11	5.88E-16	5.31E-21	4.34E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i129	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03
xe129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 75

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	Initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
cd132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

te132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba133	1.27E-09	9.14E-10	6.57E-10	3.40E-10	9.10E-11	3.38E-12	1.25E-13	4.64E-15	1.72E-16	6.38E-18	8.78E-21
in134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134	8.53E-03	1.59E-03	2.96E-04	1.03E-05	1.23E-08	6.17E-16	3.09E-23	1.55E-30	.00E+00	.00E+00	.00E+00
cs134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs135	6.67E-02	6.67E-02	6.67E-02	6.67E-02	6.67E-02	6.67E-02	6.67E-02	6.67E-02	6.67E-02	6.67E-02	6.67E-02
cs135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 76

0

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	Initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
sb137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs137	1.69E+02	1.50E+02	1.34E+02	1.06E+02	6.69E+01	2.11E+01	6.64E+00	2.09E+00	6.58E-01	2.07E-01	2.06E-02
ba137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba137m	1.59E+02	1.42E+02	1.26E+02	1.00E+02	6.32E+01	1.99E+01	6.27E+00	1.97E+00	6.22E-01	1.96E-01	1.94E-02
sb138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

te138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la138	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12
sb139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce139	1.03E-14	1.04E-18	1.05E-22	1.07E-30	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce141	2.28E-32	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce142	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06
pr142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr142m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 77

0

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	Initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
xe143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

la144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce144	2.54E-02	2.99E-04	3.51E-06	4.86E-10	9.31E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144	2.54E-02	2.99E-04	3.51E-06	4.86E-10	9.31E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144m	3.55E-04	4.18E-06	4.92E-08	6.81E-12	1.30E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd144	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11
i145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm145	6.24E-09	5.13E-09	4.22E-09	2.85E-09	1.30E-09	1.84E-10	2.59E-11	3.66E-12	5.17E-13	7.29E-14	1.45E-15
sm145	4.62E-12	1.12E-13	2.70E-15	1.58E-18	5.37E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm146	1.51E-08	8.07E-09	4.31E-09	1.23E-09	1.00E-10	1.90E-13	3.60E-16	6.83E-19	1.30E-21	2.46E-24	8.83E-30
sm146	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11
xe147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm147	5.49E+00	1.47E+00	3.91E-01	2.79E-02	1.41E-04	2.58E-10	4.72E-16	8.64E-22	1.58E-27	.00E+00	.00E+00
sm147	4.99E-07	4.99E-07	4.99E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07
cs148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm148	1.14E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm148m	2.08E-30	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 78

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	Initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
sm148	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15
cs149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm149	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12
eu149	2.94E-22	3.64E-28	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pr150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu150	1.82E-07	1.65E-07	1.50E-07	1.24E-07	8.40E-08	3.19E-08	1.21E-08	4.61E-09	1.75E-09	6.65E-10	9.59E-11
ba151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm151	1.34E+01	1.29E+01	1.24E+01	1.15E+01	9.83E+00	6.69E+00	4.55E+00	3.09E+00	2.11E+00	1.43E+00	6.63E-01
eu151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu152	4.84E-01	3.73E-01	2.88E-01	1.71E-01	6.04E-02	4.49E-03	3.33E-04	2.47E-05	1.84E-06	1.36E-07	7.51E-10
eu152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	1.60E-12	1.60E-12	1.61E-12	1.61E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12
la153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd153	1.85E-08	9.77E-11	5.18E-13	1.45E-17	1.14E-26	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 79

0

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
sm154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu154	1.67E-02	1.12E-02	7.47E-03	3.33E-03	6.64E-04	1.17E-05	2.08E-07	3.68E-09	6.50E-11	1.15E-12	3.60E-16
gd154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu155	2.84E-01	1.36E-01	6.46E-02	1.47E-02	7.60E-04	4.62E-07	2.81E-10	1.71E-13	1.04E-16	6.31E-20	2.33E-26
gd155m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

eu156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb160	2.07E-20	5.14E-28	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 80

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
dy161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

eu165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	5.07E-08	5.06E-08	5.04E-08	5.01E-08	4.96E-08	4.81E-08	4.68E-08	4.54E-08	4.41E-08	4.29E-08	4.05E-08
er166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er167	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er167m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm170	3.29E-19	1.75E-23	9.25E-28	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm170m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	1.03E-09	1.69E-10	2.79E-11	7.54E-13	5.52E-16	8.00E-24	1.14E-31	.00E+00	.00E+00	.00E+00	.00E+00
yb171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	6.58E+02	5.81E+02	5.15E+02	4.07E+02	2.55E+02	8.18E+01	2.81E+01	1.09E+01	5.11E+00	2.97E+00	1.62E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 81

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
he 4	1.54E+00	1.61E+00	2.00E+00	2.75E+00	4.22E+00	5.66E+00	7.06E+00	8.44E+00	9.79E+00	1.11E+01	1.24E+01
tl206	2.47E-16	2.81E-16	4.88E-16	9.71E-16	2.16E-15	3.48E-15	4.83E-15	6.18E-15	7.51E-15	8.82E-15	1.01E-14
tl207	5.58E-11	5.98E-11	8.06E-11	1.19E-10	1.94E-10	2.66E-10	3.35E-10	4.01E-10	4.64E-10	5.25E-10	5.83E-10
tl208	2.97E-14	1.12E-14	4.61E-16	5.46E-16	8.66E-16	1.19E-15	1.51E-15	1.83E-15	2.15E-15	2.47E-15	2.79E-15
tl209	1.29E-13	1.48E-13	2.60E-13	5.67E-13	1.49E-12	2.75E-12	4.31E-12	6.09E-12	8.08E-12	1.02E-11	1.25E-11
pb206	7.81E-03	9.56E-03	2.21E-02	6.93E-02	2.73E-01	6.43E-01	1.19E+00	1.92E+00	2.82E+00	3.90E+00	5.15E+00
pb207	2.95E-03	3.40E-03	6.08E-03	1.37E-02	3.77E-02	7.28E-02	1.19E-01	1.75E-01	2.41E-01	3.17E-01	4.02E-01
pb208	3.07E-04	3.08E-04	3.08E-04	3.09E-04	3.09E-04	3.10E-04	3.11E-04	3.12E-04	3.13E-04	3.15E-04	3.16E-04
pb209	5.47E-10	6.26E-10	1.10E-09	2.40E-09	6.28E-09	1.16E-08	1.82E-08	2.57E-08	3.41E-08	4.32E-08	5.27E-08
pb210	5.33E-04	6.06E-04	1.05E-03	2.09E-03	4.65E-03	7.50E-03	1.04E-02	1.33E-02	1.62E-02	1.90E-02	2.18E-02
pb211	4.32E-10	4.62E-10	6.24E-10	9.22E-10	1.50E-09	2.06E-09	2.59E-09	3.10E-09	3.59E-09	4.06E-09	4.51E-09
pb212	1.76E-11	6.63E-12	2.73E-13	3.24E-13	5.13E-13	7.03E-13	8.93E-13	1.08E-12	1.27E-12	1.46E-12	1.65E-12
pb214	1.29E-09	1.47E-09	2.45E-09	4.88E-09	1.08E-08	1.75E-08	2.43E-08	3.10E-08	3.77E-08	4.43E-08	5.07E-08
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	4.82E-04	5.92E-04	1.39E-03	4.58E-03	2.03E-02	5.33E-02	1.09E-01	1.90E-01	3.02E-01	4.46E-01	6.25E-01
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	3.28E-07	3.73E-07	6.47E-07	1.29E-06	2.86E-06	4.61E-06	6.41E-06	8.20E-06	9.97E-06	1.17E-05	1.34E-05
bi211	2.56E-11	2.74E-11	3.70E-11	5.47E-11	8.90E-11	1.22E-10	1.53E-10	1.84E-10	2.13E-10	2.41E-10	2.67E-10
bi212	1.67E-12	6.29E-13	2.59E-14	3.07E-14	4.87E-14	6.67E-14	8.47E-14	1.03E-13	1.21E-13	1.39E-13	1.57E-13
bi213	1.30E-10	1.49E-10	2.61E-10	5.70E-10	1.49E-09	2.77E-09	4.33E-09	6.13E-09	8.12E-09	1.03E-08	1.26E-08
bi214	9.62E-10	1.09E-09	1.82E-09	3.62E-09	8.05E-09	1.30E-08	1.80E-08	2.31E-08	2.80E-08	3.29E-08	3.77E-08
po210	9.06E-06	1.03E-05	1.79E-05	3.56E-05	7.91E-05	1.27E-04	1.77E-04	2.27E-04	2.75E-04	3.23E-04	3.70E-04
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	2.83E-16	3.03E-16	4.09E-16	6.04E-16	9.83E-16	1.35E-15	1.70E-15	2.03E-15	2.35E-15	2.66E-15	2.95E-15
po212	8.77E-23	3.31E-23	1.36E-24	1.61E-24	2.56E-24	3.51E-24	4.45E-24	5.40E-24	6.34E-24	7.29E-24	8.24E-24
po213	1.96E-19	2.24E-19	3.92E-19	8.57E-19	2.25E-18	4.16E-18	6.51E-18	9.21E-18	1.22E-17	1.54E-17	1.89E-17
po214	1.32E-16	1.50E-16	2.50E-16	4.98E-16	1.11E-15	1.78E-15	2.48E-15	3.17E-15	3.85E-15	4.52E-15	5.18E-15

po215	3.61E-16	3.87E-16	5.22E-16	7.72E-16	1.26E-15	1.72E-15	2.17E-15	2.59E-15	3.00E-15	3.40E-15	3.77E-15
po216	6.79E-17	2.56E-17	1.05E-18	1.25E-18	1.98E-18	2.71E-18	3.45E-18	4.18E-18	4.91E-18	5.64E-18	6.37E-18
po218	1.53E-10	1.73E-10	2.89E-10	5.75E-10	1.28E-09	2.06E-09	2.86E-09	3.66E-09	4.45E-09	5.22E-09	5.98E-09
at217	1.57E-15	1.79E-15	3.14E-15	6.86E-15	1.80E-14	3.33E-14	5.21E-14	7.37E-14	9.77E-14	1.24E-13	1.51E-13
rn218	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rn219	8.19E-13	8.77E-13	1.18E-12	1.75E-12	2.85E-12	3.90E-12	4.91E-12	5.88E-12	6.81E-12	7.70E-12	8.55E-12
rn220	2.65E-14	9.99E-15	4.12E-16	4.88E-16	7.74E-16	1.06E-15	1.35E-15	1.63E-15	1.92E-15	2.20E-15	2.49E-15
rn222	2.76E-07	3.13E-07	5.22E-07	1.04E-06	2.31E-06	3.72E-06	5.17E-06	6.62E-06	8.04E-06	9.44E-06	1.08E-05
fr221	1.45E-11	1.66E-11	2.91E-11	6.36E-11	1.67E-10	3.09E-10	4.83E-10	6.84E-10	9.06E-10	1.15E-09	1.40E-09
fr223	3.80E-12	4.07E-12	5.49E-12	8.12E-12	1.32E-11	1.81E-11	2.28E-11	2.73E-11	3.16E-11	3.57E-11	3.97E-11
ra222	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ra223	2.08E-07	2.23E-07	3.01E-07	4.45E-07	7.23E-07	9.91E-07	1.25E-06	1.49E-06	1.73E-06	1.96E-06	2.17E-06
ra224	1.53E-10	5.79E-11	2.39E-12	2.82E-12	4.48E-12	6.14E-12	7.79E-12	9.45E-12	1.11E-11	1.28E-11	1.44E-11
ra225	6.43E-08	7.36E-08	1.29E-07	2.82E-07	7.39E-07	1.37E-06	2.14E-06	3.03E-06	4.01E-06	5.07E-06	6.20E-06
ra226	4.29E-02	4.87E-02	8.12E-02	1.62E-01	3.60E-01	5.79E-01	8.05E-01	1.03E+00	1.25E+00	1.47E+00	1.68E+00
ra228	6.77E-10	7.25E-10	9.68E-10	1.45E-09	2.42E-09	3.39E-09	4.36E-09	5.33E-09	6.30E-09	7.27E-09	8.24E-09
ac225	4.35E-08	4.97E-08	8.71E-08	1.90E-07	4.99E-07	9.24E-07	1.45E-06	2.05E-06	2.71E-06	3.43E-06	4.19E-06
ac227	1.47E-04	1.58E-04	2.13E-04	3.15E-04	5.12E-04	7.02E-04	8.83E-04	1.06E-03	1.22E-03	1.38E-03	1.54E-03
ac228	8.26E-14	8.85E-14	1.18E-13	1.77E-13	2.96E-13	4.14E-13	5.32E-13	6.50E-13	7.69E-13	8.87E-13	1.01E-12
th226	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th227	3.42E-07	3.66E-07	4.94E-07	7.30E-07	1.19E-06	1.63E-06	2.05E-06	2.45E-06	2.84E-06	3.21E-06	3.57E-06
th228	2.98E-08	1.12E-08	4.64E-10	5.49E-10	8.70E-10	1.19E-09	1.51E-09	1.84E-09	2.16E-09	2.48E-09	2.80E-09
th229	1.27E-02	1.46E-02	2.55E-02	5.58E-02	1.46E-01	2.71E-01	4.23E-01	5.99E-01	7.94E-01	1.00E+00	1.23E+00
th230	8.24E+00	8.83E+00	1.18E+01	1.76E+01	2.90E+01	4.02E+01	5.11E+01	6.17E+01	7.22E+01	8.23E+01	9.23E+01
th231	6.91E-07	6.91E-07	6.91E-07	6.91E-07	6.91E-07	6.92E-07	6.92E-07	6.92E-07	6.92E-07	6.92E-07	6.92E-07

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 82

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
th232	1.68E+00	1.80E+00	2.41E+00	3.61E+00	6.02E+00	8.43E+00	1.08E+01	1.33E+01	1.57E+01	1.81E+01	2.05E+01
th233	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th234	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04
pa231	2.31E-01	2.47E-01	3.26E-01	4.82E-01	7.84E-01	1.07E+00	1.35E+00	1.62E+00	1.87E+00	2.12E+00	2.35E+00
pa232	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pa233	3.39E-04	3.39E-04	3.39E-04	3.38E-04	3.38E-04	3.38E-04	3.38E-04	3.38E-04	3.37E-04	3.37E-04	3.37E-04
pa234m	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09
pa234	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u231	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u232	1.07E-06	3.97E-07	5.18E-09	2.42E-09	2.40E-09	2.37E-09	2.34E-09	2.31E-09	2.28E-09	2.26E-09	2.23E-09
u233	4.42E+00	4.74E+00	6.31E+00	9.45E+00	1.57E+01	2.19E+01	2.80E+01	3.40E+01	4.00E+01	4.60E+01	5.19E+01
u234	2.15E+03	2.15E+03	2.15E+03	2.14E+03	2.13E+03	2.12E+03	2.11E+03	2.11E+03	2.10E+03	2.09E+03	2.08E+03
u235	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05
u236	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04
u237	2.67E-19	2.13E-21	5.62E-26	5.18E-26	4.40E-26	3.74E-26	3.17E-26	2.70E-26	2.29E-26	1.95E-26	1.65E-26
u238	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06
u239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	4.61E-05	4.61E-05	4.59E-05	4.57E-05	4.51E-05	4.46E-05	4.40E-05	4.35E-05	4.30E-05	4.25E-05	4.20E-05
np237	9.97E+03	9.97E+03	9.97E+03	9.96E+03	9.96E+03	9.95E+03	9.94E+03	9.94E+03	9.93E+03	9.92E+03	9.92E+03
np238	1.93E-13	1.18E-13	1.01E-14	7.42E-17	3.99E-21	2.14E-25	1.15E-29	6.18E-34	.00E+00	.00E+00	.00E+00
np239	4.96E-14	4.91E-14	4.68E-14	4.26E-14	3.53E-14	2.93E-14	2.43E-14	2.01E-14	1.66E-14	1.38E-14	1.14E-14
np240m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pu236	1.03E-10	1.03E-10	1.03E-10	1.02E-10	1.01E-10	1.00E-10	9.88E-11	9.76E-11	9.65E-11	9.53E-11	9.42E-11
pu237	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	2.36E-01	1.07E-01	2.06E-03	7.61E-07	1.33E-13	1.60E-18	8.50E-23	4.57E-27	2.45E-31	1.32E-35	7.07E-40
pu239	1.14E+03	1.14E+03	1.12E+03	1.09E+03	1.03E+03	9.69E+02	9.15E+02	8.64E+02	8.16E+02	7.70E+02	7.27E+02
pu240	5.26E+00	5.21E+00	4.94E+00	4.44E+00	3.60E+00	2.91E+00	2.36E+00	1.91E+00	1.54E+00	1.25E+00	1.01E+00
pu241	8.80E-12	7.02E-14	1.86E-18	1.71E-18	1.45E-18	1.23E-18	1.05E-18	8.91E-19	7.57E-19	6.43E-19	5.46E-19
pu242	2.31E-05	2.32E-05	2.33E-05	2.32E-05	2.31E-05	2.30E-05	2.30E-05	2.29E-05	2.28E-05	2.27E-05	2.26E-05
pu243	5.09E-34	5.09E-34	5.09E-34	5.09E-34	5.09E-34	5.09E-34	5.09E-34	5.08E-34	5.08E-34	5.08E-34	5.08E-34
pu244	1.94E-30	2.33E-30	4.26E-30	8.13E-30	1.58E-29	2.35E-29	3.11E-29	3.87E-29	4.63E-29	5.39E-29	6.14E-29
pu245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am241	1.41E-02	1.20E-02	5.38E-03	1.08E-03	4.39E-05	1.78E-06	7.23E-08	2.93E-09	1.19E-10	4.82E-12	1.95E-13
am242m	1.06E-06	6.50E-07	5.57E-08	4.08E-10	2.19E-14	1.18E-18	6.32E-23	3.40E-27	1.82E-31	9.80E-36	5.26E-40
am242	1.37E-11	8.39E-12	7.18E-13	5.26E-15	2.83E-19	1.52E-23	8.16E-28	4.38E-32	2.34E-36	.00E+00	.00E+00
am243	5.76E-08	5.71E-08	5.44E-08	4.96E-08	4.11E-08	3.40E-08	2.82E-08	2.34E-08	1.93E-08	1.60E-08	1.33E-08
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 83

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
cm242	2.77E-09	1.69E-09	1.45E-10	1.06E-12	5.73E-17	3.08E-21	1.65E-25	8.88E-30	4.77E-34	2.56E-38	1.36E-42
cm243	4.25E-18	3.73E-19	1.95E-24	5.34E-35	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm244	1.43E-18	3.10E-20	1.50E-28	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm245	1.17E-15	1.16E-15	1.12E-15	1.03E-15	8.73E-16	7.42E-16	6.30E-16	5.35E-16	4.55E-16	3.86E-16	3.28E-16
cm246	9.79E-19	9.65E-19	8.97E-19	7.74E-19	5.78E-19	4.31E-19	3.22E-19	2.40E-19	1.79E-19	1.33E-19	9.96E-20
cm247	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23
cm248	2.10E-27	2.10E-27	2.10E-27	2.10E-27	2.09E-27	2.08E-27	2.07E-27	2.06E-27	2.05E-27	2.05E-27	2.04E-27
cm249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf249	1.48E-32	1.21E-32	4.51E-33	6.24E-34	1.19E-35	2.29E-37	4.38E-39	8.37E-41	1.74E-42	.00E+00	.00E+00
cf250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf251	8.36E-39	7.74E-39	5.26E-39	2.43E-39	5.19E-40	1.11E-40	2.36E-41	4.92E-42	1.06E-42	3.52E-43	.00E+00
cf252	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
s250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 84

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
he 4	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tl206	5.37E-08	6.11E-08	1.06E-07	2.11E-07	4.69E-07	7.56E-07	1.05E-06	1.34E-06	1.63E-06	1.92E-06	2.19E-06

tl207	1.06E-02	1.14E-02	1.54E-02	2.27E-02	3.70E-02	5.06E-02	6.37E-02	7.63E-02	8.84E-02	9.99E-02	1.11E-01
tl208	8.79E-06	3.31E-06	1.37E-07	1.62E-07	2.57E-07	3.51E-07	4.46E-07	5.41E-07	6.36E-07	7.31E-07	8.26E-07
tl209	5.30E-05	6.06E-05	1.06E-04	2.32E-04	6.08E-04	1.13E-03	1.76E-03	2.49E-03	3.30E-03	4.18E-03	5.11E-03
pb206	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb207	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb209	2.52E-03	2.89E-03	5.06E-03	1.10E-02	2.90E-02	5.36E-02	8.39E-02	1.19E-01	1.57E-01	1.99E-01	2.43E-01
pb210	4.07E-02	4.63E-02	8.03E-02	1.60E-01	3.56E-01	5.73E-01	7.96E-01	1.02E+00	1.24E+00	1.45E+00	1.66E+00
pb211	1.07E-02	1.14E-02	1.54E-02	2.28E-02	3.71E-02	5.08E-02	6.39E-02	7.65E-02	8.86E-02	1.00E-01	1.11E-01
pb212	2.45E-05	9.22E-06	3.80E-07	4.50E-07	7.14E-07	9.78E-07	1.24E-06	1.51E-06	1.77E-06	2.03E-06	2.30E-06
pb214	4.25E-02	4.81E-02	8.03E-02	1.60E-01	3.56E-01	5.73E-01	7.96E-01	1.02E+00	1.24E+00	1.45E+00	1.66E+00
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	4.07E-02	4.63E-02	8.03E-02	1.60E-01	3.56E-01	5.73E-01	7.96E-01	1.02E+00	1.24E+00	1.45E+00	1.66E+00
bi211	1.07E-02	1.14E-02	1.54E-02	2.28E-02	3.71E-02	5.08E-02	6.39E-02	7.65E-02	8.86E-02	1.00E-01	1.11E-01
bi212	2.45E-05	9.22E-06	3.80E-07	4.50E-07	7.14E-07	9.78E-07	1.24E-06	1.51E-06	1.77E-06	2.03E-06	2.30E-06
bi213	2.52E-03	2.89E-03	5.06E-03	1.10E-02	2.90E-02	5.36E-02	8.39E-02	1.19E-01	1.57E-01	1.99E-01	2.43E-01
bi214	4.25E-02	4.81E-02	8.03E-02	1.60E-01	3.56E-01	5.73E-01	7.96E-01	1.02E+00	1.24E+00	1.45E+00	1.66E+00
po210	4.07E-02	4.63E-02	8.03E-02	1.60E-01	3.56E-01	5.73E-01	7.96E-01	1.02E+00	1.24E+00	1.45E+00	1.66E+00
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	2.93E-05	3.14E-05	4.24E-05	6.26E-05	1.02E-04	1.40E-04	1.76E-04	2.10E-04	2.44E-04	2.76E-04	3.06E-04
po212	1.57E-05	5.91E-06	2.44E-07	2.88E-07	4.57E-07	6.26E-07	7.95E-07	9.64E-07	1.13E-06	1.30E-06	1.47E-06
po213	2.47E-03	2.83E-03	4.95E-03	1.08E-02	2.84E-02	5.25E-02	8.21E-02	1.16E-01	1.54E-01	1.95E-01	2.38E-01
po214	4.25E-02	4.81E-02	8.03E-02	1.60E-01	3.56E-01	5.73E-01	7.96E-01	1.02E+00	1.24E+00	1.45E+00	1.66E+00
po215	1.07E-02	1.14E-02	1.54E-02	2.28E-02	3.71E-02	5.08E-02	6.39E-02	7.65E-02	8.86E-02	1.00E-01	1.11E-01
po216	2.45E-05	9.22E-06	3.80E-07	4.50E-07	7.14E-07	9.78E-07	1.24E-06	1.51E-06	1.77E-06	2.03E-06	2.30E-06
po218	4.25E-02	4.81E-02	8.03E-02	1.60E-01	3.56E-01	5.73E-01	7.96E-01	1.02E+00	1.24E+00	1.45E+00	1.66E+00
at217	2.52E-03	2.89E-03	5.06E-03	1.11E-02	2.90E-02	5.36E-02	8.39E-02	1.19E-01	1.57E-01	1.99E-01	2.43E-01
rn218	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rn219	1.07E-02	1.14E-02	1.54E-02	2.28E-02	3.71E-02	5.08E-02	6.39E-02	7.65E-02	8.86E-02	1.00E-01	1.11E-01
rn220	2.45E-05	9.22E-06	3.80E-07	4.50E-07	7.14E-07	9.78E-07	1.24E-06	1.51E-06	1.77E-06	2.03E-06	2.30E-06
rn222	4.25E-02	4.81E-02	8.03E-02	1.60E-01	3.56E-01	5.73E-01	7.96E-01	1.02E+00	1.24E+00	1.45E+00	1.66E+00
fr221	2.52E-03	2.89E-03	5.06E-03	1.11E-02	2.90E-02	5.36E-02	8.39E-02	1.19E-01	1.57E-01	1.99E-01	2.43E-01
fr223	1.47E-04	1.58E-04	2.13E-04	3.14E-04	5.12E-04	7.01E-04	8.82E-04	1.06E-03	1.22E-03	1.38E-03	1.54E-03
ra222	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ra223	1.07E-02	1.14E-02	1.54E-02	2.28E-02	3.71E-02	5.08E-02	6.39E-02	7.65E-02	8.86E-02	1.00E-01	1.11E-01
ra224	2.45E-05	9.22E-06	3.80E-07	4.50E-07	7.14E-07	9.78E-07	1.24E-06	1.51E-06	1.77E-06	2.03E-06	2.30E-06
ra225	2.52E-03	2.89E-03	5.06E-03	1.11E-02	2.90E-02	5.36E-02	8.39E-02	1.19E-01	1.57E-01	1.99E-01	2.43E-01
ra226	4.25E-02	4.81E-02	8.03E-02	1.60E-01	3.56E-01	5.73E-01	7.96E-01	1.02E+00	1.24E+00	1.45E+00	1.66E+00
ra228	1.85E-07	1.98E-07	2.64E-07	3.96E-07	6.61E-07	9.25E-07	1.19E-06	1.45E-06	1.72E-06	1.98E-06	2.25E-06
ac225	2.52E-03	2.89E-03	5.06E-03	1.11E-02	2.90E-02	5.36E-02	8.39E-02	1.19E-01	1.57E-01	1.99E-01	2.43E-01
ac227	1.07E-02	1.14E-02	1.54E-02	2.28E-02	3.71E-02	5.08E-02	6.39E-02	7.65E-02	8.86E-02	1.00E-01	1.11E-01
ac228	1.85E-07	1.98E-07	2.64E-07	3.96E-07	6.61E-07	9.25E-07	1.19E-06	1.45E-06	1.72E-06	1.98E-06	2.25E-06
th226	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th227	1.05E-02	1.13E-02	1.52E-02	2.25E-02	3.66E-02	5.01E-02	6.30E-02	7.55E-02	8.74E-02	9.88E-02	1.10E-01
th228	2.45E-05	9.22E-06	3.80E-07	4.50E-07	7.14E-07	9.78E-07	1.24E-06	1.51E-06	1.77E-06	2.03E-06	2.30E-06
th229	2.52E-03	2.89E-03	5.06E-03	1.11E-02	2.90E-02	5.36E-02	8.39E-02	1.19E-01	1.57E-01	1.99E-01	2.43E-01
th230	1.70E-01	1.82E-01	2.43E-01	3.62E-01	5.98E-01	8.29E-01	1.05E+00	1.27E+00	1.49E+00	1.70E+00	1.90E+00
th231	3.67E-01	3.67E-01	3.67E-01	3.68E-01	3.68E-01	3.68E-01	3.68E-01	3.68E-01	3.68E-01	3.68E-01	3.68E-01

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 85

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
th232	1.85E-07	1.98E-07	2.64E-07	3.96E-07	6.61E-07	9.25E-07	1.19E-06	1.45E-06	1.72E-06	1.98E-06	2.25E-06
th233	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th234	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00
pa231	1.09E-02	1.17E-02	1.54E-02	2.28E-02	3.71E-02	5.08E-02	6.39E-02	7.65E-02	8.86E-02	1.00E-01	1.11E-01
pa232	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pa233	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.02E+00	7.02E+00	7.01E+00	7.01E+00	7.00E+00	7.00E+00	6.99E+00
pa234m	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00
pa234	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u231	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u232	2.36E-05	8.78E-06	1.14E-07	5.35E-08	5.29E-08	5.23E-08	5.16E-08	5.10E-08	5.04E-08	4.98E-08	4.92E-08
u233	4.26E-02	4.57E-02	6.09E-02	9.11E-02	1.51E-01	2.11E-01	2.70E-01	3.28E-01	3.86E-01	4.43E-01	5.00E-01
u234	1.34E+01	1.34E+01	1.34E+01	1.33E+01	1.33E+01	1.32E+01	1.32E+01	1.31E+01	1.30E+01	1.30E+01	1.29E+01
u235	3.67E-01	3.67E-01	3.67E-01	3.68E-01	3.68E-01	3.68E-01	3.68E-01	3.68E-01	3.68E-01	3.68E-01	3.68E-01
u236	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00
u237	2.18E-14	1.74E-16	4.59E-21	4.23E-21	3.59E-21	3.05E-21	2.59E-21	2.20E-21	1.87E-21	1.59E-21	1.35E-21
u238	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00
u239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	6.07E-07	6.07E-07	6.05E-07	6.02E-07	5.94E-07	5.87E-07	5.80E-07	5.73E-07	5.66E-07	5.60E-07	5.53E-07
np237	7.03E+00	7.03E+00	7.03E+00	7.03E+00	7.02E+00	7.02E+00	7.01E+00	7.01E+00	7.00E+00	7.00E+00	6.99E+00
np238	5.01E-08	3.07E-08	2.63E-09	1.92E-11	1.03E-15	5.55E-20	2.98E-24	1.60E-28	.00E+00	.00E+00	.00E+00
np239	1.15E-08	1.14E-08	1.09E-08	9.89E-09	8.20E-09	6.79E-09	5.63E-09	4.66E-09	3.86E-09	3.20E-09	2.65E-09
np240m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	5.41E-08	5.40E-08	5.39E-08	5.35E-08	5.29E-08	5.23E-08	5.16E-08	5.10E-08	5.04E-08	4.98E-08	4.92E-08
pu237	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	4.04E+00	1.83E+00	3.53E-02	1.30E-05	2.28E-12	2.74E-17	1.46E-21	7.82E-26	4.20E-30	.00E+00	.00E+00
pu239	7.07E+01	7.05E+01	6.95E+01	6.75E+01	6.37E+01	6.02E+01	5.68E+01	5.36E+01	5.06E+01	4.78E+01	4.51E+01
pu240	1.19E+00	1.18E+00	1.12E+00	1.01E+00	8.17E-01	6.61E-01	5.35E-01	4.33E-01	3.51E-01	2.84E-01	2.30E-01
pu241	9.11E-10	7.26E-12	1.92E-16	1.77E-16	1.50E-16	1.28E-16	1.08E-16	9.21E-17	7.83E-17	6.65E-17	5.65E-17
pu242	9.14E-08	9.17E-08	9.20E-08	9.18E-08	9.15E-08	9.12E-08	9.08E-08	9.05E-08	9.02E-08	8.98E-08	8.95E-08
pu243	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27
pu244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am241	4.83E-02	4.12E-02	1.85E-02	3.72E-03	1.51E-04	6.11E-06	2.48E-07	1.01E-08	4.08E-10	1.65E-11	6.70E-13
am242m	1.11E-05	6.82E-06	5.84E-07	4.28E-09	2.30E-13	1.23E-17	6.63E-22	3.56E-26	1.92E-30	.00E+00	.00E+00
am242	1.11E-05	6.79E-06	5.81E-07	4.26E-09	2.29E-13	1.23E-17	6.60E-22	3.54E-26	1.89E-30	.00E+00	.00E+00
am243	1.15E-08	1.14E-08	1.09E-08	9.89E-09	8.20E-09	6.79E-09	5.63E-09	4.66E-09	3.86E-09	3.20E-09	2.65E-09
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 86

0 nuclide radioactivity, curies

basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
cm242	9.17E-06	5.61E-06	4.80E-07	3.52E-09	1.90E-13	1.02E-17	5.47E-22	2.94E-26	1.57E-30	.00E+00	.00E+00
cm243	2.20E-16	1.93E-17	1.01E-22	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm244	1.16E-16	2.51E-18	1.21E-26	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm245	2.01E-16	2.00E-16	1.92E-16	1.77E-16	1.50E-16	1.27E-16	1.08E-16	9.20E-17	7.81E-17	6.64E-17	5.64E-17
cm246	3.01E-19	2.96E-19	2.76E-19	2.38E-19	1.78E-19	1.32E-19	9.88E-20	7.37E-20	5.50E-20	4.10E-20	3.06E-20
cm247	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27
cm248	8.92E-30	8.92E-30	8.92E-30	8.90E-30	8.85E-30	8.83E-30	8.78E-30	8.74E-30	8.72E-30	8.67E-30	8.65E-30
cm249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

cm250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf249	6.85E-32	4.56E-32	2.28E-32	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf252	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
s250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	1.16E+02	1.14E+02	1.11E+02	1.10E+02	1.09E+02	1.07E+02	1.06E+02	1.06E+02	1.05E+02	1.05E+02	1.05E+02

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 87

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
h 3	6.58E-15	2.38E-17	1.47E-29	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
li 6	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05
li 7	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07
be 9	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07
be 10	5.90E-06	5.90E-06	5.90E-06	5.89E-06	5.89E-06	5.88E-06	5.88E-06	5.87E-06	5.87E-06	5.86E-06	5.86E-06
c 14	1.07E-06	1.06E-06	9.96E-07	8.82E-07	6.93E-07	5.44E-07	4.27E-07	3.35E-07	2.63E-07	2.07E-07	1.62E-07
ni 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 66	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08
cu 67	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 67	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09
zn 68	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10
zn 69	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 69	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09
zn 70	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08
ga 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 70	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11
zn 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 71	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06
ge 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 72	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04
co 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04
ge 73m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ni 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 74	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04
co 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 75	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03
ni 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 88

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
zn 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 76	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02
as 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 76	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06
ni 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 77	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02
se 77m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 78	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01
cu 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 79	2.27E-01	2.27E-01	2.27E-01	2.27E-01	2.26E-01	2.25E-01	2.24E-01	2.23E-01	2.22E-01	2.21E-01	2.20E-01
se 79m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 79	4.30E-04	4.78E-04	7.17E-04	1.19E-03	2.14E-03	3.09E-03	4.03E-03	4.97E-03	5.90E-03	6.84E-03	7.76E-03
br 79m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 80	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01
br 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 80	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07

cu 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 81	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00
kr 81	2.01E-08	2.01E-08	2.01E-08	2.00E-08	1.99E-08	1.98E-08	1.96E-08	1.95E-08	1.94E-08	1.93E-08	1.91E-08
kr 81m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 89

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
ge 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 82	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00
br 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 82m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 82	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04
zn 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 83	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00
kr 83m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 84	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00
ga 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85	1.31E-13	2.03E-16	1.85E-30	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 85	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00
ge 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 86	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01
rb 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 86m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 86	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05
ge 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

se 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 87	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01
sr 87	2.49E-05	2.49E-05	2.50E-05	2.52E-05	2.56E-05	2.60E-05	2.65E-05	2.69E-05	2.73E-05	2.77E-05	2.81E-05
sr 87m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 90

0 nuclide concentrations, grams

basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
br 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 88	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01
as 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01
y 89m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 90	7.28E-05	6.20E-06	2.79E-11	5.62E-22	2.52E-43	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90	1.89E-08	1.61E-09	7.24E-15	1.46E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01
zr 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 91	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01
nb 91	6.97E-12	6.30E-12	3.78E-12	1.36E-12	1.78E-13	2.31E-14	3.01E-15	3.92E-16	5.10E-17	6.65E-18	8.65E-19
se 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 92	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01
nb 92	2.25E-09	2.25E-09	2.25E-09	2.25E-09	2.24E-09	2.24E-09	2.24E-09	2.24E-09	2.24E-09	2.24E-09	2.24E-09
se 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

zr 93	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.55E+01	2.54E+01	2.54E+01	2.54E+01	2.54E+01	2.53E+01	2.53E+01
nb 93	1.01E-02	1.13E-02	1.71E-02	2.86E-02	5.17E-02	7.47E-02	9.78E-02	1.21E-01	1.44E-01	1.67E-01	1.90E-01
nb 93m	2.69E-04	2.69E-04	2.69E-04	2.69E-04	2.68E-04	2.68E-04	2.68E-04	2.68E-04	2.67E-04	2.67E-04	2.67E-04
br 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 91

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
sr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 94	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01
nb 94	1.01E-05	1.00E-05	9.88E-06	9.55E-06	8.92E-06	8.33E-06	7.78E-06	7.26E-06	6.78E-06	6.34E-06	5.92E-06
nb 94m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 95	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01
br 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 96	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01
nb 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 96	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02
kr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 97	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01
kr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 98	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01
tc 98	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.87E-06	4.86E-06	4.86E-06	4.86E-06	4.86E-06	4.86E-06
rb 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 99m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc 99	3.95E+01	3.94E+01	3.94E+01	3.93E+01	3.90E+01	3.87E+01	3.85E+01	3.82E+01	3.80E+01	3.77E+01	3.75E+01
tc 99m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru 99	1.18E-01	1.31E-01	1.96E-01	3.25E-01	5.82E-01	8.37E-01	1.09E+00	1.34E+00	1.59E+00	1.84E+00	2.09E+00

rb100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 92

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
zr100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo100	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01
tc100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru100	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02
rb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru101	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01
sr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru102	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01
rh102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01
rh103m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru104	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01
rh104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd104	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02
y105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd105	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00

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0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 93
nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
y106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd106	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00
ag106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd107	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00
pd107m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag107	1.31E-04	1.46E-04	2.20E-04	3.69E-04	6.67E-04	9.64E-04	1.26E-03	1.56E-03	1.86E-03	2.15E-03	2.45E-03
zr108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd108	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01
ag108	1.29E-19	7.50E-20	4.90E-21	2.09E-23	3.79E-28	6.89E-33	1.25E-37	.00E+00	.00E+00	.00E+00	.00E+00
ag108m	4.20E-11	2.43E-11	1.59E-12	6.76E-15	1.23E-19	2.23E-24	4.05E-29	7.36E-34	1.34E-38	3.03E-43	.00E+00
cd108	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08
zr109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01
ag109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd110	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01
ag110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag110m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 94
nuclide concentrations, grams

basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
cd110	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04
nb111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd111	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01
cd111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd112	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01
mo113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd113	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02
cd113m	1.29E-13	9.45E-16	2.00E-26	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in113	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03
in113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd114	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01
in114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in114m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn114	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07
mo115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in115	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02
in115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 95

0 nuclide concentrations, grams

basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
sn115	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03

tc116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd116	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01
in116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in116m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn116	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04
tc117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn117	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02
sn117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn118	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02
ru119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn119	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01
sn119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn120	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01
rh121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 96

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	Initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
pd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

in121m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121	1.61E-11	4.58E-12	8.40E-15	2.83E-20	3.21E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121m	3.70E-07	1.05E-07	1.93E-10	6.49E-16	7.36E-27	8.35E-38	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb121	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01
rh122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn122	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01
sb122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te122	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05
rh123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb123	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01
te123	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09
te123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn124	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01
sb124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb124m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te124	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04
pd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te125	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01
te125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn126	3.64E-01	3.63E-01	3.62E-01	3.60E-01	3.55E-01	3.50E-01	3.45E-01	3.40E-01	3.36E-01	3.31E-01	3.26E-01

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 97

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	Initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
sb126	1.73E-08	1.73E-08	1.72E-08	1.71E-08	1.68E-08	1.66E-08	1.64E-08	1.62E-08	1.59E-08	1.57E-08	1.55E-08
sb126m	1.31E-10	1.31E-10	1.31E-10	1.30E-10	1.28E-10	1.26E-10	1.25E-10	1.23E-10	1.21E-10	1.20E-10	1.18E-10
te126	4.53E-03	4.79E-03	6.04E-03	8.55E-03	1.35E-02	1.84E-02	2.32E-02	2.79E-02	3.26E-02	3.72E-02	4.18E-02
xe126	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11
ag127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

in127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i127	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00
xe127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te128	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00
i128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe128	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05
cd129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i129	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00
xe129	2.57E-04	2.85E-04	4.28E-04	7.13E-04	1.28E-03	1.85E-03	2.42E-03	3.00E-03	3.57E-03	4.14E-03	4.71E-03
xe129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te130	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01
i130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe130	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03
cd131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01
xe131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 98

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
cd132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe132	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01
cs132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba132	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08

in133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs133	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01
ba133	3.44E-23	4.72E-26	2.32E-40	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01
xe134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba134	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02
sn135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs135	5.79E+01	5.79E+01	5.79E+01	5.79E+01	5.79E+01	5.78E+01	5.78E+01	5.78E+01	5.77E+01	5.77E+01	5.77E+01
cs135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135	1.57E-02	1.75E-02	2.62E-02	4.36E-02	7.85E-02	1.13E-01	1.48E-01	1.83E-01	2.18E-01	2.53E-01	2.87E-01
ba135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe136	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01
cs136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02
ba136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 99

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	Initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
sb137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs137	2.36E-04	2.34E-05	2.25E-10	2.07E-20	1.76E-40	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba137	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01
ba137m	3.61E-11	3.58E-12	3.44E-17	3.17E-27	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ba138	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01
la138	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04
sb139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la139	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01
ce139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce140	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01
pr140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr141	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01
nd141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce142	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01
pr142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr142m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd142	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03
i143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 100

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	Initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
xe143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd143	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01
i144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd144	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01

i145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd145	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01
pm145	1.04E-17	2.08E-19	6.51E-28	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd146	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01
pm146	1.99E-32	7.16E-38	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm146	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06
xe147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm147	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01
cs148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd148	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01
pm148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm148m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 101

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	Initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
sm148	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02
cs149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm149	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00
eu149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd150	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00
pm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00
eu150	1.44E-12	2.08E-13	1.30E-17	5.09E-26	8.41E-43	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ba151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm151	2.52E-02	1.17E-02	2.48E-04	1.12E-07	2.28E-14	4.65E-21	9.49E-28	1.94E-34	3.96E-41	.00E+00	.00E+00
eu151	4.02E+00	4.04E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00
ba152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm152	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00
eu152	4.25E-12	2.34E-14	1.19E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02
la153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu153	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00
gd153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 102

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
sm154	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01
eu154	1.33E-18	4.17E-22	1.25E-39	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd154	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03
la155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu155	4.73E-29	1.75E-35	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01
ce156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd156	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01
ce157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pm157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd157	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02
pr158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd158	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02
pr159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb159	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02
nd160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd160	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03
tb160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy160	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06
nd161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 103

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	Initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
dy161	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	.00E+00	.00E+00	.00E+00
pm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy162	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04
sm163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy163	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04
sm164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy164	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05
sm165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ho165	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05
dy166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	2.25E-08	2.13E-08	1.59E-08	8.95E-09	2.82E-09	8.88E-10	2.80E-10	8.80E-11	2.77E-11	8.73E-12	2.75E-12
er166	2.82E-06	2.82E-06	2.83E-06	2.84E-06	2.84E-06	2.84E-06	2.85E-06	2.85E-06	2.85E-06	2.85E-06	2.85E-06
er167	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09
er167m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09
yb168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm169	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09
yb169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er170	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09
tm170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm170m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb170	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11
er171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb171	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09
er172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb172	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09
total	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 104

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
h 3	6.36E-11	2.30E-13	1.42E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
li 6	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
li 7	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
be 9	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
be 10	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.32E-07	1.31E-07	1.31E-07	1.31E-07	1.31E-07	1.31E-07
c 14	4.77E-06	4.72E-06	4.44E-06	3.93E-06	3.09E-06	2.42E-06	1.90E-06	1.49E-06	1.17E-06	9.21E-07	7.23E-07
ni 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 67	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 67	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 68	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 69	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

zn 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 105

0

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
zn 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 77m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 79	3.12E-03	3.12E-03	3.12E-03	3.11E-03	3.10E-03	3.08E-03	3.07E-03	3.06E-03	3.04E-03	3.03E-03	3.02E-03
se 79m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 79m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

as 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 81	4.17E-10	4.17E-10	4.17E-10	4.15E-10	4.13E-10	4.10E-10	4.07E-10	4.05E-10	4.02E-10	3.99E-10	3.97E-10
kr 81m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 106

0

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
ge 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 82m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 83m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85	5.13E-11	7.98E-14	7.25E-28	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

rb 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 86m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 87	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06
sr 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 87m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 107

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
br 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 90	1.03E-02	8.76E-04	3.93E-09	7.93E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90	1.03E-02	8.76E-04	3.93E-09	7.94E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 91	4.03E-11	3.64E-11	2.19E-11	7.89E-12	1.03E-12	1.34E-13	1.74E-14	2.27E-15	2.95E-16	3.84E-17	5.00E-18
se 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 92	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13
se 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

br 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 93	6.41E-02	6.41E-02	6.41E-02	6.40E-02	6.40E-02	6.39E-02	6.39E-02	6.38E-02	6.38E-02	6.37E-02	6.36E-02
nb 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 93m	6.41E-02	6.41E-02	6.41E-02	6.40E-02	6.40E-02	6.39E-02	6.39E-02	6.38E-02	6.38E-02	6.37E-02	6.36E-02
br 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 108

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
sr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 94	1.89E-06	1.88E-06	1.85E-06	1.79E-06	1.67E-06	1.56E-06	1.46E-06	1.36E-06	1.27E-06	1.19E-06	1.11E-06
nb 94m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc 98	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.22E-09	4.22E-09	4.22E-09
rb 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

nb 99m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc 99	6.75E-01	6.75E-01	6.74E-01	6.72E-01	6.67E-01	6.63E-01	6.59E-01	6.54E-01	6.50E-01	6.46E-01	6.42E-01
tc 99m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 109

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
zr100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

tc105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 110

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
y106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd107	7.17E-04	7.17E-04	7.17E-04	7.17E-04	7.17E-04	7.17E-04	7.17E-04	7.16E-04	7.16E-04	7.16E-04	7.16E-04
pd107m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag108	9.52E-11	5.51E-11	3.60E-12	1.53E-14	2.79E-19	5.06E-24	9.19E-29	.00E+00	.00E+00	.00E+00	.00E+00
ag108m	1.09E-09	6.34E-10	4.14E-11	1.76E-13	3.20E-18	5.82E-23	1.06E-27	2.28E-32	.00E+00	.00E+00	.00E+00
cd108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ag110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag110m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 111

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
cd110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd113	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14
cd113m	2.90E-11	2.12E-13	4.49E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in114m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in115	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13
in115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 112

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
sn115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in116m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 113

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
pd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121	1.54E-05	4.38E-06	8.04E-09	2.71E-14	3.07E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121m	1.99E-05	5.65E-06	1.04E-08	3.49E-14	3.96E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te123	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19
te123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb124m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn126	1.03E-02	1.03E-02	1.03E-02	1.02E-02	1.01E-02	9.93E-03	9.79E-03	9.66E-03	9.52E-03	9.39E-03	9.26E-03

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 114

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
sb126	1.44E-03	1.44E-03	1.44E-03	1.43E-03	1.41E-03	1.39E-03	1.37E-03	1.35E-03	1.33E-03	1.31E-03	1.30E-03
sb126m	1.03E-02	1.03E-02	1.03E-02	1.02E-02	1.01E-02	9.93E-03	9.79E-03	9.66E-03	9.52E-03	9.39E-03	9.26E-03

te126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i129	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03
xe129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 115

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	Initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
cd132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

te132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba133	8.78E-21	1.21E-23	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs135	6.67E-02	6.67E-02	6.67E-02	6.67E-02	6.67E-02	6.66E-02	6.66E-02	6.65E-02	6.65E-02	6.65E-02	6.64E-02
cs135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 116
0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	Initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
sb137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs137	2.06E-02	2.04E-03	1.96E-08	1.80E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba137m	1.94E-02	1.93E-03	1.85E-08	1.70E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

te138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la138	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12
sb139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce142	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06
pr142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr142m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 117

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
xe143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

la144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd144	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11
i145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm145	1.45E-15	2.89E-17	9.07E-26	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm146	8.83E-30	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm146	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11
xe147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm147	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07
cs148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm148m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 118

0

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	Initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
sm148	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15
cs149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm149	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12
eu149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pr150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu150	9.59E-11	1.38E-11	8.66E-16	3.39E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm151	6.63E-01	3.07E-01	6.52E-03	2.95E-06	6.01E-13	1.22E-19	2.50E-26	.00E+00	.00E+00	.00E+00	.00E+00
eu151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu152	7.51E-10	4.14E-12	2.10E-23	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12
la153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 119
0
nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
sm154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu154	3.60E-16	1.13E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu155	2.33E-26	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

eu156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 120

0

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	500.0 yr	1000.0 yr	2000.0 yr	4000.0 yr	6000.0 yr	8000.0 yr	10000.0 yr	12000.0 yr	14000.0 yr	16000.0 yr
dy161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

eu165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	4.05E-08	3.82E-08	2.86E-08	1.61E-08	5.06E-09	1.59E-09	5.02E-10	1.58E-10	4.98E-11	1.57E-11	4.94E-12
er166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er167	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er167m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm170m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	1.62E+00	1.21E+00	9.02E-01	8.93E-01	8.88E-01	8.84E-01	8.79E-01	8.74E-01	8.69E-01	8.65E-01	8.60E-01

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 121

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
he 4	1.24E+01	1.37E+01	1.50E+01	1.63E+01	1.75E+01	1.87E+01	2.00E+01	2.12E+01	2.24E+01	2.49E+01	2.61E+01
tl206	1.01E-14	1.13E-14	1.26E-14	1.38E-14	1.49E-14	1.61E-14	1.72E-14	1.83E-14	1.93E-14	2.14E-14	2.23E-14
tl207	5.83E-10	6.39E-10	6.92E-10	7.43E-10	7.93E-10	8.40E-10	8.85E-10	9.28E-10	9.70E-10	1.05E-09	1.08E-09
tl208	2.79E-15	3.11E-15	3.43E-15	3.75E-15	4.07E-15	4.39E-15	4.71E-15	5.03E-15	5.35E-15	5.99E-15	6.31E-15
tl209	1.25E-11	1.49E-11	1.73E-11	1.98E-11	2.24E-11	2.50E-11	2.76E-11	3.03E-11	3.29E-11	3.82E-11	4.09E-11
pb206	5.15E+00	6.57E+00	8.15E+00	9.89E+00	1.18E+01	1.38E+01	1.60E+01	1.84E+01	2.09E+01	2.62E+01	2.91E+01
pb207	4.02E-01	4.95E-01	5.97E-01	7.07E-01	8.25E-01	9.50E-01	1.08E+00	1.22E+00	1.37E+00	1.68E+00	1.84E+00
pb208	3.16E-04	3.18E-04	3.20E-04	3.23E-04	3.25E-04	3.28E-04	3.31E-04	3.34E-04	3.38E-04	3.45E-04	3.49E-04
pb209	5.27E-08	6.27E-08	7.31E-08	8.37E-08	9.45E-08	1.06E-07	1.17E-07	1.28E-07	1.39E-07	1.62E-07	1.73E-07
pb210	2.18E-02	2.45E-02	2.71E-02	2.97E-02	3.22E-02	3.46E-02	3.70E-02	3.94E-02	4.16E-02	4.60E-02	4.82E-02
pb211	4.51E-09	4.94E-09	5.35E-09	5.75E-09	6.13E-09	6.50E-09	6.85E-09	7.18E-09	7.50E-09	8.11E-09	8.39E-09
pb212	1.65E-12	1.84E-12	2.03E-12	2.22E-12	2.41E-12	2.60E-12	2.79E-12	2.98E-12	3.17E-12	3.55E-12	3.74E-12
pb214	5.07E-08	5.70E-08	6.31E-08	6.91E-08	7.49E-08	8.07E-08	8.62E-08	9.17E-08	9.70E-08	1.07E-07	1.12E-07
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	6.25E-01	8.41E-01	1.09E+00	1.39E+00	1.72E+00	2.09E+00	2.51E+00	2.97E+00	3.46E+00	4.59E+00	5.21E+00
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	1.34E-05	1.51E-05	1.67E-05	1.83E-05	1.98E-05	2.13E-05	2.28E-05	2.42E-05	2.56E-05	2.83E-05	2.96E-05
bi211	2.67E-10	2.93E-10	3.17E-10	3.41E-10	3.63E-10	3.85E-10	4.06E-10	4.26E-10	4.45E-10	4.81E-10	4.97E-10
bi212	1.57E-13	1.75E-13	1.93E-13	2.11E-13	2.29E-13	2.47E-13	2.65E-13	2.83E-13	3.01E-13	3.37E-13	3.55E-13
bi213	1.26E-08	1.49E-08	1.74E-08	1.99E-08	2.25E-08	2.51E-08	2.78E-08	3.04E-08	3.31E-08	3.85E-08	4.11E-08
bi214	3.77E-08	4.23E-08	4.69E-08	5.13E-08	5.56E-08	5.99E-08	6.40E-08	6.81E-08	7.20E-08	7.96E-08	8.33E-08
po210	3.70E-04	4.16E-04	4.61E-04	5.04E-04	5.47E-04	5.89E-04	6.29E-04	6.69E-04	7.08E-04	7.83E-04	8.19E-04
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	2.95E-15	3.24E-15	3.51E-15	3.77E-15	4.02E-15	4.26E-15	4.48E-15	4.70E-15	4.91E-15	5.31E-15	5.50E-15
po212	8.24E-24	9.18E-24	1.01E-23	1.11E-23	1.20E-23	1.30E-23	1.39E-23	1.49E-23	1.58E-23	1.77E-23	1.86E-23
po213	1.89E-17	2.25E-17	2.62E-17	3.00E-17	3.38E-17	3.78E-17	4.17E-17	4.57E-17	4.98E-17	5.78E-17	6.18E-17
po214	5.18E-15	5.82E-15	6.45E-15	7.06E-15	7.66E-15	8.24E-15	8.81E-15	9.37E-15	9.91E-15	1.10E-14	1.15E-14

po215	3.77E-15	4.14E-15	4.48E-15	4.81E-15	5.13E-15	5.44E-15	5.73E-15	6.01E-15	6.28E-15	6.79E-15	7.03E-15
po216	6.37E-18	7.11E-18	7.84E-18	8.57E-18	9.30E-18	1.00E-17	1.08E-17	1.15E-17	1.22E-17	1.37E-17	1.44E-17
po218	5.98E-09	6.72E-09	7.44E-09	8.14E-09	8.83E-09	9.51E-09	1.02E-08	1.08E-08	1.14E-08	1.26E-08	1.32E-08
at217	1.51E-13	1.80E-13	2.09E-13	2.40E-13	2.71E-13	3.02E-13	3.34E-13	3.66E-13	3.98E-13	4.63E-13	4.95E-13
rn218	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rn219	8.55E-12	9.37E-12	1.02E-11	1.09E-11	1.16E-11	1.23E-11	1.30E-11	1.36E-11	1.42E-11	1.54E-11	1.59E-11
rn220	2.49E-15	2.78E-15	3.06E-15	3.35E-15	3.63E-15	3.92E-15	4.20E-15	4.49E-15	4.78E-15	5.35E-15	5.63E-15
rn222	1.08E-05	1.21E-05	1.35E-05	1.47E-05	1.60E-05	1.72E-05	1.84E-05	1.95E-05	2.07E-05	2.29E-05	2.39E-05
fr221	1.40E-09	1.67E-09	1.94E-09	2.22E-09	2.51E-09	2.80E-09	3.10E-09	3.39E-09	3.69E-09	4.29E-09	4.59E-09
fr223	3.97E-11	4.35E-11	4.71E-11	5.06E-11	5.40E-11	5.72E-11	6.03E-11	6.32E-11	6.61E-11	7.14E-11	7.39E-11
ra222	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ra223	2.17E-06	2.38E-06	2.58E-06	2.77E-06	2.96E-06	3.13E-06	3.30E-06	3.46E-06	3.62E-06	3.91E-06	4.04E-06
ra224	1.44E-11	1.61E-11	1.77E-11	1.94E-11	2.10E-11	2.27E-11	2.43E-11	2.60E-11	2.77E-11	3.10E-11	3.26E-11
ra225	6.20E-06	7.38E-06	8.60E-06	9.84E-06	1.11E-05	1.24E-05	1.37E-05	1.50E-05	1.64E-05	1.90E-05	2.03E-05
ra226	1.68E+00	1.89E+00	2.09E+00	2.29E+00	2.49E+00	2.68E+00	2.86E+00	3.04E+00	3.22E+00	3.56E+00	3.72E+00
ra228	8.24E-09	9.21E-09	1.02E-08	1.11E-08	1.21E-08	1.31E-08	1.40E-08	1.50E-08	1.60E-08	1.79E-08	1.89E-08
ac225	4.19E-06	4.98E-06	5.81E-06	6.65E-06	7.51E-06	8.38E-06	9.27E-06	1.02E-05	1.10E-05	1.28E-05	1.37E-05
ac227	1.54E-03	1.69E-03	1.83E-03	1.96E-03	2.09E-03	2.22E-03	2.34E-03	2.45E-03	2.56E-03	2.77E-03	2.86E-03
ac228	1.01E-12	1.12E-12	1.24E-12	1.36E-12	1.48E-12	1.60E-12	1.71E-12	1.83E-12	1.95E-12	2.19E-12	2.31E-12
th226	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th227	3.57E-06	3.91E-06	4.24E-06	4.55E-06	4.86E-06	5.14E-06	5.42E-06	5.69E-06	5.94E-06	6.42E-06	6.65E-06
th228	2.80E-09	3.12E-09	3.44E-09	3.77E-09	4.09E-09	4.41E-09	4.73E-09	5.05E-09	5.37E-09	6.02E-09	6.34E-09
th229	1.23E+00	1.46E+00	1.70E+00	1.95E+00	2.20E+00	2.46E+00	2.71E+00	2.97E+00	3.24E+00	3.76E+00	4.02E+00
th230	9.23E+01	1.02E+02	1.11E+02	1.21E+02	1.30E+02	1.39E+02	1.47E+02	1.56E+02	1.64E+02	1.80E+02	1.87E+02
th231	6.92E-07	6.93E-07	6.93E-07	6.93E-07	6.93E-07	6.93E-07	6.93E-07	6.93E-07	6.94E-07	6.94E-07	6.94E-07

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 122

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
th232	2.05E+01	2.29E+01	2.53E+01	2.77E+01	3.01E+01	3.25E+01	3.49E+01	3.74E+01	3.98E+01	4.46E+01	4.70E+01
th233	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th234	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04
pa231	2.35E+00	2.58E+00	2.80E+00	3.00E+00	3.20E+00	3.39E+00	3.58E+00	3.75E+00	3.92E+00	4.23E+00	4.38E+00
pa232	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pa233	3.37E-04	3.37E-04	3.36E-04	3.36E-04	3.36E-04	3.36E-04	3.36E-04	3.35E-04	3.35E-04	3.35E-04	3.34E-04
pa234m	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09
pa234	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u231	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u232	2.23E-09	2.20E-09	2.18E-09	2.15E-09	2.12E-09	2.10E-09	2.07E-09	2.05E-09	2.02E-09	1.98E-09	1.95E-09
u233	5.19E+01	5.77E+01	6.35E+01	6.92E+01	7.49E+01	8.05E+01	8.61E+01	9.16E+01	9.71E+01	1.08E+02	1.13E+02
u234	2.08E+03	2.07E+03	2.06E+03	2.05E+03	2.04E+03	2.03E+03	2.02E+03	2.02E+03	2.01E+03	1.99E+03	1.98E+03
u235	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.70E+05	1.71E+05	1.71E+05	1.71E+05	1.71E+05	1.71E+05
u236	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04
u237	1.65E-26	1.40E-26	1.19E-26	1.01E-26	8.61E-27	7.31E-27	6.21E-27	5.28E-27	4.48E-27	3.23E-27	2.75E-27
u238	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06
u239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	4.20E-05	4.15E-05	4.10E-05	4.05E-05	4.00E-05	3.95E-05	3.90E-05	3.86E-05	3.81E-05	3.72E-05	3.67E-05
np237	9.92E+03	9.91E+03	9.91E+03	9.90E+03	9.89E+03	9.89E+03	9.88E+03	9.87E+03	9.87E+03	9.85E+03	9.85E+03
np238	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np239	1.14E-14	9.47E-15	7.84E-15	6.50E-15	5.39E-15	4.46E-15	3.70E-15	3.06E-15	2.54E-15	1.74E-15	1.44E-15
np240m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pu236	9.42E-11	9.30E-11	9.19E-11	9.08E-11	8.97E-11	8.87E-11	8.76E-11	8.66E-11	8.55E-11	8.35E-11	8.25E-11
pu237	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	7.07E-40	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu239	7.27E+02	6.86E+02	6.48E+02	6.12E+02	5.78E+02	5.45E+02	5.15E+02	4.86E+02	4.59E+02	4.09E+02	3.86E+02
pu240	1.01E+00	8.20E-01	6.64E-01	5.37E-01	4.35E-01	3.52E-01	2.85E-01	2.31E-01	1.87E-01	1.22E-01	9.91E-02
pu241	5.46E-19	4.64E-19	3.94E-19	3.35E-19	2.84E-19	2.42E-19	2.05E-19	1.74E-19	1.48E-19	1.07E-19	9.08E-20
pu242	2.26E-05	2.25E-05	2.25E-05	2.24E-05	2.23E-05	2.22E-05	2.21E-05	2.20E-05	2.20E-05	2.18E-05	2.17E-05
pu243	5.08E-34	5.08E-34	5.08E-34	5.08E-34	5.08E-34	5.08E-34	5.08E-34	5.08E-34	5.08E-34	5.08E-34	5.08E-34
pu244	6.14E-29	6.89E-29	7.63E-29	8.37E-29	9.11E-29	9.85E-29	1.06E-28	1.13E-28	1.20E-28	1.35E-28	1.42E-28
pu245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am241	1.95E-13	7.94E-15	3.34E-16	2.36E-17	9.47E-18	7.62E-18	6.45E-18	5.48E-18	4.66E-18	3.37E-18	2.86E-18
am242m	5.26E-40	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am242	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am243	1.33E-08	1.10E-08	9.12E-09	7.55E-09	6.26E-09	5.19E-09	4.30E-09	3.56E-09	2.95E-09	2.02E-09	1.68E-09
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 123

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
cm242	1.36E-42	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm243	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm245	3.28E-16	2.79E-16	2.37E-16	2.01E-16	1.71E-16	1.45E-16	1.23E-16	1.05E-16	8.90E-17	6.42E-17	5.46E-17
cm246	9.96E-20	7.43E-20	5.54E-20	4.13E-20	3.08E-20	2.30E-20	1.72E-20	1.28E-20	9.55E-21	5.31E-21	3.96E-21
cm247	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23
cm248	2.04E-27	2.03E-27	2.02E-27	2.01E-27	2.00E-27	2.00E-27	1.99E-27	1.98E-27	1.97E-27	1.96E-27	1.95E-27
cm249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf252	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
s250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 124

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
he 4	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tl206	2.19E-06	2.47E-06	2.73E-06	2.99E-06	3.24E-06	3.49E-06	3.73E-06	3.97E-06	4.20E-06	4.64E-06	4.86E-06

tl207	1.11E-01	1.22E-01	1.32E-01	1.42E-01	1.51E-01	1.60E-01	1.69E-01	1.77E-01	1.85E-01	2.00E-01	2.07E-01
tl208	8.26E-07	9.20E-07	1.02E-06	1.11E-06	1.20E-06	1.30E-06	1.39E-06	1.49E-06	1.58E-06	1.77E-06	1.87E-06
tl209	5.11E-03	6.08E-03	7.08E-03	8.11E-03	9.16E-03	1.02E-02	1.13E-02	1.24E-02	1.35E-02	1.56E-02	1.67E-02
pb206	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb207	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb209	2.43E-01	2.89E-01	3.37E-01	3.86E-01	4.36E-01	4.87E-01	5.38E-01	5.89E-01	6.41E-01	7.45E-01	7.97E-01
pb210	1.66E+00	1.87E+00	2.07E+00	2.27E+00	2.46E+00	2.64E+00	2.83E+00	3.01E+00	3.18E+00	3.52E+00	3.68E+00
pb211	1.11E-01	1.22E-01	1.32E-01	1.42E-01	1.51E-01	1.60E-01	1.69E-01	1.77E-01	1.85E-01	2.00E-01	2.07E-01
pb212	2.30E-06	2.56E-06	2.82E-06	3.09E-06	3.35E-06	3.62E-06	3.88E-06	4.14E-06	4.41E-06	4.93E-06	5.20E-06
pb214	1.66E+00	1.87E+00	2.07E+00	2.27E+00	2.46E+00	2.65E+00	2.83E+00	3.01E+00	3.18E+00	3.52E+00	3.68E+00
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	1.66E+00	1.87E+00	2.07E+00	2.27E+00	2.46E+00	2.64E+00	2.83E+00	3.01E+00	3.18E+00	3.52E+00	3.68E+00
bi211	1.11E-01	1.22E-01	1.32E-01	1.42E-01	1.51E-01	1.60E-01	1.69E-01	1.77E-01	1.85E-01	2.00E-01	2.07E-01
bi212	2.30E-06	2.56E-06	2.82E-06	3.09E-06	3.35E-06	3.62E-06	3.88E-06	4.14E-06	4.41E-06	4.93E-06	5.20E-06
bi213	2.43E-01	2.89E-01	3.37E-01	3.86E-01	4.36E-01	4.87E-01	5.38E-01	5.89E-01	6.41E-01	7.45E-01	7.97E-01
bi214	1.66E+00	1.87E+00	2.07E+00	2.27E+00	2.46E+00	2.65E+00	2.83E+00	3.01E+00	3.18E+00	3.52E+00	3.68E+00
po210	1.66E+00	1.87E+00	2.07E+00	2.27E+00	2.46E+00	2.64E+00	2.83E+00	3.01E+00	3.18E+00	3.52E+00	3.68E+00
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	3.06E-04	3.35E-04	3.64E-04	3.90E-04	4.16E-04	4.41E-04	4.65E-04	4.88E-04	5.09E-04	5.50E-04	5.70E-04
po212	1.47E-06	1.64E-06	1.81E-06	1.98E-06	2.15E-06	2.32E-06	2.49E-06	2.65E-06	2.82E-06	3.16E-06	3.33E-06
po213	2.38E-01	2.83E-01	3.30E-01	3.78E-01	4.27E-01	4.76E-01	5.27E-01	5.77E-01	6.28E-01	7.29E-01	7.80E-01
po214	1.66E+00	1.87E+00	2.07E+00	2.27E+00	2.46E+00	2.64E+00	2.83E+00	3.01E+00	3.18E+00	3.52E+00	3.68E+00
po215	1.11E-01	1.22E-01	1.32E-01	1.42E-01	1.51E-01	1.60E-01	1.69E-01	1.77E-01	1.85E-01	2.00E-01	2.07E-01
po216	2.30E-06	2.56E-06	2.82E-06	3.09E-06	3.35E-06	3.62E-06	3.88E-06	4.14E-06	4.41E-06	4.93E-06	5.20E-06
po218	1.66E+00	1.87E+00	2.07E+00	2.27E+00	2.46E+00	2.65E+00	2.83E+00	3.01E+00	3.18E+00	3.52E+00	3.68E+00
at217	2.43E-01	2.89E-01	3.37E-01	3.86E-01	4.36E-01	4.87E-01	5.38E-01	5.90E-01	6.41E-01	7.45E-01	7.97E-01
rn218	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rn219	1.11E-01	1.22E-01	1.32E-01	1.42E-01	1.51E-01	1.60E-01	1.69E-01	1.77E-01	1.85E-01	2.00E-01	2.07E-01
rn220	2.30E-06	2.56E-06	2.82E-06	3.09E-06	3.35E-06	3.62E-06	3.88E-06	4.14E-06	4.41E-06	4.93E-06	5.20E-06
rn222	1.66E+00	1.87E+00	2.07E+00	2.27E+00	2.46E+00	2.65E+00	2.83E+00	3.01E+00	3.18E+00	3.52E+00	3.68E+00
fr221	2.43E-01	2.89E-01	3.37E-01	3.86E-01	4.36E-01	4.87E-01	5.38E-01	5.90E-01	6.41E-01	7.45E-01	7.97E-01
fr223	1.54E-03	1.68E-03	1.82E-03	1.96E-03	2.09E-03	2.21E-03	2.33E-03	2.45E-03	2.56E-03	2.76E-03	2.86E-03
ra222	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ra223	1.11E-01	1.22E-01	1.32E-01	1.42E-01	1.51E-01	1.60E-01	1.69E-01	1.77E-01	1.85E-01	2.00E-01	2.07E-01
ra224	2.30E-06	2.56E-06	2.82E-06	3.09E-06	3.35E-06	3.62E-06	3.88E-06	4.14E-06	4.41E-06	4.93E-06	5.20E-06
ra225	2.43E-01	2.89E-01	3.37E-01	3.86E-01	4.36E-01	4.87E-01	5.38E-01	5.90E-01	6.41E-01	7.45E-01	7.97E-01
ra226	1.66E+00	1.87E+00	2.07E+00	2.27E+00	2.46E+00	2.65E+00	2.83E+00	3.01E+00	3.18E+00	3.52E+00	3.68E+00
ra228	2.25E-06	2.51E-06	2.78E-06	3.04E-06	3.31E-06	3.57E-06	3.83E-06	4.10E-06	4.36E-06	4.89E-06	5.16E-06
ac225	2.43E-01	2.89E-01	3.37E-01	3.86E-01	4.36E-01	4.87E-01	5.38E-01	5.90E-01	6.41E-01	7.45E-01	7.97E-01
ac227	1.11E-01	1.22E-01	1.32E-01	1.42E-01	1.51E-01	1.60E-01	1.69E-01	1.77E-01	1.85E-01	2.00E-01	2.07E-01
ac228	2.25E-06	2.51E-06	2.78E-06	3.04E-06	3.31E-06	3.57E-06	3.83E-06	4.10E-06	4.36E-06	4.89E-06	5.16E-06
th226	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th227	1.10E-01	1.20E-01	1.30E-01	1.40E-01	1.49E-01	1.58E-01	1.67E-01	1.75E-01	1.83E-01	1.97E-01	2.04E-01
th228	2.30E-06	2.56E-06	2.82E-06	3.09E-06	3.35E-06	3.62E-06	3.88E-06	4.14E-06	4.41E-06	4.93E-06	5.20E-06
th229	2.43E-01	2.89E-01	3.37E-01	3.86E-01	4.36E-01	4.87E-01	5.38E-01	5.90E-01	6.41E-01	7.45E-01	7.97E-01
th230	1.90E+00	2.10E+00	2.30E+00	2.49E+00	2.68E+00	2.86E+00	3.04E+00	3.21E+00	3.38E+00	3.71E+00	3.86E+00
th231	3.68E-01	3.68E-01	3.68E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01

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Part 8 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 125

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
th232	2.25E-06	2.51E-06	2.78E-06	3.04E-06	3.31E-06	3.57E-06	3.83E-06	4.10E-06	4.36E-06	4.89E-06	5.16E-06
th233	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th234	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00
pa231	1.11E-01	1.22E-01	1.32E-01	1.42E-01	1.51E-01	1.60E-01	1.69E-01	1.77E-01	1.85E-01	2.00E-01	2.07E-01
pa232	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pa233	6.99E+00	6.99E+00	6.99E+00	6.98E+00	6.98E+00	6.97E+00	6.97E+00	6.96E+00	6.96E+00	6.95E+00	6.94E+00
pa234m	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00
pa234	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u231	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u232	4.92E-08	4.86E-08	4.80E-08	4.75E-08	4.69E-08	4.63E-08	4.58E-08	4.52E-08	4.47E-08	4.36E-08	4.31E-08
u233	5.00E-01	5.57E-01	6.12E-01	6.68E-01	7.22E-01	7.77E-01	8.30E-01	8.83E-01	9.36E-01	1.04E+00	1.09E+00
u234	1.29E+01	1.29E+01	1.28E+01	1.28E+01	1.27E+01	1.26E+01	1.26E+01	1.25E+01	1.25E+01	1.24E+01	1.23E+01
u235	3.68E-01	3.68E-01	3.68E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01
u236	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00
u237	1.35E-21	1.15E-21	9.74E-22	8.27E-22	7.03E-22	5.97E-22	5.07E-22	4.31E-22	3.66E-22	2.64E-22	2.24E-22
u238	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00
u239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	5.53E-07	5.46E-07	5.40E-07	5.33E-07	5.27E-07	5.21E-07	5.14E-07	5.08E-07	5.02E-07	4.90E-07	4.84E-07
np237	6.99E+00	6.99E+00	6.99E+00	6.98E+00	6.98E+00	6.97E+00	6.97E+00	6.96E+00	6.96E+00	6.95E+00	6.94E+00
np238	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np239	2.65E-09	2.20E-09	1.82E-09	1.51E-09	1.25E-09	1.04E-09	8.58E-10	7.11E-10	5.89E-10	4.04E-10	3.35E-10
np240m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	4.92E-08	4.86E-08	4.80E-08	4.75E-08	4.69E-08	4.63E-08	4.58E-08	4.52E-08	4.47E-08	4.36E-08	4.31E-08
pu237	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu239	4.51E+01	4.26E+01	4.02E+01	3.80E+01	3.59E+01	3.39E+01	3.20E+01	3.02E+01	2.85E+01	2.54E+01	2.40E+01
pu240	2.30E-01	1.86E-01	1.51E-01	1.22E-01	9.88E-02	8.00E-02	6.47E-02	5.24E-02	4.24E-02	2.78E-02	2.25E-02
pu241	5.65E-17	4.80E-17	4.07E-17	3.46E-17	2.94E-17	2.50E-17	2.12E-17	1.80E-17	1.53E-17	1.10E-17	9.39E-18
pu242	8.95E-08	8.92E-08	8.88E-08	8.85E-08	8.82E-08	8.78E-08	8.75E-08	8.72E-08	8.69E-08	8.62E-08	8.59E-08
pu243	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27
pu244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am241	6.70E-13	2.72E-14	1.14E-15	8.08E-17	3.25E-17	2.61E-17	2.21E-17	1.88E-17	1.60E-17	1.16E-17	9.80E-18
am242m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am242	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am243	2.65E-09	2.20E-09	1.82E-09	1.51E-09	1.25E-09	1.04E-09	8.58E-10	7.11E-10	5.89E-10	4.04E-10	3.35E-10
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 126

0 nuclide radioactivity, curies

basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr	yr
cm242	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cm243	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cm244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cm245	5.64E-17	4.79E-17	4.07E-17	3.46E-17	2.94E-17	2.49E-17	2.12E-17	1.80E-17	1.53E-17	1.10E-17	9.37E-18	
cm246	3.06E-20	2.28E-20	1.70E-20	1.27E-20	9.48E-21	7.07E-21	5.27E-21	3.93E-21	2.93E-21	1.63E-21	1.22E-21	
cm247	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	
cm248	8.65E-30	8.60E-30	8.58E-30	8.53E-30	8.51E-30	8.47E-30	8.44E-30	8.40E-30	8.37E-30	8.31E-30	8.26E-30	
cm249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	

cm250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf252	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
s250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	1.05E+02	1.05E+02	1.05E+02	1.05E+02	1.05E+02	1.05E+02	1.06E+02	1.06E+02	1.07E+02	1.08E+02	1.09E+02

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 127

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
h 3	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
li 6	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05
li 7	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07
be 9	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07
be 10	5.86E-06	5.85E-06	5.85E-06	5.84E-06	5.84E-06	5.83E-06	5.83E-06	5.82E-06	5.82E-06	5.81E-06	5.80E-06
c 14	1.62E-07	1.27E-07	9.99E-08	7.85E-08	6.16E-08	4.84E-08	3.80E-08	2.98E-08	2.34E-08	1.44E-08	1.13E-08
ni 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 66	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08
cu 67	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 67	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09
zn 68	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10
zn 69	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 69	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09
zn 70	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08
ga 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 70	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11
zn 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 71	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06
ge 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 72	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04
co 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04
ge 73m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ni 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 74	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04
co 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 75	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03
ni 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 128

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
zn 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 76	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02
as 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 76	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06
ni 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 77	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02
se 77m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 78	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01
cu 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 79	2.20E-01	2.19E-01	2.18E-01	2.17E-01	2.16E-01	2.15E-01	2.15E-01	2.14E-01	2.13E-01	2.11E-01	2.10E-01
se 79m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 79	7.76E-03	8.68E-03	9.60E-03	1.05E-02	1.14E-02	1.23E-02	1.32E-02	1.41E-02	1.50E-02	1.68E-02	1.77E-02
br 79m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 80	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01
br 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 80	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07

cu 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 81	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00
kr 81	1.91E-08	1.90E-08	1.89E-08	1.88E-08	1.86E-08	1.85E-08	1.84E-08	1.83E-08	1.82E-08	1.79E-08	1.78E-08
kr 81m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1
Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 129
0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
ge 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 82	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00
br 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 82m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 82	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04
zn 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 83	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00
kr 83m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 84	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00
ga 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 85	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00
ge 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 86	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01
rb 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 86m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 86	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05
ge 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

se 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 87	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01
sr 87	2.81E-05	2.85E-05	2.89E-05	2.93E-05	2.98E-05	3.02E-05	3.06E-05	3.10E-05	3.14E-05	3.22E-05	3.27E-05
sr 87m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 130

0 nuclide concentrations, grams

basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
br 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 88	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01
as 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01
y 89m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01
zr 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 91	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01
nb 91	8.65E-19	1.13E-19	1.47E-20	1.91E-21	2.49E-22	3.24E-23	4.21E-24	5.48E-25	7.14E-26	1.21E-27	1.58E-28
se 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 92	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01
nb 92	2.24E-09	2.24E-09	2.24E-09	2.24E-09	2.24E-09	2.24E-09	2.24E-09	2.24E-09	2.24E-09	2.24E-09	2.24E-09
se 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

zr 93	2.53E+01	2.53E+01	2.53E+01	2.52E+01	2.52E+01	2.52E+01	2.52E+01	2.52E+01	2.51E+01	2.51E+01	2.51E+01
nb 93	1.90E-01	2.13E-01	2.36E-01	2.58E-01	2.81E-01	3.04E-01	3.27E-01	3.50E-01	3.73E-01	4.18E-01	4.41E-01
nb 93m	2.67E-04	2.67E-04	2.66E-04	2.66E-04	2.66E-04	2.66E-04	2.65E-04	2.65E-04	2.65E-04	2.64E-04	2.64E-04
br 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 131

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	Initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
sr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 94	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01
nb 94	5.92E-06	5.53E-06	5.16E-06	4.82E-06	4.50E-06	4.21E-06	3.93E-06	3.67E-06	3.43E-06	2.99E-06	2.79E-06
nb 94m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 95	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01
br 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 96	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01
nb 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 96	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02
kr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 97	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01
kr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 98	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01
tc 98	4.86E-06	4.86E-06	4.85E-06	4.85E-06	4.85E-06	4.85E-06	4.85E-06	4.85E-06	4.84E-06	4.84E-06	4.84E-06
rb 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 99m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc 99	3.75E+01	3.72E+01	3.70E+01	3.68E+01	3.65E+01	3.63E+01	3.60E+01	3.58E+01	3.56E+01	3.51E+01	3.49E+01
tc 99m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru 99	2.09E+00	2.33E+00	2.58E+00	2.82E+00	3.06E+00	3.30E+00	3.54E+00	3.77E+00	4.01E+00	4.47E+00	4.70E+00

rb100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 132

0 nuclide concentrations, grams

basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
zr100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo100	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01
tc100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru100	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02
rb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru101	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01
sr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru102	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01
rh102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01
rh103m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru104	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01
rh104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd104	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02
y105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd105	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 133

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
y106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd106	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00
ag106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd107	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00
pd107m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag107	2.45E-03	2.75E-03	3.04E-03	3.34E-03	3.64E-03	3.93E-03	4.23E-03	4.53E-03	4.82E-03	5.42E-03	5.71E-03
zr108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd108	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01
ag108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag108m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd108	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08
zr109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01
ag109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd110	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01
ag110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag110m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 134

nuclide concentrations, grams

basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
cd110	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04
nb111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd111	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01
cd111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd112	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01
mo113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd113	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02
cd113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in113	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03
in113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd114	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01
in114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in114m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn114	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07
mo115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in115	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02
in115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 135

0 nuclide concentrations, grams

basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
sn115	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03

tc116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd116	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01
in116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in116m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn116	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04
tc117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn117	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02
sn117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn118	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02
ru119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn119	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01
sn119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn120	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01
rh121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 136

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
pd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

in121m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb121	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01
rh122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn122	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01
sb122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te122	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05
rh123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb123	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01
te123	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09
te123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn124	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01
sb124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb124m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te124	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04
pd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te125	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01
te125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn126	3.26E-01	3.22E-01	3.17E-01	3.13E-01	3.09E-01	3.04E-01	3.00E-01	2.96E-01	2.92E-01	2.84E-01	2.80E-01

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 137

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
sb126	1.55E-08	1.53E-08	1.51E-08	1.49E-08	1.47E-08	1.45E-08	1.43E-08	1.41E-08	1.39E-08	1.35E-08	1.33E-08
sb126m	1.18E-10	1.16E-10	1.15E-10	1.13E-10	1.12E-10	1.10E-10	1.08E-10	1.07E-10	1.06E-10	1.03E-10	1.01E-10
te126	4.18E-02	4.63E-02	5.07E-02	5.51E-02	5.94E-02	6.37E-02	6.78E-02	7.20E-02	7.61E-02	8.40E-02	8.80E-02
xe126	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11
ag127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

in127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i127	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00
xe127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te128	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00
i128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe128	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05
cd129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i129	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.46E+00	6.45E+00	6.45E+00	6.45E+00	6.45E+00	6.45E+00	6.45E+00
xe129	4.71E-03	5.28E-03	5.85E-03	6.42E-03	6.99E-03	7.56E-03	8.13E-03	8.70E-03	9.27E-03	1.04E-02	1.10E-02
xe129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te130	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01
i130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe130	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03
cd131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01
xe131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 138

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr	yr
cd132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sn132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sb132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sb132m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
te132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
i132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
xe132	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	
cs132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ba132	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	

in133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs133	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01
ba133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01
xe134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba134	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02
sn135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs135	5.77E+01	5.76E+01	5.76E+01	5.76E+01	5.75E+01	5.75E+01	5.74E+01	5.74E+01	5.74E+01	5.73E+01	5.73E+01
cs135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135	2.87E-01	3.22E-01	3.57E-01	3.92E-01	4.26E-01	4.61E-01	4.96E-01	5.30E-01	5.65E-01	6.34E-01	6.68E-01
ba135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe136	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01
cs136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02
ba136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 139

0 nuclide concentrations, grams

basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
sb137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba137	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01
ba137m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ba138	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01
la138	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04
sb139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la139	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01
ce139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce140	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01
pr140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr141	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01
nd141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce142	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01
pr142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr142m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd142	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03
i143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
xe143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd143	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01
i144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd144	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01

i145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd145	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01
pm145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd146	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01
pm146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm146	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06
xe147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm147	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01
cs148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd148	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01
pm148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm148m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 141

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
sm148	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02
cs149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm149	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00
eu149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd150	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00
pm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00
eu150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ba151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu151	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00
ba152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm152	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00
eu152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02
la153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu153	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00
gd153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 142

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr	yr
sm154	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	
eu154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
gd154	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	
la155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ce155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pr155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nd155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
eu155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
gd155m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
gd155	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	
ce156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pr156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nd156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pm156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sm156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
eu156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
gd156	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	
ce157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pr157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nd157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	

pm157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd157	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02
pr158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd158	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02
pr159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb159	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02
nd160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd160	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03
tb160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy160	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06
nd161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 143

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
dy161	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03
pm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy162	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04
sm163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy163	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04
sm164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy164	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05
sm165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ho165	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05
dy166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	2.75E-12	8.66E-13	2.73E-13	8.60E-14	2.71E-14	8.53E-15	2.69E-15	8.46E-16	2.66E-16	2.64E-17	8.32E-18
er166	2.85E-06	2.85E-06	2.85E-06	2.85E-06	2.85E-06	2.85E-06	2.85E-06	2.85E-06	2.85E-06	2.85E-06	2.85E-06
er167	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09
er167m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09
yb168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm169	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09
yb169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er170	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09
tm170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm170m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb170	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11
er171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb171	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09
er172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb172	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09
total	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 144

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr	yr
h 3	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
li 6	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
li 7	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
be 9	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
be 10	1.31E-07	1.31E-07	1.31E-07	1.31E-07	1.30E-07	1.30E-07	1.30E-07	1.30E-07	1.30E-07	1.30E-07	1.30E-07	1.30E-07
c 14	7.23E-07	5.68E-07	4.46E-07	3.50E-07	2.75E-07	2.16E-07	1.69E-07	1.33E-07	1.04E-07	6.43E-08	5.05E-08	
ni 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 67	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 67	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 68	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 69	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

zn 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 fission products page 145

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
zn 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 77m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 79	3.02E-03	3.01E-03	2.99E-03	2.98E-03	2.97E-03	2.96E-03	2.94E-03	2.93E-03	2.92E-03	2.89E-03	2.88E-03
se 79m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 79m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

as 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 81	3.97E-10	3.94E-10	3.92E-10	3.89E-10	3.87E-10	3.84E-10	3.82E-10	3.79E-10	3.77E-10	3.72E-10	3.69E-10
kr 81m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 146

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
ge 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 82m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 83m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

rb 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 86m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 87	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06
sr 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 87m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 147

0

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
br 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 91	5.00E-18	6.51E-19	8.47E-20	1.10E-20	1.44E-21	1.87E-22	2.43E-23	3.17E-24	4.13E-25	6.99E-27	9.11E-28
se 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 92	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13
se 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

br 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 93	6.36E-02	6.36E-02	6.35E-02	6.35E-02	6.34E-02	6.33E-02	6.33E-02	6.32E-02	6.32E-02	6.31E-02	6.30E-02
nb 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 93m	6.36E-02	6.36E-02	6.35E-02	6.35E-02	6.34E-02	6.34E-02	6.33E-02	6.32E-02	6.32E-02	6.31E-02	6.30E-02
br 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 148

0

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr	yr
sr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
y 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
zr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nb 94	1.11E-06	1.04E-06	9.68E-07	9.04E-07	8.44E-07	7.88E-07	7.36E-07	6.88E-07	6.42E-07	5.60E-07	5.23E-07	
nb 94m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
br 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
kr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rb 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
y 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
zr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nb 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nb 95m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
mo 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
br 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
kr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rb 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
y 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
zr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nb 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
mo 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
kr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rb 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
y 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
zr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nb 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nb 97m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
mo 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
kr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rb 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
y 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
zr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nb 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nb 98m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
mo 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
tc 98	4.22E-09	4.22E-09	4.22E-09	4.22E-09	4.22E-09	4.22E-09	4.21E-09	4.21E-09	4.21E-09	4.21E-09	4.21E-09	
rb 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sr 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
y 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
zr 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nb 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	

nb 99m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc 99	6.42E-01	6.37E-01	6.33E-01	6.29E-01	6.25E-01	6.21E-01	6.17E-01	6.13E-01	6.09E-01	6.01E-01	5.97E-01
tc 99m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 fission products page 149

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
zr100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

tc105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 150

0

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
y106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd107	7.16E-04	7.16E-04	7.16E-04	7.16E-04	7.15E-04	7.15E-04	7.15E-04	7.15E-04	7.15E-04	7.14E-04	7.14E-04
pd107m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag108m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ag110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag110m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 151

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr	yr
cd110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nb111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
mo111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
tc111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ru111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nb112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
mo112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
tc112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ru112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
mo113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
tc113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ru113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd113	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	
cd113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
mo114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
tc114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ru114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in114m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sn114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
mo115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
tc115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ru115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in115	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	
in115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 152

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
sn115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in116m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 153

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr	yr
pd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in121m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sn121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sn121m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sb121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sn122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sb122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sb122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
te122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sn123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sn123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sb123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
te123	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	
te123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sn124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sb124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sb124m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
te124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sn125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sn125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sb125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
te125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
te125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sn126	9.26E-03	9.14E-03	9.01E-03	8.89E-03	8.76E-03	8.64E-03	8.52E-03	8.41E-03	8.29E-03	8.06E-03	7.95E-03	

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 154

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr	yr
sb126	1.30E-03	1.28E-03	1.26E-03	1.24E-03	1.23E-03	1.21E-03	1.19E-03	1.18E-03	1.16E-03	1.13E-03	1.11E-03	
sb126m	9.26E-03	9.14E-03	9.01E-03	8.89E-03	8.76E-03	8.64E-03	8.52E-03	8.41E-03	8.29E-03	8.06E-03	7.95E-03	

te126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i129	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03
xe129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 155

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
cd132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

te132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs135	6.64E-02	6.64E-02	6.63E-02	6.63E-02	6.63E-02	6.62E-02	6.62E-02	6.61E-02	6.61E-02	6.60E-02	6.60E-02
cs135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 156

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr	yr
sb137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
te137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
i137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
xe137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cs137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ba137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ba137m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sb138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	

te138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la138	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12
sb139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce142	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06
pr142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr142m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 157

0

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
xe143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

la144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd144	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11
i145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm146	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11
xe147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm147	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07
cs148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm148m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 158

0

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
sm148	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15
cs149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm149	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12
eu149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pr150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12
la153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 159

0

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	Initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
sm154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

eu156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 160

0 nuclide radioactivity, curies

basis =per critical mass 10.1 MT UO2

	initial	18000.0 yr	20000.0 yr	22000.0 yr	24000.0 yr	26000.0 yr	28000.0 yr	30000.0 yr	32000.0 yr	36000.0 yr	38000.0 yr
dy161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

eu165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	4.94E-12	1.56E-12	4.90E-13	1.54E-13	4.86E-14	1.53E-14	4.82E-15	1.52E-15	4.78E-16	4.74E-17	1.49E-17
er166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er167	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er167m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm170m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	8.60E-01	8.55E-01	8.51E-01	8.46E-01	8.42E-01	8.37E-01	8.33E-01	8.28E-01	8.24E-01	8.15E-01	8.11E-01

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 161

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
he 4	2.61E+01	2.73E+01	3.03E+01	3.33E+01	3.63E+01	3.94E+01	4.24E+01	4.55E+01	6.49E+01	1.38E+02	1.77E+02
tl206	2.23E-14	2.33E-14	2.56E-14	2.78E-14	2.98E-14	3.17E-14	3.35E-14	3.51E-14	4.41E-14	5.29E-14	5.28E-14
tl207	1.08E-09	1.12E-09	1.20E-09	1.27E-09	1.34E-09	1.40E-09	1.45E-09	1.50E-09	1.71E-09	1.91E-09	1.93E-09
tl208	6.31E-15	6.63E-15	7.43E-15	8.23E-15	9.03E-15	9.83E-15	1.06E-14	1.14E-14	1.62E-14	3.22E-14	4.01E-14
tl209	4.09E-11	4.36E-11	5.01E-11	5.66E-11	6.30E-11	6.93E-11	7.54E-11	8.14E-11	1.15E-10	2.07E-10	2.23E-10
pb206	2.91E+01	3.21E+01	4.02E+01	4.90E+01	5.85E+01	6.87E+01	7.94E+01	9.08E+01	1.70E+02	4.98E+02	6.72E+02
pb207	1.84E+00	2.01E+00	2.45E+00	2.93E+00	3.43E+00	3.95E+00	4.50E+00	5.07E+00	8.78E+00	2.29E+01	3.02E+01
pb208	3.49E-04	3.54E-04	3.65E-04	3.78E-04	3.93E-04	4.08E-04	4.25E-04	4.44E-04	5.82E-04	1.39E-03	1.99E-03
pb209	1.73E-07	1.84E-07	2.12E-07	2.39E-07	2.66E-07	2.93E-07	3.18E-07	3.44E-07	4.84E-07	8.75E-07	9.44E-07
pb210	4.82E-02	5.02E-02	5.52E-02	5.98E-02	6.42E-02	6.83E-02	7.22E-02	7.58E-02	9.51E-02	1.14E-01	1.14E-01
pb211	8.39E-09	8.66E-09	9.29E-09	9.86E-09	1.04E-08	1.08E-08	1.12E-08	1.16E-08	1.32E-08	1.48E-08	1.49E-08
pb212	3.74E-12	3.93E-12	4.40E-12	4.88E-12	5.35E-12	5.83E-12	6.30E-12	6.77E-12	9.62E-12	1.91E-11	2.38E-11
pb214	1.12E-07	1.17E-07	1.29E-07	1.39E-07	1.50E-07	1.59E-07	1.68E-07	1.76E-07	2.22E-07	2.66E-07	2.65E-07
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	5.21E+00	5.88E+00	7.73E+00	9.83E+00	1.22E+01	1.48E+01	1.77E+01	2.08E+01	4.40E+01	1.74E+02	2.58E+02
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	2.96E-05	3.09E-05	3.40E-05	3.68E-05	3.95E-05	4.20E-05	4.44E-05	4.66E-05	5.86E-05	7.03E-05	7.01E-05
bi211	4.97E-10	5.13E-10	5.51E-10	5.85E-10	6.15E-10	6.42E-10	6.67E-10	6.89E-10	7.82E-10	8.75E-10	8.83E-10
bi212	3.55E-13	3.73E-13	4.18E-13	4.63E-13	5.08E-13	5.53E-13	5.98E-13	6.43E-13	9.12E-13	1.81E-12	2.26E-12
bi213	4.11E-08	4.38E-08	5.04E-08	5.69E-08	6.34E-08	6.96E-08	7.58E-08	8.18E-08	1.15E-07	2.08E-07	2.25E-07
bi214	8.33E-08	8.69E-08	9.54E-08	1.03E-07	1.11E-07	1.18E-07	1.25E-07	1.31E-07	1.65E-07	1.97E-07	1.97E-07
po210	8.19E-04	8.54E-04	9.38E-04	1.02E-03	1.09E-03	1.16E-03	1.23E-03	1.29E-03	1.62E-03	1.94E-03	1.93E-03
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	5.50E-15	5.67E-15	6.09E-15	6.46E-15	6.80E-15	7.10E-15	7.37E-15	7.61E-15	8.64E-15	9.67E-15	9.76E-15
po212	1.86E-23	1.96E-23	2.20E-23	2.43E-23	2.67E-23	2.90E-23	3.14E-23	3.38E-23	4.79E-23	9.51E-23	1.19E-22
po213	6.18E-17	6.58E-17	7.58E-17	8.56E-17	9.53E-17	1.05E-16	1.14E-16	1.23E-16	1.73E-16	3.13E-16	3.38E-16
po214	1.15E-14	1.20E-14	1.31E-14	1.42E-14	1.53E-14	1.63E-14	1.72E-14	1.80E-14	2.26E-14	2.72E-14	2.71E-14

po215	7.03E-15	7.25E-15	7.78E-15	8.26E-15	8.69E-15	9.07E-15	9.42E-15	9.73E-15	1.10E-14	1.24E-14	1.25E-14
po216	1.44E-17	1.52E-17	1.70E-17	1.88E-17	2.06E-17	2.25E-17	2.43E-17	2.61E-17	3.71E-17	7.36E-17	9.18E-17
po218	1.32E-08	1.38E-08	1.51E-08	1.64E-08	1.76E-08	1.88E-08	1.98E-08	2.08E-08	2.61E-08	3.13E-08	3.12E-08
at217	4.95E-13	5.27E-13	6.07E-13	6.85E-13	7.62E-13	8.38E-13	9.12E-13	9.85E-13	1.39E-12	2.51E-12	2.70E-12
rn218	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rn219	1.59E-11	1.64E-11	1.76E-11	1.87E-11	1.97E-11	2.06E-11	2.13E-11	2.21E-11	2.50E-11	2.80E-11	2.83E-11
rn220	5.63E-15	5.92E-15	6.63E-15	7.35E-15	8.06E-15	8.78E-15	9.49E-15	1.02E-14	1.45E-14	2.87E-14	3.59E-14
rn222	2.39E-05	2.49E-05	2.74E-05	2.97E-05	3.19E-05	3.39E-05	3.58E-05	3.76E-05	4.72E-05	5.67E-05	5.65E-05
fr221	4.59E-09	4.89E-09	5.62E-09	6.35E-09	7.07E-09	7.77E-09	8.46E-09	9.13E-09	1.28E-08	2.32E-08	2.51E-08
fr223	7.39E-11	7.63E-11	8.18E-11	8.69E-11	9.14E-11	9.54E-11	9.91E-11	1.02E-10	1.16E-10	1.30E-10	1.31E-10
ra222	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ra223	4.04E-06	4.18E-06	4.48E-06	4.75E-06	5.00E-06	5.22E-06	5.42E-06	5.60E-06	6.36E-06	7.11E-06	7.18E-06
ra224	3.26E-11	3.43E-11	3.84E-11	4.26E-11	4.67E-11	5.08E-11	5.50E-11	5.91E-11	8.39E-11	1.66E-10	2.08E-10
ra225	2.03E-05	2.16E-05	2.49E-05	2.81E-05	3.13E-05	3.44E-05	3.75E-05	4.04E-05	5.69E-05	1.03E-04	1.11E-04
ra226	3.72E+00	3.88E+00	4.26E+00	4.62E+00	4.96E+00	5.28E+00	5.57E+00	5.85E+00	7.35E+00	8.82E+00	8.79E+00
ra228	1.89E-08	1.99E-08	2.23E-08	2.47E-08	2.71E-08	2.95E-08	3.20E-08	3.44E-08	4.89E-08	9.71E-08	1.21E-07
ac225	1.37E-05	1.46E-05	1.68E-05	1.90E-05	2.11E-05	2.32E-05	2.53E-05	2.73E-05	3.84E-05	6.95E-05	7.50E-05
ac227	2.86E-03	2.96E-03	3.17E-03	3.37E-03	3.54E-03	3.70E-03	3.84E-03	3.97E-03	4.50E-03	5.04E-03	5.08E-03
ac228	2.31E-12	2.42E-12	2.72E-12	3.01E-12	3.31E-12	3.61E-12	3.90E-12	4.20E-12	5.97E-12	1.19E-11	1.48E-11
th226	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th227	6.65E-06	6.86E-06	7.36E-06	7.81E-06	8.22E-06	8.58E-06	8.91E-06	9.21E-06	1.05E-05	1.17E-05	1.18E-05
th228	6.34E-09	6.66E-09	7.47E-09	8.27E-09	9.07E-09	9.88E-09	1.07E-08	1.15E-08	1.63E-08	3.23E-08	4.04E-08
th229	4.02E+00	4.28E+00	4.93E+00	5.57E+00	6.19E+00	6.81E+00	7.41E+00	8.00E+00	1.13E+01	2.04E+01	2.20E+01
th230	1.87E+02	1.95E+02	2.13E+02	2.29E+02	2.45E+02	2.60E+02	2.74E+02	2.87E+02	3.48E+02	4.20E+02	4.16E+02
th231	6.94E-07	6.94E-07	6.94E-07	6.94E-07	6.94E-07	6.95E-07	6.95E-07	6.95E-07	6.95E-07	6.95E-07	6.95E-07

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 162

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
th232	4.70E+01	4.94E+01	5.54E+01	6.14E+01	6.75E+01	7.35E+01	7.95E+01	8.55E+01	1.22E+02	2.42E+02	3.01E+02
th233	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th234	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04
pa231	4.38E+00	4.52E+00	4.85E+00	5.15E+00	5.42E+00	5.66E+00	5.88E+00	6.07E+00	6.89E+00	7.71E+00	7.79E+00
pa232	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pa233	3.34E-04	3.34E-04	3.34E-04	3.33E-04	3.33E-04	3.32E-04	3.32E-04	3.31E-04	3.28E-04	3.17E-04	3.12E-04
pa234m	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09	4.24E-09
pa234	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09	1.89E-09
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u231	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u232	1.95E-09	1.93E-09	1.87E-09	1.82E-09	1.76E-09	1.71E-09	1.66E-09	1.61E-09	1.34E-09	7.35E-10	5.44E-10
u233	1.13E+02	1.18E+02	1.31E+02	1.44E+02	1.56E+02	1.68E+02	1.80E+02	1.92E+02	2.55E+02	4.10E+02	4.62E+02
u234	1.98E+03	1.97E+03	1.95E+03	1.93E+03	1.91E+03	1.89E+03	1.87E+03	1.85E+03	1.74E+03	1.43E+03	1.30E+03
u235	1.71E+05	1.71E+05	1.71E+05	1.71E+05	1.71E+05	1.71E+05	1.71E+05	1.71E+05	1.71E+05	1.71E+05	1.71E+05
u236	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.14E+04	4.13E+04	4.12E+04	4.11E+04
u237	2.75E-27	2.33E-27	1.55E-27	1.03E-27	6.87E-28	4.57E-28	3.04E-28	2.02E-28	1.75E-29	5.02E-33	8.49E-35
u238	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06	8.65E+06
u239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	2.46E-38	2.46E-38
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	3.67E-05	3.63E-05	3.52E-05	3.42E-05	3.32E-05	3.22E-05	3.12E-05	3.03E-05	2.53E-05	1.38E-05	1.02E-05
np237	9.85E+03	9.84E+03	9.83E+03	9.81E+03	9.79E+03	9.78E+03	9.76E+03	9.75E+03	9.65E+03	9.34E+03	9.19E+03
np238	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np239	1.44E-15	1.20E-15	7.47E-16	3.67E-16	2.92E-16	1.82E-16	1.14E-16	7.12E-17	4.24E-18	3.49E-22	3.16E-24
np240m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	2.10E-40	2.10E-40
np240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pu236	8.25E-11	8.15E-11	7.91E-11	7.67E-11	7.44E-11	7.22E-11	7.01E-11	6.80E-11	5.68E-11	3.11E-11	2.30E-11
pu237	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu239	3.86E+02	3.65E+02	3.16E+02	2.74E+02	2.37E+02	2.05E+02	1.78E+02	1.54E+02	6.50E+01	3.66E+00	8.70E-01
pu240	9.91E-02	8.03E-02	4.73E-02	2.79E-02	1.65E-02	9.70E-03	5.72E-03	3.37E-03	1.42E-04	3.67E-09	1.87E-11
pu241	9.08E-20	7.71E-20	5.13E-20	3.41E-20	2.27E-20	1.51E-20	1.00E-20	6.67E-21	5.78E-22	1.66E-25	2.81E-27
pu242	2.17E-05	2.16E-05	2.14E-05	2.12E-05	2.10E-05	2.08E-05	2.07E-05	2.05E-05	1.94E-05	1.61E-05	1.47E-05
pu243	5.08E-34	5.08E-34	5.08E-34	5.08E-34	5.07E-34	5.07E-34	5.07E-34	5.07E-34	5.07E-34	5.04E-34	5.03E-34
pu244	1.42E-28	1.49E-28	1.67E-28	1.85E-28	2.02E-28	2.19E-28	2.36E-28	2.53E-28	3.51E-28	6.36E-28	7.58E-28
pu245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am241	2.86E-18	2.43E-18	1.55E-18	1.03E-18	6.84E-19	4.55E-19	3.03E-19	2.01E-19	1.74E-20	5.26E-24	8.46E-26
am242m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am242	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am243	1.68E-09	1.39E-09	8.68E-10	5.43E-10	3.39E-10	2.12E-10	1.32E-10	8.27E-11	4.92E-12	4.05E-16	3.68E-18
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 163

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
cm242	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm243	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm245	5.46E-17	4.63E-17	3.08E-17	2.05E-17	1.36E-17	9.07E-18	6.03E-18	4.01E-18	3.47E-19	9.96E-23	1.69E-24
cm246	3.96E-21	2.96E-21	1.42E-21	6.83E-22	3.28E-22	1.58E-22	7.59E-23	3.65E-23	4.50E-25	1.95E-31	1.28E-34
cm247	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.46E-23	1.45E-23	1.45E-23
cm248	1.95E-27	1.94E-27	1.92E-27	1.90E-27	1.88E-27	1.86E-27	1.84E-27	1.83E-27	1.72E-27	1.40E-27	1.26E-27
cm249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf252	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
s250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06	8.88E+06

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 164

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
he 4	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tl206	4.86E-06	5.06E-06	5.56E-06	6.03E-06	6.47E-06	6.89E-06	7.27E-06	7.64E-06	9.59E-06	1.15E-05	1.15E-05

tl207	2.07E-01	2.13E-01	2.29E-01	2.43E-01	2.55E-01	2.67E-01	2.77E-01	2.86E-01	3.25E-01	3.63E-01	3.67E-01
tl208	1.87E-06	1.96E-06	2.20E-06	2.44E-06	2.67E-06	2.91E-06	3.15E-06	3.38E-06	4.81E-06	9.53E-06	1.19E-05
tl209	1.67E-02	1.78E-02	2.05E-02	2.32E-02	2.58E-02	2.83E-02	3.08E-02	3.33E-02	4.69E-02	8.47E-02	9.14E-02
pb206	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb207	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb209	7.97E-01	8.49E-01	9.77E-01	1.10E+00	1.23E+00	1.35E+00	1.47E+00	1.59E+00	2.23E+00	4.04E+00	4.35E+00
pb210	3.68E+00	3.84E+00	4.22E+00	4.57E+00	4.90E+00	5.22E+00	5.51E+00	5.79E+00	7.27E+00	8.72E+00	8.69E+00
pb211	2.07E-01	2.14E-01	2.29E-01	2.44E-01	2.56E-01	2.68E-01	2.78E-01	2.87E-01	3.26E-01	3.64E-01	3.68E-01
pb212	5.20E-06	5.46E-06	6.12E-06	6.78E-06	7.44E-06	8.10E-06	8.76E-06	9.42E-06	1.34E-05	2.65E-05	3.31E-05
pb214	3.68E+00	3.84E+00	4.22E+00	4.57E+00	4.91E+00	5.22E+00	5.51E+00	5.79E+00	7.27E+00	8.72E+00	8.70E+00
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	3.68E+00	3.84E+00	4.22E+00	4.57E+00	4.90E+00	5.22E+00	5.51E+00	5.79E+00	7.27E+00	8.72E+00	8.69E+00
bi211	2.07E-01	2.14E-01	2.29E-01	2.44E-01	2.56E-01	2.68E-01	2.78E-01	2.87E-01	3.26E-01	3.64E-01	3.68E-01
bi212	5.20E-06	5.46E-06	6.12E-06	6.78E-06	7.44E-06	8.10E-06	8.76E-06	9.42E-06	1.34E-05	2.65E-05	3.31E-05
bi213	7.97E-01	8.49E-01	9.77E-01	1.10E+00	1.23E+00	1.35E+00	1.47E+00	1.59E+00	2.23E+00	4.04E+00	4.35E+00
bi214	3.68E+00	3.84E+00	4.22E+00	4.57E+00	4.91E+00	5.22E+00	5.51E+00	5.79E+00	7.27E+00	8.72E+00	8.70E+00
po210	3.68E+00	3.84E+00	4.22E+00	4.57E+00	4.90E+00	5.22E+00	5.51E+00	5.79E+00	7.27E+00	8.72E+00	8.69E+00
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	5.70E-04	5.88E-04	6.31E-04	6.70E-04	7.05E-04	7.36E-04	7.64E-04	7.89E-04	8.96E-04	1.00E-03	1.01E-03
po212	3.33E-06	3.50E-06	3.92E-06	4.34E-06	4.77E-06	5.19E-06	5.61E-06	6.03E-06	8.56E-06	1.70E-05	2.12E-05
po213	7.80E-01	8.31E-01	9.56E-01	1.08E+00	1.20E+00	1.32E+00	1.44E+00	1.55E+00	2.18E+00	3.95E+00	4.26E+00
po214	3.68E+00	3.84E+00	4.22E+00	4.57E+00	4.90E+00	5.22E+00	5.51E+00	5.79E+00	7.27E+00	8.72E+00	8.69E+00
po215	2.07E-01	2.14E-01	2.29E-01	2.44E-01	2.56E-01	2.68E-01	2.78E-01	2.87E-01	3.26E-01	3.64E-01	3.68E-01
po216	5.20E-06	5.46E-06	6.12E-06	6.78E-06	7.44E-06	8.10E-06	8.76E-06	9.42E-06	1.34E-05	2.65E-05	3.31E-05
po218	3.68E+00	3.84E+00	4.22E+00	4.57E+00	4.91E+00	5.22E+00	5.51E+00	5.79E+00	7.27E+00	8.72E+00	8.70E+00
at217	7.97E-01	8.49E-01	9.77E-01	1.10E+00	1.23E+00	1.35E+00	1.47E+00	1.59E+00	2.23E+00	4.04E+00	4.35E+00
rn218	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rn219	2.07E-01	2.14E-01	2.29E-01	2.44E-01	2.56E-01	2.68E-01	2.78E-01	2.87E-01	3.26E-01	3.64E-01	3.68E-01
rn220	5.20E-06	5.46E-06	6.12E-06	6.78E-06	7.44E-06	8.10E-06	8.76E-06	9.42E-06	1.34E-05	2.65E-05	3.31E-05
rn222	3.68E+00	3.84E+00	4.22E+00	4.57E+00	4.91E+00	5.22E+00	5.51E+00	5.79E+00	7.27E+00	8.72E+00	8.70E+00
fr221	7.97E-01	8.49E-01	9.77E-01	1.10E+00	1.23E+00	1.35E+00	1.47E+00	1.59E+00	2.23E+00	4.04E+00	4.35E+00
fr223	2.86E-03	2.95E-03	3.17E-03	3.36E-03	3.54E-03	3.69E-03	3.83E-03	3.96E-03	4.50E-03	5.03E-03	5.08E-03
ra222	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ra223	2.07E-01	2.14E-01	2.29E-01	2.44E-01	2.56E-01	2.68E-01	2.78E-01	2.87E-01	3.26E-01	3.64E-01	3.68E-01
ra224	5.20E-06	5.46E-06	6.12E-06	6.78E-06	7.44E-06	8.10E-06	8.76E-06	9.42E-06	1.34E-05	2.65E-05	3.31E-05
ra225	7.97E-01	8.49E-01	9.77E-01	1.10E+00	1.23E+00	1.35E+00	1.47E+00	1.59E+00	2.23E+00	4.04E+00	4.35E+00
ra226	3.68E+00	3.84E+00	4.22E+00	4.57E+00	4.91E+00	5.22E+00	5.51E+00	5.79E+00	7.27E+00	8.72E+00	8.70E+00
ra228	5.16E-06	5.42E-06	6.08E-06	6.74E-06	7.40E-06	8.06E-06	8.72E-06	9.38E-06	1.33E-05	2.65E-05	3.31E-05
ac225	7.97E-01	8.49E-01	9.77E-01	1.10E+00	1.23E+00	1.35E+00	1.47E+00	1.59E+00	2.23E+00	4.04E+00	4.35E+00
ac227	2.07E-01	2.14E-01	2.29E-01	2.44E-01	2.56E-01	2.68E-01	2.78E-01	2.87E-01	3.26E-01	3.64E-01	3.68E-01
ac228	5.16E-06	5.42E-06	6.08E-06	6.74E-06	7.40E-06	8.06E-06	8.72E-06	9.38E-06	1.33E-05	2.65E-05	3.31E-05
th226	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th227	2.04E-01	2.11E-01	2.26E-01	2.40E-01	2.53E-01	2.64E-01	2.74E-01	2.83E-01	3.21E-01	3.59E-01	3.63E-01
th228	5.20E-06	5.46E-06	6.12E-06	6.78E-06	7.44E-06	8.10E-06	8.76E-06	9.42E-06	1.34E-05	2.65E-05	3.31E-05
th229	7.97E-01	8.49E-01	9.77E-01	1.10E+00	1.23E+00	1.35E+00	1.47E+00	1.59E+00	2.23E+00	4.04E+00	4.35E+00
th230	3.86E+00	4.02E+00	4.39E+00	4.73E+00	5.06E+00	5.36E+00	5.64E+00	5.91E+00	7.17E+00	8.66E+00	8.58E+00
th231	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.70E-01	3.70E-01	3.70E-01

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 165

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
th232	5.16E-06	5.42E-06	6.08E-06	6.74E-06	7.40E-06	8.06E-06	8.72E-06	9.38E-06	1.33E-05	2.65E-05	3.31E-05
th233	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th234	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00
pa231	2.07E-01	2.14E-01	2.29E-01	2.43E-01	2.56E-01	2.67E-01	2.78E-01	2.87E-01	3.26E-01	3.64E-01	3.68E-01
pa232	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pa233	6.94E+00	6.94E+00	6.93E+00	6.92E+00	6.91E+00	6.90E+00	6.88E+00	6.87E+00	6.81E+00	6.59E+00	6.48E+00
pa234m	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00
pa234	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03	3.78E-03
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u231	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u232	4.31E-08	4.26E-08	4.13E-08	4.01E-08	3.89E-08	3.77E-08	3.66E-08	3.55E-08	2.97E-08	1.62E-08	1.20E-08
u233	1.09E+00	1.14E+00	1.27E+00	1.39E+00	1.51E+00	1.62E+00	1.74E+00	1.85E+00	2.46E+00	3.95E+00	4.46E+00
u234	1.23E+01	1.23E+01	1.21E+01	1.20E+01	1.19E+01	1.18E+01	1.16E+01	1.15E+01	1.08E+01	8.87E+00	8.09E+00
u235	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.69E-01	3.70E-01	3.70E-01	3.70E-01
u236	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.68E+00	2.67E+00	2.67E+00	2.66E+00
u237	2.24E-22	1.91E-22	1.27E-22	8.43E-23	5.61E-23	3.73E-23	2.48E-23	1.65E-23	1.43E-24	4.10E-28	6.94E-30
u238	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00	2.91E+00
u239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	2.28E-32	2.28E-32
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	4.84E-07	4.78E-07	4.64E-07	4.50E-07	4.37E-07	4.24E-07	4.12E-07	3.99E-07	3.33E-07	1.82E-07	1.35E-07
np237	6.94E+00	6.94E+00	6.93E+00	6.92E+00	6.91E+00	6.90E+00	6.88E+00	6.87E+00	6.81E+00	6.59E+00	6.48E+00
np238	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np239	3.35E-10	2.78E-10	1.73E-10	1.08E-10	6.77E-11	4.23E-11	2.64E-11	1.65E-11	9.83E-13	8.09E-17	7.34E-19
np240m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	2.28E-32	2.28E-32
np240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	4.31E-08	4.26E-08	4.13E-08	4.01E-08	3.89E-08	3.77E-08	3.66E-08	3.55E-08	2.97E-08	1.62E-08	1.20E-08
pu237	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu239	2.40E+01	2.26E+01	1.96E+01	1.70E+01	1.47E+01	1.27E+01	1.10E+01	9.55E+00	4.03E+00	2.27E-01	5.40E-02
pu240	2.25E-02	1.82E-02	1.07E-02	6.34E-03	3.74E-03	2.20E-03	1.30E-03	7.66E-04	3.22E-05	8.33E-10	4.24E-12
pu241	9.39E-18	7.97E-18	5.30E-18	3.53E-18	2.35E-18	1.56E-18	1.04E-18	6.90E-19	5.97E-20	1.71E-23	2.90E-25
pu242	8.59E-08	8.56E-08	8.48E-08	8.40E-08	8.32E-08	8.25E-08	8.17E-08	8.10E-08	7.66E-08	6.36E-08	5.80E-08
pu243	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.31E-27	1.31E-27
pu244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	2.28E-32	2.28E-32
pu245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am241	9.80E-18	8.32E-18	5.31E-18	3.53E-18	2.35E-18	1.56E-18	1.04E-18	6.91E-19	5.97E-20	1.81E-23	2.90E-25
am242m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am242	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am243	3.35E-10	2.78E-10	1.73E-10	1.08E-10	6.77E-11	4.23E-11	2.64E-11	1.65E-11	9.83E-13	8.09E-17	7.34E-19
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 166

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
cm242	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm243	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm245	9.37E-18	7.96E-18	5.29E-18	3.52E-18	2.34E-18	1.56E-18	1.04E-18	6.89E-19	5.96E-20	1.71E-23	2.90E-25
cm246	1.22E-21	9.09E-22	4.37E-22	2.10E-22	1.01E-22	4.85E-23	2.33E-23	1.12E-23	1.38E-25	6.85E-32	.00E+00
cm247	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.32E-27	1.31E-27	1.31E-27
cm248	8.26E-30	8.24E-30	8.15E-30	8.05E-30	7.99E-30	7.89E-30	7.83E-30	7.74E-30	7.28E-30	5.93E-30	5.36E-30
cm249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

cm250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf252	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es253	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es254	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
s250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	1.09E+02	1.09E+02	1.11E+02	1.13E+02	1.15E+02	1.18E+02	1.20E+02	1.22E+02	1.36E+02	1.61E+02	1.63E+02

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 167

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
h 3	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
li 6	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05	1.95E-05
li 7	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07	4.59E-07
be 9	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07	8.85E-07
be 10	5.80E-06	5.80E-06	5.78E-06	5.77E-06	5.76E-06	5.75E-06	5.73E-06	5.72E-06	5.65E-06	5.41E-06	5.29E-06
c 14	1.13E-08	8.89E-09	4.85E-09	2.65E-09	1.45E-09	7.90E-10	4.32E-10	2.36E-10	6.25E-12	3.48E-17	8.20E-20
ni 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 66	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08	1.36E-08
cu 67	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 67	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09	2.43E-09
zn 68	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10	1.16E-10
zn 69	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 69	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09	3.46E-09
zn 70	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08	8.16E-08
ga 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 70	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11	6.07E-11
zn 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 71	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06
ge 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 72	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04
co 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04	5.57E-04
ge 73m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ni 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 74	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04	4.86E-04
co 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 75	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03	5.65E-03
ni 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 168

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
zn 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 76	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02	1.87E-02
as 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 76	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06	1.21E-06
ni 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 77	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02	4.17E-02
se 77m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 78	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01
cu 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 79	2.10E-01	2.09E-01	2.07E-01	2.05E-01	2.03E-01	2.01E-01	1.98E-01	1.96E-01	1.84E-01	1.49E-01	1.35E-01
se 79m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 79	1.77E-02	1.86E-02	2.08E-02	2.29E-02	2.51E-02	2.72E-02	2.93E-02	3.14E-02	4.34E-02	7.83E-02	9.32E-02
br 79m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 80	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01	6.78E-01
br 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 80	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07	4.33E-07

cu 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 81	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00	1.01E+00
kr 81	1.78E-08	1.77E-08	1.74E-08	1.71E-08	1.69E-08	1.66E-08	1.63E-08	1.61E-08	1.46E-08	1.05E-08	8.94E-09
kr 81m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 169

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	Initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
ge 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 82	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00	1.74E+00
br 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 82m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 82	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04	4.78E-04
zn 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 83	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00	2.89E+00
kr 83m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 84	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00	5.84E+00
ga 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 85	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00	6.76E+00
ge 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 86	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01	1.09E+01
rb 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 86m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 86	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05	8.20E-05
ge 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

se 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 87	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01	1.43E+01
sr 87	3.27E-05	3.31E-05	3.41E-05	3.51E-05	3.62E-05	3.72E-05	3.82E-05	3.93E-05	4.55E-05	6.61E-05	7.65E-05
sr 87m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 170

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
br 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 88	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01	2.07E+01
as 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01	2.80E+01
y 89m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01	3.41E+01
zr 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 91	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01	3.49E+01
nb 91	1.58E-28	2.05E-29	1.25E-31	7.67E-34	4.69E-36	2.87E-38	1.76E-40	1.02E-42	.00E+00	.00E+00	.00E+00
se 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 92	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01	3.56E+01
nb 92	2.24E-09	2.24E-09	2.24E-09	2.24E-09	2.24E-09	2.24E-09	2.24E-09	2.24E-09	2.24E-09	2.24E-09	2.23E-09
se 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

zr 93	2.51E+01	2.50E+01	2.50E+01	2.49E+01	2.49E+01	2.48E+01	2.48E+01	2.47E+01	2.44E+01	2.33E+01	2.28E+01
nb 93	4.41E-01	4.64E-01	5.20E-01	5.77E-01	6.33E-01	6.89E-01	7.46E-01	8.02E-01	1.14E+00	2.21E+00	2.74E+00
nb 93m	2.64E-04	2.64E-04	2.63E-04	2.63E-04	2.62E-04	2.62E-04	2.61E-04	2.60E-04	2.57E-04	2.46E-04	2.40E-04
br 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 171

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	Initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
sr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 94	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01
nb 94	2.79E-06	2.61E-06	2.20E-06	1.85E-06	1.56E-06	1.32E-06	1.11E-06	9.36E-07	3.36E-07	1.10E-08	2.00E-09
nb 94m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 95	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01	4.01E+01
br 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 96	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01	3.93E+01
nb 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 96	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02
kr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 97	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01	3.57E+01
kr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 98	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01	3.72E+01
tc 98	4.84E-06	4.84E-06	4.83E-06	4.83E-06	4.83E-06	4.82E-06	4.82E-06	4.81E-06	4.79E-06	4.71E-06	4.67E-06
rb 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 99m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc 99	3.49E+01	3.46E+01	3.41E+01	3.35E+01	3.30E+01	3.24E+01	3.19E+01	3.14E+01	2.85E+01	2.05E+01	1.74E+01
tc 99m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru 99	4.70E+00	4.93E+00	5.49E+00	6.05E+00	6.59E+00	7.13E+00	7.66E+00	8.18E+00	1.11E+01	1.91E+01	2.22E+01

rb100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 172

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
zr100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo100	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01	4.10E+01
tc100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru100	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02	1.77E-02
rb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru101	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01	3.39E+01
sr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru102	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01	2.88E+01
rh102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01	2.13E+01
rh103m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru104	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01	1.34E+01
rh104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd104	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02	4.68E-02
y105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd105	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00	7.53E+00

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 173

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
y106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd106	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00	3.44E+00
ag106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd107	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.39E+00	1.38E+00	1.38E+00	1.38E+00	1.37E+00	1.36E+00
pd107m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag107	5.71E-03	6.01E-03	6.75E-03	7.49E-03	8.23E-03	8.97E-03	9.71E-03	1.04E-02	1.49E-02	2.95E-02	3.68E-02
zr108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd108	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01
ag108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag108m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd108	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08	2.81E-08
zr109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01	3.89E-01
ag109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd110	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01	2.71E-01
ag110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag110m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 174

nuclide concentrations, grams

basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
cd110	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04	6.85E-04
nb111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd111	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01
cd111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd112	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01
mo113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd113	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02	9.15E-02
cd113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in113	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03
in113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd114	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.52E-01
in114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in114m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn114	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07	2.83E-07
mo115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in115	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02	8.63E-02
in115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
sn115	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03	4.35E-03

tc116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd116	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01
in116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in116m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn116	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04	2.14E-04
tc117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn117	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02
sn117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn118	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02	9.29E-02
ru119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn119	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01
sn119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn120	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01	1.02E-01
rh121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 176

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
pd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

in121m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb121	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01	1.12E-01
rh122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn122	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01	1.30E-01
sb122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te122	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05	1.02E-05
rh123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb123	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01
te123	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09	1.72E-09
te123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn124	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01	2.19E-01
sb124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb124m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te124	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04
pd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te125	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01	2.52E-01
te125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn126	2.80E-01	2.76E-01	2.67E-01	2.58E-01	2.49E-01	2.41E-01	2.32E-01	2.24E-01	1.82E-01	9.12E-02	6.45E-02

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 177

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
sb126	1.33E-08	1.31E-08	1.27E-08	1.22E-08	1.18E-08	1.14E-08	1.10E-08	1.07E-08	8.66E-09	4.33E-09	3.06E-09
sb126m	1.01E-10	9.98E-11	9.64E-11	9.31E-11	9.00E-11	8.69E-11	8.39E-11	8.11E-11	6.59E-11	3.29E-11	2.33E-11
te126	8.80E-02	9.18E-02	1.01E-01	1.10E-01	1.19E-01	1.28E-01	1.36E-01	1.44E-01	1.86E-01	2.77E-01	3.04E-01
xe126	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11	4.86E-11
ag127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

in127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i127	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00	1.06E+00
xe127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te128	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00	3.01E+00
i128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe128	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05	9.55E-05
cd129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i129	6.45E+00	6.45E+00	6.45E+00	6.45E+00	6.45E+00	6.44E+00	6.44E+00	6.44E+00	6.43E+00	6.41E+00	6.39E+00
xe129	1.10E-02	1.15E-02	1.30E-02	1.44E-02	1.58E-02	1.72E-02	1.87E-02	2.01E-02	2.86E-02	5.70E-02	7.11E-02
xe129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te130	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01	1.50E+01
i130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe130	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03	3.44E-03
cd131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01	2.49E+01
xe131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 178

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
cd132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe132	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01	3.75E+01
cs132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba132	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08	2.56E-08

in133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs133	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01	5.84E+01
ba133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01	6.87E+01
xe134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba134	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02	3.21E-02
sn135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs135	5.73E+01	5.72E+01	5.72E+01	5.71E+01	5.70E+01	5.69E+01	5.68E+01	5.67E+01	5.62E+01	5.45E+01	5.37E+01
cs135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135	6.68E-01	7.03E-01	7.89E-01	8.75E-01	9.61E-01	1.05E+00	1.13E+00	1.22E+00	1.73E+00	3.40E+00	4.21E+00
ba135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe136	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01	5.63E+01
cs136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02	5.96E-02
ba136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 179

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
sb137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba137	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01	5.64E+01
ba137m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ba138	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01	6.03E+01
la138	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04	3.05E-04
sb139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la139	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01
ce139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce140	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01	5.77E+01
pr140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr141	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01	5.34E+01
nd141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce142	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01	5.43E+01
pr142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr142m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd142	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03	5.71E-03
i143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	Initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
xe143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd143	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01	5.50E+01
i144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd144	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01	5.14E+01

i145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd145	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01	3.71E+01
pm145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd146	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01	2.86E+01
pm146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm146	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06	2.51E-06
xe147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm147	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01	2.18E+01
cs148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd148	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01	1.63E+01
pm148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm148m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 181

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
sm148	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02	2.65E-02
cs149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm149	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00	5.77E+00
eu149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd150	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00	6.59E+00
pm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00	4.85E+00
eu150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ba151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu151	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00	4.05E+00
ba152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm152	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00	2.92E+00
eu152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02	7.42E-02
la153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu153	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00	1.72E+00
gd153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 182

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nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
sm154	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01	7.99E-01
eu154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd154	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03	5.67E-03
la155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01	2.82E-01
ce156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd156	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.46E-01
ce157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pm157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd157	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02	3.34E-02
pr158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd158	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02	8.32E-02
pr159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb159	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02	1.42E-02
nd160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd160	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03	4.96E-03
tb160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy160	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06	5.18E-06
nd161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 183

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
dy161	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03	1.64E-03
pm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy162	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04	5.41E-04
sm163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy163	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04
sm164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy164	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05	6.45E-05
sm165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ho165	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05	2.86E-05
dy166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	8.32E-18	2.62E-18	1.46E-19	8.13E-21	4.52E-22	2.52E-23	1.40E-24	7.81E-26	2.32E-33	.00E+00	.00E+00
er166	2.85E-06	2.85E-06	2.85E-06	2.85E-06	2.85E-06	2.85E-06	2.85E-06	2.85E-06	2.85E-06	2.85E-06	2.85E-06
er167	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09	1.20E-09
er167m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09	1.79E-09
yb168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm169	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09
yb169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er170	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09	5.40E-09
tm170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm170m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb170	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11	1.96E-11
er171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb171	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09	8.52E-09
er172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb172	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09	7.04E-09
total	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03	1.52E+03

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 184

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
h 3	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
li 6	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
li 7	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
be 9	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
be 10	1.30E-07	1.30E-07	1.29E-07	1.29E-07	1.29E-07	1.28E-07	1.28E-07	1.28E-07	1.26E-07	1.21E-07	1.18E-07
c 14	5.05E-08	3.96E-08	2.16E-08	1.18E-08	6.45E-09	3.52E-09	1.92E-09	1.05E-09	2.79E-11	1.55E-16	3.66E-19
ni 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 67	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 67	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 68	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 69	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

zn 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 185

0

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
zn 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 77	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 77m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 78	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 79	2.88E-03	2.87E-03	2.84E-03	2.81E-03	2.78E-03	2.75E-03	2.72E-03	2.70E-03	2.53E-03	2.05E-03	1.85E-03
se 79m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 79m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 79	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

as 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 80	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 81	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 81	3.69E-10	3.67E-10	3.61E-10	3.55E-10	3.49E-10	3.44E-10	3.38E-10	3.33E-10	3.02E-10	2.18E-10	1.85E-10
kr 81m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 186

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
ge 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 82m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 82	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 83	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 83m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 84	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

rb 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 86m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 87	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06	1.23E-06
sr 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 87m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 187

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
br 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 91	9.11E-28	1.19E-28	7.30E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 92	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.49E-13	2.48E-13	2.48E-13
se 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

br 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 93	6.30E-02	6.29E-02	6.28E-02	6.27E-02	6.25E-02	6.24E-02	6.22E-02	6.21E-02	6.13E-02	5.85E-02	5.72E-02
nb 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 93m	6.30E-02	6.29E-02	6.28E-02	6.27E-02	6.25E-02	6.24E-02	6.22E-02	6.21E-02	6.13E-02	5.85E-02	5.72E-02
br 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 188

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
sr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 94	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 94	5.23E-07	4.89E-07	4.12E-07	3.47E-07	2.93E-07	2.47E-07	2.08E-07	1.75E-07	6.30E-08	2.07E-09	3.76E-10
nb 94m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 96	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 97	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 98	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc 98	4.21E-09	4.21E-09	4.20E-09	4.20E-09	4.20E-09	4.19E-09	4.19E-09	4.18E-09	4.16E-09	4.10E-09	4.06E-09
rb 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

nb 99m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc 99	5.97E-01	5.93E-01	5.83E-01	5.74E-01	5.64E-01	5.55E-01	5.46E-01	5.37E-01	4.87E-01	3.51E-01	2.98E-01
tc 99m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru 99	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 189

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
zr100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

tc105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 190

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
y106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd107	7.14E-04	7.14E-04	7.14E-04	7.13E-04	7.13E-04	7.13E-04	7.12E-04	7.12E-04	7.10E-04	7.02E-04	6.98E-04
pd107m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag108m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ag110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag110m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 191

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
cd110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd111	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd111m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd112	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd113	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14	3.11E-14
cd113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in114m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in115	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13	6.08E-13
in115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 192

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
sn115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in116m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn116	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn117	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn117m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn118	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn119	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn119m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn120	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 193
0
nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
pd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te123	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19	4.04E-19
te123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb124m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn126	7.95E-03	7.84E-03	7.58E-03	7.32E-03	7.07E-03	6.83E-03	6.60E-03	6.37E-03	5.17E-03	2.59E-03	1.83E-03

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0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 194

nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
sb126	1.11E-03	1.10E-03	1.06E-03	1.02E-03	9.90E-04	9.56E-04	9.23E-04	8.92E-04	7.24E-04	3.62E-04	2.56E-04
sb126m	7.95E-03	7.84E-03	7.58E-03	7.32E-03	7.07E-03	6.83E-03	6.60E-03	6.37E-03	5.17E-03	2.59E-03	1.83E-03

te126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i129	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.14E-03	1.13E-03	1.13E-03
xe129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 195

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
cd132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

te132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs135	6.60E-02	6.59E-02	6.58E-02	6.57E-02	6.56E-02	6.55E-02	6.54E-02	6.53E-02	6.48E-02	6.28E-02	6.19E-02
cs135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 196

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	Initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
sb137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba137m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

te138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la138	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12	7.53E-12
sb139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce142	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06	1.30E-06
pr142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr142m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 197

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	Initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
xe143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

la144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd144	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11	6.11E-11
1145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm145	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm146	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.97E-11	5.96E-11	5.96E-11
xe147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm147	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm147	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07	5.00E-07
cs148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm148	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm148m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 198

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	Initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
sm148	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15	8.07E-15
cs149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm149	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12	1.39E-12
eu149	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pr150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12	1.62E-12
la153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 199

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	Initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
sm154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

eu156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 200

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nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	40000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	250000. yr
dy161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

eu165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	1.49E-17	4.71E-18	2.62E-19	1.46E-20	8.12E-22	4.52E-23	2.52E-24	1.40E-25	.00E+00	.00E+00	.00E+00
er166	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er167	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er167m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm170m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	8.11E-01	8.06E-01	7.96E-01	7.85E-01	7.75E-01	7.65E-01	7.55E-01	7.45E-01	6.90E-01	5.40E-01	4.81E-01

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 201

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	300000. yr	500000. yr	999999. yr
he 4	1.77E+02	2.16E+02	3.67E+02	6.82E+02
tl206	5.28E-14	5.08E-14	3.91E-14	2.31E-14
tl207	1.93E-09	1.93E-09	1.94E-09	1.93E-09
tl208	4.01E-14	4.81E-14	7.98E-14	1.58E-13
tl209	2.23E-10	2.44E-10	2.93E-10	2.79E-10
pb206	6.72E+02	8.42E+02	1.43E+03	2.41E+03
pb207	3.02E+01	3.76E+01	6.73E+01	1.41E+02
pb208	1.99E-03	2.72E-03	6.97E-03	2.68E-02
pb209	9.44E-07	1.03E-06	1.24E-06	1.18E-06
pb210	1.14E-01	1.10E-01	8.44E-02	4.99E-02
pb211	1.49E-08	1.49E-08	1.50E-08	1.50E-08
pb212	2.38E-11	2.85E-11	4.73E-11	9.39E-11
pb214	2.65E-07	2.55E-07	1.97E-07	1.16E-07
bi208	.00E+00	.00E+00	.00E+00	.00E+00
bi209	2.58E+02	3.50E+02	7.86E+02	1.94E+03
bi210m	.00E+00	.00E+00	.00E+00	.00E+00
bi210	7.01E-05	6.75E-05	5.19E-05	3.07E-05
bi211	8.83E-10	8.86E-10	8.87E-10	8.87E-10
bi212	2.26E-12	2.71E-12	4.49E-12	8.90E-12
bi213	2.25E-07	2.46E-07	2.95E-07	2.80E-07
bi214	1.97E-07	1.90E-07	1.46E-07	8.62E-08
po210	1.93E-03	1.86E-03	1.43E-03	8.47E-04
po211m	.00E+00	.00E+00	.00E+00	.00E+00
po211	9.76E-15	9.79E-15	9.81E-15	9.80E-15
po212	1.19E-22	1.42E-22	2.36E-22	4.68E-22
po213	3.38E-16	3.70E-16	4.43E-16	4.21E-16
po214	2.71E-14	2.61E-14	2.01E-14	1.19E-14

po215	1.25E-14	1.25E-14	1.25E-14	1.25E-14
po216	9.18E-17	1.10E-16	1.83E-16	3.62E-16
po218	3.12E-08	3.01E-08	2.32E-08	1.37E-08
at217	2.70E-12	2.96E-12	3.54E-12	3.37E-12
rn218	.00E+00	.00E+00	.00E+00	.00E+00
rn219	2.83E-11	2.84E-11	2.84E-11	2.84E-11
rn220	3.59E-14	4.30E-14	7.13E-14	1.41E-13
rn222	5.65E-05	5.44E-05	4.19E-05	2.48E-05
fr221	2.51E-08	2.74E-08	3.29E-08	3.13E-08
fr223	1.31E-10	1.32E-10	1.32E-10	1.32E-10
ra222	.00E+00	.00E+00	.00E+00	.00E+00
ra223	7.18E-06	7.21E-06	7.22E-06	7.21E-06
ra224	2.08E-10	2.49E-10	4.13E-10	8.19E-10
ra225	1.11E-04	1.21E-04	1.46E-04	1.38E-04
ra226	8.79E+00	8.47E+00	6.52E+00	3.85E+00
ra228	1.21E-07	1.45E-07	2.41E-07	4.78E-07
ac225	7.50E-05	8.20E-05	9.83E-05	9.35E-05
ac227	5.08E-03	5.10E-03	5.11E-03	5.11E-03
ac228	1.48E-11	1.77E-11	2.94E-11	5.84E-11
th226	.00E+00	.00E+00	.00E+00	.00E+00
th227	1.18E-05	1.18E-05	1.19E-05	1.19E-05
th228	4.04E-08	4.84E-08	8.02E-08	1.59E-07
th229	2.20E+01	2.40E+01	2.88E+01	2.74E+01
th230	4.16E+02	4.00E+02	3.11E+02	1.85E+02
th231	6.95E-07	6.95E-07	6.95E-07	6.95E-07

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 202

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial300000. yr	500000. yr	999999. yr	
th232	3.01E+02	3.61E+02	6.00E+02	1.19E+03
th233	.00E+00	.00E+00	.00E+00	.00E+00
th234	1.26E-04	1.26E-04	1.26E-04	1.26E-04
pa231	7.79E+00	7.81E+00	7.82E+00	7.82E+00
pa232	.00E+00	.00E+00	.00E+00	.00E+00
pa233	3.12E-04	3.07E-04	2.88E-04	2.45E-04
pa234m	4.24E-09	4.24E-09	4.24E-09	4.24E-09
pa234	1.89E-09	1.89E-09	1.89E-09	1.89E-09
pa235	.00E+00	.00E+00	.00E+00	.00E+00
u230	.00E+00	.00E+00	.00E+00	.00E+00
u231	.00E+00	.00E+00	.00E+00	.00E+00
u232	5.44E-10	4.02E-10	1.20E-10	5.91E-12
u233	4.62E+02	5.02E+02	5.81E+02	5.60E+02
u234	1.30E+03	1.19E+03	8.79E+02	5.68E+02
u235	1.71E+05	1.71E+05	1.71E+05	1.71E+05
u236	4.11E+04	4.11E+04	4.08E+04	4.02E+04
u237	8.49E-35	1.40E-36	.00E+00	.00E+00
u238	8.65E+06	8.65E+06	8.65E+06	8.65E+06
u239	.00E+00	.00E+00	.00E+00	.00E+00
u240	2.46E-38	2.46E-38	2.46E-38	2.46E-38
u241	.00E+00	.00E+00	.00E+00	.00E+00
np235	.00E+00	.00E+00	.00E+00	.00E+00
np236m	.00E+00	.00E+00	.00E+00	.00E+00
np236	1.02E-05	7.57E-06	2.27E-06	1.11E-07
np237	9.19E+03	9.05E+03	8.48E+03	7.21E+03
np238	.00E+00	.00E+00	.00E+00	.00E+00
np239	3.16E-24	2.87E-26	5.78E-33	5.47E-33
np240m	2.10E-40	2.10E-40	2.10E-40	2.10E-40
np240	.00E+00	.00E+00	.00E+00	.00E+00
np241	.00E+00	.00E+00	.00E+00	.00E+00

pu236	2.30E-11	1.70E-11	5.09E-12	2.50E-13
pu237	.00E+00	.00E+00	.00E+00	.00E+00
pu238	.00E+00	.00E+00	.00E+00	.00E+00
pu239	8.70E-01	2.07E-01	6.57E-04	3.75E-10
pu240	1.87E-11	9.49E-14	6.34E-23	1.00E-31
pu241	2.81E-27	4.75E-29	.00E+00	.00E+00
pu242	1.47E-05	1.34E-05	9.22E-06	3.64E-06
pu243	5.03E-34	5.02E-34	4.98E-34	4.87E-34
pu244	7.58E-28	8.69E-28	1.21E-27	1.64E-27
pu245	.00E+00	.00E+00	.00E+00	.00E+00
pu246	.00E+00	.00E+00	.00E+00	.00E+00
am239	.00E+00	.00E+00	.00E+00	.00E+00
am240	.00E+00	.00E+00	.00E+00	.00E+00
am241	8.46E-26	1.43E-27	1.24E-34	.00E+00
am242m	.00E+00	.00E+00	.00E+00	.00E+00
am242	.00E+00	.00E+00	.00E+00	.00E+00
am243	3.68E-18	3.34E-20	6.72E-27	6.35E-27
am244m	.00E+00	.00E+00	.00E+00	.00E+00
am244	.00E+00	.00E+00	.00E+00	.00E+00
am245	.00E+00	.00E+00	.00E+00	.00E+00
am246	.00E+00	.00E+00	.00E+00	.00E+00
cm241	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 203

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial300000. yr	500000. yr	999999. yr	
cm242	.00E+00	.00E+00	.00E+00	.00E+00
cm243	.00E+00	.00E+00	.00E+00	.00E+00
cm244	.00E+00	.00E+00	.00E+00	.00E+00
cm245	1.69E-24	2.86E-26	2.35E-33	.00E+00
cm246	1.28E-34	8.43E-38	.00E+00	.00E+00
cm247	1.45E-23	1.44E-23	1.43E-23	1.40E-23
cm248	1.26E-27	1.14E-27	7.60E-28	2.74E-28
cm249	.00E+00	.00E+00	.00E+00	.00E+00
cm250	.00E+00	.00E+00	.00E+00	.00E+00
cm251	.00E+00	.00E+00	.00E+00	.00E+00
bk249	.00E+00	.00E+00	.00E+00	.00E+00
bk250	.00E+00	.00E+00	.00E+00	.00E+00
bk251	.00E+00	.00E+00	.00E+00	.00E+00
cf249	.00E+00	.00E+00	.00E+00	.00E+00
cf250	.00E+00	.00E+00	.00E+00	.00E+00
cf251	.00E+00	.00E+00	.00E+00	.00E+00
cf252	.00E+00	.00E+00	.00E+00	.00E+00
cf253	.00E+00	.00E+00	.00E+00	.00E+00
cf254	.00E+00	.00E+00	.00E+00	.00E+00
cf255	.00E+00	.00E+00	.00E+00	.00E+00
es253	.00E+00	.00E+00	.00E+00	.00E+00
es254m	.00E+00	.00E+00	.00E+00	.00E+00
es254	.00E+00	.00E+00	.00E+00	.00E+00
es255	.00E+00	.00E+00	.00E+00	.00E+00
s250	.00E+00	.00E+00	.00E+00	.00E+00
total	8.88E+06	8.88E+06	8.88E+06	8.88E+06

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 204

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial300000. yr	500000. yr	999999. yr	
he 4	.00E+00	.00E+00	.00E+00	.00E+00
tl206	1.15E-05	1.11E-05	8.51E-06	5.03E-06

tl207	3.67E-01	3.68E-01	3.69E-01	3.68E-01
tl208	1.19E-05	1.42E-05	2.36E-05	4.69E-05
tl209	9.14E-02	1.00E-01	1.20E-01	1.14E-01
pb206	.00E+00	.00E+00	.00E+00	.00E+00
pb207	.00E+00	.00E+00	.00E+00	.00E+00
pb208	.00E+00	.00E+00	.00E+00	.00E+00
pb209	4.35E+00	4.76E+00	5.71E+00	5.43E+00
pb210	8.69E+00	8.37E+00	6.44E+00	3.81E+00
pb211	3.68E-01	3.69E-01	3.70E-01	3.69E-01
pb212	3.31E-05	3.96E-05	6.58E-05	1.30E-04
pb214	8.70E+00	8.38E+00	6.45E+00	3.81E+00
bi208	.00E+00	.00E+00	.00E+00	.00E+00
bi209	.00E+00	.00E+00	.00E+00	.00E+00
bi210m	.00E+00	.00E+00	.00E+00	.00E+00
bi210	8.69E+00	8.37E+00	6.44E+00	3.81E+00
bi211	3.68E-01	3.69E-01	3.70E-01	3.69E-01
bi212	3.31E-05	3.96E-05	6.58E-05	1.30E-04
bi213	4.35E+00	4.76E+00	5.71E+00	5.43E+00
bi214	8.70E+00	8.38E+00	6.45E+00	3.81E+00
po210	8.69E+00	8.37E+00	6.44E+00	3.81E+00
po211m	.00E+00	.00E+00	.00E+00	.00E+00
po211	1.01E-03	1.02E-03	1.02E-03	1.02E-03
po212	2.12E-05	2.54E-05	4.21E-05	8.36E-05
po213	4.26E+00	4.66E+00	5.59E+00	5.32E+00
po214	8.69E+00	8.37E+00	6.44E+00	3.81E+00
po215	3.68E-01	3.69E-01	3.70E-01	3.69E-01
po216	3.31E-05	3.96E-05	6.58E-05	1.30E-04
po218	8.70E+00	8.38E+00	6.45E+00	3.81E+00
at217	4.35E+00	4.76E+00	5.71E+00	5.43E+00
rn218	.00E+00	.00E+00	.00E+00	.00E+00
rn219	3.68E-01	3.69E-01	3.70E-01	3.69E-01
rn220	3.31E-05	3.96E-05	6.58E-05	1.30E-04
rn222	8.70E+00	8.38E+00	6.45E+00	3.81E+00
fr221	4.35E+00	4.76E+00	5.71E+00	5.43E+00
fr223	5.08E-03	5.09E-03	5.10E-03	5.10E-03
ra222	.00E+00	.00E+00	.00E+00	.00E+00
ra223	3.68E-01	3.69E-01	3.70E-01	3.69E-01
ra224	3.31E-05	3.96E-05	6.58E-05	1.30E-04
ra225	4.35E+00	4.76E+00	5.71E+00	5.43E+00
ra226	8.70E+00	8.38E+00	6.45E+00	3.81E+00
ra228	3.31E-05	3.96E-05	6.58E-05	1.30E-04
ac225	4.35E+00	4.76E+00	5.71E+00	5.43E+00
ac227	3.68E-01	3.69E-01	3.70E-01	3.69E-01
ac228	3.31E-05	3.96E-05	6.58E-05	1.30E-04
th226	.00E+00	.00E+00	.00E+00	.00E+00
th227	3.63E-01	3.64E-01	3.65E-01	3.64E-01
th228	3.31E-05	3.96E-05	6.58E-05	1.30E-04
th229	4.35E+00	4.76E+00	5.71E+00	5.43E+00
th230	8.58E+00	8.26E+00	6.42E+00	3.81E+00
th231	3.70E-01	3.70E-01	3.70E-01	3.69E-01

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 205

0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

initial	300000. yr	500000. yr	999999. yr
th232	3.31E-05	3.96E-05	6.58E-05	1.30E-04
th233	.00E+00	.00E+00	.00E+00	.00E+00
th234	2.91E+00	2.91E+00	2.91E+00	2.91E+00
pa231	3.68E-01	3.69E-01	3.70E-01	3.69E-01
pa232	.00E+00	.00E+00	.00E+00	.00E+00

pa233	6.48E+00	6.38E+00	5.98E+00	5.09E+00
pa234m	2.91E+00	2.91E+00	2.91E+00	2.91E+00
pa234	3.78E-03	3.78E-03	3.78E-03	3.78E-03
pa235	.00E+00	.00E+00	.00E+00	.00E+00
u230	.00E+00	.00E+00	.00E+00	.00E+00
u231	.00E+00	.00E+00	.00E+00	.00E+00
u232	1.20E-08	8.88E-09	2.66E-09	1.31E-10
u233	4.46E+00	4.84E+00	5.60E+00	5.40E+00
u234	8.09E+00	7.41E+00	5.47E+00	3.53E+00
u235	3.70E-01	3.70E-01	3.70E-01	3.69E-01
u236	2.66E+00	2.66E+00	2.64E+00	2.60E+00
u237	6.94E-30	1.14E-31	.00E+00	.00E+00
u238	2.91E+00	2.91E+00	2.91E+00	2.91E+00
u239	.00E+00	.00E+00	.00E+00	.00E+00
u240	2.28E-32	2.28E-32	2.28E-32	2.28E-32
u241	.00E+00	.00E+00	.00E+00	.00E+00
np235	.00E+00	.00E+00	.00E+00	.00E+00
np236m	.00E+00	.00E+00	.00E+00	.00E+00
np236	1.35E-07	9.98E-08	2.99E-08	1.47E-09
np237	6.48E+00	6.38E+00	5.98E+00	5.09E+00
np238	.00E+00	.00E+00	.00E+00	.00E+00
np239	7.34E-19	6.66E-21	1.34E-27	1.27E-27
np240m	2.28E-32	2.28E-32	2.28E-32	2.28E-32
np240	.00E+00	.00E+00	.00E+00	.00E+00
np241	.00E+00	.00E+00	.00E+00	.00E+00
pu236	1.20E-08	8.88E-09	2.66E-09	1.31E-10
pu237	.00E+00	.00E+00	.00E+00	.00E+00
pu238	.00E+00	.00E+00	.00E+00	.00E+00
pu239	5.40E-02	1.28E-02	4.08E-05	2.33E-11
pu240	4.24E-12	2.15E-14	1.44E-23	2.28E-32
pu241	2.90E-25	4.92E-27	.00E+00	.00E+00
pu242	5.80E-08	5.28E-08	3.65E-08	1.44E-08
pu243	1.31E-27	1.31E-27	1.30E-27	1.27E-27
pu244	2.28E-32	2.28E-32	2.28E-32	2.28E-32
pu245	.00E+00	.00E+00	.00E+00	.00E+00
pu246	.00E+00	.00E+00	.00E+00	.00E+00
am239	.00E+00	.00E+00	.00E+00	.00E+00
am240	.00E+00	.00E+00	.00E+00	.00E+00
am241	2.90E-25	4.92E-27	.00E+00	.00E+00
am242m	.00E+00	.00E+00	.00E+00	.00E+00
am242	.00E+00	.00E+00	.00E+00	.00E+00
am243	7.34E-19	6.66E-21	1.34E-27	1.27E-27
am244m	.00E+00	.00E+00	.00E+00	.00E+00
am244	.00E+00	.00E+00	.00E+00	.00E+00
am245	.00E+00	.00E+00	.00E+00	.00E+00
am246	.00E+00	.00E+00	.00E+00	.00E+00
cm241	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn actinides page 206

0 nuclide radioactivity, curies

basis =per critical mass 10.1 MT UO2

	initial	300000. yr	500000. yr	999999. yr
cm242	.00E+00	.00E+00	.00E+00	.00E+00
cm243	.00E+00	.00E+00	.00E+00	.00E+00
cm244	.00E+00	.00E+00	.00E+00	.00E+00
cm245	2.90E-25	4.91E-27	.00E+00	.00E+00
cm246	.00E+00	.00E+00	.00E+00	.00E+00
cm247	1.31E-27	1.31E-27	1.30E-27	1.27E-27
cm248	5.36E-30	4.84E-30	3.22E-30	1.16E-30
cm249	.00E+00	.00E+00	.00E+00	.00E+00

cm250	.00E+00	.00E+00	.00E+00	.00E+00
cm251	.00E+00	.00E+00	.00E+00	.00E+00
bk249	.00E+00	.00E+00	.00E+00	.00E+00
bk250	.00E+00	.00E+00	.00E+00	.00E+00
bk251	.00E+00	.00E+00	.00E+00	.00E+00
cf249	.00E+00	.00E+00	.00E+00	.00E+00
cf250	.00E+00	.00E+00	.00E+00	.00E+00
cf251	.00E+00	.00E+00	.00E+00	.00E+00
cf252	.00E+00	.00E+00	.00E+00	.00E+00
cf253	.00E+00	.00E+00	.00E+00	.00E+00
cf254	.00E+00	.00E+00	.00E+00	.00E+00
cf255	.00E+00	.00E+00	.00E+00	.00E+00
es253	.00E+00	.00E+00	.00E+00	.00E+00
es254m	.00E+00	.00E+00	.00E+00	.00E+00
es254	.00E+00	.00E+00	.00E+00	.00E+00
es255	.00E+00	.00E+00	.00E+00	.00E+00
s250	.00E+00	.00E+00	.00E+00	.00E+00
total	1.63E+02	1.62E+02	1.49E+02	1.16E+02

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 207

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	300000. yr	500000. yr	999999. yr
h 3	.00E+00	.00E+00	.00E+00	.00E+00
li 6	1.95E-05	1.95E-05	1.95E-05	1.95E-05
li 7	4.59E-07	4.59E-07	4.59E-07	4.59E-07
be 9	8.85E-07	8.85E-07	8.85E-07	8.85E-07
be 10	5.29E-06	5.18E-06	4.75E-06	3.82E-06
c 14	8.20E-20	1.93E-22	5.99E-33	.00E+00
ni 66	.00E+00	.00E+00	.00E+00	.00E+00
cu 66	.00E+00	.00E+00	.00E+00	.00E+00
zn 66	1.36E-08	1.36E-08	1.36E-08	1.36E-08
cu 67	.00E+00	.00E+00	.00E+00	.00E+00
zn 67	2.43E-09	2.43E-09	2.43E-09	2.43E-09
zn 68	1.16E-10	1.16E-10	1.16E-10	1.16E-10
zn 69	.00E+00	.00E+00	.00E+00	.00E+00
zn 69m	.00E+00	.00E+00	.00E+00	.00E+00
ga 69	3.46E-09	3.46E-09	3.46E-09	3.46E-09
zn 70	8.16E-08	8.16E-08	8.16E-08	8.16E-08
ga 70	.00E+00	.00E+00	.00E+00	.00E+00
ge 70	6.07E-11	6.07E-11	6.07E-11	6.07E-11
zn 71	.00E+00	.00E+00	.00E+00	.00E+00
zn 71m	.00E+00	.00E+00	.00E+00	.00E+00
ga 71	1.14E-06	1.14E-06	1.14E-06	1.14E-06
ge 71	.00E+00	.00E+00	.00E+00	.00E+00
ge 71m	.00E+00	.00E+00	.00E+00	.00E+00
co 72	.00E+00	.00E+00	.00E+00	.00E+00
ni 72	.00E+00	.00E+00	.00E+00	.00E+00
cu 72	.00E+00	.00E+00	.00E+00	.00E+00
zn 72	.00E+00	.00E+00	.00E+00	.00E+00
ga 72	.00E+00	.00E+00	.00E+00	.00E+00
ge 72	1.28E-04	1.28E-04	1.28E-04	1.28E-04
co 73	.00E+00	.00E+00	.00E+00	.00E+00
ni 73	.00E+00	.00E+00	.00E+00	.00E+00
cu 73	.00E+00	.00E+00	.00E+00	.00E+00
zn 73	.00E+00	.00E+00	.00E+00	.00E+00
ga 73	.00E+00	.00E+00	.00E+00	.00E+00
ge 73	5.57E-04	5.57E-04	5.57E-04	5.57E-04
ge 73m	.00E+00	.00E+00	.00E+00	.00E+00
co 74	.00E+00	.00E+00	.00E+00	.00E+00

ni 74	.00E+00	.00E+00	.00E+00	.00E+00
cu 74	.00E+00	.00E+00	.00E+00	.00E+00
zn 74	.00E+00	.00E+00	.00E+00	.00E+00
ga 74	.00E+00	.00E+00	.00E+00	.00E+00
ge 74	4.86E-04	4.86E-04	4.86E-04	4.86E-04
co 75	.00E+00	.00E+00	.00E+00	.00E+00
ni 75	.00E+00	.00E+00	.00E+00	.00E+00
cu 75	.00E+00	.00E+00	.00E+00	.00E+00
zn 75	.00E+00	.00E+00	.00E+00	.00E+00
ga 75	.00E+00	.00E+00	.00E+00	.00E+00
ge 75	.00E+00	.00E+00	.00E+00	.00E+00
ge 75m	.00E+00	.00E+00	.00E+00	.00E+00
as 75	5.65E-03	5.65E-03	5.65E-03	5.65E-03
ni 76	.00E+00	.00E+00	.00E+00	.00E+00
cu 76	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 208

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	300000. yr	500000. yr	999999. yr
zn 76	.00E+00	.00E+00	.00E+00	.00E+00
ga 76	.00E+00	.00E+00	.00E+00	.00E+00
ge 76	1.87E-02	1.87E-02	1.87E-02	1.87E-02
as 76	.00E+00	.00E+00	.00E+00	.00E+00
se 76	1.21E-06	1.21E-06	1.21E-06	1.21E-06
ni 77	.00E+00	.00E+00	.00E+00	.00E+00
cu 77	.00E+00	.00E+00	.00E+00	.00E+00
zn 77	.00E+00	.00E+00	.00E+00	.00E+00
ga 77	.00E+00	.00E+00	.00E+00	.00E+00
ge 77	.00E+00	.00E+00	.00E+00	.00E+00
ge 77m	.00E+00	.00E+00	.00E+00	.00E+00
as 77	.00E+00	.00E+00	.00E+00	.00E+00
se 77	4.17E-02	4.17E-02	4.17E-02	4.17E-02
se 77m	.00E+00	.00E+00	.00E+00	.00E+00
ni 78	.00E+00	.00E+00	.00E+00	.00E+00
cu 78	.00E+00	.00E+00	.00E+00	.00E+00
zn 78	.00E+00	.00E+00	.00E+00	.00E+00
ga 78	.00E+00	.00E+00	.00E+00	.00E+00
ge 78	.00E+00	.00E+00	.00E+00	.00E+00
as 78	.00E+00	.00E+00	.00E+00	.00E+00
se 78	1.10E-01	1.10E-01	1.10E-01	1.10E-01
cu 79	.00E+00	.00E+00	.00E+00	.00E+00
zn 79	.00E+00	.00E+00	.00E+00	.00E+00
ga 79	.00E+00	.00E+00	.00E+00	.00E+00
ge 79	.00E+00	.00E+00	.00E+00	.00E+00
as 79	.00E+00	.00E+00	.00E+00	.00E+00
se 79	1.35E-01	1.21E-01	7.96E-02	2.78E-02
se 79m	.00E+00	.00E+00	.00E+00	.00E+00
br 79	9.32E-02	1.07E-01	1.48E-01	2.00E-01
br 79m	.00E+00	.00E+00	.00E+00	.00E+00
kr 79	.00E+00	.00E+00	.00E+00	.00E+00
cu 80	.00E+00	.00E+00	.00E+00	.00E+00
zn 80	.00E+00	.00E+00	.00E+00	.00E+00
ga 80	.00E+00	.00E+00	.00E+00	.00E+00
ge 80	.00E+00	.00E+00	.00E+00	.00E+00
as 80	.00E+00	.00E+00	.00E+00	.00E+00
se 80	6.78E-01	6.78E-01	6.78E-01	6.78E-01
br 80	.00E+00	.00E+00	.00E+00	.00E+00
br 80m	.00E+00	.00E+00	.00E+00	.00E+00
kr 80	4.33E-07	4.33E-07	4.33E-07	4.33E-07

cu 81	.00E+00	.00E+00	.00E+00	.00E+00
zn 81	.00E+00	.00E+00	.00E+00	.00E+00
ga 81	.00E+00	.00E+00	.00E+00	.00E+00
ge 81	.00E+00	.00E+00	.00E+00	.00E+00
as 81	.00E+00	.00E+00	.00E+00	.00E+00
se 81	.00E+00	.00E+00	.00E+00	.00E+00
se 81m	.00E+00	.00E+00	.00E+00	.00E+00
br 81	1.01E+00	1.01E+00	1.01E+00	1.01E+00
kr 81	8.94E-09	7.60E-09	3.96E-09	7.78E-10
kr 81m	.00E+00	.00E+00	.00E+00	.00E+00
zn 82	.00E+00	.00E+00	.00E+00	.00E+00
ga 82	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 209

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	300000. yr	500000. yr	999999. yr
ge 82	.00E+00	.00E+00	.00E+00	.00E+00
as 82	.00E+00	.00E+00	.00E+00	.00E+00
as 82m	.00E+00	.00E+00	.00E+00	.00E+00
se 82	1.74E+00	1.74E+00	1.74E+00	1.74E+00
br 82	.00E+00	.00E+00	.00E+00	.00E+00
br 82m	.00E+00	.00E+00	.00E+00	.00E+00
kr 82	4.78E-04	4.78E-04	4.78E-04	4.78E-04
zn 83	.00E+00	.00E+00	.00E+00	.00E+00
ga 83	.00E+00	.00E+00	.00E+00	.00E+00
ge 83	.00E+00	.00E+00	.00E+00	.00E+00
as 83	.00E+00	.00E+00	.00E+00	.00E+00
se 83	.00E+00	.00E+00	.00E+00	.00E+00
se 83m	.00E+00	.00E+00	.00E+00	.00E+00
br 83	.00E+00	.00E+00	.00E+00	.00E+00
kr 83	2.89E+00	2.89E+00	2.89E+00	2.89E+00
kr 83m	.00E+00	.00E+00	.00E+00	.00E+00
ga 84	.00E+00	.00E+00	.00E+00	.00E+00
ge 84	.00E+00	.00E+00	.00E+00	.00E+00
as 84	.00E+00	.00E+00	.00E+00	.00E+00
se 84	.00E+00	.00E+00	.00E+00	.00E+00
br 84	.00E+00	.00E+00	.00E+00	.00E+00
br 84m	.00E+00	.00E+00	.00E+00	.00E+00
kr 84	5.84E+00	5.84E+00	5.84E+00	5.84E+00
ga 85	.00E+00	.00E+00	.00E+00	.00E+00
ge 85	.00E+00	.00E+00	.00E+00	.00E+00
as 85	.00E+00	.00E+00	.00E+00	.00E+00
se 85	.00E+00	.00E+00	.00E+00	.00E+00
se 85m	.00E+00	.00E+00	.00E+00	.00E+00
br 85	.00E+00	.00E+00	.00E+00	.00E+00
kr 85	.00E+00	.00E+00	.00E+00	.00E+00
kr 85m	.00E+00	.00E+00	.00E+00	.00E+00
rb 85	6.76E+00	6.76E+00	6.76E+00	6.76E+00
ge 86	.00E+00	.00E+00	.00E+00	.00E+00
as 86	.00E+00	.00E+00	.00E+00	.00E+00
se 86	.00E+00	.00E+00	.00E+00	.00E+00
br 86	.00E+00	.00E+00	.00E+00	.00E+00
br 86m	.00E+00	.00E+00	.00E+00	.00E+00
kr 86	1.09E+01	1.09E+01	1.09E+01	1.09E+01
rb 86	.00E+00	.00E+00	.00E+00	.00E+00
rb 86m	.00E+00	.00E+00	.00E+00	.00E+00
sr 86	8.20E-05	8.20E-05	8.20E-05	8.20E-05
ge 87	.00E+00	.00E+00	.00E+00	.00E+00
as 87	.00E+00	.00E+00	.00E+00	.00E+00

se 87	.00E+00	.00E+00	.00E+00	.00E+00
br 87	.00E+00	.00E+00	.00E+00	.00E+00
kr 87	.00E+00	.00E+00	.00E+00	.00E+00
rb 87	1.43E+01	1.43E+01	1.43E+01	1.43E+01
sr 87	7.65E-05	8.68E-05	1.28E-04	2.32E-04
sr 87m	.00E+00	.00E+00	.00E+00	.00E+00
ge 88	.00E+00	.00E+00	.00E+00	.00E+00
as 88	.00E+00	.00E+00	.00E+00	.00E+00
se 88	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 210

0 nuclide concentrations, grams

basis =per critical mass 10.1 MT UO2

	initial300000. yr	500000. yr	999999. yr	
br 88	.00E+00	.00E+00	.00E+00	.00E+00
kr 88	.00E+00	.00E+00	.00E+00	.00E+00
rb 88	.00E+00	.00E+00	.00E+00	.00E+00
sr 88	2.07E+01	2.07E+01	2.07E+01	2.07E+01
as 89	.00E+00	.00E+00	.00E+00	.00E+00
se 89	.00E+00	.00E+00	.00E+00	.00E+00
br 89	.00E+00	.00E+00	.00E+00	.00E+00
kr 89	.00E+00	.00E+00	.00E+00	.00E+00
rb 89	.00E+00	.00E+00	.00E+00	.00E+00
sr 89	.00E+00	.00E+00	.00E+00	.00E+00
y 89	2.80E+01	2.80E+01	2.80E+01	2.80E+01
y 89m	.00E+00	.00E+00	.00E+00	.00E+00
as 90	.00E+00	.00E+00	.00E+00	.00E+00
se 90	.00E+00	.00E+00	.00E+00	.00E+00
br 90	.00E+00	.00E+00	.00E+00	.00E+00
kr 90	.00E+00	.00E+00	.00E+00	.00E+00
rb 90	.00E+00	.00E+00	.00E+00	.00E+00
rb 90m	.00E+00	.00E+00	.00E+00	.00E+00
sr 90	.00E+00	.00E+00	.00E+00	.00E+00
y 90	.00E+00	.00E+00	.00E+00	.00E+00
y 90m	.00E+00	.00E+00	.00E+00	.00E+00
zr 90	3.41E+01	3.41E+01	3.41E+01	3.41E+01
zr 90m	.00E+00	.00E+00	.00E+00	.00E+00
se 91	.00E+00	.00E+00	.00E+00	.00E+00
br 91	.00E+00	.00E+00	.00E+00	.00E+00
kr 91	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	.00E+00	.00E+00	.00E+00	.00E+00
sr 91	.00E+00	.00E+00	.00E+00	.00E+00
y 91	.00E+00	.00E+00	.00E+00	.00E+00
y 91m	.00E+00	.00E+00	.00E+00	.00E+00
zr 91	3.49E+01	3.49E+01	3.49E+01	3.49E+01
nb 91	.00E+00	.00E+00	.00E+00	.00E+00
se 92	.00E+00	.00E+00	.00E+00	.00E+00
br 92	.00E+00	.00E+00	.00E+00	.00E+00
kr 92	.00E+00	.00E+00	.00E+00	.00E+00
rb 92	.00E+00	.00E+00	.00E+00	.00E+00
sr 92	.00E+00	.00E+00	.00E+00	.00E+00
y 92	.00E+00	.00E+00	.00E+00	.00E+00
zr 92	3.56E+01	3.56E+01	3.56E+01	3.56E+01
nb 92	2.23E-09	2.23E-09	2.22E-09	2.20E-09
se 93	.00E+00	.00E+00	.00E+00	.00E+00
br 93	.00E+00	.00E+00	.00E+00	.00E+00
kr 93	.00E+00	.00E+00	.00E+00	.00E+00
rb 93	.00E+00	.00E+00	.00E+00	.00E+00
sr 93	.00E+00	.00E+00	.00E+00	.00E+00
y 93	.00E+00	.00E+00	.00E+00	.00E+00

zr 93	2.28E+01	2.23E+01	2.03E+01	1.62E+01
nb 93	2.74E+00	3.25E+00	5.18E+00	9.30E+00
nb 93m	2.40E-04	2.35E-04	2.14E-04	1.71E-04
br 94	.00E+00	.00E+00	.00E+00	.00E+00
kr 94	.00E+00	.00E+00	.00E+00	.00E+00
rb 94	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 211

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	300000. yr	500000. yr	999999. yr
sr 94	.00E+00	.00E+00	.00E+00	.00E+00
y 94	.00E+00	.00E+00	.00E+00	.00E+00
zr 94	3.93E+01	3.93E+01	3.93E+01	3.93E+01
nb 94	2.00E-09	3.63E-10	3.93E-13	1.51E-20
nb 94m	.00E+00	.00E+00	.00E+00	.00E+00
br 95	.00E+00	.00E+00	.00E+00	.00E+00
kr 95	.00E+00	.00E+00	.00E+00	.00E+00
rb 95	.00E+00	.00E+00	.00E+00	.00E+00
sr 95	.00E+00	.00E+00	.00E+00	.00E+00
y 95	.00E+00	.00E+00	.00E+00	.00E+00
zr 95	.00E+00	.00E+00	.00E+00	.00E+00
nb 95	.00E+00	.00E+00	.00E+00	.00E+00
nb 95m	.00E+00	.00E+00	.00E+00	.00E+00
mo 95	4.01E+01	4.01E+01	4.01E+01	4.01E+01
br 96	.00E+00	.00E+00	.00E+00	.00E+00
kr 96	.00E+00	.00E+00	.00E+00	.00E+00
rb 96	.00E+00	.00E+00	.00E+00	.00E+00
sr 96	.00E+00	.00E+00	.00E+00	.00E+00
y 96	.00E+00	.00E+00	.00E+00	.00E+00
zr 96	3.93E+01	3.93E+01	3.93E+01	3.93E+01
nb 96	.00E+00	.00E+00	.00E+00	.00E+00
mo 96	1.26E-02	1.26E-02	1.26E-02	1.26E-02
kr 97	.00E+00	.00E+00	.00E+00	.00E+00
rb 97	.00E+00	.00E+00	.00E+00	.00E+00
sr 97	.00E+00	.00E+00	.00E+00	.00E+00
y 97	.00E+00	.00E+00	.00E+00	.00E+00
zr 97	.00E+00	.00E+00	.00E+00	.00E+00
nb 97	.00E+00	.00E+00	.00E+00	.00E+00
nb 97m	.00E+00	.00E+00	.00E+00	.00E+00
mo 97	3.57E+01	3.57E+01	3.57E+01	3.57E+01
kr 98	.00E+00	.00E+00	.00E+00	.00E+00
rb 98	.00E+00	.00E+00	.00E+00	.00E+00
sr 98	.00E+00	.00E+00	.00E+00	.00E+00
y 98	.00E+00	.00E+00	.00E+00	.00E+00
zr 98	.00E+00	.00E+00	.00E+00	.00E+00
nb 98	.00E+00	.00E+00	.00E+00	.00E+00
nb 98m	.00E+00	.00E+00	.00E+00	.00E+00
mo 98	3.72E+01	3.72E+01	3.72E+01	3.72E+01
tc 98	4.67E-06	4.64E-06	4.48E-06	4.13E-06
rb 99	.00E+00	.00E+00	.00E+00	.00E+00
sr 99	.00E+00	.00E+00	.00E+00	.00E+00
y 99	.00E+00	.00E+00	.00E+00	.00E+00
zr 99	.00E+00	.00E+00	.00E+00	.00E+00
nb 99	.00E+00	.00E+00	.00E+00	.00E+00
nb 99m	.00E+00	.00E+00	.00E+00	.00E+00
mo 99	.00E+00	.00E+00	.00E+00	.00E+00
tc 99	1.74E+01	1.48E+01	7.65E+00	1.48E+00
tc 99m	.00E+00	.00E+00	.00E+00	.00E+00
ru 99	2.22E+01	2.48E+01	3.19E+01	3.81E+01

rb100	.00E+00	.00E+00	.00E+00	.00E+00
sr100	.00E+00	.00E+00	.00E+00	.00E+00
y100	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 212

0

nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	300000. yr	500000. yr	999999. yr
zr100	.00E+00	.00E+00	.00E+00	.00E+00
nb100	.00E+00	.00E+00	.00E+00	.00E+00
nb100m	.00E+00	.00E+00	.00E+00	.00E+00
mo100	4.10E+01	4.10E+01	4.10E+01	4.10E+01
tc100	.00E+00	.00E+00	.00E+00	.00E+00
ru100	1.77E-02	1.77E-02	1.77E-02	1.77E-02
rb101	.00E+00	.00E+00	.00E+00	.00E+00
sr101	.00E+00	.00E+00	.00E+00	.00E+00
y101	.00E+00	.00E+00	.00E+00	.00E+00
zr101	.00E+00	.00E+00	.00E+00	.00E+00
nb101	.00E+00	.00E+00	.00E+00	.00E+00
mo101	.00E+00	.00E+00	.00E+00	.00E+00
tc101	.00E+00	.00E+00	.00E+00	.00E+00
ru101	3.39E+01	3.39E+01	3.39E+01	3.39E+01
sr102	.00E+00	.00E+00	.00E+00	.00E+00
y102	.00E+00	.00E+00	.00E+00	.00E+00
zr102	.00E+00	.00E+00	.00E+00	.00E+00
nb102	.00E+00	.00E+00	.00E+00	.00E+00
mo102	.00E+00	.00E+00	.00E+00	.00E+00
tc102	.00E+00	.00E+00	.00E+00	.00E+00
tc102m	.00E+00	.00E+00	.00E+00	.00E+00
ru102	2.88E+01	2.88E+01	2.88E+01	2.88E+01
rh102	.00E+00	.00E+00	.00E+00	.00E+00
pd102	.00E+00	.00E+00	.00E+00	.00E+00
sr103	.00E+00	.00E+00	.00E+00	.00E+00
y103	.00E+00	.00E+00	.00E+00	.00E+00
zr103	.00E+00	.00E+00	.00E+00	.00E+00
nb103	.00E+00	.00E+00	.00E+00	.00E+00
mo103	.00E+00	.00E+00	.00E+00	.00E+00
tc103	.00E+00	.00E+00	.00E+00	.00E+00
ru103	.00E+00	.00E+00	.00E+00	.00E+00
rh103	2.13E+01	2.13E+01	2.13E+01	2.13E+01
rh103m	.00E+00	.00E+00	.00E+00	.00E+00
sr104	.00E+00	.00E+00	.00E+00	.00E+00
y104	.00E+00	.00E+00	.00E+00	.00E+00
zr104	.00E+00	.00E+00	.00E+00	.00E+00
nb104	.00E+00	.00E+00	.00E+00	.00E+00
mo104	.00E+00	.00E+00	.00E+00	.00E+00
tc104	.00E+00	.00E+00	.00E+00	.00E+00
ru104	1.34E+01	1.34E+01	1.34E+01	1.34E+01
rh104	.00E+00	.00E+00	.00E+00	.00E+00
rh104m	.00E+00	.00E+00	.00E+00	.00E+00
pd104	4.68E-02	4.68E-02	4.68E-02	4.68E-02
y105	.00E+00	.00E+00	.00E+00	.00E+00
zr105	.00E+00	.00E+00	.00E+00	.00E+00
nb105	.00E+00	.00E+00	.00E+00	.00E+00
mo105	.00E+00	.00E+00	.00E+00	.00E+00
tc105	.00E+00	.00E+00	.00E+00	.00E+00
ru105	.00E+00	.00E+00	.00E+00	.00E+00
rh105	.00E+00	.00E+00	.00E+00	.00E+00
rh105m	.00E+00	.00E+00	.00E+00	.00E+00
pd105	7.53E+00	7.53E+00	7.53E+00	7.53E+00

1
Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 213
0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	300000. yr	500000. yr	999999. yr
y106	.00E+00	.00E+00	.00E+00	.00E+00
zr106	.00E+00	.00E+00	.00E+00	.00E+00
nb106	.00E+00	.00E+00	.00E+00	.00E+00
mo106	.00E+00	.00E+00	.00E+00	.00E+00
tc106	.00E+00	.00E+00	.00E+00	.00E+00
ru106	.00E+00	.00E+00	.00E+00	.00E+00
rh106	.00E+00	.00E+00	.00E+00	.00E+00
rh106m	.00E+00	.00E+00	.00E+00	.00E+00
pd106	3.44E+00	3.44E+00	3.44E+00	3.44E+00
ag106	.00E+00	.00E+00	.00E+00	.00E+00
y107	.00E+00	.00E+00	.00E+00	.00E+00
zr107	.00E+00	.00E+00	.00E+00	.00E+00
nb107	.00E+00	.00E+00	.00E+00	.00E+00
mo107	.00E+00	.00E+00	.00E+00	.00E+00
tc107	.00E+00	.00E+00	.00E+00	.00E+00
ru107	.00E+00	.00E+00	.00E+00	.00E+00
rh107	.00E+00	.00E+00	.00E+00	.00E+00
pd107	1.36E+00	1.35E+00	1.32E+00	1.25E+00
pd107m	.00E+00	.00E+00	.00E+00	.00E+00
ag107	3.68E-02	4.40E-02	7.25E-02	1.41E-01
zr108	.00E+00	.00E+00	.00E+00	.00E+00
nb108	.00E+00	.00E+00	.00E+00	.00E+00
mo108	.00E+00	.00E+00	.00E+00	.00E+00
tc108	.00E+00	.00E+00	.00E+00	.00E+00
ru108	.00E+00	.00E+00	.00E+00	.00E+00
rh108	.00E+00	.00E+00	.00E+00	.00E+00
rh108m	.00E+00	.00E+00	.00E+00	.00E+00
pd108	6.96E-01	6.96E-01	6.96E-01	6.96E-01
ag108	.00E+00	.00E+00	.00E+00	.00E+00
ag108m	.00E+00	.00E+00	.00E+00	.00E+00
cd108	2.81E-08	2.81E-08	2.81E-08	2.81E-08
zr109	.00E+00	.00E+00	.00E+00	.00E+00
nb109	.00E+00	.00E+00	.00E+00	.00E+00
mo109	.00E+00	.00E+00	.00E+00	.00E+00
tc109	.00E+00	.00E+00	.00E+00	.00E+00
ru109	.00E+00	.00E+00	.00E+00	.00E+00
rh109	.00E+00	.00E+00	.00E+00	.00E+00
rh109m	.00E+00	.00E+00	.00E+00	.00E+00
pd109	.00E+00	.00E+00	.00E+00	.00E+00
pd109m	.00E+00	.00E+00	.00E+00	.00E+00
ag109	3.89E-01	3.89E-01	3.89E-01	3.89E-01
ag109m	.00E+00	.00E+00	.00E+00	.00E+00
cd109	.00E+00	.00E+00	.00E+00	.00E+00
nb110	.00E+00	.00E+00	.00E+00	.00E+00
mo110	.00E+00	.00E+00	.00E+00	.00E+00
tc110	.00E+00	.00E+00	.00E+00	.00E+00
ru110	.00E+00	.00E+00	.00E+00	.00E+00
rh110	.00E+00	.00E+00	.00E+00	.00E+00
rh110m	.00E+00	.00E+00	.00E+00	.00E+00
pd110	2.71E-01	2.71E-01	2.71E-01	2.71E-01
ag110	.00E+00	.00E+00	.00E+00	.00E+00
ag110m	.00E+00	.00E+00	.00E+00	.00E+00

1
Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 214
0 nuclide concentrations, grams

basis =per critical mass 10.1 MT UO2

	initial	300000. yr	500000. yr	999999. yr
cd110	6.85E-04	6.85E-04	6.85E-04	6.85E-04
nb111	.00E+00	.00E+00	.00E+00	.00E+00
mo111	.00E+00	.00E+00	.00E+00	.00E+00
tc111	.00E+00	.00E+00	.00E+00	.00E+00
ru111	.00E+00	.00E+00	.00E+00	.00E+00
rh111	.00E+00	.00E+00	.00E+00	.00E+00
pd111	.00E+00	.00E+00	.00E+00	.00E+00
pd111m	.00E+00	.00E+00	.00E+00	.00E+00
ag111	.00E+00	.00E+00	.00E+00	.00E+00
ag111m	.00E+00	.00E+00	.00E+00	.00E+00
cd111	1.74E-01	1.74E-01	1.74E-01	1.74E-01
cd111m	.00E+00	.00E+00	.00E+00	.00E+00
nb112	.00E+00	.00E+00	.00E+00	.00E+00
mo112	.00E+00	.00E+00	.00E+00	.00E+00
tc112	.00E+00	.00E+00	.00E+00	.00E+00
ru112	.00E+00	.00E+00	.00E+00	.00E+00
rh112	.00E+00	.00E+00	.00E+00	.00E+00
pd112	.00E+00	.00E+00	.00E+00	.00E+00
ag112	.00E+00	.00E+00	.00E+00	.00E+00
cd112	1.35E-01	1.35E-01	1.35E-01	1.35E-01
mo113	.00E+00	.00E+00	.00E+00	.00E+00
tc113	.00E+00	.00E+00	.00E+00	.00E+00
ru113	.00E+00	.00E+00	.00E+00	.00E+00
rh113	.00E+00	.00E+00	.00E+00	.00E+00
pd113	.00E+00	.00E+00	.00E+00	.00E+00
ag113	.00E+00	.00E+00	.00E+00	.00E+00
ag113m	.00E+00	.00E+00	.00E+00	.00E+00
cd113	9.15E-02	9.15E-02	9.15E-02	9.15E-02
cd113m	.00E+00	.00E+00	.00E+00	.00E+00
in113	2.16E-03	2.16E-03	2.16E-03	2.16E-03
in113m	.00E+00	.00E+00	.00E+00	.00E+00
mo114	.00E+00	.00E+00	.00E+00	.00E+00
tc114	.00E+00	.00E+00	.00E+00	.00E+00
ru114	.00E+00	.00E+00	.00E+00	.00E+00
rh114	.00E+00	.00E+00	.00E+00	.00E+00
pd114	.00E+00	.00E+00	.00E+00	.00E+00
ag114	.00E+00	.00E+00	.00E+00	.00E+00
cd114	1.52E-01	1.52E-01	1.52E-01	1.52E-01
in114	.00E+00	.00E+00	.00E+00	.00E+00
in114m	.00E+00	.00E+00	.00E+00	.00E+00
sn114	2.83E-07	2.83E-07	2.83E-07	2.83E-07
mo115	.00E+00	.00E+00	.00E+00	.00E+00
tc115	.00E+00	.00E+00	.00E+00	.00E+00
ru115	.00E+00	.00E+00	.00E+00	.00E+00
rh115	.00E+00	.00E+00	.00E+00	.00E+00
pd115	.00E+00	.00E+00	.00E+00	.00E+00
ag115	.00E+00	.00E+00	.00E+00	.00E+00
ag115m	.00E+00	.00E+00	.00E+00	.00E+00
cd115	.00E+00	.00E+00	.00E+00	.00E+00
cd115m	.00E+00	.00E+00	.00E+00	.00E+00
in115	8.63E-02	8.63E-02	8.63E-02	8.63E-02
in115m	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 215

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	300000. yr	500000. yr	999999. yr
sn115	4.35E-03	4.35E-03	4.35E-03	4.35E-03

tc116	.00E+00	.00E+00	.00E+00	.00E+00
ru116	.00E+00	.00E+00	.00E+00	.00E+00
rh116	.00E+00	.00E+00	.00E+00	.00E+00
pd116	.00E+00	.00E+00	.00E+00	.00E+00
ag116	.00E+00	.00E+00	.00E+00	.00E+00
ag116m	.00E+00	.00E+00	.00E+00	.00E+00
cd116	1.36E-01	1.36E-01	1.36E-01	1.36E-01
in116	.00E+00	.00E+00	.00E+00	.00E+00
in116m	.00E+00	.00E+00	.00E+00	.00E+00
sn116	2.14E-04	2.14E-04	2.14E-04	2.14E-04
tc117	.00E+00	.00E+00	.00E+00	.00E+00
ru117	.00E+00	.00E+00	.00E+00	.00E+00
rh117	.00E+00	.00E+00	.00E+00	.00E+00
pd117	.00E+00	.00E+00	.00E+00	.00E+00
ag117	.00E+00	.00E+00	.00E+00	.00E+00
ag117m	.00E+00	.00E+00	.00E+00	.00E+00
cd117	.00E+00	.00E+00	.00E+00	.00E+00
cd117m	.00E+00	.00E+00	.00E+00	.00E+00
in117	.00E+00	.00E+00	.00E+00	.00E+00
in117m	.00E+00	.00E+00	.00E+00	.00E+00
sn117	9.16E-02	9.16E-02	9.16E-02	9.16E-02
sn117m	.00E+00	.00E+00	.00E+00	.00E+00
tc118	.00E+00	.00E+00	.00E+00	.00E+00
ru118	.00E+00	.00E+00	.00E+00	.00E+00
rh118	.00E+00	.00E+00	.00E+00	.00E+00
pd118	.00E+00	.00E+00	.00E+00	.00E+00
ag118	.00E+00	.00E+00	.00E+00	.00E+00
ag118m	.00E+00	.00E+00	.00E+00	.00E+00
cd118	.00E+00	.00E+00	.00E+00	.00E+00
in118	.00E+00	.00E+00	.00E+00	.00E+00
in118m	.00E+00	.00E+00	.00E+00	.00E+00
sn118	9.29E-02	9.29E-02	9.29E-02	9.29E-02
ru119	.00E+00	.00E+00	.00E+00	.00E+00
rh119	.00E+00	.00E+00	.00E+00	.00E+00
pd119	.00E+00	.00E+00	.00E+00	.00E+00
ag119	.00E+00	.00E+00	.00E+00	.00E+00
cd119	.00E+00	.00E+00	.00E+00	.00E+00
cd119m	.00E+00	.00E+00	.00E+00	.00E+00
in119	.00E+00	.00E+00	.00E+00	.00E+00
in119m	.00E+00	.00E+00	.00E+00	.00E+00
sn119	1.02E-01	1.02E-01	1.02E-01	1.02E-01
sn119m	.00E+00	.00E+00	.00E+00	.00E+00
ru120	.00E+00	.00E+00	.00E+00	.00E+00
rh120	.00E+00	.00E+00	.00E+00	.00E+00
pd120	.00E+00	.00E+00	.00E+00	.00E+00
ag120	.00E+00	.00E+00	.00E+00	.00E+00
cd120	.00E+00	.00E+00	.00E+00	.00E+00
in120	.00E+00	.00E+00	.00E+00	.00E+00
in120m	.00E+00	.00E+00	.00E+00	.00E+00
sn120	1.02E-01	1.02E-01	1.02E-01	1.02E-01
rh121	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 216

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial300000. yr	500000. yr	999999. yr	
pd121	.00E+00	.00E+00	.00E+00	.00E+00
ag121	.00E+00	.00E+00	.00E+00	.00E+00
cd121	.00E+00	.00E+00	.00E+00	.00E+00
in121	.00E+00	.00E+00	.00E+00	.00E+00

in121m	.00E+00	.00E+00	.00E+00	.00E+00
sn121	.00E+00	.00E+00	.00E+00	.00E+00
sn121m	.00E+00	.00E+00	.00E+00	.00E+00
sb121	1.12E-01	1.12E-01	1.12E-01	1.12E-01
rh122	.00E+00	.00E+00	.00E+00	.00E+00
pd122	.00E+00	.00E+00	.00E+00	.00E+00
ag122	.00E+00	.00E+00	.00E+00	.00E+00
cd122	.00E+00	.00E+00	.00E+00	.00E+00
in122	.00E+00	.00E+00	.00E+00	.00E+00
in122m	.00E+00	.00E+00	.00E+00	.00E+00
sn122	1.30E-01	1.30E-01	1.30E-01	1.30E-01
sb122	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	.00E+00	.00E+00	.00E+00	.00E+00
te122	1.02E-05	1.02E-05	1.02E-05	1.02E-05
rh123	.00E+00	.00E+00	.00E+00	.00E+00
pd123	.00E+00	.00E+00	.00E+00	.00E+00
ag123	.00E+00	.00E+00	.00E+00	.00E+00
cd123	.00E+00	.00E+00	.00E+00	.00E+00
in123	.00E+00	.00E+00	.00E+00	.00E+00
in123m	.00E+00	.00E+00	.00E+00	.00E+00
sn123	.00E+00	.00E+00	.00E+00	.00E+00
sn123m	.00E+00	.00E+00	.00E+00	.00E+00
sb123	1.36E-01	1.36E-01	1.36E-01	1.36E-01
te123	1.72E-09	1.72E-09	1.72E-09	1.72E-09
te123m	.00E+00	.00E+00	.00E+00	.00E+00
pd124	.00E+00	.00E+00	.00E+00	.00E+00
ag124	.00E+00	.00E+00	.00E+00	.00E+00
cd124	.00E+00	.00E+00	.00E+00	.00E+00
in124	.00E+00	.00E+00	.00E+00	.00E+00
sn124	2.19E-01	2.19E-01	2.19E-01	2.19E-01
sb124	.00E+00	.00E+00	.00E+00	.00E+00
sb124m	.00E+00	.00E+00	.00E+00	.00E+00
te124	1.10E-04	1.10E-04	1.10E-04	1.10E-04
pd125	.00E+00	.00E+00	.00E+00	.00E+00
ag125	.00E+00	.00E+00	.00E+00	.00E+00
cd125	.00E+00	.00E+00	.00E+00	.00E+00
in125	.00E+00	.00E+00	.00E+00	.00E+00
in125m	.00E+00	.00E+00	.00E+00	.00E+00
sn125	.00E+00	.00E+00	.00E+00	.00E+00
sn125m	.00E+00	.00E+00	.00E+00	.00E+00
sb125	.00E+00	.00E+00	.00E+00	.00E+00
te125	2.52E-01	2.52E-01	2.52E-01	2.52E-01
te125m	.00E+00	.00E+00	.00E+00	.00E+00
pd126	.00E+00	.00E+00	.00E+00	.00E+00
ag126	.00E+00	.00E+00	.00E+00	.00E+00
cd126	.00E+00	.00E+00	.00E+00	.00E+00
in126	.00E+00	.00E+00	.00E+00	.00E+00
sn126	6.45E-02	4.56E-02	1.14E-02	3.56E-04

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 217

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	300000. yr	500000. yr	999999. yr
sb126	3.06E-09	2.17E-09	5.41E-10	1.69E-11
sb126m	2.33E-11	1.65E-11	4.12E-12	1.29E-13
te126	3.04E-01	3.23E-01	3.57E-01	3.68E-01
xe126	4.86E-11	4.86E-11	4.86E-11	4.86E-11
ag127	.00E+00	.00E+00	.00E+00	.00E+00
cd127	.00E+00	.00E+00	.00E+00	.00E+00
in127	.00E+00	.00E+00	.00E+00	.00E+00

in127m	.00E+00	.00E+00	.00E+00	.00E+00
sn127	.00E+00	.00E+00	.00E+00	.00E+00
sn127m	.00E+00	.00E+00	.00E+00	.00E+00
sb127	.00E+00	.00E+00	.00E+00	.00E+00
te127	.00E+00	.00E+00	.00E+00	.00E+00
te127m	.00E+00	.00E+00	.00E+00	.00E+00
i127	1.06E+00	1.06E+00	1.06E+00	1.06E+00
xe127	.00E+00	.00E+00	.00E+00	.00E+00
ag128	.00E+00	.00E+00	.00E+00	.00E+00
cd128	.00E+00	.00E+00	.00E+00	.00E+00
in128	.00E+00	.00E+00	.00E+00	.00E+00
sn128	.00E+00	.00E+00	.00E+00	.00E+00
sb128	.00E+00	.00E+00	.00E+00	.00E+00
sb128m	.00E+00	.00E+00	.00E+00	.00E+00
te128	3.01E+00	3.01E+00	3.01E+00	3.01E+00
i128	.00E+00	.00E+00	.00E+00	.00E+00
xe128	9.55E-05	9.55E-05	9.55E-05	9.55E-05
cd129	.00E+00	.00E+00	.00E+00	.00E+00
in129	.00E+00	.00E+00	.00E+00	.00E+00
sn129	.00E+00	.00E+00	.00E+00	.00E+00
sn129m	.00E+00	.00E+00	.00E+00	.00E+00
sb129	.00E+00	.00E+00	.00E+00	.00E+00
te129	.00E+00	.00E+00	.00E+00	.00E+00
te129m	.00E+00	.00E+00	.00E+00	.00E+00
i129	6.39E+00	6.38E+00	6.32E+00	6.18E+00
xe129	7.11E-02	8.52E-02	1.41E-01	2.79E-01
xe129m	.00E+00	.00E+00	.00E+00	.00E+00
cd130	.00E+00	.00E+00	.00E+00	.00E+00
in130	.00E+00	.00E+00	.00E+00	.00E+00
sn130	.00E+00	.00E+00	.00E+00	.00E+00
sb130	.00E+00	.00E+00	.00E+00	.00E+00
sb130m	.00E+00	.00E+00	.00E+00	.00E+00
te130	1.50E+01	1.50E+01	1.50E+01	1.50E+01
i130	.00E+00	.00E+00	.00E+00	.00E+00
i130m	.00E+00	.00E+00	.00E+00	.00E+00
xe130	3.44E-03	3.44E-03	3.44E-03	3.44E-03
cd131	.00E+00	.00E+00	.00E+00	.00E+00
in131	.00E+00	.00E+00	.00E+00	.00E+00
sn131	.00E+00	.00E+00	.00E+00	.00E+00
sb131	.00E+00	.00E+00	.00E+00	.00E+00
te131	.00E+00	.00E+00	.00E+00	.00E+00
te131m	.00E+00	.00E+00	.00E+00	.00E+00
i131	.00E+00	.00E+00	.00E+00	.00E+00
xe131	2.49E+01	2.49E+01	2.49E+01	2.49E+01
xe131m	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 218

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	300000. yr	500000. yr	999999. yr
cd132	.00E+00	.00E+00	.00E+00	.00E+00
in132	.00E+00	.00E+00	.00E+00	.00E+00
sn132	.00E+00	.00E+00	.00E+00	.00E+00
sb132	.00E+00	.00E+00	.00E+00	.00E+00
sb132m	.00E+00	.00E+00	.00E+00	.00E+00
te132	.00E+00	.00E+00	.00E+00	.00E+00
i132	.00E+00	.00E+00	.00E+00	.00E+00
xe132	3.75E+01	3.75E+01	3.75E+01	3.75E+01
cs132	.00E+00	.00E+00	.00E+00	.00E+00
ba132	2.56E-08	2.56E-08	2.56E-08	2.56E-08

in133	.00E+00	.00E+00	.00E+00	.00E+00
sn133	.00E+00	.00E+00	.00E+00	.00E+00
sb133	.00E+00	.00E+00	.00E+00	.00E+00
te133	.00E+00	.00E+00	.00E+00	.00E+00
te133m	.00E+00	.00E+00	.00E+00	.00E+00
i133	.00E+00	.00E+00	.00E+00	.00E+00
i133m	.00E+00	.00E+00	.00E+00	.00E+00
xe133	.00E+00	.00E+00	.00E+00	.00E+00
xe133m	.00E+00	.00E+00	.00E+00	.00E+00
cs133	5.84E+01	5.84E+01	5.84E+01	5.84E+01
ba133	.00E+00	.00E+00	.00E+00	.00E+00
in134	.00E+00	.00E+00	.00E+00	.00E+00
sn134	.00E+00	.00E+00	.00E+00	.00E+00
sb134	.00E+00	.00E+00	.00E+00	.00E+00
sb134m	.00E+00	.00E+00	.00E+00	.00E+00
te134	.00E+00	.00E+00	.00E+00	.00E+00
i134	.00E+00	.00E+00	.00E+00	.00E+00
i134m	.00E+00	.00E+00	.00E+00	.00E+00
xe134	6.87E+01	6.87E+01	6.87E+01	6.87E+01
xe134m	.00E+00	.00E+00	.00E+00	.00E+00
cs134	.00E+00	.00E+00	.00E+00	.00E+00
cs134m	.00E+00	.00E+00	.00E+00	.00E+00
ba134	3.21E-02	3.21E-02	3.21E-02	3.21E-02
sn135	.00E+00	.00E+00	.00E+00	.00E+00
sb135	.00E+00	.00E+00	.00E+00	.00E+00
te135	.00E+00	.00E+00	.00E+00	.00E+00
i135	.00E+00	.00E+00	.00E+00	.00E+00
xe135	.00E+00	.00E+00	.00E+00	.00E+00
xe135m	.00E+00	.00E+00	.00E+00	.00E+00
cs135	5.37E+01	5.29E+01	4.98E+01	4.29E+01
cs135m	.00E+00	.00E+00	.00E+00	.00E+00
ba135	4.21E+00	5.02E+00	8.11E+00	1.51E+01
ba135m	.00E+00	.00E+00	.00E+00	.00E+00
sn136	.00E+00	.00E+00	.00E+00	.00E+00
sb136	.00E+00	.00E+00	.00E+00	.00E+00
te136	.00E+00	.00E+00	.00E+00	.00E+00
i136	.00E+00	.00E+00	.00E+00	.00E+00
i136m	.00E+00	.00E+00	.00E+00	.00E+00
xe136	5.63E+01	5.63E+01	5.63E+01	5.63E+01
cs136	.00E+00	.00E+00	.00E+00	.00E+00
ba136	5.96E-02	5.96E-02	5.96E-02	5.96E-02
ba136m	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 219

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial300000. yr	500000. yr	999999. yr	
sb137	.00E+00	.00E+00	.00E+00	.00E+00
te137	.00E+00	.00E+00	.00E+00	.00E+00
i137	.00E+00	.00E+00	.00E+00	.00E+00
xe137	.00E+00	.00E+00	.00E+00	.00E+00
cs137	.00E+00	.00E+00	.00E+00	.00E+00
ba137	5.64E+01	5.64E+01	5.64E+01	5.64E+01
ba137m	.00E+00	.00E+00	.00E+00	.00E+00
sb138	.00E+00	.00E+00	.00E+00	.00E+00
te138	.00E+00	.00E+00	.00E+00	.00E+00
i138	.00E+00	.00E+00	.00E+00	.00E+00
xe138	.00E+00	.00E+00	.00E+00	.00E+00
cs138	.00E+00	.00E+00	.00E+00	.00E+00
cs138m	.00E+00	.00E+00	.00E+00	.00E+00

ba138	6.03E+01	6.03E+01	6.03E+01	6.03E+01
la138	3.05E-04	3.05E-04	3.05E-04	3.05E-04
sb139	.00E+00	.00E+00	.00E+00	.00E+00
te139	.00E+00	.00E+00	.00E+00	.00E+00
i139	.00E+00	.00E+00	.00E+00	.00E+00
xe139	.00E+00	.00E+00	.00E+00	.00E+00
cs139	.00E+00	.00E+00	.00E+00	.00E+00
ba139	.00E+00	.00E+00	.00E+00	.00E+00
la139	5.77E+01	5.77E+01	5.77E+01	5.77E+01
ce139	.00E+00	.00E+00	.00E+00	.00E+00
pr139	.00E+00	.00E+00	.00E+00	.00E+00
te140	.00E+00	.00E+00	.00E+00	.00E+00
i140	.00E+00	.00E+00	.00E+00	.00E+00
xe140	.00E+00	.00E+00	.00E+00	.00E+00
cs140	.00E+00	.00E+00	.00E+00	.00E+00
ba140	.00E+00	.00E+00	.00E+00	.00E+00
la140	.00E+00	.00E+00	.00E+00	.00E+00
ce140	5.77E+01	5.77E+01	5.77E+01	5.77E+01
pr140	.00E+00	.00E+00	.00E+00	.00E+00
te141	.00E+00	.00E+00	.00E+00	.00E+00
i141	.00E+00	.00E+00	.00E+00	.00E+00
xe141	.00E+00	.00E+00	.00E+00	.00E+00
cs141	.00E+00	.00E+00	.00E+00	.00E+00
ba141	.00E+00	.00E+00	.00E+00	.00E+00
la141	.00E+00	.00E+00	.00E+00	.00E+00
ce141	.00E+00	.00E+00	.00E+00	.00E+00
pr141	5.34E+01	5.34E+01	5.34E+01	5.34E+01
nd141	.00E+00	.00E+00	.00E+00	.00E+00
te142	.00E+00	.00E+00	.00E+00	.00E+00
i142	.00E+00	.00E+00	.00E+00	.00E+00
xe142	.00E+00	.00E+00	.00E+00	.00E+00
cs142	.00E+00	.00E+00	.00E+00	.00E+00
ba142	.00E+00	.00E+00	.00E+00	.00E+00
la142	.00E+00	.00E+00	.00E+00	.00E+00
ce142	5.43E+01	5.43E+01	5.43E+01	5.43E+01
pr142	.00E+00	.00E+00	.00E+00	.00E+00
pr142m	.00E+00	.00E+00	.00E+00	.00E+00
nd142	5.71E-03	5.71E-03	5.71E-03	5.71E-03
i143	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 220

0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial300000. yr	500000. yr	999999. yr	
xe143	.00E+00	.00E+00	.00E+00	.00E+00
cs143	.00E+00	.00E+00	.00E+00	.00E+00
ba143	.00E+00	.00E+00	.00E+00	.00E+00
la143	.00E+00	.00E+00	.00E+00	.00E+00
ce143	.00E+00	.00E+00	.00E+00	.00E+00
pr143	.00E+00	.00E+00	.00E+00	.00E+00
nd143	5.50E+01	5.50E+01	5.50E+01	5.50E+01
i144	.00E+00	.00E+00	.00E+00	.00E+00
xe144	.00E+00	.00E+00	.00E+00	.00E+00
cs144	.00E+00	.00E+00	.00E+00	.00E+00
ba144	.00E+00	.00E+00	.00E+00	.00E+00
la144	.00E+00	.00E+00	.00E+00	.00E+00
ce144	.00E+00	.00E+00	.00E+00	.00E+00
pr144	.00E+00	.00E+00	.00E+00	.00E+00
pr144m	.00E+00	.00E+00	.00E+00	.00E+00
nd144	5.14E+01	5.14E+01	5.14E+01	5.14E+01