i145	.00E+00	.00E+00	.00E+00	.00E+00
xe145	.00E+00	.00E+00	.00E+00	.00E+00
cs145	.00E+00	.00E+00	.00E+00	.00E+00
ba145	.00E+00	.00E+00	.00E+00	.00E+00
la145	.00E+00	.00E+00	.00E+00	.00E+00
ce145	.00E+00	.00E+00	.00E+00	.00E+00
pr145	.00E+00	.00E+00	.00E+00	.00E+00
nd145	3.71E+01	3.71E+01	3.71E+01	3.71E+01
pm145	.00E+00	.00E+00	.00E+00	.00E+00
sm145	.00E+00	.00E+00	.00E+00	.00E+00
xe146	.00E+00	.00E+00	.00E+00	.00E+00
cs146	.00E+00	.00E+00	.00E+00	.00E+00
ba146	.00E+00	.00E+00	.00E+00	.00E+00
la146	.00E+00	.00E+00	.00E+00	.00E+00
ce146	.00E+00	.00E+00	.00E+00	.00E+00
pr146	.00E+00	.00E+00	.00E+00	.00E+00
nd146	2.86E+01	2.86E+01	2.86E+01	2.86E+01
pm146	.00E+00	.00E+00	.00E+00	.00E+00
sm146	2.51E-06	2.51E-06	2.50E-06	2.49E-06
xe147	.00E+00	.00E+00	.00E+00	.00E+00
cs147	.00E+00	.00E+00	.00E+00	.00E+00
ba147	.00E+00	.00E+00	.00E+00	.00E+00
la147	.00E+00	.00E+00	.00E+00	.00E+00
ce147	.00E+00	.00E+00	.00E+00	.00E+00
pr147	.00E+00	.00E+00	.00E+00	.00E+00
nd147	.00E+00	.00E+00	.00E+00	.00E+00
pm147	.00E+00	.00E+00	.00E+00	.00E+00
sm147	2.18E+01	2.18E+01	2.18E+01	2.18E+01
cs148	.00E+00	.00E+00	.00E+00	.00E+00
ba148	.00E+00	.00E+00	.00E+00	.00E+00
la148	.00E+00	.00E+00	.00E+00	.00E+00
ce148	.00E+00	.00E+00	.00E+00	.00E+00
pr148	.00E+00	.00E+00	.00E+00	.00E+00
nd148	1.63E+01	1.63E+01	1.63E+01	1.63E+01
pm148	.00E+00	.00E+00	.00E+00	.00E+00
pm148m	.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 221
0 nuclide concentrations, grams
basis =per critical mass 10.1 MT UO2

	initial	300000. yr	500000. yr	999999. yr
sm148	2.65E-02	2.65E-02	2.65E-02	2.65E-02
cs149	.00E+00	.00E+00	.00E+00	.00E+00
ba149	.00E+00	.00E+00	.00E+00	.00E+00
la149	.00E+00	.00E+00	.00E+00	.00E+00
ce149	.00E+00	.00E+00	.00E+00	.00E+00
pr149	.00E+00	.00E+00	.00E+00	.00E+00
nd149	.00E+00	.00E+00	.00E+00	.00E+00
pm149	.00E+00	.00E+00	.00E+00	.00E+00
sm149	5.77E+00	5.77E+00	5.77E+00	5.77E+00
eu149	.00E+00	.00E+00	.00E+00	.00E+00
cs150	.00E+00	.00E+00	.00E+00	.00E+00
ba150	.00E+00	.00E+00	.00E+00	.00E+00
la150	.00E+00	.00E+00	.00E+00	.00E+00
ce150	.00E+00	.00E+00	.00E+00	.00E+00
pr150	.00E+00	.00E+00	.00E+00	.00E+00
nd150	6.59E+00	6.59E+00	6.59E+00	6.59E+00
pm150	.00E+00	.00E+00	.00E+00	.00E+00
sm150	4.85E+00	4.85E+00	4.85E+00	4.85E+00
eu150	.00E+00	.00E+00	.00E+00	.00E+00

```
     ba151     .00E+00   .00E+00   .00E+00   .00E+00
     la151     .00E+00   .00E+00   .00E+00   .00E+00
     ce151     .00E+00   .00E+00   .00E+00   .00E+00
     pr151     .00E+00   .00E+00   .00E+00   .00E+00
     nd151     .00E+00   .00E+00   .00E+00   .00E+00
     pm151     .00E+00   .00E+00   .00E+00   .00E+00
     sm151     .00E+00   .00E+00   .00E+00   .00E+00
     eu151    4.05E+00  4.05E+00  4.05E+00  4.05E+00
     ba152     .00E+00   .00E+00   .00E+00   .00E+00
     la152     .00E+00   .00E+00   .00E+00   .00E+00
     ce152     .00E+00   .00E+00   .00E+00   .00E+00
     pr152     .00E+00   .00E+00   .00E+00   .00E+00
     nd152     .00E+00   .00E+00   .00E+00   .00E+00
     pm152     .00E+00   .00E+00   .00E+00   .00E+00
     pm152m    .00E+00   .00E+00   .00E+00   .00E+00
     sm152    2.92E+00  2.92E+00  2.92E+00  2.92E+00
     eu152     .00E+00   .00E+00   .00E+00   .00E+00
     eu152m    .00E+00   .00E+00   .00E+00   .00E+00
     gd152    7.42E-02  7.42E-02  7.42E-02  7.42E-02
     la153     .00E+00   .00E+00   .00E+00   .00E+00
     ce153     .00E+00   .00E+00   .00E+00   .00E+00
     pr153     .00E+00   .00E+00   .00E+00   .00E+00
     nd153     .00E+00   .00E+00   .00E+00   .00E+00
     pm153     .00E+00   .00E+00   .00E+00   .00E+00
     sm153     .00E+00   .00E+00   .00E+00   .00E+00
     eu153    1.72E+00  1.72E+00  1.72E+00  1.72E+00
     gd153     .00E+00   .00E+00   .00E+00   .00E+00
     la154     .00E+00   .00E+00   .00E+00   .00E+00
     ce154     .00E+00   .00E+00   .00E+00   .00E+00
     pr154     .00E+00   .00E+00   .00E+00   .00E+00
     nd154     .00E+00   .00E+00   .00E+00   .00E+00
     pm154     .00E+00   .00E+00   .00E+00   .00E+00
     pm154m    .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  222
0                                        nuclide concentrations, grams
                                         basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. yr
     sm154    7.99E-01  7.99E-01  7.99E-01  7.99E-01
     eu154     .00E+00   .00E+00   .00E+00   .00E+00
     gd154    5.67E-03  5.67E-03  5.67E-03  5.67E-03
     la155     .00E+00   .00E+00   .00E+00   .00E+00
     ce155     .00E+00   .00E+00   .00E+00   .00E+00
     pr155     .00E+00   .00E+00   .00E+00   .00E+00
     nd155     .00E+00   .00E+00   .00E+00   .00E+00
     pm155     .00E+00   .00E+00   .00E+00   .00E+00
     sm155     .00E+00   .00E+00   .00E+00   .00E+00
     eu155     .00E+00   .00E+00   .00E+00   .00E+00
     gd155m    .00E+00   .00E+00   .00E+00   .00E+00
     gd155    2.82E-01  2.82E-01  2.82E-01  2.82E-01
     ce156     .00E+00   .00E+00   .00E+00   .00E+00
     pr156     .00E+00   .00E+00   .00E+00   .00E+00
     nd156     .00E+00   .00E+00   .00E+00   .00E+00
     pm156     .00E+00   .00E+00   .00E+00   .00E+00
     sm156     .00E+00   .00E+00   .00E+00   .00E+00
     eu156     .00E+00   .00E+00   .00E+00   .00E+00
     gd156    2.46E-01  2.46E-01  2.46E-01  2.46E-01
     ce157     .00E+00   .00E+00   .00E+00   .00E+00
     pr157     .00E+00   .00E+00   .00E+00   .00E+00
     nd157     .00E+00   .00E+00   .00E+00   .00E+00
```

```
     pm157    .00E+00   .00E+00   .00E+00   .00E+00
     sm157    .00E+00   .00E+00   .00E+00   .00E+00
     eu157    .00E+00   .00E+00   .00E+00   .00E+00
     gd157   3.34E-02  3.34E-02  3.34E-02  3.34E-02
     pr158    .00E+00   .00E+00   .00E+00   .00E+00
     nd158    .00E+00   .00E+00   .00E+00   .00E+00
     pm158    .00E+00   .00E+00   .00E+00   .00E+00
     sm158    .00E+00   .00E+00   .00E+00   .00E+00
     eu158    .00E+00   .00E+00   .00E+00   .00E+00
     gd158   8.32E-02  8.32E-02  8.32E-02  8.32E-02
     pr159    .00E+00   .00E+00   .00E+00   .00E+00
     nd159    .00E+00   .00E+00   .00E+00   .00E+00
     pm159    .00E+00   .00E+00   .00E+00   .00E+00
     sm159    .00E+00   .00E+00   .00E+00   .00E+00
     eu159    .00E+00   .00E+00   .00E+00   .00E+00
     gd159    .00E+00   .00E+00   .00E+00   .00E+00
     tb159   1.42E-02  1.42E-02  1.42E-02  1.42E-02
     nd160    .00E+00   .00E+00   .00E+00   .00E+00
     pm160    .00E+00   .00E+00   .00E+00   .00E+00
     sm160    .00E+00   .00E+00   .00E+00   .00E+00
     eu160    .00E+00   .00E+00   .00E+00   .00E+00
     gd160   4.96E-03  4.96E-03  4.96E-03  4.96E-03
     tb160    .00E+00   .00E+00   .00E+00   .00E+00
     dy160   5.18E-06  5.18E-06  5.18E-06  5.18E-06
     nd161    .00E+00   .00E+00   .00E+00   .00E+00
     pm161    .00E+00   .00E+00   .00E+00   .00E+00
     sm161    .00E+00   .00E+00   .00E+00   .00E+00
     eu161    .00E+00   .00E+00   .00E+00   .00E+00
     gd161    .00E+00   .00E+00   .00E+00   .00E+00
     tb161    .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  223
0                                          nuclide concentrations, grams
                                           basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. yr
     dy161   1.64E-03  1.64E-03  1.64E-03  1.64E-03
     pm162    .00E+00   .00E+00   .00E+00   .00E+00
     sm162    .00E+00   .00E+00   .00E+00   .00E+00
     eu162    .00E+00   .00E+00   .00E+00   .00E+00
     gd162    .00E+00   .00E+00   .00E+00   .00E+00
     tb162    .00E+00   .00E+00   .00E+00   .00E+00
     tb162m   .00E+00   .00E+00   .00E+00   .00E+00
     dy162   5.41E-04  5.41E-04  5.41E-04  5.41E-04
     sm163    .00E+00   .00E+00   .00E+00   .00E+00
     eu163    .00E+00   .00E+00   .00E+00   .00E+00
     gd163    .00E+00   .00E+00   .00E+00   .00E+00
     tb163    .00E+00   .00E+00   .00E+00   .00E+00
     tb163m   .00E+00   .00E+00   .00E+00   .00E+00
     dy163   1.92E-04  1.92E-04  1.92E-04  1.92E-04
     sm164    .00E+00   .00E+00   .00E+00   .00E+00
     eu164    .00E+00   .00E+00   .00E+00   .00E+00
     gd164    .00E+00   .00E+00   .00E+00   .00E+00
     tb164    .00E+00   .00E+00   .00E+00   .00E+00
     dy164   6.45E-05  6.45E-05  6.45E-05  6.45E-05
     sm165    .00E+00   .00E+00   .00E+00   .00E+00
     eu165    .00E+00   .00E+00   .00E+00   .00E+00
     gd165    .00E+00   .00E+00   .00E+00   .00E+00
     tb165    .00E+00   .00E+00   .00E+00   .00E+00
     dy165    .00E+00   .00E+00   .00E+00   .00E+00
     dy165m   .00E+00   .00E+00   .00E+00   .00E+00
```

ho165	2.86E-05	2.86E-05	2.86E-05	2.86E-05
dy166	.00E+00	.00E+00	.00E+00	.00E+00
ho166	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	.00E+00	.00E+00	.00E+00	.00E+00
er166	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
er167m	.00E+00	.00E+00	.00E+00	.00E+00
er168	1.79E-09	1.79E-09	1.79E-09	1.79E-09
yb168	.00E+00	.00E+00	.00E+00	.00E+00
er169	.00E+00	.00E+00	.00E+00	.00E+00
tm169	4.60E-09	4.60E-09	4.60E-09	4.60E-09
yb169	.00E+00	.00E+00	.00E+00	.00E+00
er170	5.40E-09	5.40E-09	5.40E-09	5.40E-09
tm170	.00E+00	.00E+00	.00E+00	.00E+00
tm170m	.00E+00	.00E+00	.00E+00	.00E+00
yb170	1.96E-11	1.96E-11	1.96E-11	1.96E-11
er171	.00E+00	.00E+00	.00E+00	.00E+00
tm171	.00E+00	.00E+00	.00E+00	.00E+00
yb171	8.52E-09	8.52E-09	8.52E-09	8.52E-09
er172	.00E+00	.00E+00	.00E+00	.00E+00
tm172	.00E+00	.00E+00	.00E+00	.00E+00
yb172	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

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 224

0

nuclide radioactivity, curies
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	.00E+00	.00E+00	.00E+00	.00E+00
li 7	.00E+00	.00E+00	.00E+00	.00E+00
be 9	.00E+00	.00E+00	.00E+00	.00E+00
be 10	1.18E-07	1.16E-07	1.06E-07	8.55E-08
c 14	3.66E-19	8.63E-22	2.28E-32	.00E+00
ni 66	.00E+00	.00E+00	.00E+00	.00E+00
cu 66	.00E+00	.00E+00	.00E+00	.00E+00
zn 66	.00E+00	.00E+00	.00E+00	.00E+00
cu 67	.00E+00	.00E+00	.00E+00	.00E+00
zn 67	.00E+00	.00E+00	.00E+00	.00E+00
zn 68	.00E+00	.00E+00	.00E+00	.00E+00
zn 69	.00E+00	.00E+00	.00E+00	.00E+00
zn 69m	.00E+00	.00E+00	.00E+00	.00E+00
ga 69	.00E+00	.00E+00	.00E+00	.00E+00
zn 70	.00E+00	.00E+00	.00E+00	.00E+00
ga 70	.00E+00	.00E+00	.00E+00	.00E+00
ge 70	.00E+00	.00E+00	.00E+00	.00E+00
zn 71	.00E+00	.00E+00	.00E+00	.00E+00
zn 71m	.00E+00	.00E+00	.00E+00	.00E+00
ga 71	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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 225

0

nuclide radioactivity, curies
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	.00E+00	.00E+00	.00E+00	.00E+00
as 76	.00E+00	.00E+00	.00E+00	.00E+00
se 76	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	1.85E-03	1.66E-03	1.09E-03	3.82E-04
se 79m	.00E+00	.00E+00	.00E+00	.00E+00
br 79	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
br 80	.00E+00	.00E+00	.00E+00	.00E+00
br 80m	.00E+00	.00E+00	.00E+00	.00E+00
kr 80	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
kr 81	1.85E-10	1.57E-10	8.21E-11	1.61E-11
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 226
0 nuclide radioactivity, curies
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	.00E+00	.00E+00	.00E+00	.00E+00
br 82	.00E+00	.00E+00	.00E+00	.00E+00
br 82m	.00E+00	.00E+00	.00E+00	.00E+00
kr 82	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+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	.00E+00	.00E+00	.00E+00	.00E+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	.00E+00	.00E+00	.00E+00	.00E+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	.00E+00	.00E+00	.00E+00	.00E+00

```
     rb 86    .00E+00   .00E+00   .00E+00   .00E+00
     rb 86m   .00E+00   .00E+00   .00E+00   .00E+00
     sr 86    .00E+00   .00E+00   .00E+00   .00E+00
     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   1.23E-06  1.23E-06  1.23E-06  1.23E-06
     sr 87    .00E+00   .00E+00   .00E+00   .00E+00
     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  227
0                                                nuclide radioactivity, curies
                                                 basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. 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    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
      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    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
     nb 92   2.48E-13  2.48E-13  2.47E-13  2.45E-13
     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	5.72E-02	5.60E-02	5.11E-02	4.07E-02
nb 93	.00E+00	.00E+00	.00E+00	.00E+00
nb 93m	5.72E-02	5.60E-02	5.11E-02	4.07E-02
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 228

0

nuclide radioactivity, curies
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	.00E+00	.00E+00	.00E+00	.00E+00
nb 94	3.76E-10	6.81E-11	7.36E-14	2.83E-21
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
nb 96	.00E+00	.00E+00	.00E+00	.00E+00
mo 96	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
tc 98	4.06E-09	4.03E-09	3.90E-09	3.59E-09
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   2.98E-01  2.52E-01  1.31E-01  2.53E-02
     tc 99m   .00E+00   .00E+00   .00E+00   .00E+00
     ru 99    .00E+00   .00E+00   .00E+00   .00E+00
     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  229
0                                                nuclide radioactivity, curies
                                                 basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. 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    .00E+00   .00E+00   .00E+00   .00E+00
     tc100    .00E+00   .00E+00   .00E+00   .00E+00
     ru100    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
     rh104    .00E+00   .00E+00   .00E+00   .00E+00
     rh104m   .00E+00   .00E+00   .00E+00   .00E+00
     pd104    .00E+00   .00E+00   .00E+00   .00E+00
      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     .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  230
0                                                nuclide radioactivity, curies
                                                 basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. 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     .00E+00    .00E+00    .00E+00    .00E+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    6.98E-04   6.95E-04   6.80E-04   6.45E-04
     pd107m    .00E+00    .00E+00    .00E+00    .00E+00
     ag107     .00E+00    .00E+00    .00E+00    .00E+00
     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     .00E+00    .00E+00    .00E+00    .00E+00
     ag108     .00E+00    .00E+00    .00E+00    .00E+00
     ag108m    .00E+00    .00E+00    .00E+00    .00E+00
     cd108     .00E+00    .00E+00    .00E+00    .00E+00
     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     .00E+00    .00E+00    .00E+00    .00E+00
     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     .00E+00    .00E+00    .00E+00    .00E+00
```

```
     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  231
0                                                nuclide radioactivity, curies
                                                 basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. yr
     cd110    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
     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   3.11E-14  3.11E-14  3.11E-14  3.11E-14
     cd113m   .00E+00   .00E+00   .00E+00   .00E+00
     in113    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
     in114    .00E+00   .00E+00   .00E+00   .00E+00
     in114m   .00E+00   .00E+00   .00E+00   .00E+00
     sn114    .00E+00   .00E+00   .00E+00   .00E+00
     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   6.08E-13  6.08E-13  6.08E-13  6.08E-13
     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 232

0

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

	initial	300000. yr	500000. yr	999999. yr
sn115	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
in116	.00E+00	.00E+00	.00E+00	.00E+00
in116m	.00E+00	.00E+00	.00E+00	.00E+00
sn116	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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 233

0

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

	initial	300000. 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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
sb122	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	.00E+00	.00E+00	.00E+00	.00E+00
te122	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
te123	4.04E-19	4.04E-19	4.04E-19	4.04E-19
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	.00E+00	.00E+00	.00E+00	.00E+00
sb124	.00E+00	.00E+00	.00E+00	.00E+00
sb124m	.00E+00	.00E+00	.00E+00	.00E+00
te124	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	1.83E-03	1.29E-03	3.23E-04	1.01E-05

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 1K yr burn fission products page 234

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

	initial	300000. yr	500000. yr	999999. yr
sb126	2.56E-04	1.81E-04	4.53E-05	1.41E-06
sb126m	1.83E-03	1.29E-03	3.23E-04	1.01E-05

te126	.00E+00	.00E+00	.00E+00	.00E+00
xe126	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+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	.00E+00	.00E+00	.00E+00	.00E+00
i128	.00E+00	.00E+00	.00E+00	.00E+00
xe128	.00E+00	.00E+00	.00E+00	.00E+00
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	1.13E-03	1.13E-03	1.12E-03	1.09E-03
xe129	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
i130	.00E+00	.00E+00	.00E+00	.00E+00
i130m	.00E+00	.00E+00	.00E+00	.00E+00
xe130	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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 235

0 nuclide radioactivity, curies
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	.00E+00	.00E+00	.00E+00	.00E+00
cs132	.00E+00	.00E+00	.00E+00	.00E+00
ba132	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	6.19E-02	6.10E-02	5.74E-02	4.94E-02
cs135m	.00E+00	.00E+00	.00E+00	.00E+00
ba135	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
cs136	.00E+00	.00E+00	.00E+00	.00E+00
ba136	.00E+00	.00E+00	.00E+00	.00E+00
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 236

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

	initial	300000. 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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
la138	7.53E-12	7.53E-12	7.53E-12	7.53E-12
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	1.30E-06	1.30E-06	1.30E-06	1.30E-06
pr142	.00E+00	.00E+00	.00E+00	.00E+00
pr142m	.00E+00	.00E+00	.00E+00	.00E+00
nd142	.00E+00	.00E+00	.00E+00	.00E+00
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 237
0 nuclide radioactivity, curies
basis =per critical mass 10.1 MT UO2

	initial	300000. 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	.00E+00	.00E+00	.00E+00	.00E+00
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   6.11E-11  6.11E-11  6.11E-11  6.11E-11
      i145    .00E+00   .00E+00   .00E+00   .00E+00
     xe145    .00E+00   .00E+00   .00E+00   .00E+00
     cs145    .00E+00   .00E+00   .00E+00   .00E+00
     ba145    .00E+00   .00E+00   .00E+00   .00E+00
     la145    .00E+00   .00E+00   .00E+00   .00E+00
     ce145    .00E+00   .00E+00   .00E+00   .00E+00
     pr145    .00E+00   .00E+00   .00E+00   .00E+00
     nd145    .00E+00   .00E+00   .00E+00   .00E+00
     pm145    .00E+00   .00E+00   .00E+00   .00E+00
     sm145    .00E+00   .00E+00   .00E+00   .00E+00
     xe146    .00E+00   .00E+00   .00E+00   .00E+00
     cs146    .00E+00   .00E+00   .00E+00   .00E+00
     ba146    .00E+00   .00E+00   .00E+00   .00E+00
     la146    .00E+00   .00E+00   .00E+00   .00E+00
     ce146    .00E+00   .00E+00   .00E+00   .00E+00
     pr146    .00E+00   .00E+00   .00E+00   .00E+00
     nd146    .00E+00   .00E+00   .00E+00   .00E+00
     pm146    .00E+00   .00E+00   .00E+00   .00E+00
     sm146   5.96E-11  5.96E-11  5.95E-11  5.93E-11
     xe147    .00E+00   .00E+00   .00E+00   .00E+00
     cs147    .00E+00   .00E+00   .00E+00   .00E+00
     ba147    .00E+00   .00E+00   .00E+00   .00E+00
     la147    .00E+00   .00E+00   .00E+00   .00E+00
     ce147    .00E+00   .00E+00   .00E+00   .00E+00
     pr147    .00E+00   .00E+00   .00E+00   .00E+00
     nd147    .00E+00   .00E+00   .00E+00   .00E+00
     pm147    .00E+00   .00E+00   .00E+00   .00E+00
     sm147   5.00E-07  5.00E-07  5.00E-07  5.00E-07
     cs148    .00E+00   .00E+00   .00E+00   .00E+00
     ba148    .00E+00   .00E+00   .00E+00   .00E+00
     la148    .00E+00   .00E+00   .00E+00   .00E+00
     ce148    .00E+00   .00E+00   .00E+00   .00E+00
     pr148    .00E+00   .00E+00   .00E+00   .00E+00
     nd148    .00E+00   .00E+00   .00E+00   .00E+00
     pm148    .00E+00   .00E+00   .00E+00   .00E+00
     pm148m   .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  238
0                                                nuclide radioactivity, curies
                                                 basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. yr
     sm148   8.07E-15  8.07E-15  8.07E-15  8.07E-15
     cs149    .00E+00   .00E+00   .00E+00   .00E+00
     ba149    .00E+00   .00E+00   .00E+00   .00E+00
     la149    .00E+00   .00E+00   .00E+00   .00E+00
     ce149    .00E+00   .00E+00   .00E+00   .00E+00
     pr149    .00E+00   .00E+00   .00E+00   .00E+00
     nd149    .00E+00   .00E+00   .00E+00   .00E+00
     pm149    .00E+00   .00E+00   .00E+00   .00E+00
     sm149   1.39E-12  1.39E-12  1.39E-12  1.39E-12
     eu149    .00E+00   .00E+00   .00E+00   .00E+00
     cs150    .00E+00   .00E+00   .00E+00   .00E+00
     ba150    .00E+00   .00E+00   .00E+00   .00E+00
     la150    .00E+00   .00E+00   .00E+00   .00E+00
     ce150    .00E+00   .00E+00   .00E+00   .00E+00
```

```
     pr150     .00E+00   .00E+00   .00E+00   .00E+00
     nd150     .00E+00   .00E+00   .00E+00   .00E+00
     pm150     .00E+00   .00E+00   .00E+00   .00E+00
     sm150     .00E+00   .00E+00   .00E+00   .00E+00
     eu150     .00E+00   .00E+00   .00E+00   .00E+00
     ba151     .00E+00   .00E+00   .00E+00   .00E+00
     la151     .00E+00   .00E+00   .00E+00   .00E+00
     ce151     .00E+00   .00E+00   .00E+00   .00E+00
     pr151     .00E+00   .00E+00   .00E+00   .00E+00
     nd151     .00E+00   .00E+00   .00E+00   .00E+00
     pm151     .00E+00   .00E+00   .00E+00   .00E+00
     sm151     .00E+00   .00E+00   .00E+00   .00E+00
     eu151     .00E+00   .00E+00   .00E+00   .00E+00
     ba152     .00E+00   .00E+00   .00E+00   .00E+00
     la152     .00E+00   .00E+00   .00E+00   .00E+00
     ce152     .00E+00   .00E+00   .00E+00   .00E+00
     pr152     .00E+00   .00E+00   .00E+00   .00E+00
     nd152     .00E+00   .00E+00   .00E+00   .00E+00
     pm152     .00E+00   .00E+00   .00E+00   .00E+00
     pm152m    .00E+00   .00E+00   .00E+00   .00E+00
     sm152     .00E+00   .00E+00   .00E+00   .00E+00
     eu152     .00E+00   .00E+00   .00E+00   .00E+00
     eu152m    .00E+00   .00E+00   .00E+00   .00E+00
     gd152    1.62E-12  1.62E-12  1.62E-12  1.62E-12
     la153     .00E+00   .00E+00   .00E+00   .00E+00
     ce153     .00E+00   .00E+00   .00E+00   .00E+00
     pr153     .00E+00   .00E+00   .00E+00   .00E+00
     nd153     .00E+00   .00E+00   .00E+00   .00E+00
     pm153     .00E+00   .00E+00   .00E+00   .00E+00
     sm153     .00E+00   .00E+00   .00E+00   .00E+00
     eu153     .00E+00   .00E+00   .00E+00   .00E+00
     gd153     .00E+00   .00E+00   .00E+00   .00E+00
     la154     .00E+00   .00E+00   .00E+00   .00E+00
     ce154     .00E+00   .00E+00   .00E+00   .00E+00
     pr154     .00E+00   .00E+00   .00E+00   .00E+00
     nd154     .00E+00   .00E+00   .00E+00   .00E+00
     pm154     .00E+00   .00E+00   .00E+00   .00E+00
     pm154m    .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  239
0                                                 nuclide radioactivity, curies
                                                  basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. yr
     sm154     .00E+00   .00E+00   .00E+00   .00E+00
     eu154     .00E+00   .00E+00   .00E+00   .00E+00
     gd154     .00E+00   .00E+00   .00E+00   .00E+00
     la155     .00E+00   .00E+00   .00E+00   .00E+00
     ce155     .00E+00   .00E+00   .00E+00   .00E+00
     pr155     .00E+00   .00E+00   .00E+00   .00E+00
     nd155     .00E+00   .00E+00   .00E+00   .00E+00
     pm155     .00E+00   .00E+00   .00E+00   .00E+00
     sm155     .00E+00   .00E+00   .00E+00   .00E+00
     eu155     .00E+00   .00E+00   .00E+00   .00E+00
     gd155m    .00E+00   .00E+00   .00E+00   .00E+00
     gd155     .00E+00   .00E+00   .00E+00   .00E+00
     ce156     .00E+00   .00E+00   .00E+00   .00E+00
     pr156     .00E+00   .00E+00   .00E+00   .00E+00
     nd156     .00E+00   .00E+00   .00E+00   .00E+00
     pm156     .00E+00   .00E+00   .00E+00   .00E+00
     sm156     .00E+00   .00E+00   .00E+00   .00E+00
```

eu156	.00E+00	.00E+00	.00E+00	.00E+00
gd156	.00E+00	.00E+00	.00E+00	.00E+00
ce157	.00E+00	.00E+00	.00E+00	.00E+00
pr157	.00E+00	.00E+00	.00E+00	.00E+00
nd157	.00E+00	.00E+00	.00E+00	.00E+00
pm157	.00E+00	.00E+00	.00E+00	.00E+00
sm157	.00E+00	.00E+00	.00E+00	.00E+00
eu157	.00E+00	.00E+00	.00E+00	.00E+00
gd157	.00E+00	.00E+00	.00E+00	.00E+00
pr158	.00E+00	.00E+00	.00E+00	.00E+00
nd158	.00E+00	.00E+00	.00E+00	.00E+00
pm158	.00E+00	.00E+00	.00E+00	.00E+00
sm158	.00E+00	.00E+00	.00E+00	.00E+00
eu158	.00E+00	.00E+00	.00E+00	.00E+00
gd158	.00E+00	.00E+00	.00E+00	.00E+00
pr159	.00E+00	.00E+00	.00E+00	.00E+00
nd159	.00E+00	.00E+00	.00E+00	.00E+00
pm159	.00E+00	.00E+00	.00E+00	.00E+00
sm159	.00E+00	.00E+00	.00E+00	.00E+00
eu159	.00E+00	.00E+00	.00E+00	.00E+00
gd159	.00E+00	.00E+00	.00E+00	.00E+00
tb159	.00E+00	.00E+00	.00E+00	.00E+00
nd160	.00E+00	.00E+00	.00E+00	.00E+00
pm160	.00E+00	.00E+00	.00E+00	.00E+00
sm160	.00E+00	.00E+00	.00E+00	.00E+00
eu160	.00E+00	.00E+00	.00E+00	.00E+00
gd160	.00E+00	.00E+00	.00E+00	.00E+00
tb160	.00E+00	.00E+00	.00E+00	.00E+00
dy160	.00E+00	.00E+00	.00E+00	.00E+00
nd161	.00E+00	.00E+00	.00E+00	.00E+00
pm161	.00E+00	.00E+00	.00E+00	.00E+00
sm161	.00E+00	.00E+00	.00E+00	.00E+00
eu161	.00E+00	.00E+00	.00E+00	.00E+00
gd161	.00E+00	.00E+00	.00E+00	.00E+00
tb161	.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 240

0

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

	initial300000. yr500000. yr999999. yr			
dy161	.00E+00	.00E+00	.00E+00	.00E+00
pm162	.00E+00	.00E+00	.00E+00	.00E+00
sm162	.00E+00	.00E+00	.00E+00	.00E+00
eu162	.00E+00	.00E+00	.00E+00	.00E+00
gd162	.00E+00	.00E+00	.00E+00	.00E+00
tb162	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	.00E+00	.00E+00	.00E+00	.00E+00
dy162	.00E+00	.00E+00	.00E+00	.00E+00
sm163	.00E+00	.00E+00	.00E+00	.00E+00
eu163	.00E+00	.00E+00	.00E+00	.00E+00
gd163	.00E+00	.00E+00	.00E+00	.00E+00
tb163	.00E+00	.00E+00	.00E+00	.00E+00
tb163m	.00E+00	.00E+00	.00E+00	.00E+00
dy163	.00E+00	.00E+00	.00E+00	.00E+00
sm164	.00E+00	.00E+00	.00E+00	.00E+00
eu164	.00E+00	.00E+00	.00E+00	.00E+00
gd164	.00E+00	.00E+00	.00E+00	.00E+00
tb164	.00E+00	.00E+00	.00E+00	.00E+00
dy164	.00E+00	.00E+00	.00E+00	.00E+00
sm165	.00E+00	.00E+00	.00E+00	.00E+00

```
     eu165    .00E+00   .00E+00   .00E+00   .00E+00
     gd165    .00E+00   .00E+00   .00E+00   .00E+00
     tb165    .00E+00   .00E+00   .00E+00   .00E+00
     dy165    .00E+00   .00E+00   .00E+00   .00E+00
     dy165m   .00E+00   .00E+00   .00E+00   .00E+00
     ho165    .00E+00   .00E+00   .00E+00   .00E+00
     dy166    .00E+00   .00E+00   .00E+00   .00E+00
     ho166    .00E+00   .00E+00   .00E+00   .00E+00
     ho166m   .00E+00   .00E+00   .00E+00   .00E+00
     er166    .00E+00   .00E+00   .00E+00   .00E+00
     er167    .00E+00   .00E+00   .00E+00   .00E+00
     er167m   .00E+00   .00E+00   .00E+00   .00E+00
     er168    .00E+00   .00E+00   .00E+00   .00E+00
     yb168    .00E+00   .00E+00   .00E+00   .00E+00
     er169    .00E+00   .00E+00   .00E+00   .00E+00
     tm169    .00E+00   .00E+00   .00E+00   .00E+00
     yb169    .00E+00   .00E+00   .00E+00   .00E+00
     er170    .00E+00   .00E+00   .00E+00   .00E+00
     tm170    .00E+00   .00E+00   .00E+00   .00E+00
     tm170m   .00E+00   .00E+00   .00E+00   .00E+00
     yb170    .00E+00   .00E+00   .00E+00   .00E+00
     er171    .00E+00   .00E+00   .00E+00   .00E+00
     tm171    .00E+00   .00E+00   .00E+00   .00E+00
     yb171    .00E+00   .00E+00   .00E+00   .00E+00
     er172    .00E+00   .00E+00   .00E+00   .00E+00
     tm172    .00E+00   .00E+00   .00E+00   .00E+00
     yb172    .00E+00   .00E+00   .00E+00   .00E+00
   total     4.81E-01  4.32E-01  2.94E-01  1.58E-01
1  * normal termination of execution *
0                                    table of contents for material tables
0                                      case or subcase printed      page

                                                  1                   1
                                                  2                  41
                                                  3                  81
                                                  4                 121
                                                  5                 161
                                                  6                 201
0ndset          33
           21          4          1         27          6          0          0          0          0          0
            0          0          0          0          0          0         -1       1698        690        130
          880       7935          0          5         99          3         13         96         18         18
           18          0         71
0   35$ array      1 entries read
0    0t
   54$$ a8 1 e
    56$$ 0 7 a5 1 a13 -1 a15 3 0 4 e   5t
0   56$ array     20 entries read
0    5t
     l90   97344
     l116  60787
     l32   33663 nudata (library) storage size
     l44   33734
     l103  75921
   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
0   60* array      7 entries read
0   65$ array     63 entries read
```

```
0    6t
     l140  66851
     used   100723 in size   150000
0jopt            12
             0            0            0            0            0            0            0            0            0            0
             0            0
0therm           4
  5.272101E-01 3.663942E-01 2.909018E+00 1.000000E-25
0non             5
          7935           20            6           18         1697
0mmn            19
             0            7            0            0            1            1            0            0            0            0
            21          100           -1            4            3            0            4            0            0
0tconst          5
  8.640000E+04  .000000E+00  .000000E+00  .000000E+00 5.000000E-02
0mzero           4
             0          689          129          879
0pow             3
   .000000E+00  .000000E+00  .000000E+00
0 linp           9
             6            0           51           26            2         3000         1000         1697            5
0 case or subcase    1  Part B 8% UO2 in Tuff (47%  H2O) DBF Fuel  1K yr burn
    56$$ 0 -6 a10 1  e  t
0   56$ array     20 entries read
0   57* array      5 entries read
0    5t
     l90  102444
     l116  66199
     l32   33663 nudata (library) storage size
     l44   33734
     l103  81099
   61** f1-20
   65$$ 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
0   60* array     10 entries read
0   65$ array     63 entries read
0    6t
     l140  71957
     used   107068 in size   150000
0jopt            12
             0            0            0            0            0            0            0            0            0            0
             0            0
0therm           4
  5.272101E-01 3.663942E-01 2.909018E+00 1.000000E-25
0non             5
          7935           20            6           18         1697
0mmn            19
             0           10            0            0            1            1            0            0            0            7
            21          100            0            5            0            0            4            0            0
0tconst          5
  3.156000E+07 1.000000E+01 2.300000E+01  .000000E+00 5.000000E-02
0mzero           4
            18          689          129          879
0pow             3
   .000000E+00  .000000E+00  .000000E+00
0 linp           9
             6            0           51           26            2         3000         1000         1697            5
0 case or subcase    2  Part B 8% UO2 in Tuff (47%  H2O) DBF Fuel  1K yr burn
0   56$ array     20 entries read
```

```
0   57* array      5 entries read
0    5t
     l90  102444
     l116  66199
     l32   33663 nudata (library) storage size
     l44   33734
     l103  81099
     61** f1-20
0   60* array     10 entries read
0   65$ array     63 entries read
0    6t
     l140  71957
     used   107068 in size   150000
0jopt            12
             0            0            0            0            0            0            0            0            0            0
             0            0
0therm           4
  5.272101E-01 3.663942E-01 2.909018E+00 1.000000E-25
0non             5
          7935           20            6           18         1697
0mmn            19
             0           10            0            0            1            1            0            0            0           10
            21          100            0            5            0            0            4            0            0
0tconst          5
  3.156000E+07 4.000000E+02 2.800000E+01  .000000E+00 5.000000E-02
0mzero           4
            21          689          129          879
0pow             3
   .000000E+00  .000000E+00  .000000E+00
0 linp           9
             6            0           51           26            2         3000         1000         1697            5
0 case or subcase    3  Part B 8% UO2 in Tuff (47%  H2O) DBF Fuel  1K yr burn
0   56$ array     20 entries read
0   57* array      5 entries read
0    5t
     l90  102444
     l116  66199
     l32   33663 nudata (library) storage size
     l44   33734
     l103  81099
   61** f1-20
0   60* array     10 entries read
0   65$ array     63 entries read
0    6t
     l140  71957
     used   107068 in size   150000
0jopt            12
             0            0            0            0            0            0            0            0            0            0
             0            0
0therm           4
  5.272101E-01 3.663942E-01 2.909018E+00 1.000000E-25
0non             5
          7935           20            6           18         1697
0mmn            19
             0           10            0            0            1            1            0            0            0           10
            21          100            0            5            0            0            4            0            0
0tconst          5
  3.156000E+07 1.600000E+04 2.500000E+01  .000000E+00 5.000000E-02
0mzero           4
            21          689          129          879
```

```
0pow                3
   .000000E+00  .000000E+00  .000000E+00
0 linp              9
            6            0           51           26            2         3000         1000         1697            5
0 case or subcase    4  Part B 8% UO2 in Tuff (47%  H2O) DBF Fuel  1K yr burn
0   56$ array      20 entries read
0   57* array       5 entries read
0    5t
     l90  102444
     l116  66199
     l32   33663 nudata (library) storage size
     l44   33734
     l103  81099
     61** f1-20
0   60* array      10 entries read
0   65$ array      63 entries read
0    6t
     l140  71957
     used   107068 in size   150000
0jopt              12
            0            0            0            0            0            0            0            0            0            0
            0            0
0therm              4
  5.272101E-01 3.663942E-01 2.909018E+00 1.000000E-25
0non                5
         7935           20            6           18         1697
0mmn               19
            0           10            0            0            1            1            0            0            0           10
           21          100            0            5            0            0            4            0            0
0tconst             5
  3.156000E+07 3.800000E+04 2.500000E+01  .000000E+00 5.000000E-02
0mzero              4
           21          689          129          879
0pow                3
   .000000E+00  .000000E+00  .000000E+00
0 linp              9
            6            0           51           26            2         3000         1000         1697            5
0 case or subcase    5  Part B 8% UO2 in Tuff (47%  H2O) DBF Fuel  1K yr burn
0   56$ array      20 entries read
0   57* array       5 entries read
0    5t
     l90   90544
     l116  53571
     l32   33663 nudata (library) storage size
     l44   33734
     l103  69017
   61** f1-20
0   60* array       3 entries read
0   65$ array      63 entries read
0    6t
     l140  60057
     used    92263 in size   150000
0jopt              12
            0            0            0            0            0            0            0            0            0            0
            0            0
0therm              4
  5.272101E-01 3.663942E-01 2.909018E+00 1.000000E-25
0non                5
         7935           20            6           18         1697
0mmn               19
```

```
                0           3           0           0           1           1           0           0           0          10
               21         100           0           5           0           0           4           0           0
Otconst          5
  3.156000E+07 2.500000E+05 2.600000E+01  .000000E+00 5.000000E-02
Omzero           4
               21         689         129         879
Opow             3
   .000000E+00  .000000E+00  .000000E+00
0 linp           9
                6           0          51          26           2        3000        1000        1697           5
0 case or subcase    6  Part B 8% UO2 in Tuff (47% H2O) DBF Fuel  1K yr burn
    56$$ 0 -10 a10 1 e  t
0   56$ array     20 entries read
0    0t
```

```
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) 5K 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  5K 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    iiiiiiiiiiii    gggggggggg    eeeeeeeeeeeee   nn          nn   sssssssssss
   oooooooooooo   rrrrrrrrrrrr   iiiiiiiiiiii   gggggggggggg   eeeeeeeeeeeee   nnn         nn  ssssssssssss
   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   gggggggg  eeeeeeeee       nn    nn    nn  sssssssssss
   oo        oo   rrrrrrrrrrrr       ii        gg   gggggggg  eeeeeeeee       nn     nn   nn   sssssssssss
```

```
oo          oo   rr        rr          ii          gg          gg   ee                nn       nn  nn              ss
oo          oo   rr         rr         ii          gg          gg   ee                nn        nn nn              ss
oo          oo   rr          rr        ii          gg          gg   ee                nn         nnnn  ss          ss
oooooooooooo     rr           rr  iiiiiiiiiiii    gggggggggggg     eeeeeeeeeeee       nn          nnn  ssssssssssss
 oooooooooo      rr           rr  iiiiiiiiiiii     gggggggggg      eeeeeeeeeeee       nn           nn   ssssssssss
0

dddddddddddd      aaaaaaaaa     vv          vv  iiiiiiiiiiii      ssssssssss
dddddddddddd     aaaaaaaaaa     vv          vv  iiiiiiiiiiii     ssssssssssss
dd          dd   aa        aa   vv          vv      ii          ss        ss
dd          dd   aa        aa   vv          vv      ii          ss
dd          dd   aa        aa   vv          vv      ii          ss
dd          dd   aaaaaaaaaaaa   vv          vv      ii          ssssssssssss
dd          dd   aaaaaaaaaaaa    vv        vv       ii           ssssssssssss
dd          dd   aa        aa      vv    vv         ii                     ss
dd          dd   aa        aa       vv  vv          ii                     ss
dd          dd   aa        aa        vv vv          ii          ss         ss
dddddddddddd    aa        aa         vvv       iiiiiiiiiiii    ssssssssssss
dddddddddddd    aa        aa          v        iiiiiiiiiiii     ssssssssss
0

    0000000      88888888888                //  22222222222    88888888888                //  99999999999    666666666666
   000000000    8888888888888               //  2222222222222  8888888888888               //  9999999999999  6666666666666
 00        00   88         88               //  22         22  88         88               //  99         99  66
00          00  88         88               //             22  88         88               //  99         99  66
00          00  88         88               //             22  88         88               //  99         99  66
00          00   88888888888               //            22    88888888888               //  9999999999999  666666666666
00          00   88888888888              //           22     88888888888              //   999999999999  6666666666666
00          00  88         88             //          22     88         88             //                99  66         66
00          00  88         88            //         22       88         88            //                 99  66         66
 00        00   88         88           //        22         88         88           //                  99  66         66
   000000000    8888888888888          //       22           8888888888888          //  9999999999999  6666666666666
    0000000      88888888888          //       2222222222222  88888888888          //  999999999999    66666666666
0

        11       88888888888                   33333333333   7777777777777                   22222222222    22222222222
       111      8888888888888                  3333333333333  777777777777                   2222222222222  2222222222222
      1111      88         88        :::      33         33  77         77        :::      22         22  22         22
        11      88         88        :::                33  77        77         :::                22  22         22
        11      88         88        :::                33  77       77          :::                22  22         22
        11       88888888888                         333    77      77                        22    22
        11       88888888888                         333    77     77                       22      22
        11      88         88        :::                33  77    77          :::             22  22
        11      88         88        :::                33  77   77           :::            22    22
        11      88         88        :::      33         33  77  77            :::          22      22
     11111111   8888888888888                  3333333333333  77 77             :::        22        22
     11111111    88888888888                   33333333333   77                            2222222222222  2222222222222
1                                                            77                            2222222222222  2222222222222
0                                 sssssssssss   ccccccccccc    aaaaaaaaa   ll              eeeeeeeeeeeee
                                 sssssssssssss  ccccccccccccc  aaaaaaaaaaa  ll              eeeeeeeeeeeee
                                 ss         ss  cc         cc  aa         aa ll              ee
                                 ss             cc            aa         aa ll              ee
                                 ss             cc            aa         aa ll              ee
                                 sssssssssssss  cc            aaaaaaaaaaaa ll              eeeeeeeee
                                  sssssssssssss cc            aaaaaaaaaaaa ll              eeeeeeeee
                                            ss  cc            aa         aa ll              ee
                                            ss  cc            aa         aa ll              ee
                                 ss         ss  cc         cc aa         aa ll              ee
                                 sssssssssssss  ccccccccccccc aa         aa llllllllllll    eeeeeeeeeeeee
                                  sssssssssss    ccccccccccc  aa         aa llllllllllll    eeeeeeeeeeeee
```

```
*******************************************************************************
*******************************************************************************
*******************************************************************************
*****                                                                     *****
*****                 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:  18:37:22                                     *****
*****                                                                     *****
*****                                                                     *****
*******************************************************************************
*******************************************************************************
*******************************************************************************
```

```
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) 5K 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  5K 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  5K 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	1.17E+01	1.17E+01	1.17E+01	1.17E+01	1.17E+01	1.17E+01	1.17E+01	1.17E+01	1.17E+01
tl206	2.19E-15	2.19E-15	2.19E-15	2.19E-15	2.19E-15	2.19E-15	2.19E-15	2.19E-15	2.19E-15
tl207	2.08E-10	2.08E-10	2.08E-10	2.08E-10	2.08E-10	2.08E-10	2.08E-10	2.08E-10	2.08E-10
tl208	7.46E-12	7.46E-12	7.46E-12	7.62E-12	7.50E-12	7.48E-12	7.44E-12	7.27E-12	6.94E-12
tl209	1.46E-12	1.46E-12	1.46E-12	1.46E-12	1.46E-12	1.46E-12	1.46E-12	1.47E-12	1.47E-12
pb206	2.75E-01	2.75E-01	2.75E-01	2.75E-01	2.75E-01	2.75E-01	2.75E-01	2.76E-01	2.76E-01
pb207	3.94E-02	3.94E-02	3.94E-02	3.94E-02	3.94E-02	3.94E-02	3.95E-02	3.95E-02	3.96E-02
pb208	6.26E-03	6.26E-03	6.26E-03	6.26E-03	6.26E-03	6.26E-03	6.27E-03	6.27E-03	6.29E-03
pb209	6.18E-09	6.18E-09	6.18E-09	5.89E-09	6.18E-09	6.18E-09	6.19E-09	6.19E-09	6.20E-09
pb210	4.73E-03	4.73E-03	4.73E-03	4.73E-03	4.73E-03	4.73E-03	4.73E-03	4.73E-03	4.73E-03
pb211	1.61E-09	1.61E-09	1.61E-09	1.61E-09	1.61E-09	1.61E-09	1.61E-09	1.61E-09	1.61E-09
pb212	4.42E-09	4.42E-09	4.42E-09	4.42E-09	4.44E-09	4.43E-09	4.41E-09	4.31E-09	4.11E-09
pb214	1.10E-08	1.10E-08	1.10E-08	1.10E-08	1.10E-08	1.10E-08	1.10E-08	1.10E-08	1.10E-08
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	2.01E-02	2.01E-02	2.01E-02	2.01E-02	2.01E-02	2.01E-02	2.01E-02	2.01E-02	2.02E-02
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	2.91E-06	2.91E-06	2.91E-06	2.91E-06	2.91E-06	2.91E-06	2.91E-06	2.91E-06	2.91E-06
bi211	9.54E-11	9.54E-11	9.54E-11	9.54E-11	9.54E-11	9.56E-11	9.56E-11	9.56E-11	9.55E-11
bi212	4.20E-10	4.20E-10	4.20E-10	4.29E-10	4.22E-10	4.20E-10	4.18E-10	4.09E-10	3.90E-10
bi213	1.47E-09	1.47E-09	1.47E-09	1.47E-09	1.47E-09	1.47E-09	1.47E-09	1.47E-09	1.48E-09
bi214	8.17E-09	8.17E-09	8.17E-09	8.18E-09	8.17E-09	8.18E-09	8.18E-09	8.19E-09	8.20E-09
po210	8.04E-05	8.04E-05	8.04E-05	8.04E-05	8.00E-05	7.95E-05	7.94E-05	7.99E-05	8.04E-05
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	1.05E-15	1.05E-15	1.05E-15	1.05E-15	1.05E-15	1.06E-15	1.06E-15	1.06E-15	1.06E-15
po212	2.21E-20	2.21E-20	2.21E-20	2.25E-20	2.22E-20	2.21E-20	2.20E-20	2.15E-20	2.05E-20
po213	2.21E-18	2.21E-18	2.21E-18	2.21E-18	2.21E-18	2.21E-18	2.21E-18	2.22E-18	2.22E-18
po214	1.12E-15	1.12E-15	1.12E-15	1.12E-15	1.12E-15	1.12E-15	1.13E-15	1.13E-15	1.13E-15

po215	1.35E-15	1.35E-15	1.35E-15	1.35E-15	1.35E-15	1.35E-15	1.35E-15	1.35E-15	1.35E-15
po216	1.71E-14	1.71E-14	1.71E-14	1.71E-14	1.71E-14	1.71E-14	1.70E-14	1.66E-14	1.59E-14
po218	1.30E-09	1.30E-09	1.30E-09	1.30E-09	1.30E-09	1.30E-09	1.30E-09	1.30E-09	1.30E-09
at217	1.77E-14	1.77E-14	1.77E-14	1.77E-14	1.77E-14	1.77E-14	1.77E-14	1.77E-14	1.78E-14
rn218	6.64E-26	6.64E-26	6.64E-26	6.43E-26	3.31E-27	3.44E-31	1.78E-36	.00E+00	.00E+00
rn219	3.05E-12	3.05E-12	3.05E-12	3.05E-12	3.05E-12	3.06E-12	3.06E-12	3.06E-12	3.06E-12
rn220	6.66E-12	6.66E-12	6.66E-12	6.67E-12	6.70E-12	6.68E-12	6.64E-12	6.49E-12	6.20E-12
rn222	2.35E-06	2.35E-06	2.35E-06	2.35E-06	2.35E-06	2.35E-06	2.35E-06	2.35E-06	2.35E-06
fr221	1.64E-10	1.64E-10	1.64E-10	1.64E-10	1.64E-10	1.64E-10	1.64E-10	1.64E-10	1.65E-10
fr223	1.42E-11	1.42E-11	1.42E-11	1.42E-11	1.42E-11	1.42E-11	1.42E-11	1.42E-11	1.42E-11
ra222	7.34E-23	7.34E-23	7.34E-23	7.11E-23	3.66E-24	3.80E-28	1.96E-33	.00E+00	.00E+00
ra223	7.75E-07	7.75E-07	7.75E-07	7.75E-07	7.75E-07	7.77E-07	7.77E-07	7.77E-07	7.77E-07
ra224	3.86E-08	3.86E-08	3.86E-08	3.86E-08	3.88E-08	3.87E-08	3.85E-08	3.76E-08	3.59E-08
ra225	7.27E-07	7.27E-07	7.27E-07	7.27E-07	7.27E-07	7.27E-07	7.27E-07	7.28E-07	7.30E-07
ra226	3.65E-01	3.65E-01	3.65E-01	3.65E-01	3.65E-01	3.65E-01	3.65E-01	3.66E-01	3.66E-01
ra228	2.44E-09	2.44E-09	2.44E-09	2.44E-09	2.44E-09	2.44E-09	2.44E-09	2.45E-09	2.45E-09
ac225	4.91E-07	4.91E-07	4.91E-07	4.91E-07	4.91E-07	4.91E-07	4.91E-07	4.92E-07	4.93E-07
ac227	5.49E-04	5.49E-04	5.49E-04	5.49E-04	5.49E-04	5.49E-04	5.49E-04	5.49E-04	5.49E-04
ac228	2.98E-13	2.98E-13	2.98E-13	2.98E-13	2.98E-13	2.98E-13	2.98E-13	2.98E-13	2.99E-13
th226	3.65E-21	3.65E-21	3.65E-21	3.53E-21	1.82E-22	1.89E-26	9.76E-32	.00E+00	.00E+00
th227	1.27E-06	1.27E-06	1.27E-06	1.27E-06	1.27E-06	1.28E-06	1.28E-06	1.28E-06	1.28E-06
th228	7.50E-06	7.50E-06	7.50E-06	7.50E-06	7.50E-06	7.48E-06	7.45E-06	7.29E-06	6.97E-06
th229	1.44E-01	1.44E-01	1.44E-01	1.44E-01	1.44E-01	1.44E-01	1.44E-01	1.44E-01	1.44E-01
th230	2.97E+01	2.97E+01	2.97E+01	2.97E+01	2.97E+01	2.97E+01	2.97E+01	2.97E+01	2.98E+01
th231	8.00E-07	8.00E-07	8.00E-07	7.35E-07	6.65E-07	6.65E-07	6.65E-07	6.65E-07	6.65E-07

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	6.08E+00	6.08E+00	6.08E+00	6.08E+00	6.08E+00	6.08E+00	6.08E+00	6.09E+00	6.09E+00
th233	5.53E-11	5.53E-11	5.53E-11	2.01E-30	.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	8.40E-01	8.40E-01	8.40E-01	8.40E-01	8.40E-01	8.40E-01	8.40E-01	8.41E-01	8.41E-01
pa232	1.42E-08	1.42E-08	1.42E-08	8.39E-09	2.99E-29	.00E+00	.00E+00	.00E+00	.00E+00
pa233	3.36E-04	3.36E-04	3.36E-04	3.36E-04	3.36E-04	3.36E-04	3.36E-04	3.36E-04	3.36E-04
pa234m	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.23E-09	4.24E-09	4.23E-09	4.23E-09	4.23E-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	3.60E-18	3.60E-18	3.60E-18	3.48E-18	1.79E-19	1.86E-23	9.61E-29	.00E+00	.00E+00
u231	1.16E-14	1.16E-14	1.16E-14	9.86E-15	4.14E-21	7.87E-41	.00E+00	.00E+00	.00E+00
u232	2.78E-04	2.78E-04	2.78E-04	2.78E-04	2.77E-04	2.75E-04	2.72E-04	2.65E-04	2.52E-04
u233	1.53E+01	1.53E+01	1.53E+01	1.53E+01	1.53E+01	1.53E+01	1.53E+01	1.53E+01	1.54E+01
u234	2.28E+03	2.28E+03	2.28E+03	2.28E+03	2.28E+03	2.28E+03	2.28E+03	2.28E+03	2.28E+03
u235	1.63E+05	1.63E+05	1.63E+05	1.63E+05	1.63E+05	1.63E+05	1.63E+05	1.63E+05	1.63E+05
u236	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04
u237	7.57E-04	7.57E-04	7.57E-04	6.83E-04	7.46E-08	1.29E-09	1.23E-09	1.06E-09	8.33E-10
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	7.57E-05	7.57E-05	7.57E-05	2.55E-23	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	2.90E-35	2.90E-35	2.90E-35	2.90E-35	2.90E-35	2.90E-35	2.91E-35	2.92E-35	2.95E-35
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	2.05E-09	2.05E-09	2.05E-09	2.05E-09	1.75E-09	1.08E-09	5.71E-10	8.39E-11	3.44E-12
np236m	4.89E-10	4.89E-10	4.89E-10	2.33E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	2.32E-04	2.32E-04	2.32E-04	2.32E-04	2.32E-04	2.32E-04	2.32E-04	2.32E-04	2.32E-04
np237	9.90E+03	9.90E+03	9.90E+03	9.90E+03	9.90E+03	9.90E+03	9.90E+03	9.90E+03	9.90E+03
np238	3.63E-04	3.63E-04	3.63E-04	2.61E-04	8.96E-11	8.92E-11	8.88E-11	8.75E-11	8.54E-11
np239	1.09E-02	1.09E-02	1.09E-02	8.21E-03	2.92E-11	2.91E-11	2.91E-11	2.91E-11	2.91E-11
np240m	2.47E-37	2.47E-37	2.47E-37	2.48E-37	2.47E-37	2.48E-37	2.48E-37	2.49E-37	2.51E-37
np240	2.20E-12	2.20E-12	2.20E-12	2.19E-19	1.80E-39	1.80E-39	1.80E-39	1.80E-39	1.80E-39
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pu236	2.66E-07	2.66E-07	2.66E-07	2.66E-07	2.51E-07	2.09E-07	1.65E-07	8.08E-08	2.48E-08
pu237	9.87E-11	9.87E-11	9.87E-11	9.72E-11	2.48E-11	3.63E-13	1.34E-15	6.67E-23	4.51E-35
pu238	5.49E+00	5.49E+00	5.49E+00	5.49E+00	5.48E+00	5.44E+00	5.40E+00	5.27E+00	5.07E+00
pu239	5.18E+03	5.18E+03	5.18E+03	5.18E+03	5.18E+03	5.18E+03	5.18E+03	5.18E+03	5.18E+03
pu240	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02
pu241	4.45E-02	4.45E-02	4.45E-02	4.45E-02	4.40E-02	4.24E-02	4.04E-02	3.50E-02	2.75E-02
pu242	5.22E-03	5.22E-03	5.22E-03	5.22E-03	5.22E-03	5.22E-03	5.22E-03	5.22E-03	5.23E-03
pu243	1.11E-11	1.11E-11	1.11E-11	3.86E-13	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29
pu244	1.47E-24	1.47E-24	1.47E-24	1.47E-24	1.47E-24	1.47E-24	1.47E-24	1.48E-24	1.49E-24
pu245	5.92E-35	5.92E-35	5.92E-35	1.21E-35	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu246	.00E+00	.00E+00	.00E+00	.00E+00	3.45E-43	.00E+00	.00E+00	.00E+00	.00E+00
am239	2.92E-16	2.92E-16	2.92E-16	7.21E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am240	1.34E-13	1.34E-13	1.34E-13	9.67E-14	2.24E-26	.00E+00	.00E+00	.00E+00	.00E+00
am241	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
am242m	4.93E-04	4.93E-04	4.93E-04	4.93E-04	4.92E-04	4.91E-04	4.88E-04	4.81E-04	4.69E-04
am242	4.26E-08	4.26E-08	4.26E-08	1.92E-08	6.35E-09	6.33E-09	6.30E-09	6.21E-09	6.06E-09
am243	3.38E-05	3.38E-05	3.38E-05	3.38E-05	3.38E-05	3.38E-05	3.38E-05	3.38E-05	3.38E-05
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	2.58E-13	2.58E-13	2.58E-13	4.97E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am245	1.27E-35	1.27E-35	1.27E-35	4.13E-36	9.72E-37	5.37E-37	2.45E-37	2.19E-38	.00E+00
am246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm241	2.51E-18	2.51E-18	2.51E-18	2.46E-18	3.75E-19	1.12E-21	4.96E-25	4.36E-35	.00E+00

1
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 3

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	8.60E-06	8.60E-06	8.60E-06	8.59E-06	6.30E-06	2.83E-06	1.60E-06	1.26E-06	1.22E-06
cm243	6.43E-15	6.43E-15	6.43E-15	6.43E-15	6.39E-15	6.27E-15	6.12E-15	5.69E-15	5.04E-15
cm244	4.05E-09	4.05E-09	4.05E-09	4.05E-09	4.01E-09	3.90E-09	3.75E-09	3.34E-09	2.76E-09
cm245	4.24E-12	4.24E-12	4.24E-12	4.24E-12	4.24E-12	4.24E-12	4.24E-12	4.24E-12	4.24E-12
cm246	1.99E-14	1.99E-14	1.99E-14	1.99E-14	1.99E-14	1.99E-14	1.99E-14	1.99E-14	1.99E-14
cm247	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18
cm248	1.37E-21	1.37E-21	1.37E-21	1.37E-21	1.37E-21	1.37E-21	1.37E-21	1.37E-21	1.37E-21
cm249	4.32E-32	4.32E-32	4.32E-32	7.56E-39	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm250	1.01E-36	1.01E-36	1.01E-36	1.01E-36	1.01E-36	1.01E-36	1.01E-36	1.01E-36	1.01E-36
cm251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk249	3.11E-28	3.11E-28	3.11E-28	3.10E-28	2.56E-28	1.41E-28	6.39E-29	5.95E-30	1.14E-31
bk250	3.63E-36	3.63E-36	3.63E-36	2.06E-38	.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	6.78E-26	6.78E-26	6.78E-26	6.78E-26	6.78E-26	6.78E-26	6.78E-26	6.74E-26	6.68E-26
cf250	8.66E-30	8.66E-30	8.66E-30	8.66E-30	8.55E-30	8.21E-30	7.79E-30	6.64E-30	5.10E-30
cf251	1.16E-31	1.16E-31	1.16E-31	1.16E-31	1.16E-31	1.16E-31	1.16E-31	1.16E-31	1.15E-31
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	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06

1
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 4

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	4.77E-07	4.77E-07	4.77E-07	4.77E-07	4.77E-07	4.77E-07	4.77E-07	4.77E-07	4.77E-07

tl207	3.96E-02	3.96E-02	3.96E-02	3.96E-02	3.96E-02	3.97E-02	3.97E-02	3.97E-02	3.97E-02
tl208	2.21E-03	2.21E-03	2.21E-03	2.26E-03	2.22E-03	2.21E-03	2.20E-03	2.15E-03	2.06E-03
tl209	5.99E-04	5.99E-04	5.99E-04	5.99E-04	5.99E-04	5.99E-04	5.99E-04	6.00E-04	6.01E-04
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	2.85E-02	2.85E-02	2.85E-02	2.72E-02	2.85E-02	2.85E-02	2.85E-02	2.86E-02	2.86E-02
pb210	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01
pb211	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.98E-02	3.98E-02	3.98E-02	3.98E-02
pb212	6.15E-03	6.15E-03	6.15E-03	6.15E-03	6.18E-03	6.16E-03	6.13E-03	5.99E-03	5.72E-03
pb214	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.62E-01	3.62E-01
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	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01
bi211	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.98E-02	3.98E-02	3.98E-02	3.98E-02
bi212	6.15E-03	6.15E-03	6.15E-03	6.28E-03	6.18E-03	6.16E-03	6.13E-03	5.99E-03	5.72E-03
bi213	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.86E-02	2.86E-02
bi214	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.62E-01	3.62E-01
po210	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.59E-01	3.57E-01	3.57E-01	3.59E-01	3.61E-01
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	1.09E-04	1.09E-04	1.09E-04	1.09E-04	1.09E-04	1.10E-04	1.09E-04	1.09E-04	1.09E-04
po212	3.94E-03	3.94E-03	3.94E-03	4.02E-03	3.96E-03	3.95E-03	3.93E-03	3.84E-03	3.66E-03
po213	2.79E-02	2.79E-02	2.79E-02	2.79E-02	2.79E-02	2.79E-02	2.79E-02	2.80E-02	2.80E-02
po214	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.62E-01
po215	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.98E-02	3.98E-02	3.98E-02	3.98E-02
po216	6.15E-03	6.15E-03	6.15E-03	6.15E-03	6.18E-03	6.16E-03	6.13E-03	5.99E-03	5.72E-03
po218	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.62E-01	3.62E-01
at217	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.86E-02	2.86E-02
rn218	9.82E-14	9.82E-14	9.82E-14	9.51E-14	4.90E-15	5.08E-19	2.63E-24	.00E+00	.00E+00
rn219	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.98E-02	3.98E-02	3.98E-02	3.98E-02
rn220	6.15E-03	6.15E-03	6.15E-03	6.15E-03	6.18E-03	6.16E-03	6.13E-03	5.99E-03	5.72E-03
rn222	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.62E-01	3.62E-01
fr221	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.86E-02	2.86E-02
fr223	5.48E-04	5.48E-04	5.48E-04	5.48E-04	5.48E-04	5.48E-04	5.48E-04	5.48E-04	5.48E-04
ra222	9.82E-14	9.82E-14	9.82E-14	9.51E-14	4.90E-15	5.08E-19	2.63E-24	.00E+00	.00E+00
ra223	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.98E-02	3.98E-02	3.98E-02	3.98E-02
ra224	6.15E-03	6.15E-03	6.15E-03	6.15E-03	6.18E-03	6.16E-03	6.13E-03	5.99E-03	5.72E-03
ra225	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.86E-02	2.86E-02
ra226	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.61E-01	3.62E-01	3.62E-01
ra228	6.67E-07	6.67E-07	6.67E-07	6.67E-07	6.67E-07	6.67E-07	6.67E-07	6.67E-07	6.68E-07
ac225	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.86E-02	2.86E-02
ac227	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.97E-02
ac228	6.67E-07	6.67E-07	6.67E-07	6.67E-07	6.67E-07	6.67E-07	6.67E-07	6.67E-07	6.68E-07
th226	9.82E-14	9.82E-14	9.82E-14	9.51E-14	4.90E-15	5.08E-19	2.63E-24	.00E+00	.00E+00
th227	3.92E-02	3.92E-02	3.92E-02	3.92E-02	3.92E-02	3.93E-02	3.93E-02	3.93E-02	3.93E-02
th228	6.15E-03	6.15E-03	6.15E-03	6.15E-03	6.15E-03	6.14E-03	6.11E-03	5.98E-03	5.71E-03
th229	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.86E-02	2.86E-02
th230	6.12E-01	6.12E-01	6.12E-01	6.12E-01	6.12E-01	6.13E-01	6.13E-01	6.13E-01	6.14E-01
th231	4.25E-01	4.25E-01	4.25E-01	3.91E-01	3.53E-01	3.53E-01	3.53E-01	3.53E-01	3.53E-01

1

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

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
th232	6.67E-07	6.67E-07	6.67E-07	6.67E-07	6.67E-07	6.67E-07	6.68E-07	6.69E-07	
th233	2.00E-03	2.00E-03	2.00E-03	7.28E-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	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.98E-02
pa232	6.12E-03	6.12E-03	6.12E-03	3.61E-03	1.28E-23	.00E+00	.00E+00	.00E+00	.00E+00

pa233	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.99E+00	6.98E+00	6.98E+00	6.98E+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	3.78E-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
u230	9.82E-14	9.82E-14	9.82E-14	9.50E-14	4.89E-15	5.08E-19	2.63E-24	.00E+00	.00E+00
u231	1.57E-09	1.57E-09	1.57E-09	1.33E-09	5.57E-16	.00E+00	.00E+00	.00E+00	.00E+00
u232	6.14E-03	6.14E-03	6.14E-03	6.14E-03	6.12E-03	6.08E-03	6.02E-03	5.84E-03	5.56E-03
u233	1.48E-01	1.48E-01	1.48E-01	1.48E-01	1.48E-01	1.48E-01	1.48E-01	1.48E-01	1.48E-01
u234	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01
u235	3.53E-01	3.53E-01	3.53E-01	3.53E-01	3.53E-01	3.53E-01	3.53E-01	3.53E-01	3.53E-01
u236	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00
u237	6.18E+01	6.18E+01	6.18E+01	5.58E+01	6.10E-03	1.05E-04	1.00E-04	8.66E-05	6.80E-05
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	8.56E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	2.68E-29	2.68E-29	2.68E-29	2.68E-29	2.68E-29	2.69E-29	2.69E-29	2.71E-29	2.73E-29
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	2.88E-06	2.88E-06	2.88E-06	2.87E-06	2.46E-06	1.52E-06	8.01E-07	1.18E-07	4.82E-09
np236m	2.89E-04	2.89E-04	2.89E-04	1.38E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	3.05E-06	3.05E-06	3.05E-06	3.05E-06	3.05E-06	3.05E-06	3.05E-06	3.05E-06	3.05E-06
np237	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00
np238	9.40E+01	9.40E+01	9.40E+01	6.78E+01	2.32E-05	2.31E-05	2.30E-05	2.27E-05	2.21E-05
np239	2.54E+03	2.54E+03	2.54E+03	1.91E+03	6.77E-06	6.76E-06	6.76E-06	6.76E-06	6.75E-06
np240m	2.68E-29	2.68E-29	2.68E-29	2.69E-29	2.68E-29	2.69E-29	2.69E-29	2.71E-29	2.73E-29
np240	2.79E-05	2.79E-05	2.79E-05	2.77E-12	2.28E-32	2.28E-32	2.28E-32	2.28E-32	2.28E-32
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	1.39E-04	1.39E-04	1.39E-04	1.39E-04	1.31E-04	1.09E-04	8.62E-05	4.22E-05	1.30E-05
pu237	1.20E-06	1.20E-06	1.20E-06	1.19E-06	3.03E-07	4.43E-09	1.63E-11	8.14E-19	5.48E-31
pu238	9.40E+01	9.40E+01	9.40E+01	9.40E+01	9.38E+01	9.33E+01	9.25E+01	9.04E+01	8.69E+01
pu239	3.22E+02	3.22E+02	3.22E+02	3.22E+02	3.22E+02	3.22E+02	3.22E+02	3.22E+02	3.21E+02
pu240	2.45E+01	2.45E+01	2.45E+01	2.45E+01	2.45E+01	2.45E+01	2.45E+01	2.45E+01	2.45E+01
pu241	4.61E+00	4.61E+00	4.61E+00	4.61E+00	4.55E+00	4.39E+00	4.18E+00	3.62E+00	2.84E+00
pu242	2.07E-05	2.07E-05	2.07E-05	2.07E-05	2.07E-05	2.07E-05	2.07E-05	2.07E-05	2.07E-05
pu243	2.88E-05	2.88E-05	2.88E-05	1.00E-06	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22
pu244	2.69E-29	2.69E-29	2.69E-29	2.69E-29	2.69E-29	2.69E-29	2.69E-29	2.71E-29	2.73E-29
pu245	7.21E-29	7.21E-29	7.21E-29	1.48E-29	.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	3.22E-10	3.22E-10	3.22E-10	7.95E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am240	3.44E-08	3.44E-08	3.44E-08	2.48E-08	5.75E-21	.00E+00	.00E+00	.00E+00	.00E+00
am241	3.62E+00	3.62E+00	3.62E+00	3.62E+00	3.62E+00	3.62E+00	3.62E+00	3.63E+00	3.62E+00
am242m	5.17E-03	5.17E-03	5.17E-03	5.17E-03	5.16E-03	5.14E-03	5.12E-03	5.04E-03	4.92E-03
am242	3.45E-02	3.45E-02	3.45E-02	1.55E-02	5.14E-03	5.12E-03	5.09E-03	5.02E-03	4.90E-03
am243	6.76E-06	6.76E-06	6.76E-06	6.76E-06	6.76E-06	6.76E-06	6.76E-06	6.76E-06	6.75E-06
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	3.28E-07	3.28E-07	3.28E-07	6.32E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am245	7.95E-29	7.95E-29	7.95E-29	2.58E-29	6.07E-30	3.35E-30	1.53E-30	1.37E-31	.00E+00
am246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm241	4.15E-14	4.15E-14	4.15E-14	4.06E-14	6.19E-15	1.84E-17	8.20E-21	7.30E-31	.00E+00

1
Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.85E-02	2.85E-02	2.85E-02	2.85E-02	2.09E-02	9.39E-03	5.31E-03	4.17E-03	4.05E-03
cm243	3.32E-13	3.32E-13	3.32E-13	3.32E-13	3.30E-13	3.24E-13	3.16E-13	2.94E-13	2.60E-13
cm244	3.28E-07	3.28E-07	3.28E-07	3.28E-07	3.25E-07	3.16E-07	3.04E-07	2.71E-07	2.24E-07
cm245	7.28E-13	7.28E-13	7.28E-13	7.28E-13	7.28E-13	7.28E-13	7.28E-13	7.28E-13	7.28E-13
cm246	6.12E-15	6.12E-15	6.12E-15	6.12E-15	6.12E-15	6.12E-15	6.12E-15	6.12E-15	6.11E-15
cm247	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22
cm248	5.82E-24	5.82E-24	5.82E-24	5.82E-24	5.82E-24	5.82E-24	5.82E-24	5.82E-24	5.82E-24
cm249	5.09E-25	5.09E-25	5.09E-25	9.13E-32	.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	5.09E-25	5.09E-25	5.09E-25	5.08E-25	4.19E-25	2.31E-25	1.05E-25	9.75E-27	1.87E-28
bk250	1.42E-29	1.42E-29	1.42E-29	9.13E-32	.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	2.78E-25	2.78E-25	2.78E-25	2.78E-25	2.78E-25	2.78E-25	2.78E-25	2.76E-25	2.74E-25
cf250	9.47E-28	9.47E-28	9.47E-28	9.47E-28	9.35E-28	8.98E-28	8.52E-28	7.26E-28	5.57E-28
cf251	1.83E-31	1.83E-31	1.83E-31	1.83E-31	1.83E-31	1.83E-31	1.83E-31	1.83E-31	1.83E-31
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	5.73E+03	5.73E+03	5.73E+03	2.52E+03	4.93E+02	4.92E+02	4.91E+02	4.89E+02	4.84E+02

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 7

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
h 3	3.90E-05	3.90E-05	3.90E-05	3.89E-05	3.84E-05	3.68E-05	3.48E-05	2.94E-05	2.22E-05
li 6	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05
li 7	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06
be 9	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06
be 10	2.94E-05	2.94E-05	2.94E-05	2.94E-05	2.94E-05	2.94E-05	2.94E-05	2.94E-05	2.94E-05
c 14	4.47E-06	4.47E-06	4.47E-06	4.47E-06	4.47E-06	4.47E-06	4.47E-06	4.47E-06	4.46E-06
ni 66	1.50E-13	1.50E-13	1.50E-13	1.11E-13	1.86E-25	.00E+00	.00E+00	.00E+00	.00E+00
cu 66	2.34E-16	2.34E-16	2.34E-16	1.72E-16	2.90E-28	.00E+00	.00E+00	.00E+00	.00E+00
zn 66	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08
cu 67	2.78E-14	2.78E-14	2.78E-14	2.12E-14	8.46E-25	.00E+00	.00E+00	.00E+00	.00E+00
zn 67	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08
zn 68	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10
zn 69	8.27E-16	8.27E-16	8.27E-16	2.15E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69m	9.82E-15	9.82E-15	9.82E-15	2.93E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 69	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08
zn 70	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07
ga 70	8.35E-18	8.35E-18	8.35E-18	2.57E-38	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 70	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10
zn 71	2.03E-15	2.03E-15	2.03E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71m	8.40E-13	8.40E-13	8.40E-13	1.26E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 71	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06
ge 71	6.85E-17	6.85E-17	6.85E-17	6.44E-17	2.93E-19	1.66E-26	4.03E-36	.00E+00	.00E+00
ge 71m	7.07E-25	7.07E-25	7.07E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 72	5.62E-18	5.62E-18	5.62E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 72	9.04E-15	9.04E-15	9.04E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 72	3.56E-14	3.56E-14	3.56E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 72	1.11E-09	1.11E-09	1.11E-09	7.79E-10	1.16E-23	.00E+00	.00E+00	.00E+00	.00E+00
ga 72	3.38E-10	3.38E-10	3.38E-10	2.94E-10	5.03E-24	.00E+00	.00E+00	.00E+00	.00E+00
ge 72	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04
co 73	3.72E-18	3.72E-18	3.72E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 73	1.66E-15	1.66E-15	1.66E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 73	8.58E-14	8.58E-14	8.58E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 73	6.22E-13	6.22E-13	6.22E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 73	4.68E-10	4.68E-10	4.68E-10	1.53E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03
ge 73m	1.32E-14	1.32E-14	1.32E-14	4.30E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 74	5.56E-19	5.56E-19	5.56E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ni 74	2.32E-15	2.32E-15	2.32E-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	7.54E-12	7.54E-12	7.54E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 74	1.12E-11	1.12E-11	1.12E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 74	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03
co 75	9.48E-20	9.48E-20	9.48E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 75	2.84E-16	2.84E-16	2.84E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 75	3.63E-14	3.63E-14	3.63E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 75	2.25E-12	2.25E-12	2.25E-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	7.66E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75m	6.34E-13	6.34E-13	6.34E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 75	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02
ni 76	1.44E-16	1.44E-16	1.44E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 76	9.34E-15	9.34E-15	9.34E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	3.27E-12	3.27E-12	3.27E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 76	2.67E-11	2.67E-11	2.67E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 76	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02
as 76	1.62E-11	1.62E-11	1.62E-11	8.61E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 76	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05
ni 77	7.95E-18	7.95E-18	7.95E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 77	5.75E-15	5.75E-15	5.75E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 77	1.45E-12	1.45E-12	1.45E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 77	2.13E-11	2.13E-11	2.13E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77	2.38E-08	2.38E-08	2.38E-08	5.46E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77m	8.72E-11	8.72E-11	8.72E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 77	2.64E-07	2.64E-07	2.64E-07	1.86E-07	5.37E-24	.00E+00	.00E+00	.00E+00	.00E+00
se 77	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
se 77m	1.05E-13	1.05E-13	1.05E-13	7.44E-14	2.14E-30	.00E+00	.00E+00	.00E+00	.00E+00
ni 78	1.54E-18	1.54E-18	1.54E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 78	7.28E-16	7.28E-16	7.28E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 78	1.19E-12	1.19E-12	1.19E-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	2.67E-08	2.67E-08	2.67E-08	3.17E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 78	2.78E-08	2.78E-08	2.78E-08	4.74E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 78	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01
cu 79	1.70E-16	1.70E-16	1.70E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 79	4.10E-13	4.10E-13	4.10E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 79	1.28E-11	1.28E-11	1.28E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 79	1.86E-10	1.86E-10	1.86E-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	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00
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	5.96E-03	5.96E-03	5.96E-03	5.96E-03	5.96E-03	5.96E-03	5.96E-03	5.97E-03	5.98E-03
br 79m	5.74E-18	5.74E-18	5.74E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 79	3.08E-18	3.08E-18	3.08E-18	1.92E-18	8.42E-37	.00E+00	.00E+00	.00E+00	.00E+00
cu 80	9.64E-18	9.64E-18	9.64E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 80	5.94E-14	5.94E-14	5.94E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 80	4.44E-12	4.44E-12	4.44E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 80	8.19E-10	8.19E-10	8.19E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 80	4.64E-10	4.64E-10	4.64E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 80	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00
br 80	1.11E-13	1.11E-13	1.11E-13	1.21E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80m	7.32E-13	7.32E-13	7.32E-13	1.70E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 80	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06

cu 81	6.93E-19	6.93E-19	6.93E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 81	2.69E-15	2.69E-15	2.69E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 81	2.20E-12	2.20E-12	2.20E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 81	2.29E-10	2.29E-10	2.29E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 81	1.46E-09	1.46E-09	1.46E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81	5.07E-08	5.07E-08	5.07E-08	1.31E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81m	1.02E-08	1.02E-08	1.02E-08	2.76E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 81	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00
kr 81	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07
kr 81m	2.48E-18	2.48E-18	2.48E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 82	8.44E-16	8.44E-16	8.44E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 82	9.74E-13	9.74E-13	9.74E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.46E-10	1.46E-10	1.46E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82	9.69E-10	9.69E-10	9.69E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82m	2.57E-10	2.57E-10	2.57E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 82	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00
br 82	9.87E-09	9.87E-09	9.87E-09	6.17E-09	3.78E-27	.00E+00	.00E+00	.00E+00	.00E+00
br 82m	1.22E-11	1.22E-11	1.22E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 82	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03
zn 83	1.52E-17	1.52E-17	1.52E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 83	3.45E-14	3.45E-14	3.45E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 83	2.49E-11	2.49E-11	2.49E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 83	1.13E-09	1.13E-09	1.13E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83	7.76E-08	7.76E-08	7.76E-08	2.84E-27	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83m	4.66E-09	4.66E-09	4.66E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 83	1.11E-06	1.11E-06	1.11E-06	1.18E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 83	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01
kr 83m	8.49E-07	8.49E-07	8.49E-07	3.89E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 84	2.07E-13	2.07E-13	2.07E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 84	9.44E-12	9.44E-12	9.44E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 84	3.34E-10	3.34E-10	3.34E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 84	4.73E-08	4.73E-08	4.73E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84	4.81E-07	4.81E-07	4.81E-07	1.25E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84m	2.16E-09	2.16E-09	2.16E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 84	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01
ga 85	1.13E-16	1.13E-16	1.13E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 85	3.18E-13	3.18E-13	3.18E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 85	7.82E-11	7.82E-11	7.82E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85	3.97E-09	3.97E-09	3.97E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85m	2.11E-09	2.11E-09	2.11E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 85	5.12E-08	5.12E-08	5.12E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85	2.18E-02	2.18E-02	2.18E-02	2.18E-02	2.14E-02	2.04E-02	1.91E-02	1.58E-02	1.14E-02
kr 85m	4.79E-06	4.79E-06	4.79E-06	1.18E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 85	3.32E+01	3.32E+01	3.32E+01	3.32E+01	3.32E+01	3.32E+01	3.32E+01	3.32E+01	3.32E+01
ge 86	6.36E-14	6.36E-14	6.36E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 86	2.07E-11	2.07E-11	2.07E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 86	4.83E-09	4.83E-09	4.83E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86	2.10E-08	2.10E-08	2.10E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86m	2.90E-10	2.90E-10	2.90E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 86	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01
rb 86	3.00E-08	3.00E-08	3.00E-08	2.89E-08	1.06E-09	3.77E-14	4.75E-20	9.44E-38	.00E+00
rb 86m	7.68E-14	7.68E-14	7.68E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 86	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
ge 87	6.24E-13	6.24E-13	6.24E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 87	4.83E-12	4.83E-12	4.83E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

se 87	1.06E-09	1.06E-09	1.06E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 87	2.78E-08	2.78E-08	2.78E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 87	2.85E-06	2.85E-06	2.85E-06	6.01E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 87	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01
sr 87	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04
sr 87m	2.34E-12	2.34E-12	2.34E-12	6.31E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 88	8.03E-16	8.03E-16	8.03E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 88	1.06E-12	1.06E-12	1.06E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 88	1.41E-10	1.41E-10	1.41E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	8.40E-09	8.40E-09	8.40E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 88	9.10E-06	9.10E-06	9.10E-06	2.60E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 88	9.71E-07	9.71E-07	9.71E-07	3.03E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 88	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02
as 89	6.92E-15	6.92E-15	6.92E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 89	1.33E-11	1.33E-11	1.33E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 89	1.48E-09	1.48E-09	1.48E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 89	2.21E-07	2.21E-07	2.21E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 89	1.12E-06	1.12E-06	1.12E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 89	5.38E-03	5.38E-03	5.38E-03	5.31E-03	1.57E-03	3.60E-05	2.40E-07	7.18E-14	9.60E-25
y 89	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02
y 89m	2.00E-12	2.00E-12	2.00E-12	1.81E-12	5.36E-13	1.23E-14	8.22E-17	2.46E-23	3.28E-34
as 90	3.69E-17	3.69E-17	3.69E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 90	2.86E-12	2.86E-12	2.86E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 90	3.42E-10	3.42E-10	3.42E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 90	4.13E-08	4.13E-08	4.13E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90	1.79E-07	1.79E-07	1.79E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90m	8.59E-08	8.59E-08	8.59E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 90	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.33E+00	1.30E+00	1.27E+00	1.18E+00	1.04E+00
y 90	3.47E-04	3.47E-04	3.47E-04	3.47E-04	3.45E-04	3.39E-04	3.30E-04	3.07E-04	2.71E-04
y 90m	1.53E-12	1.53E-12	1.53E-12	8.32E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90	1.66E+02	1.66E+02	1.66E+02	1.66E+02	1.66E+02	1.66E+02	1.66E+02	1.66E+02	1.67E+02
zr 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 91	1.43E-13	1.43E-13	1.43E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 91	3.90E-11	3.90E-11	3.90E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 91	7.57E-09	7.57E-09	7.57E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	8.60E-08	8.60E-08	8.60E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 91	5.29E-05	5.29E-05	5.29E-05	9.23E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91	7.80E-03	7.80E-03	7.80E-03	7.75E-03	2.70E-03	1.04E-04	1.37E-06	3.15E-12	1.27E-21
y 91m	2.67E-06	2.67E-06	2.67E-06	5.10E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 91	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02
nb 91	2.11E-11	2.11E-11	2.11E-11	2.11E-11	2.11E-11	2.11E-11	2.11E-11	2.10E-11	2.09E-11
se 92	5.87E-15	5.87E-15	5.87E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 92	3.66E-12	3.66E-12	3.66E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 92	8.46E-10	8.46E-10	8.46E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 92	5.77E-09	5.77E-09	5.77E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 92	1.53E-05	1.53E-05	1.53E-05	3.30E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 92	2.01E-05	2.01E-05	2.01E-05	6.35E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 92	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02
nb 92	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08
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	2.02E-13	2.02E-13	2.02E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 93	1.89E-10	1.89E-10	1.89E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 93	5.57E-09	5.57E-09	5.57E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 93	7.51E-07	7.51E-07	7.51E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 93	4.14E-05	4.14E-05	4.14E-05	8.08E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

zr 93	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
nb 93	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
nb 93m	1.33E-03	1.33E-03	1.33E-03	1.33E-03	1.33E-03	1.33E-03	1.33E-03	1.33E-03	1.33E-03
br 94	8.10E-15	8.10E-15	8.10E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 94	1.34E-11	1.34E-11	1.34E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 94	1.33E-09	1.33E-09	1.33E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 11

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
sr 94	1.24E-07	1.24E-07	1.24E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 94	1.97E-06	1.97E-06	1.97E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 94	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02
nb 94	5.78E-05	5.78E-05	5.78E-05	5.78E-05	5.78E-05	5.78E-05	5.78E-05	5.78E-05	5.78E-05
nb 94m	1.45E-13	1.45E-13	1.45E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 95	6.48E-17	6.48E-17	6.48E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 95	2.42E-12	2.42E-12	2.42E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 95	8.92E-11	8.92E-11	8.92E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 95	3.74E-08	3.74E-08	3.74E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 95	1.12E-06	1.12E-06	1.12E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 95	9.99E-03	9.99E-03	9.99E-03	9.88E-03	3.77E-03	1.91E-04	3.67E-06	2.58E-11	6.67E-20
nb 95	5.45E-03	5.45E-03	5.45E-03	5.45E-03	3.43E-03	2.25E-04	4.55E-06	3.11E-11	8.02E-20
nb 95m	6.25E-06	6.25E-06	6.25E-06	6.25E-06	2.50E-06	1.27E-07	2.43E-09	1.71E-14	4.42E-23
mo 95	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02
br 96	1.28E-17	1.28E-17	1.28E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 96	1.85E-13	1.85E-13	1.85E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 96	1.19E-11	1.19E-11	1.19E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 96	1.16E-09	1.16E-09	1.16E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 96	1.00E-08	1.00E-08	1.00E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 96	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02
nb 96	1.76E-08	1.76E-08	1.76E-08	8.62E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 96	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01
kr 97	5.81E-16	5.81E-16	5.81E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 97	3.69E-12	3.69E-12	3.69E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 97	2.43E-10	2.43E-10	2.43E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 97	4.90E-09	4.90E-09	4.90E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 97	9.86E-05	9.86E-05	9.86E-05	3.68E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97	7.03E-06	7.03E-06	7.03E-06	2.63E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97m	9.22E-08	9.22E-08	9.22E-08	3.45E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 97	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02
kr 98	3.00E-16	3.00E-16	3.00E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 98	1.13E-13	1.13E-13	1.13E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 98	1.36E-10	1.36E-10	1.36E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 98	6.68E-10	6.68E-10	6.68E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 98	5.16E-08	5.16E-08	5.16E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98	4.83E-09	4.83E-09	4.83E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98m	2.19E-08	2.19E-08	2.19E-08	7.76E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 98	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02
tc 98	3.19E-05	3.19E-05	3.19E-05	3.19E-05	3.19E-05	3.19E-05	3.19E-05	3.19E-05	3.19E-05
rb 99	1.37E-15	1.37E-15	1.37E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 99	2.81E-11	2.81E-11	2.81E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 99	1.02E-09	1.02E-09	1.02E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 99	3.49E-09	3.49E-09	3.49E-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	4.29E-04	4.29E-04	4.29E-04	3.33E-04	5.92E-14	.00E+00	.00E+00	.00E+00	.00E+00
tc 99	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02
tc 99m	3.44E-05	3.44E-05	3.44E-05	2.92E-05	5.22E-15	.00E+00	.00E+00	.00E+00	.00E+00
ru 99	1.62E+00	1.62E+00	1.62E+00	1.62E+00	1.62E+00	1.62E+00	1.62E+00	1.62E+00	1.62E+00

rb100	6.12E-16	6.12E-16	6.12E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr100	1.34E-12	1.34E-12	1.34E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y100	1.26E-10	1.26E-10	1.26E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.22E-08	1.22E-08	1.22E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100	2.69E-09	2.69E-09	2.69E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100m	2.11E-10	2.11E-10	2.11E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo100	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02
tc100	1.25E-10	1.25E-10	1.25E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru100	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01
rb101	4.21E-18	4.21E-18	4.21E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr101	2.47E-13	2.47E-13	2.47E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y101	6.07E-11	6.07E-11	6.07E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr101	1.87E-09	1.87E-09	1.87E-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	1.37E-06	1.37E-06	1.37E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc101	1.33E-06	1.33E-06	1.33E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru101	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02
sr102	8.34E-14	8.34E-14	8.34E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y102	6.73E-11	6.73E-11	6.73E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr102	2.08E-09	2.08E-09	2.08E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb102	1.59E-09	1.59E-09	1.59E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo102	9.09E-07	9.09E-07	9.09E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102	7.08E-09	7.08E-09	7.08E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102m	1.97E-10	1.97E-10	1.97E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru102	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02
rh102	9.76E-09	9.76E-09	9.76E-09	9.76E-09	9.20E-09	7.69E-09	6.05E-09	2.95E-09	8.94E-10
pd102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr103	1.02E-16	1.02E-16	1.02E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y103	6.06E-12	6.06E-12	6.06E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr103	2.72E-10	2.72E-10	2.72E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb103	1.12E-09	1.12E-09	1.12E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo103	6.85E-08	6.85E-08	6.85E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc103	5.63E-08	5.63E-08	5.63E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru103	3.52E-03	3.52E-03	3.52E-03	3.46E-03	7.19E-04	5.58E-06	8.82E-09	3.50E-17	3.47E-31
rh103	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02
rh103m	3.49E-06	3.49E-06	3.49E-06	3.43E-06	7.13E-07	5.53E-09	8.74E-12	3.47E-20	3.44E-34
sr104	4.35E-17	4.35E-17	4.35E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y104	2.40E-14	2.40E-14	2.40E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr104	1.20E-10	1.20E-10	1.20E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb104	1.31E-09	1.31E-09	1.31E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo104	3.92E-08	3.92E-08	3.92E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc104	7.44E-07	7.44E-07	7.44E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru104	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01
rh104	9.24E-10	9.24E-10	9.24E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104m	4.15E-10	4.15E-10	4.15E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd104	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00
y105	2.62E-16	2.62E-16	2.62E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr105	1.37E-11	1.37E-11	1.37E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb105	2.96E-10	2.96E-10	2.96E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo105	1.37E-08	1.37E-08	1.37E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc105	1.90E-07	1.90E-07	1.90E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru105	6.67E-06	6.67E-06	6.67E-06	1.62E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105	5.32E-05	5.32E-05	5.32E-05	3.79E-05	2.50E-23	.00E+00	.00E+00	.00E+00	.00E+00
rh105m	5.34E-09	5.34E-09	5.34E-09	1.30E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd105	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01

1
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.69E-18	2.69E-18	2.69E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr106	2.91E-13	2.91E-13	2.91E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb106	9.77E-12	9.77E-12	9.77E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo106	1.42E-09	1.42E-09	1.42E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc106	7.55E-09	7.55E-09	7.55E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru106	7.16E-03	7.16E-03	7.16E-03	7.14E-03	6.05E-03	3.62E-03	1.83E-03	2.37E-04	7.87E-06
rh106	6.64E-09	6.64E-09	6.64E-09	6.63E-09	5.62E-09	3.36E-09	1.70E-09	2.20E-10	7.31E-12
rh106m	5.66E-11	5.66E-11	5.66E-11	2.62E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd106	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01
ag106	1.36E-18	1.36E-18	1.36E-18	1.18E-36	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y107	2.53E-20	2.53E-20	2.53E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr107	7.48E-16	7.48E-16	7.48E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb107	1.20E-12	1.20E-12	1.20E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo107	1.89E-10	1.89E-10	1.89E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc107	2.09E-09	2.09E-09	2.09E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru107	2.67E-08	2.67E-08	2.67E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh107	1.55E-07	1.55E-07	1.55E-07	2.00E-27	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd107	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.81E+00
pd107m	1.62E-13	1.62E-13	1.62E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag107	2.32E-03	2.32E-03	2.32E-03	2.32E-03	2.32E-03	2.32E-03	2.32E-03	2.32E-03	2.33E-03
zr108	4.58E-17	4.58E-17	4.58E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb108	9.67E-15	9.67E-15	9.67E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo108	7.70E-12	7.70E-12	7.70E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc108	1.49E-10	1.49E-10	1.49E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru108	1.80E-08	1.80E-08	1.80E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108	1.13E-09	1.13E-09	1.13E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108m	3.80E-10	3.80E-10	3.80E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd108	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00
ag108	9.74E-15	9.74E-15	9.74E-15	1.29E-17	1.28E-17	1.28E-17	1.27E-17	1.25E-17	1.22E-17
ag108m	4.17E-09	4.17E-09	4.17E-09	4.17E-09	4.16E-09	4.15E-09	4.12E-09	4.06E-09	3.95E-09
cd108	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06
zr109	1.27E-20	1.27E-20	1.27E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb109	5.41E-16	5.41E-16	5.41E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo109	7.35E-13	7.35E-13	7.35E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc109	1.27E-11	1.27E-11	1.27E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru109	1.49E-09	1.49E-09	1.49E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109	3.98E-09	3.98E-09	3.98E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109m	1.24E-09	1.24E-09	1.24E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109	2.47E-06	2.47E-06	2.47E-06	7.35E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109m	3.74E-11	3.74E-11	3.74E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00
ag109m	1.98E-09	1.98E-09	1.98E-09	5.91E-10	5.29E-19	3.50E-19	2.03E-19	3.92E-20	2.54E-21
cd109	6.11E-13	6.11E-13	6.11E-13	6.10E-13	5.34E-13	3.54E-13	2.05E-13	3.96E-14	2.57E-15
nb110	1.07E-17	1.07E-17	1.07E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo110	1.96E-13	1.96E-13	1.96E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc110	1.41E-12	1.41E-12	1.41E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru110	2.50E-10	2.50E-10	2.50E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110	8.40E-12	8.40E-12	8.40E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110m	5.51E-10	5.51E-10	5.51E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd110	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00
ag110	1.47E-11	1.47E-11	1.47E-11	8.04E-15	6.28E-15	2.93E-15	1.06E-15	5.08E-17	3.20E-19
ag110m	5.20E-07	5.20E-07	5.20E-07	5.19E-07	4.05E-07	1.89E-07	6.85E-08	3.27E-09	2.06E-11

1
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02
nb111	1.25E-19	1.25E-19	1.25E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo111	3.62E-15	3.62E-15	3.62E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc111	8.32E-13	8.32E-13	8.32E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru111	1.06E-11	1.06E-11	1.06E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh111	1.34E-10	1.34E-10	1.34E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111	1.80E-08	1.80E-08	1.80E-08	2.69E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111m	9.94E-09	9.94E-09	9.94E-09	4.83E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111	8.29E-06	8.29E-06	8.29E-06	7.58E-06	1.92E-09	1.45E-20	2.53E-35	.00E+00	.00E+00
ag111m	8.31E-10	8.31E-10	8.31E-10	1.54E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd111	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00
cd111m	2.74E-14	2.74E-14	2.74E-14	3.30E-23	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb112	2.37E-21	2.37E-21	2.37E-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	4.07E-14	4.07E-14	4.07E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru112	1.16E-11	1.16E-11	1.16E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh112	1.04E-11	1.04E-11	1.04E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd112	6.25E-07	6.25E-07	6.25E-07	2.84E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag112	9.33E-08	9.33E-08	9.33E-08	4.96E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd112	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01
mo113	5.64E-18	5.64E-18	5.64E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc113	1.70E-14	1.70E-14	1.70E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru113	4.18E-12	4.18E-12	4.18E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh113	4.40E-12	4.40E-12	4.40E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd113	6.38E-10	6.38E-10	6.38E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113	1.28E-07	1.28E-07	1.28E-07	5.82E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113m	9.00E-11	9.00E-11	9.00E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd113	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01
cd113m	5.05E-05	5.05E-05	5.05E-05	5.05E-05	4.99E-05	4.81E-05	4.58E-05	3.95E-05	3.09E-05
in113	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02
in113m	1.49E-17	1.49E-17	1.49E-17	6.54E-22	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo114	4.81E-18	4.81E-18	4.81E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc114	8.41E-16	8.41E-16	8.41E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru114	4.50E-12	4.50E-12	4.50E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh114	4.77E-12	4.77E-12	4.77E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd114	8.65E-10	8.65E-10	8.65E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag114	2.77E-11	2.77E-11	2.77E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd114	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00
in114	1.03E-14	1.03E-14	1.03E-14	7.35E-15	2.11E-15	4.48E-17	2.70E-19	5.87E-26	4.63E-37
in114m	4.63E-10	4.63E-10	4.63E-10	4.57E-10	1.31E-10	2.79E-12	1.68E-14	3.65E-21	2.88E-32
sn114	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06
mo115	6.98E-21	6.98E-21	6.98E-21	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc115	3.57E-17	3.57E-17	3.57E-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	1.11E-11	1.11E-11	1.11E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd115	1.62E-10	1.62E-10	1.62E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115	3.95E-09	3.95E-09	3.95E-09	8.63E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115m	2.39E-11	2.39E-11	2.39E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115	8.52E-07	8.52E-07	8.52E-07	6.27E-07	5.92E-19	.00E+00	.00E+00	.00E+00	.00E+00
cd115m	7.39E-07	7.39E-07	7.39E-07	7.28E-07	1.82E-07	2.53E-09	8.66E-12	3.47E-19	1.63E-31
in115	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01
in115m	7.15E-08	7.15E-08	7.15E-08	5.73E-08	8.45E-14	1.17E-15	4.01E-18	1.61E-25	7.54E-38

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 15

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	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02

tc116	6.70E-18	6.70E-18	6.70E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru116	6.96E-14	6.96E-14	6.96E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh116	7.45E-13	7.45E-13	7.45E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd116	7.24E-11	7.24E-11	7.24E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116	1.00E-09	1.00E-09	1.00E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116m	5.60E-12	5.60E-12	5.60E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd116	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01
in116	2.97E-13	2.97E-13	2.97E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in116m	2.58E-10	2.58E-10	2.58E-10	2.54E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn116	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03
tc117	9.96E-20	9.96E-20	9.96E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru117	1.93E-15	1.93E-15	1.93E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh117	3.20E-13	3.20E-13	3.20E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd117	1.67E-11	1.67E-11	1.67E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117	1.75E-10	1.75E-10	1.75E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117m	1.28E-11	1.28E-11	1.28E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117	3.73E-08	3.73E-08	3.73E-08	4.71E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117m	1.05E-08	1.05E-08	1.05E-08	7.44E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117	7.94E-09	7.94E-09	7.94E-09	5.07E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117m	2.66E-08	2.66E-08	2.66E-08	1.58E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn117	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01
sn117m	1.14E-08	1.14E-08	1.14E-08	1.09E-08	1.17E-10	9.47E-17	7.79E-25	.00E+00	.00E+00
tc118	1.60E-21	1.60E-21	1.60E-21	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru118	5.40E-16	5.40E-16	5.40E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh118	1.68E-14	1.68E-14	1.68E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd118	4.90E-12	4.90E-12	4.90E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118	1.08E-11	1.08E-11	1.08E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118m	4.06E-12	4.06E-12	4.06E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd118	1.42E-08	1.42E-08	1.42E-08	3.43E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118	2.36E-11	2.36E-11	2.36E-11	5.70E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118m	7.56E-13	7.56E-13	7.56E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn118	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01
ru119	2.13E-17	2.13E-17	2.13E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh119	9.91E-15	9.91E-15	9.91E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd119	1.95E-12	1.95E-12	1.95E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag119	7.88E-12	7.88E-12	7.88E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119	5.84E-10	5.84E-10	5.84E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119m	2.00E-10	2.00E-10	2.00E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119	2.86E-10	2.86E-10	2.86E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119m	3.53E-09	3.53E-09	3.53E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn119	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01
sn119m	4.72E-07	4.72E-07	4.72E-07	4.71E-07	3.82E-07	1.99E-07	8.40E-08	6.29E-09	8.37E-11
ru120	4.61E-18	4.61E-18	4.61E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh120	7.09E-16	7.09E-16	7.09E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd120	2.03E-12	2.03E-12	2.03E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag120	2.93E-12	2.93E-12	2.93E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd120	2.56E-10	2.56E-10	2.56E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120	1.57E-11	1.57E-11	1.57E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120m	2.36E-12	2.36E-12	2.36E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn120	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01
rh121	2.57E-16	2.57E-16	2.57E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 16

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
pd121	1.25E-13	1.25E-13	1.25E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag121	1.46E-12	1.46E-12	1.46E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd121	7.08E-11	7.08E-11	7.08E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121	7.84E-12	7.84E-12	7.84E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

in121m	1.24E-09	1.24E-09	1.24E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121	5.44E-07	5.44E-07	5.44E-07	2.96E-07	3.16E-09	3.13E-09	3.09E-09	2.98E-09	2.79E-09
sn121m	7.28E-05	7.28E-05	7.28E-05	7.28E-05	7.25E-05	7.18E-05	7.09E-05	6.83E-05	6.41E-05
sb121	5.83E-01	5.83E-01	5.83E-01	5.83E-01	5.83E-01	5.83E-01	5.83E-01	5.83E-01	5.83E-01
rh122	1.21E-17	1.21E-17	1.21E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd122	8.74E-14	8.74E-14	8.74E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag122	4.65E-13	4.65E-13	4.65E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd122	3.01E-11	3.01E-11	3.01E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122	9.25E-12	9.25E-12	9.25E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122m	4.33E-12	4.33E-12	4.33E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn122	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01
sb122	1.13E-09	1.13E-09	1.13E-09	8.76E-10	1.05E-19	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	1.27E-13	1.27E-13	1.27E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te122	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04
rh123	1.21E-18	1.21E-18	1.21E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd123	2.79E-15	2.79E-15	2.79E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag123	1.38E-13	1.38E-13	1.38E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd123	3.32E-11	3.32E-11	3.32E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123	2.53E-11	2.53E-11	2.53E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123m	5.62E-11	5.62E-11	5.62E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123	7.41E-06	7.41E-06	7.41E-06	7.37E-06	4.57E-06	1.04E-06	1.47E-07	4.11E-10	2.28E-14
sn123m	1.46E-08	1.46E-08	1.46E-08	2.26E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb123	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01
te123	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08
te123m	4.83E-12	4.83E-12	4.83E-12	4.80E-12	2.87E-12	5.82E-13	7.02E-14	1.23E-16	3.14E-21
pd124	2.90E-15	2.90E-15	2.90E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag124	8.21E-14	8.21E-14	8.21E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd124	5.99E-12	5.99E-12	5.99E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in124	3.35E-11	3.35E-11	3.35E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn124	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00
sb124	4.94E-08	4.94E-08	4.94E-08	4.88E-08	1.75E-08	7.37E-10	1.10E-11	3.64E-17	2.68E-26
sb124m	1.83E-13	1.83E-13	1.83E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te124	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04
pd125	1.99E-16	1.99E-16	1.99E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag125	4.40E-14	4.40E-14	4.40E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd125	6.18E-12	6.18E-12	6.18E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125	1.29E-11	1.29E-11	1.29E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125m	4.81E-11	4.81E-11	4.81E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125	3.14E-06	3.14E-06	3.14E-06	2.92E-06	4.86E-09	1.23E-17	4.85E-29	.00E+00	.00E+00
sn125m	5.32E-09	5.32E-09	5.32E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb125	1.13E-03	1.13E-03	1.13E-03	1.13E-03	1.06E-03	8.78E-04	6.81E-04	3.18E-04	8.94E-05
te125	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00
te125m	1.51E-05	1.51E-05	1.51E-05	1.51E-05	1.48E-05	1.25E-05	9.68E-06	4.52E-06	1.27E-06
pd126	6.77E-17	6.77E-17	6.77E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag126	8.10E-15	8.10E-15	8.10E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd126	2.50E-12	2.50E-12	2.50E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in126	1.76E-11	1.76E-11	1.76E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn126	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.83E-07	1.83E-07	1.83E-07	1.79E-07	9.57E-08	9.52E-08	9.52E-08	9.52E-08	9.52E-08
sb126m	8.53E-10	8.53E-10	8.53E-10	7.24E-10	7.24E-10	7.24E-10	7.24E-10	7.24E-10	7.24E-10
te126	4.89E-02	4.89E-02	4.89E-02	4.89E-02	4.89E-02	4.89E-02	4.89E-02	4.89E-02	4.90E-02
xe126	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10
ag127	4.79E-15	4.79E-15	4.79E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd127	2.16E-12	2.16E-12	2.16E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127	1.52E-11	1.52E-11	1.52E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

in127m	4.96E-11	4.96E-11	4.96E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127	1.57E-07	1.57E-07	1.57E-07	5.70E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127m	7.95E-09	7.95E-09	7.95E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb127	1.85E-05	1.85E-05	1.85E-05	1.56E-05	1.71E-12	5.12E-34	.00E+00	.00E+00	.00E+00
te127	1.87E-06	1.87E-06	1.87E-06	1.74E-06	1.88E-07	3.27E-08	3.20E-09	3.01E-12	2.73E-17
te127m	9.18E-05	9.18E-05	9.18E-05	9.17E-05	5.37E-05	9.33E-06	9.14E-07	8.61E-10	7.79E-15
i127	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00
xe127	2.89E-15	2.89E-15	2.89E-15	2.84E-15	5.21E-16	2.76E-18	2.63E-21	2.28E-30	.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	3.66E-12	3.66E-12	3.66E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in128	3.24E-11	3.24E-11	3.24E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn128	4.83E-07	4.83E-07	4.83E-07	2.24E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128	3.36E-07	3.36E-07	3.36E-07	5.67E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128m	8.73E-08	8.73E-08	8.73E-08	4.77E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te128	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01
i128	6.87E-11	6.87E-11	6.87E-11	3.06E-28	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe128	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03
cd129	4.43E-13	4.43E-13	4.43E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in129	2.35E-11	2.35E-11	2.35E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129	1.49E-08	1.49E-08	1.49E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129m	5.99E-08	5.99E-08	5.99E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb129	4.87E-06	4.87E-06	4.87E-06	1.13E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129	1.21E-06	1.21E-06	1.21E-06	1.84E-07	2.41E-08	8.23E-11	4.39E-14	6.69E-24	.00E+00
te129m	1.66E-04	1.66E-04	1.66E-04	1.64E-04	2.61E-05	8.92E-08	4.76E-11	7.26E-21	3.15E-37
i129	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01
xe129	3.61E-03	3.61E-03	3.61E-03	3.61E-03	3.61E-03	3.61E-03	3.62E-03	3.62E-03	3.63E-03
xe129m	2.31E-12	2.31E-12	2.31E-12	2.14E-12	2.07E-15	9.91E-25	4.25E-37	.00E+00	.00E+00
cd130	2.84E-13	2.84E-13	2.84E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in130	1.21E-11	1.21E-11	1.21E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn130	9.79E-08	9.79E-08	9.79E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130	2.34E-07	2.34E-07	2.34E-07	2.48E-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	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01
i130	3.40E-08	3.40E-08	3.40E-08	8.89E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130m	1.90E-10	1.90E-10	1.90E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe130	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02
cd131	7.74E-15	7.74E-15	7.74E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in131	3.56E-12	3.56E-12	3.56E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn131	1.40E-08	1.40E-08	1.40E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb131	1.40E-06	1.40E-06	1.40E-06	2.01E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131	1.54E-06	1.54E-06	1.54E-06	3.20E-08	1.18E-29	.00E+00	.00E+00	.00E+00	.00E+00
te131m	1.77E-05	1.77E-05	1.77E-05	1.02E-05	3.77E-27	.00E+00	.00E+00	.00E+00	.00E+00
i131	8.03E-04	8.03E-04	8.03E-04	7.47E-04	3.53E-07	1.75E-17	3.70E-31	.00E+00	.00E+00
xe131	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02
xe131m	1.30E-05	1.30E-05	1.30E-05	1.29E-05	2.03E-07	2.33E-14	1.34E-23	.00E+00	.00E+00

1
Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 18
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
cd132	1.12E-15	1.12E-15	1.12E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in132	6.14E-13	6.14E-13	6.14E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn132	1.02E-08	1.02E-08	1.02E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132	1.35E-07	1.35E-07	1.35E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132m	9.96E-08	9.96E-08	9.96E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te132	4.85E-04	4.85E-04	4.85E-04	3.92E-04	2.35E-12	.00E+00	.00E+00	.00E+00	.00E+00
i132	1.43E-05	1.43E-05	1.43E-05	1.18E-05	7.06E-14	.00E+00	.00E+00	.00E+00	.00E+00
xe132	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02
cs132	2.10E-10	2.10E-10	2.10E-10	1.89E-10	1.38E-14	2.25E-27	.00E+00	.00E+00	.00E+00
ba132	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07

in133	6.32E-15	6.32E-15	6.32E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn133	1.01E-10	1.01E-10	1.01E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb133	1.42E-07	1.42E-07	1.42E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133	1.14E-06	1.14E-06	1.14E-06	3.25E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133m	4.23E-06	4.23E-06	4.23E-06	6.37E-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	1.48E-09	1.48E-09	1.48E-09	1.76E-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	1.49E-05	1.49E-05	1.49E-05	1.36E-05	1.05E-17	.00E+00	.00E+00	.00E+00	.00E+00
cs133	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02
ba133	2.07E-11	2.07E-11	2.07E-11	2.07E-11	2.04E-11	1.94E-11	1.81E-11	1.49E-11	1.07E-11
in134	7.10E-16	7.10E-16	7.10E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn134	8.51E-12	8.51E-12	8.51E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134	1.54E-10	1.54E-10	1.54E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134m	1.16E-09	1.16E-09	1.16E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te134	6.82E-06	6.82E-06	6.82E-06	2.91E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134	9.75E-06	9.75E-06	9.75E-06	2.45E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134m	3.46E-08	3.46E-08	3.46E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02
xe134m	8.74E-12	8.74E-12	8.74E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134	9.42E-04	9.42E-04	9.42E-04	9.42E-04	8.68E-04	6.73E-04	4.81E-04	1.76E-04	3.27E-05
cs134m	1.15E-08	1.15E-08	1.15E-08	3.80E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba134	7.97E-01	7.97E-01	7.97E-01	7.97E-01	7.97E-01	7.97E-01	7.97E-01	7.97E-01	7.98E-01
sn135	2.58E-13	2.58E-13	2.58E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb135	1.13E-10	1.13E-10	1.13E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te135	2.51E-08	2.51E-08	2.51E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i135	6.03E-05	6.03E-05	6.03E-05	4.79E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135	8.77E-05	8.77E-05	8.77E-05	3.20E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135m	4.41E-07	4.41E-07	4.41E-07	3.04E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs135	2.90E+02	2.90E+02	2.90E+02	2.90E+02	2.90E+02	2.90E+02	2.90E+02	2.90E+02	2.90E+02
cs135m	2.45E-10	2.45E-10	2.45E-10	1.63E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135	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
ba135m	2.66E-11	2.66E-11	2.66E-11	1.49E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn136	3.38E-14	3.38E-14	3.38E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb136	6.99E-12	6.99E-12	6.99E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te136	1.12E-08	1.12E-08	1.12E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136	1.09E-07	1.09E-07	1.09E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136m	2.85E-08	2.85E-08	2.85E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe136	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02
cs136	8.36E-06	8.36E-06	8.36E-06	7.94E-06	7.31E-08	3.69E-14	1.63E-22	.00E+00	.00E+00
ba136	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01
ba136m	2.54E-13	2.54E-13	2.54E-13	2.41E-13	2.22E-15	1.12E-21	4.95E-30	.00E+00	.00E+00

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 19

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
sb137	9.59E-12	9.59E-12	9.59E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te137	6.72E-10	6.72E-10	6.72E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i137	3.25E-08	3.25E-08	3.25E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe137	5.75E-07	5.75E-07	5.75E-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	2.80E+02	2.80E+02	2.80E+02	2.80E+02	2.80E+02	2.80E+02	2.80E+02	2.80E+02	2.80E+02
ba137m	3.73E-07	3.73E-07	3.73E-07	3.73E-07	3.71E-07	3.65E-07	3.56E-07	3.33E-07	2.96E-07
sb138	1.34E-14	1.34E-14	1.34E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te138	5.13E-11	5.13E-11	5.13E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i138	4.32E-09	4.32E-09	4.32E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe138	2.19E-06	2.19E-06	2.19E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138	5.25E-06	5.25E-06	5.25E-06	3.16E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138m	1.24E-08	1.24E-08	1.24E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ba138	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02
la138	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03
sb139	1.14E-15	1.14E-15	1.14E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te139	2.78E-12	2.78E-12	2.78E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i139	9.26E-10	9.26E-10	9.26E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe139	8.29E-08	8.29E-08	8.29E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs139	1.44E-06	1.44E-06	1.44E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba139	1.33E-05	1.33E-05	1.33E-05	1.13E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la139	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02
ce139	2.78E-10	2.78E-10	2.78E-10	2.77E-10	1.77E-10	4.42E-11	7.02E-12	2.81E-14	2.85E-18
pr139	1.28E-15	1.28E-15	1.28E-15	2.94E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te140	6.91E-13	6.91E-13	6.91E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i140	7.91E-11	7.91E-11	7.91E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe140	2.10E-08	2.10E-08	2.10E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs140	1.51E-07	1.51E-07	1.51E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba140	2.88E-03	2.88E-03	2.88E-03	2.73E-03	2.16E-05	6.90E-12	1.65E-20	.00E+00	.00E+00
la140	3.80E-04	3.80E-04	3.80E-04	3.76E-04	3.28E-06	1.05E-12	2.51E-21	.00E+00	.00E+00
ce140	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02
pr140	5.14E-14	5.14E-14	5.14E-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	3.74E-12	3.74E-12	3.74E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe141	9.68E-10	9.68E-10	9.68E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs141	4.60E-08	4.60E-08	4.60E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba141	2.65E-06	2.65E-06	2.65E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la141	3.42E-05	3.42E-05	3.42E-05	5.33E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce141	6.81E-03	6.81E-03	6.81E-03	6.70E-03	1.00E-03	2.83E-06	1.17E-09	8.32E-20	1.01E-36
pr141	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02
nd141	2.85E-15	2.85E-15	2.85E-15	3.57E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te142	1.61E-15	1.61E-15	1.61E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i142	5.46E-13	5.46E-13	5.46E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe142	2.45E-10	2.45E-10	2.45E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs142	1.91E-09	1.91E-09	1.91E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba142	1.53E-06	1.53E-06	1.53E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la142	1.34E-05	1.34E-05	1.34E-05	2.65E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce142	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02
pr142	1.76E-07	1.76E-07	1.76E-07	7.38E-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	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01
i143	6.88E-15	6.88E-15	6.88E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.53E-11	2.53E-11	2.53E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs143	1.11E-09	1.11E-09	1.11E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba143	3.19E-08	3.19E-08	3.19E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la143	2.09E-06	2.09E-06	2.09E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce143	2.95E-04	2.95E-04	2.95E-04	1.79E-04	5.87E-24	.00E+00	.00E+00	.00E+00	.00E+00
pr143	2.91E-03	2.91E-03	2.91E-03	2.88E-03	3.26E-05	2.54E-11	1.99E-19	.00E+00	.00E+00
nd143	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02
i144	8.65E-17	8.65E-17	8.65E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe144	4.60E-12	4.60E-12	4.60E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs144	1.61E-10	1.61E-10	1.61E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba144	2.11E-08	2.11E-08	2.11E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la144	9.28E-08	9.28E-08	9.28E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce144	5.66E-02	5.66E-02	5.66E-02	5.65E-02	4.55E-02	2.33E-02	9.57E-03	6.66E-04	7.84E-06
pr144	2.38E-06	2.38E-06	2.38E-06	2.38E-06	1.92E-06	9.81E-07	4.03E-07	2.81E-08	3.30E-10
pr144m	1.39E-08	1.39E-08	1.39E-08	1.39E-08	1.12E-08	5.72E-09	2.35E-09	1.64E-10	1.93E-12
nd144	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02

i145	3.44E-18	3.44E-18	3.44E-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	1.79E-11	1.79E-11	1.79E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba145	3.40E-09	3.40E-09	3.40E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la145	3.81E-08	3.81E-08	3.81E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce145	3.02E-07	3.02E-07	3.02E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr145	3.60E-05	3.60E-05	3.60E-05	2.25E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd145	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02
pm145	3.22E-10	3.22E-10	3.22E-10	3.22E-10	3.22E-10	3.18E-10	3.09E-10	2.78E-10	2.29E-10
sm145	1.51E-11	1.51E-11	1.51E-11	1.51E-11	1.26E-11	7.17E-12	3.40E-12	3.65E-13	8.82E-15
xe146	1.38E-14	1.38E-14	1.38E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs146	2.83E-12	2.83E-12	2.83E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba146	9.55E-10	9.55E-10	9.55E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la146	6.56E-09	6.56E-09	6.56E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce146	1.04E-06	1.04E-06	1.04E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr146	1.87E-06	1.87E-06	1.87E-06	4.78E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd146	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02
pm146	2.06E-10	2.06E-10	2.06E-10	2.06E-10	2.00E-10	1.82E-10	1.61E-10	1.10E-10	5.89E-11
sm146	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05
xe147	1.39E-17	1.39E-17	1.39E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs147	4.55E-14	4.55E-14	4.55E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba147	3.40E-11	3.40E-11	3.40E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la147	1.80E-09	1.80E-09	1.80E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce147	5.38E-08	5.38E-08	5.38E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr147	8.07E-07	8.07E-07	8.07E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd147	9.38E-04	9.38E-04	9.38E-04	8.82E-04	3.20E-06	9.10E-14	8.83E-24	.00E+00	.00E+00
pm147	8.19E-02	8.19E-02	8.19E-02	8.19E-02	7.76E-02	6.36E-02	4.88E-02	2.21E-02	5.90E-03
sm147	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02
cs148	3.00E-15	3.00E-15	3.00E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba148	4.47E-12	4.47E-12	4.47E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la148	1.26E-10	1.26E-10	1.26E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce148	3.77E-08	3.77E-08	3.77E-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	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01
pm148	6.21E-09	6.21E-09	6.21E-09	5.48E-09	6.43E-11	6.33E-13	1.38E-15	1.42E-23	6.38E-37
pm148m	4.23E-08	4.23E-08	4.23E-08	4.16E-08	9.34E-09	9.20E-11	2.00E-13	2.06E-21	1.00E-34

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01
cs149	2.59E-17	2.59E-17	2.59E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba149	4.61E-13	4.61E-13	4.61E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la149	7.19E-11	7.19E-11	7.19E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce149	1.78E-09	1.78E-09	1.78E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr149	6.44E-08	6.44E-08	6.44E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd149	3.03E-06	3.03E-06	3.03E-06	2.01E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm149	9.32E-05	9.32E-05	9.32E-05	7.05E-05	5.43E-17	.00E+00	.00E+00	.00E+00	.00E+00
sm149	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00
eu149	9.71E-14	9.71E-14	9.71E-14	9.63E-14	4.97E-14	6.39E-15	4.21E-16	1.20E-19	1.48E-25
cs150	1.69E-18	1.69E-18	1.69E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba150	4.87E-14	4.87E-14	4.87E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la150	2.36E-12	2.36E-12	2.36E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce150	5.33E-10	5.33E-10	5.33E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr150	1.66E-09	1.66E-09	1.66E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd150	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01
pm150	4.22E-10	4.22E-10	4.22E-10	8.50E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01
eu150	1.66E-08	1.66E-08	1.66E-08	1.66E-08	1.65E-08	1.63E-08	1.60E-08	1.51E-08	1.37E-08

ba151	1.54E-16	1.54E-16	1.54E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la151	3.67E-13	3.67E-13	3.67E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce151	3.24E-11	3.24E-11	3.24E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr151	2.48E-09	2.48E-09	2.48E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd151	1.51E-07	1.51E-07	1.51E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm151	2.09E-05	2.09E-05	2.09E-05	1.17E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm151	5.80E-01	5.80E-01	5.80E-01	5.80E-01	5.79E-01	5.75E-01	5.71E-01	5.58E-01	5.37E-01
eu151	1.65E+01	1.65E+01	1.65E+01	1.65E+01	1.65E+01	1.65E+01	1.65E+01	1.65E+01	1.65E+01
ba152	1.53E-18	1.53E-18	1.53E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la152	2.94E-15	2.94E-15	2.94E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce152	3.41E-11	3.41E-11	3.41E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr152	2.92E-10	2.92E-10	2.92E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd152	8.78E-08	8.78E-08	8.78E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152	3.23E-08	3.23E-08	3.23E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152m	1.26E-09	1.26E-09	1.26E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm152	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01
eu152	2.19E-02	2.19E-02	2.19E-02	2.19E-02	2.16E-02	2.08E-02	1.98E-02	1.69E-02	1.30E-02
eu152m	9.49E-07	9.49E-07	9.49E-07	1.59E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	1.99E+00	1.99E+00	1.99E+00	1.99E+00	1.99E+00	1.99E+00	1.99E+00	1.99E+00	1.99E+00
la153	1.04E-15	1.04E-15	1.04E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce153	1.44E-12	1.44E-12	1.44E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr153	6.86E-11	6.86E-11	6.86E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd153	4.86E-09	4.86E-09	4.86E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm153	2.68E-08	2.68E-08	2.68E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm153	1.48E-05	1.48E-05	1.48E-05	1.04E-05	1.32E-19	.00E+00	.00E+00	.00E+00	.00E+00
eu153	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00
gd153	5.00E-06	5.00E-06	5.00E-06	4.99E-06	3.86E-06	1.75E-06	6.15E-07	2.65E-08	1.40E-10
la154	1.20E-17	1.20E-17	1.20E-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	2.46E-12	2.46E-12	2.46E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd154	1.16E-09	1.16E-09	1.16E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154	3.56E-09	3.56E-09	3.56E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154m	8.99E-10	8.99E-10	8.99E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 22

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	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00
eu154	7.29E-04	7.29E-04	7.29E-04	7.29E-04	7.15E-04	6.73E-04	6.20E-04	4.87E-04	3.25E-04
gd154	1.44E-01	1.44E-01	1.44E-01	1.44E-01	1.44E-01	1.44E-01	1.45E-01	1.45E-01	1.45E-01
la155	6.08E-20	6.08E-20	6.08E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce155	3.64E-15	3.64E-15	3.64E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr155	4.73E-13	4.73E-13	4.73E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd155	1.58E-10	1.58E-10	1.58E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm155	8.57E-10	8.57E-10	8.57E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm155	2.68E-08	2.68E-08	2.68E-08	1.02E-27	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu155	2.96E-03	2.96E-03	2.96E-03	2.96E-03	2.86E-03	2.55E-03	2.20E-03	1.41E-03	6.74E-04
gd155m	1.42E-17	1.42E-17	1.42E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155	6.99E-01	6.99E-01	6.99E-01	6.99E-01	6.99E-01	6.99E-01	7.00E-01	7.00E-01	7.01E-01
ce156	3.09E-16	3.09E-16	3.09E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr156	1.86E-14	1.86E-14	1.86E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd156	4.65E-11	4.65E-11	4.65E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm156	9.01E-11	9.01E-11	9.01E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm156	3.33E-07	3.33E-07	3.33E-07	5.68E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu156	1.30E-05	1.30E-05	1.30E-05	1.27E-05	2.20E-07	7.68E-13	4.41E-20	.00E+00	.00E+00
gd156	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00
ce157	5.27E-18	5.27E-18	5.27E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr157	2.64E-15	2.64E-15	2.64E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd157	1.20E-12	1.20E-12	1.20E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pm157	1.56E-10	1.56E-10	1.56E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm157	2.48E-09	2.48E-09	2.48E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu157	2.89E-07	2.89E-07	2.89E-07	9.77E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd157	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02
pr158	6.06E-17	6.06E-17	6.06E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd158	2.05E-13	2.05E-13	2.05E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm158	2.27E-12	2.27E-12	2.27E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm158	7.95E-10	7.95E-10	7.95E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu158	7.34E-09	7.34E-09	7.34E-09	2.97E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd158	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01
pr159	2.73E-18	2.73E-18	2.73E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd159	4.15E-15	4.15E-15	4.15E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm159	3.39E-13	3.39E-13	3.39E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm159	1.33E-10	1.33E-10	1.33E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu159	1.22E-09	1.22E-09	1.22E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd159	7.67E-08	7.67E-08	7.67E-08	3.19E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb159	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02
nd160	3.25E-16	3.25E-16	3.25E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm160	8.74E-15	8.74E-15	8.74E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm160	1.63E-11	1.63E-11	1.63E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu160	1.84E-11	1.84E-11	1.84E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd160	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02
tb160	1.84E-08	1.84E-08	1.84E-08	1.82E-08	7.75E-09	5.54E-10	1.67E-11	4.58E-16	1.14E-23
dy160	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04
nd161	5.24E-18	5.24E-18	5.24E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm161	1.11E-15	1.11E-15	1.11E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm161	1.97E-13	1.97E-13	1.97E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu161	5.89E-12	5.89E-12	5.89E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd161	4.31E-11	4.31E-11	4.31E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb161	1.18E-07	1.18E-07	1.18E-07	1.07E-07	1.40E-11	1.37E-23	1.60E-39	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 23

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
dy161	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02
pm162	3.02E-17	3.02E-17	3.02E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm162	3.59E-14	3.59E-14	3.59E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu162	5.68E-12	5.68E-12	5.68E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd162	4.18E-11	4.18E-11	4.18E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162	3.93E-11	3.93E-11	3.93E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	1.27E-11	1.27E-11	1.27E-11	7.28E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy162	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03
sm163	7.13E-16	7.13E-16	7.13E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu163	5.12E-14	5.12E-14	5.12E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd163	2.71E-12	2.71E-12	2.71E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163	3.95E-11	3.95E-11	3.95E-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	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03
sm164	6.14E-17	6.14E-17	6.14E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu164	1.23E-15	1.23E-15	1.23E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd164	1.13E-11	1.13E-11	1.13E-11	1.15E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	2.20E-12	2.20E-12	2.20E-12	1.85E-32	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy164	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04
sm165	1.11E-18	1.11E-18	1.11E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu165	1.38E-16	1.38E-16	1.38E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	8.50E-14	8.50E-14	8.50E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	5.57E-13	5.57E-13	5.57E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165	5.06E-11	5.06E-11	5.06E-11	4.14E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	3.60E-13	3.60E-13	3.60E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

ho165	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04
dy166	2.18E-10	2.18E-10	2.18E-10	1.78E-10	2.35E-18	.00E+00	.00E+00	.00E+00	.00E+00
ho166	7.41E-11	7.41E-11	7.41E-11	6.95E-11	1.15E-18	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	2.96E-07	2.96E-07	2.96E-07	2.96E-07	2.96E-07	2.96E-07	2.96E-07	2.96E-07	2.95E-07
er166	4.70E-05	4.70E-05	4.70E-05	4.70E-05	4.70E-05	4.70E-05	4.70E-05	4.70E-05	4.70E-05
er167	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08
er167m	5.44E-20	5.44E-20	5.44E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08
yb168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er169	1.05E-12	1.05E-12	1.05E-12	9.73E-13	1.37E-15	2.11E-24	4.24E-36	.00E+00	.00E+00
tm169	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08
yb169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er170	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08
tm170	8.68E-14	8.68E-14	8.68E-14	8.63E-14	5.34E-14	1.21E-14	1.69E-15	4.60E-18	2.44E-22
tm170m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb170	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10
er171	5.00E-14	5.00E-14	5.00E-14	5.46E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	1.14E-10	1.14E-10	1.14E-10	1.14E-10	1.04E-10	7.96E-11	5.55E-11	1.88E-11	3.09E-12
yb171	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07
er172	2.07E-13	2.07E-13	2.07E-13	1.47E-13	1.34E-26	.00E+00	.00E+00	.00E+00	.00E+00
tm172	2.79E-13	2.79E-13	2.79E-13	2.67E-13	7.18E-23	.00E+00	.00E+00	.00E+00	.00E+00
yb172	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08
total	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	3.77E-01	3.77E-01	3.77E-01	3.77E-01	3.71E-01	3.56E-01	3.37E-01	2.84E-01	2.15E-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	6.58E-07	6.58E-07	6.58E-07	6.58E-07	6.58E-07	6.58E-07	6.58E-07	6.58E-07	6.58E-07
c 14	1.99E-05	1.99E-05	1.99E-05	1.99E-05	1.99E-05	1.99E-05	1.99E-05	1.99E-05	1.99E-05
ni 66	1.30E-07	1.30E-07	1.30E-07	9.61E-08	1.62E-19	.00E+00	.00E+00	.00E+00	.00E+00
cu 66	1.31E-07	1.31E-07	1.31E-07	9.63E-08	1.62E-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	2.10E-08	2.10E-08	2.10E-08	1.60E-08	6.40E-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	4.00E-08	4.00E-08	4.00E-08	1.04E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69m	3.24E-08	3.24E-08	3.24E-08	9.68E-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	1.06E-09	1.06E-09	1.06E-09	3.26E-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	2.19E-06	2.19E-06	2.19E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71m	9.36E-06	9.36E-06	9.36E-06	1.40E-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	1.10E-11	1.10E-11	1.10E-11	1.04E-11	4.71E-14	2.67E-21	6.39E-31	.00E+00	.00E+00
ge 71m	5.51E-12	5.51E-12	5.51E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 72	7.13E-06	7.13E-06	7.13E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 72	3.70E-04	3.70E-04	3.70E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 72	8.59E-04	8.59E-04	8.59E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 72	1.04E-03	1.04E-03	1.04E-03	7.29E-04	1.08E-17	.00E+00	.00E+00	.00E+00	.00E+00
ga 72	1.04E-03	1.04E-03	1.04E-03	9.07E-04	1.55E-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	4.46E-06	4.46E-06	4.46E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 73	5.23E-04	5.23E-04	5.23E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 73	2.59E-03	2.59E-03	2.59E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

zn 73	4.09E-03	4.09E-03	4.09E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 73	4.13E-03	4.13E-03	4.13E-03	1.35E-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	4.08E-03	4.08E-03	4.08E-03	1.33E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 74	9.23E-07	9.23E-07	9.23E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 74	3.94E-04	3.94E-04	3.94E-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	1.20E-02	1.20E-02	1.20E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 74	3.49E-03	3.49E-03	3.49E-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	1.75E-07	1.75E-07	1.75E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 75	1.85E-04	1.85E-04	1.85E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 75	5.89E-03	5.89E-03	5.89E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 75	3.33E-02	3.33E-02	3.33E-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	2.00E-03	2.00E-03	2.00E-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	7.04E-05	7.04E-05	7.04E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 76	5.33E-03	5.33E-03	5.33E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part 6 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	8.68E-02	8.68E-02	8.68E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 76	1.21E-01	1.21E-01	1.21E-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	2.54E-05	2.54E-05	2.54E-05	1.35E-05	.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	1.13E-05	1.13E-05	1.13E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 77	2.76E-03	2.76E-03	2.76E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 77	1.02E-01	1.02E-01	1.02E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 77	2.36E-01	2.36E-01	2.36E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77	8.56E-02	8.56E-02	8.56E-02	1.97E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 77m	2.42E-01	2.42E-01	2.42E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 77	2.77E-01	2.77E-01	2.77E-01	1.95E-01	5.63E-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	8.86E-04	8.86E-04	8.86E-04	6.25E-04	1.80E-20	.00E+00	.00E+00	.00E+00	.00E+00
ni 78	1.70E-06	1.70E-06	1.70E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 78	8.93E-04	8.93E-04	8.93E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 78	1.17E-01	1.17E-01	1.17E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 78	4.76E-01	4.76E-01	4.76E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 78	7.33E-01	7.33E-01	7.33E-01	8.69E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 78	7.39E-01	7.39E-01	7.39E-01	1.26E-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	1.80E-04	1.80E-04	1.80E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 79	5.85E-02	5.85E-02	5.85E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 79	6.12E-01	6.12E-01	6.12E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 79	1.39E+00	1.39E+00	1.39E+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	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02
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	1.69E-07	1.69E-07	1.69E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 79	3.49E-12	3.49E-12	3.49E-12	2.17E-12	9.58E-31	.00E+00	.00E+00	.00E+00	.00E+00
cu 80	1.51E-05	1.51E-05	1.51E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 80	1.55E-02	1.55E-02	1.55E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 80	3.77E-01	3.77E-01	3.77E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 80	3.92E+00	3.92E+00	3.92E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

as 80	4.31E+00	4.31E+00	4.31E+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	1.47E-05	1.47E-05	1.47E-05	1.61E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80m	6.49E-06	6.49E-06	6.49E-06	1.51E-07	.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	1.30E-06	1.30E-06	1.30E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 81	3.05E-03	3.05E-03	3.05E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 81	2.49E-01	2.49E-01	2.49E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 81	4.20E+00	4.20E+00	4.20E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 81	6.11E+00	6.11E+00	6.11E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81	6.38E+00	6.38E+00	6.38E+00	1.65E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81m	4.15E-01	4.15E-01	4.15E-01	1.12E-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	2.46E-09	2.46E-09	2.46E-09	2.46E-09	2.46E-09	2.46E-09	2.46E-09	2.46E-09	2.46E-09
kr 81m	2.66E-08	2.66E-08	2.66E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 82	9.16E-04	9.16E-04	9.16E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 82	2.23E-01	2.23E-01	2.23E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 26

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
ge 82	4.38E+00	4.38E+00	4.38E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82	6.99E+00	6.99E+00	6.99E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82m	2.60E+00	2.60E+00	2.60E+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	1.07E-02	1.07E-02	1.07E-02	6.68E-03	4.10E-21	.00E+00	.00E+00	.00E+00	.00E+00
br 82m	4.57E-03	4.57E-03	4.57E-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	2.46E-05	2.46E-05	2.46E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 83	1.51E-02	1.51E-02	1.51E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 83	1.78E+00	1.78E+00	1.78E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 83	1.14E+01	1.14E+01	1.14E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83	7.89E+00	7.89E+00	7.89E+00	2.88E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83m	9.04E+00	9.04E+00	9.04E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 83	1.75E+01	1.75E+01	1.75E+01	1.86E-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	1.75E+01	1.75E+01	1.75E+01	8.04E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 84	2.83E-01	2.83E-01	2.83E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 84	1.06E+00	1.06E+00	1.06E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 84	8.15E+00	8.15E+00	8.15E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 84	3.31E+01	3.31E+01	3.31E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84	3.39E+01	3.39E+01	3.39E+01	8.79E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84m	8.05E-01	8.05E-01	8.05E-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	1.72E-04	1.72E-04	1.72E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 85	1.69E-01	1.69E-01	1.69E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 85	5.12E+00	5.12E+00	5.12E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85	1.66E+01	1.66E+01	1.66E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85m	1.47E+01	1.47E+01	1.47E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 85	3.95E+01	3.95E+01	3.95E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85	8.54E+00	8.54E+00	8.54E+00	8.54E+00	8.41E+00	8.01E+00	7.51E+00	6.18E+00	4.48E+00
kr 85m	3.94E+01	3.94E+01	3.94E+01	9.74E-01	.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	3.38E-02	3.38E-02	3.38E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 86	3.03E+00	3.03E+00	3.03E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 86	4.14E+01	4.14E+01	4.14E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86	4.99E+01	4.99E+01	4.99E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86m	8.46E+00	8.46E+00	8.46E+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	2.45E-03	2.45E-03	2.45E-03	2.36E-03	8.60E-05	3.08E-09	3.87E-15	.00E+00	.00E+00
rb 86m	1.65E-04	1.65E-04	1.65E-04	.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	6.05E-01	6.05E-01	6.05E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 87	2.09E+00	2.09E+00	2.09E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 87	2.45E+01	2.45E+01	2.45E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 87	6.47E+01	6.47E+01	6.47E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 87	8.07E+01	8.07E+01	8.07E+01	1.70E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 87	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06
sr 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 87m	3.01E-05	3.01E-05	3.01E-05	8.09E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 88	7.98E-04	7.98E-04	7.98E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 88	1.01E+00	1.01E+00	1.01E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 88	1.20E+01	1.20E+01	1.20E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 27

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
br 88	6.53E+01	6.53E+01	6.53E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 88	1.14E+02	1.14E+02	1.14E+02	3.26E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 88	1.17E+02	1.17E+02	1.17E+02	3.64E-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	7.24E-03	7.24E-03	7.24E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 89	4.12E+00	4.12E+00	4.12E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 89	4.31E+01	4.31E+01	4.31E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 89	1.47E+02	1.47E+02	1.47E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 89	1.55E+02	1.55E+02	1.55E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 89	1.56E+02	1.56E+02	1.56E+02	1.54E+02	4.55E+01	1.04E+00	6.98E-03	2.09E-09	2.79E-20
y 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89m	1.58E-02	1.58E-02	1.58E-02	1.43E-02	4.23E-03	9.71E-05	6.49E-07	1.94E-13	2.59E-24
as 90	5.08E-05	5.08E-05	5.08E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 90	8.41E-01	8.41E-01	8.41E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 90	2.23E+01	2.23E+01	2.23E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 90	1.60E+02	1.60E+02	1.60E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90	1.46E+02	1.46E+02	1.46E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90m	4.17E+01	4.17E+01	4.17E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 90	1.89E+02	1.89E+02	1.89E+02	1.88E+02	1.87E+02	1.84E+02	1.79E+02	1.67E+02	1.47E+02
y 90	1.89E+02	1.89E+02	1.89E+02	1.89E+02	1.87E+02	1.84E+02	1.79E+02	1.67E+02	1.47E+02
y 90m	1.67E-05	1.67E-05	1.67E-05	9.09E-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	6.56E-02	6.56E-02	6.56E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 91	8.07E+00	8.07E+00	8.07E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 91	1.10E+02	1.10E+02	1.10E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	1.83E+02	1.83E+02	1.83E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 91	1.91E+02	1.91E+02	1.91E+02	3.34E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91	1.91E+02	1.91E+02	1.91E+02	1.90E+02	6.64E+01	2.55E+00	3.36E-02	7.74E-08	3.11E-17
y 91m	1.11E+02	1.11E+02	1.11E+02	2.12E+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	1.22E-10	1.22E-10	1.22E-10	1.22E-10	1.22E-10	1.22E-10	1.22E-10	1.22E-10	1.21E-10
se 92	4.28E-03	4.28E-03	4.28E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 92	1.23E+00	1.23E+00	1.23E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 92	5.61E+01	5.61E+01	5.61E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 92	1.57E+02	1.57E+02	1.57E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 92	1.92E+02	1.92E+02	1.92E+02	4.14E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 92	1.94E+02	1.94E+02	1.94E+02	6.11E+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	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12
se 93	1.90E-05	1.90E-05	1.90E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

br 93	1.39E-01	1.39E-01	1.39E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 93	1.78E+01	1.78E+01	1.78E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 93	1.19E+02	1.19E+02	1.19E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 93	2.05E+02	2.05E+02	2.05E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 93	1.38E+02	1.38E+02	1.38E+02	2.70E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 93	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01
nb 93	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 93m	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01
br 94	8.77E-03	8.77E-03	8.77E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 94	7.65E+00	7.65E+00	7.65E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 94	5.93E+01	5.93E+01	5.93E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 28

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
sr 94	1.98E+02	1.98E+02	1.98E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 94	2.11E+02	2.11E+02	2.11E+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	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.08E-05
nb 94m	4.62E-05	4.62E-05	4.62E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 95	7.20E-05	7.20E-05	7.20E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 95	3.69E-01	3.69E-01	3.69E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 95	2.76E+01	2.76E+01	2.76E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 95	1.77E+02	1.77E+02	1.77E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 95	2.12E+02	2.12E+02	2.12E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 95	2.14E+02	2.14E+02	2.14E+02	2.12E+02	8.10E+01	4.11E+00	7.88E-02	5.54E-07	1.43E-15
nb 95	2.14E+02	2.14E+02	2.14E+02	2.14E+02	1.35E+02	8.87E+00	1.79E-01	1.22E-06	3.15E-15
nb 95m	2.38E+00	2.38E+00	2.38E+00	2.38E+00	9.52E-01	4.84E-02	9.27E-04	6.52E-09	1.68E-17
mo 95	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 96	1.70E-05	1.70E-05	1.70E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 96	7.40E-02	7.40E-02	7.40E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 96	7.04E+00	7.04E+00	7.04E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 96	1.29E+02	1.29E+02	1.29E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 96	2.00E+02	2.00E+02	2.00E+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	2.46E-02	2.46E-02	2.46E-02	1.21E-02	.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	6.76E-04	6.76E-04	6.76E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 97	2.50E+00	2.50E+00	2.50E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 97	6.73E+01	6.73E+01	6.73E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 97	1.63E+02	1.63E+02	1.63E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 97	1.89E+02	1.89E+02	1.89E+02	7.05E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97	1.89E+02	1.89E+02	1.89E+02	7.08E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97m	1.79E+02	1.79E+02	1.79E+02	6.69E+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	2.16E-04	2.16E-04	2.16E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 98	1.14E-01	1.14E-01	1.14E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 98	2.41E+01	2.41E+01	2.41E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 98	1.20E+02	1.20E+02	1.20E+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	8.18E-01	8.18E-01	8.18E-01	2.90E-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	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08
rb 99	2.65E-03	2.65E-03	2.65E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 99	1.18E+01	1.18E+01	1.18E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 99	7.91E+01	7.91E+01	7.91E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 99	1.89E+02	1.89E+02	1.89E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 99	1.22E+02	1.22E+02	1.22E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

nb 99m	8.13E+01	8.13E+01	8.13E+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	2.84E-08	.00E+00	.00E+00	.00E+00	.00E+00
tc 99	3.35E+00	3.35E+00	3.35E+00	3.35E+00	3.35E+00	3.35E+00	3.35E+00	3.35E+00	3.35E+00
tc 99m	1.81E+02	1.81E+02	1.81E+02	1.54E+02	2.75E-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	7.01E-04	7.01E-04	7.01E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr100	7.49E-01	7.49E-01	7.49E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y100	1.94E+01	1.94E+01	1.94E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 29

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
zr100	1.94E+02	1.94E+02	1.94E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100	2.02E+02	2.02E+02	2.02E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb100m	7.99E+00	7.99E+00	7.99E+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	8.91E-01	8.91E-01	8.91E-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	5.02E-06	5.02E-06	5.02E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr101	1.42E-01	1.42E-01	1.42E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y101	1.36E+01	1.36E+01	1.36E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr101	1.05E+02	1.05E+02	1.05E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb101	1.69E+02	1.69E+02	1.69E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo101	1.74E+02	1.74E+02	1.74E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc101	1.74E+02	1.74E+02	1.74E+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	3.21E-02	3.21E-02	3.21E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y102	8.28E+00	8.28E+00	8.28E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr102	7.94E+01	7.94E+01	7.94E+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	1.48E+02	1.48E+02	1.48E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102	1.48E+02	1.48E+02	1.48E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102m	8.33E-02	8.33E-02	8.33E-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	1.18E-05	1.18E-05	1.18E-05	1.18E-05	1.11E-05	9.29E-06	7.32E-06	3.57E-06	1.08E-06
pd102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr103	9.30E-05	9.30E-05	9.30E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y103	2.55E+00	2.55E+00	2.55E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr103	2.29E+01	2.29E+01	2.29E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb103	8.18E+01	8.18E+01	8.18E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo103	1.11E+02	1.11E+02	1.11E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc103	1.14E+02	1.14E+02	1.14E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru103	1.14E+02	1.14E+02	1.14E+02	1.12E+02	2.32E+01	1.80E-01	2.85E-04	1.13E-12	1.12E-26
rh103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103m	1.14E+02	1.14E+02	1.14E+02	1.12E+02	2.32E+01	1.80E-01	2.85E-04	1.13E-12	1.12E-26
sr104	2.90E-05	2.90E-05	2.90E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y104	2.03E-02	2.03E-02	2.03E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr104	5.05E+00	5.05E+00	5.05E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb104	2.96E+01	2.96E+01	2.96E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo104	7.10E+01	7.10E+01	7.10E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc104	7.35E+01	7.35E+01	7.35E+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	2.37E+00	2.37E+00	2.37E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104m	1.73E-01	1.73E-01	1.73E-01	.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	1.91E-04	1.91E-04	1.91E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr105	2.99E+00	2.99E+00	2.99E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb105	1.08E+01	1.08E+01	1.08E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo105	4.14E+01	4.14E+01	4.14E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

tc105	4.47E+01	4.47E+01	4.47E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru105	4.49E+01	4.49E+01	4.49E+01	1.09E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105	4.49E+01	4.49E+01	4.49E+01	3.20E+01	2.11E-17	.00E+00	.00E+00	.00E+00	.00E+00
rh105m	1.27E+01	1.27E+01	1.27E+01	3.11E-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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 30

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
y106	3.21E-06	3.21E-06	3.21E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr106	3.42E-02	3.42E-02	3.42E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb106	1.04E+00	1.04E+00	1.04E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo106	1.80E+01	1.80E+01	1.80E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc106	2.23E+01	2.23E+01	2.23E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru106	2.37E+01	2.37E+01	2.37E+01	2.37E+01	2.01E+01	1.20E+01	6.08E+00	7.87E-01	2.61E-02
rh106	2.37E+01	2.37E+01	2.37E+01	2.37E+01	2.01E+01	1.20E+01	6.08E+00	7.87E-01	2.61E-02
rh106m	7.73E-04	7.73E-04	7.73E-04	3.58E-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	1.01E-10	1.01E-10	1.01E-10	8.72E-29	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y107	2.89E-08	2.89E-08	2.89E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr107	3.25E-04	3.25E-04	3.25E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb107	1.65E-01	1.65E-01	1.65E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo107	5.69E+00	5.69E+00	5.69E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc107	1.04E+01	1.04E+01	1.04E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru107	1.25E+01	1.25E+01	1.25E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh107	1.25E+01	1.25E+01	1.25E+01	1.62E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd107	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03
pd107m	8.01E-04	8.01E-04	8.01E-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	1.27E-05	1.27E-05	1.27E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb108	4.17E-03	4.17E-03	4.17E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo108	5.36E-01	5.36E-01	5.36E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc108	3.01E+00	3.01E+00	3.01E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru108	6.91E+00	6.91E+00	6.91E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108	7.02E+00	7.02E+00	7.02E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108m	1.10E-01	1.10E-01	1.10E-01	.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	7.16E-06	7.16E-06	7.16E-06	9.45E-09	9.44E-09	9.40E-09	9.35E-09	9.20E-09	8.95E-09
ag108m	1.09E-07	1.09E-07	1.09E-07	1.09E-07	1.09E-07	1.08E-07	1.07E-07	1.06E-07	1.03E-07
cd108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr109	1.01E-08	1.01E-08	1.01E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb109	1.78E-04	1.78E-04	1.78E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo109	5.41E-02	5.41E-02	5.41E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc109	9.36E-01	9.36E-01	9.36E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru109	4.41E+00	4.41E+00	4.41E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109	5.15E+00	5.15E+00	5.15E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109m	2.57E+00	2.57E+00	2.57E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109	5.18E+00	5.18E+00	5.18E+00	1.54E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109m	1.38E-02	1.38E-02	1.38E-02	.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	5.18E+00	5.18E+00	5.18E+00	1.54E+00	1.38E-09	9.16E-10	5.30E-10	1.03E-10	6.65E-12
cd109	1.58E-09	1.58E-09	1.58E-09	1.58E-09	1.38E-09	9.16E-10	5.30E-10	1.03E-10	6.65E-12
nb110	8.44E-06	8.44E-06	8.44E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo110	7.27E-03	7.27E-03	7.27E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc110	1.75E-01	1.75E-01	1.75E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru110	1.71E+00	1.71E+00	1.71E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110	2.73E-01	2.73E-01	2.73E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110m	1.98E+00	1.98E+00	1.98E+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	6.12E-02	6.12E-02	6.12E-02	3.35E-05	2.62E-05	1.22E-05	4.43E-06	2.12E-07	1.33E-09
ag110m	2.47E-03	2.47E-03	2.47E-03	2.47E-03	1.93E-03	8.98E-04	3.26E-04	1.56E-05	9.80E-08

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 31

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
cd110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb111	7.40E-08	7.40E-08	7.40E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo111	7.90E-04	7.90E-04	7.90E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc111	4.27E-02	4.27E-02	4.27E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru111	6.73E-01	6.73E-01	6.73E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh111	1.24E+00	1.24E+00	1.24E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111	1.30E+00	1.30E+00	1.30E+00	1.95E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111m	5.10E-02	5.10E-02	5.10E-02	2.48E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111	1.31E+00	1.31E+00	1.31E+00	1.20E+00	3.03E-04	2.29E-15	3.99E-30	.00E+00	.00E+00
ag111m	1.30E+00	1.30E+00	1.30E+00	2.42E-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	9.57E-07	9.57E-07	9.57E-07	1.15E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb112	2.75E-09	2.75E-09	2.75E-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	9.50E-03	9.50E-03	9.50E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru112	3.24E-01	3.24E-01	3.24E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh112	7.00E-01	7.00E-01	7.00E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd112	8.31E-01	8.31E-01	8.31E-01	3.77E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag112	8.32E-01	8.32E-01	8.32E-01	4.43E-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	2.46E-06	2.46E-06	2.46E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc113	2.60E-03	2.60E-03	2.60E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru113	1.39E-01	1.39E-01	1.39E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh113	4.89E-01	4.89E-01	4.89E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd113	6.85E-01	6.85E-01	6.85E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113	6.63E-01	6.63E-01	6.63E-01	3.01E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113m	1.31E-01	1.31E-01	1.31E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd113	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14
cd113m	1.13E-02	1.13E-02	1.13E-02	1.13E-02	1.12E-02	1.08E-02	1.03E-02	8.86E-03	6.93E-03
in113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in113m	2.49E-10	2.49E-10	2.49E-10	1.09E-14	.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	4.12E-04	4.12E-04	4.12E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru114	5.48E-02	5.48E-02	5.48E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh114	2.78E-01	2.78E-01	2.78E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd114	5.83E-01	5.83E-01	5.83E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag114	5.96E-01	5.96E-01	5.96E-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	1.42E-05	1.42E-05	1.42E-05	1.01E-05	2.91E-06	6.17E-08	3.71E-10	8.09E-17	6.38E-28
in114m	1.07E-05	1.07E-05	1.07E-05	1.06E-05	3.04E-06	6.45E-08	3.88E-10	8.45E-17	6.67E-28
sn114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo115	5.44E-09	5.44E-09	5.44E-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	1.31E-01	1.31E-01	1.31E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd115	4.18E-01	4.18E-01	4.18E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115	3.23E-01	3.23E-01	3.23E-01	7.06E-23	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115m	1.30E-01	1.30E-01	1.30E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115	4.35E-01	4.35E-01	4.35E-01	3.20E-01	3.02E-13	.00E+00	.00E+00	.00E+00	.00E+00
cd115m	1.88E-02	1.88E-02	1.88E-02	1.85E-02	4.65E-03	6.44E-05	2.21E-07	8.85E-15	4.16E-27
in115	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12
in115m	4.35E-01	4.35E-01	4.35E-01	3.48E-01	5.13E-07	7.12E-09	2.44E-11	9.78E-19	4.56E-31

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	3.98E-03	3.98E-03	3.98E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh116	7.64E-02	7.64E-02	7.64E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd116	5.54E-01	5.54E-01	5.54E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116	6.07E-01	6.07E-01	6.07E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag116m	5.24E-02	5.24E-02	5.24E-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	2.05E-03	2.05E-03	2.05E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in116m	7.71E-03	7.71E-03	7.71E-03	7.62E-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	6.33E-08	6.33E-08	6.33E-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	2.54E-02	2.54E-02	2.54E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd117	3.23E-01	3.23E-01	3.23E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117	2.31E-01	2.31E-01	2.31E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag117m	2.31E-01	2.31E-01	2.31E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117	4.02E-01	4.02E-01	4.02E-01	5.07E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd117m	8.35E-02	8.35E-02	8.35E-02	5.93E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117	2.91E-01	2.91E-01	2.91E-01	1.86E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in117m	3.67E-01	3.67E-01	3.67E-01	2.18E-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	9.32E-04	9.32E-04	9.32E-04	8.99E-04	9.63E-06	7.78E-12	6.40E-20	.00E+00	.00E+00
tc118	1.87E-09	1.87E-09	1.87E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru118	7.80E-05	7.80E-05	7.80E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh118	5.08E-03	5.08E-03	5.08E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd118	1.51E-01	1.51E-01	1.51E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118	2.74E-01	2.74E-01	2.74E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag118m	1.94E-01	1.94E-01	1.94E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd118	4.51E-01	4.51E-01	4.51E-01	1.09E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118	4.51E-01	4.51E-01	4.51E-01	1.09E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in118m	2.71E-04	2.71E-04	2.71E-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	1.04E-05	1.04E-05	1.04E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh119	2.02E-03	2.02E-03	2.02E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd119	1.05E-01	1.05E-01	1.05E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag119	3.56E-01	3.56E-01	3.56E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119	3.43E-01	3.43E-01	3.43E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd119m	1.44E-01	1.44E-01	1.44E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119	1.88E-01	1.88E-01	1.88E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in119m	3.10E-01	3.10E-01	3.10E-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	1.77E-03	1.77E-03	1.77E-03	1.77E-03	1.43E-03	7.46E-04	3.14E-04	2.36E-05	3.13E-07
ru120	1.24E-06	1.24E-06	1.24E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh120	3.87E-04	3.87E-04	3.87E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd120	4.89E-02	4.89E-02	4.89E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag120	2.35E-01	2.35E-01	2.35E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd120	4.74E-01	4.74E-01	4.74E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120	4.79E-01	4.79E-01	4.79E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120m	4.81E-03	4.81E-03	4.81E-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	9.61E-05	9.61E-05	9.61E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.80E-02	1.80E-02	1.80E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag121	1.71E-01	1.71E-01	1.71E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd121	4.89E-01	4.89E-01	4.89E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121	3.17E-02	3.17E-02	3.17E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121m	4.95E-01	4.95E-01	4.95E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121	5.20E-01	5.20E-01	5.20E-01	2.84E-01	3.02E-03	3.00E-03	2.96E-03	2.85E-03	2.67E-03
sn121m	3.91E-03	3.91E-03	3.91E-03	3.91E-03	3.90E-03	3.86E-03	3.81E-03	3.67E-03	3.45E-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	5.73E-03	5.73E-03	5.73E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag122	8.97E-02	8.97E-02	8.97E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd122	5.31E-01	5.31E-01	5.31E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122	5.70E-01	5.70E-01	5.70E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122m	3.89E-02	3.89E-02	3.89E-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	4.49E-04	4.49E-04	4.49E-04	3.47E-04	4.16E-14	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	4.63E-05	4.63E-05	4.63E-05	.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	8.28E-07	8.28E-07	8.28E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd123	8.54E-04	8.54E-04	8.54E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag123	3.25E-02	3.25E-02	3.25E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd123	3.43E-01	3.43E-01	3.43E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123	3.88E-01	3.88E-01	3.88E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123m	1.08E-01	1.08E-01	1.08E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123	6.09E-02	6.09E-02	6.09E-02	6.06E-02	3.76E-02	8.58E-03	1.21E-03	3.38E-06	1.87E-10
sn123m	5.58E-01	5.58E-01	5.58E-01	8.61E-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	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17
te123m	4.29E-08	4.29E-08	4.29E-08	4.26E-08	2.54E-08	5.17E-09	6.23E-10	1.09E-12	2.78E-17
pd124	5.14E-04	5.14E-04	5.14E-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	6.06E-01	6.06E-01	6.06E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in124	9.62E-01	9.62E-01	9.62E-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	8.65E-04	8.65E-04	8.65E-04	8.55E-04	3.07E-04	1.29E-05	1.92E-07	6.37E-13	4.69E-22
sb124m	1.79E-04	1.79E-04	1.79E-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	3.60E-01	3.60E-01	3.60E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125	5.00E-01	5.00E-01	5.00E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125m	3.56E-01	3.56E-01	3.56E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125	3.41E-01	3.41E-01	3.41E-01	3.17E-01	5.27E-04	1.34E-12	5.26E-24	.00E+00	.00E+00
sn125m	8.41E-01	8.41E-01	8.41E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb125	1.18E+00	1.18E+00	1.18E+00	1.18E+00	1.11E+00	9.20E-01	7.14E-01	3.33E-01	9.37E-02
te125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te125m	2.72E-01	2.72E-01	2.72E-01	2.72E-01	2.66E-01	2.25E-01	1.74E-01	8.14E-02	2.29E-02
pd126	2.41E-05	2.41E-05	2.41E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag126	5.19E-03	5.19E-03	5.19E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd126	4.42E-01	4.42E-01	4.42E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in126	1.08E+00	1.08E+00	1.08E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn126	5.69E-02	5.69E-02	5.69E-02	5.69E-02	5.69E-02	5.69E-02	5.69E-02	5.69E-02	5.69E-02

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 34

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
sb126	1.53E-02	1.53E-02	1.53E-02	1.50E-02	8.01E-03	7.96E-03	7.96E-03	7.96E-03	7.96E-03
sb126m	6.70E-02	6.70E-02	6.70E-02	5.69E-02	5.69E-02	5.69E-02	5.69E-02	5.69E-02	5.69E-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	2.43E-03	2.43E-03	2.43E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd127	3.36E-01	3.36E-01	3.36E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127	1.17E+00	1.17E+00	1.17E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127m	1.17E+00	1.17E+00	1.17E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127	1.85E+00	1.85E+00	1.85E+00	6.70E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127m	2.85E+00	2.85E+00	2.85E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb127	4.94E+00	4.94E+00	4.94E+00	4.17E+00	4.57E-07	1.37E-28	.00E+00	.00E+00	.00E+00
te127	4.92E+00	4.92E+00	4.92E+00	4.59E+00	4.96E-01	8.62E-02	8.45E-03	7.96E-06	7.20E-11
te127m	8.66E-01	8.66E-01	8.66E-01	8.66E-01	5.07E-01	8.80E-02	8.63E-03	8.12E-06	7.35E-11
i127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe127	8.17E-11	8.17E-11	8.17E-11	8.01E-11	1.47E-11	7.79E-14	7.43E-17	6.44E-26	.00E+00
ag128	9.97E-04	9.97E-04	9.97E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd128	3.07E-01	3.07E-01	3.07E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in128	3.18E+00	3.18E+00	3.18E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn128	1.20E+01	1.20E+01	1.20E+01	5.56E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128	9.14E-01	9.14E-01	9.14E-01	1.54E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128m	1.23E+01	1.23E+01	1.23E+01	6.74E-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	4.04E-03	4.04E-03	4.04E-03	1.80E-20	.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	1.30E-01	1.30E-01	1.30E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in129	3.49E+00	3.49E+00	3.49E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129	1.00E+01	1.00E+01	1.00E+01	.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	2.69E+01	2.69E+01	2.69E+01	6.23E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129	2.53E+01	2.53E+01	2.53E+01	3.85E+00	5.04E-01	1.72E-03	9.20E-07	1.40E-16	.00E+00
te129m	5.01E+00	5.01E+00	5.01E+00	4.93E+00	7.86E-01	2.69E-03	1.44E-06	2.19E-16	.00E+00
i129	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03
xe129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe129m	2.63E-07	2.63E-07	2.63E-07	2.44E-07	2.36E-10	1.13E-19	4.56E-32	.00E+00	.00E+00
cd130	5.17E-02	5.17E-02	5.17E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in130	3.29E+00	3.29E+00	3.29E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn130	3.81E+01	3.81E+01	3.81E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130	8.57E+00	8.57E+00	8.57E+00	9.09E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130m	4.96E+01	4.96E+01	4.96E+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	6.63E-02	6.63E-02	6.63E-02	1.73E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130m	3.05E-02	3.05E-02	3.05E-02	.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	6.28E-03	6.28E-03	6.28E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in131	1.14E+00	1.14E+00	1.14E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn131	3.09E+01	3.09E+01	3.09E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb131	8.75E+01	8.75E+01	8.75E+01	1.26E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131	8.85E+01	8.85E+01	8.85E+01	1.84E+00	6.78E-22	.00E+00	.00E+00	.00E+00	.00E+00
te131m	1.41E+01	1.41E+01	1.41E+01	8.16E+00	3.01E-21	.00E+00	.00E+00	.00E+00	.00E+00
i131	9.96E+01	9.96E+01	9.96E+01	9.26E+01	4.38E-02	2.17E-12	4.59E-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	1.09E+00	1.09E+00	1.09E+00	1.08E+00	1.70E-02	1.95E-09	1.12E-18	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 35

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
cd132	7.04E-04	7.04E-04	7.04E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in132	2.82E-01	2.82E-01	2.82E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn132	2.18E+01	2.18E+01	2.18E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132	4.59E+01	4.59E+01	4.59E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132m	5.07E+01	5.07E+01	5.07E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

te132	1.47E+02	1.47E+02	1.47E+02	1.19E+02	7.13E-07	.00E+00	.00E+00	.00E+00	.00E+00
i132	1.48E+02	1.48E+02	1.48E+02	1.23E+02	7.34E-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	3.21E-05	3.21E-05	3.21E-05	2.88E-05	2.11E-09	3.43E-22	.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	4.80E-03	4.80E-03	4.80E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn133	5.94E+00	5.94E+00	5.94E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb133	8.01E+01	8.01E+01	8.01E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133	1.29E+02	1.29E+02	1.29E+02	3.68E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133m	1.08E+02	1.08E+02	1.08E+02	1.63E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133	2.26E+02	2.26E+02	2.26E+02	1.05E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133m	1.40E+01	1.40E+01	1.40E+01	1.66E-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	6.67E+00	6.67E+00	6.67E+00	6.09E+00	4.69E-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	5.29E-09	5.29E-09	5.29E-09	5.29E-09	5.20E-09	4.95E-09	4.64E-09	3.80E-09	2.74E-09
in134	7.43E-04	7.43E-04	7.43E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn134	6.89E-01	6.89E-01	6.89E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134	1.53E+01	1.53E+01	1.53E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134m	9.40E+00	9.40E+00	9.40E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te134	2.29E+02	2.29E+02	2.29E+02	9.77E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134	2.60E+02	2.60E+02	2.60E+02	6.55E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134m	1.32E+01	1.32E+01	1.32E+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	2.54E+00	2.54E+00	2.54E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134	1.22E+00	1.22E+00	1.22E+00	1.22E+00	1.12E+00	8.72E-01	6.23E-01	2.27E-01	4.23E-02
cs134m	9.25E-02	9.25E-02	9.25E-02	3.05E-04	.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	5.17E-02	5.17E-02	5.17E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb135	5.52E+00	5.52E+00	5.52E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te135	1.11E+02	1.11E+02	1.11E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i135	2.13E+02	2.13E+02	2.13E+02	1.69E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135	2.23E+02	2.23E+02	2.23E+02	8.12E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135m	4.02E+01	4.02E+01	4.02E+01	2.77E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs135	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01
cs135m	6.45E-03	6.45E-03	6.45E-03	4.27E-11	.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	2.15E-05	2.15E-05	2.15E-05	1.21E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn136	3.91E-03	3.91E-03	3.91E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb136	7.08E-01	7.08E-01	7.08E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te136	5.30E+01	5.30E+01	5.30E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136	1.08E+02	1.08E+02	1.08E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136m	5.04E+01	5.04E+01	5.04E+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	6.11E-01	6.11E-01	6.11E-01	5.79E-01	5.33E-03	2.69E-09	1.19E-17	.00E+00	.00E+00
ba136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136m	6.84E-02	6.84E-02	6.84E-02	6.49E-02	5.97E-04	3.02E-10	1.33E-18	.00E+00	.00E+00

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.65E+00	1.65E+00	1.65E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te137	1.58E+01	1.58E+01	1.58E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i137	1.09E+02	1.09E+02	1.09E+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	2.13E+02	2.13E+02	2.13E+02	2.13E+02	2.12E+02	2.08E+02	2.03E+02	1.90E+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	2.00E+02	1.96E+02	1.92E+02	1.79E+02	1.59E+02
sb138	6.30E-03	6.30E-03	6.30E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

te138	3.00E+00	3.00E+00	3.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i138	5.45E+01	5.45E+01	5.45E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe138	2.12E+02	2.12E+02	2.12E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138	2.22E+02	2.22E+02	2.22E+02	1.34E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138m	5.83E+00	5.83E+00	5.83E+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	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11
sb139	4.24E-04	4.24E-04	4.24E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te139	3.90E-01	3.90E-01	3.90E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i139	3.27E+01	3.27E+01	3.27E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe139	1.70E+02	1.70E+02	1.70E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs139	2.10E+02	2.10E+02	2.10E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba139	2.13E+02	2.13E+02	2.13E+02	1.81E-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	1.90E-06	1.90E-06	1.90E-06	1.89E-06	1.21E-06	3.02E-07	4.79E-08	1.92E-10	1.95E-14
pr139	6.53E-09	6.53E-09	6.53E-09	1.50E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te140	6.23E-02	6.23E-02	6.23E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i140	7.41E+00	7.41E+00	7.41E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe140	1.24E+02	1.24E+02	1.24E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs140	1.92E+02	1.92E+02	1.92E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba140	2.11E+02	2.11E+02	2.11E+02	2.00E+02	1.58E+00	5.05E-07	1.21E-15	.00E+00	.00E+00
la140	2.11E+02	2.11E+02	2.11E+02	2.09E+02	1.82E+00	5.81E-07	1.39E-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	2.04E-05	2.04E-05	2.04E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te141	4.66E-04	4.66E-04	4.66E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i141	6.51E-01	6.51E-01	6.51E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe141	4.48E+01	4.48E+01	4.48E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs141	1.48E+02	1.48E+02	1.48E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba141	1.93E+02	1.93E+02	1.93E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la141	1.94E+02	1.94E+02	1.94E+02	3.02E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce141	1.94E+02	1.94E+02	1.94E+02	1.91E+02	2.86E+01	8.08E-02	3.34E-05	2.37E-15	2.28E-32
pr141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd141	2.55E-08	2.55E-08	2.55E-08	3.19E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te142	2.17E-04	2.17E-04	2.17E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i142	2.17E-01	2.17E-01	2.17E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe142	1.60E+01	1.60E+01	1.60E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs142	8.92E+01	8.92E+01	8.92E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba142	1.92E+02	1.92E+02	1.92E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la142	1.95E+02	1.95E+02	1.95E+02	3.85E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce142	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06
pr142	2.04E-01	2.04E-01	2.04E-01	8.53E-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	1.35E-03	1.35E-03	1.35E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.08E+00	2.08E+00	2.08E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs143	4.90E+01	4.90E+01	4.90E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba143	1.74E+02	1.74E+02	1.74E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la143	1.95E+02	1.95E+02	1.95E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce143	1.96E+02	1.96E+02	1.96E+02	1.19E+02	3.90E-18	.00E+00	.00E+00	.00E+00	.00E+00
pr143	1.96E+02	1.96E+02	1.96E+02	1.94E+02	2.20E+00	1.71E-06	1.34E-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	4.64E-05	4.64E-05	4.64E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe144	3.28E-01	3.28E-01	3.28E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs144	1.24E+01	1.24E+01	1.24E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba144	1.45E+02	1.45E+02	1.45E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

la144	1.78E+02	1.78E+02	1.78E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce144	1.80E+02	1.80E+02	1.80E+02	1.80E+02	1.45E+02	7.41E+01	3.05E+01	2.12E+00	2.50E-02
pr144	1.80E+02	1.80E+02	1.80E+02	1.80E+02	1.45E+02	7.41E+01	3.05E+01	2.12E+00	2.50E-02
pr144m	2.53E+00	2.53E+00	2.53E+00	2.52E+00	2.03E+00	1.04E+00	4.27E-01	2.97E-02	3.49E-04
nd144	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10
i145	1.39E-06	1.39E-06	1.39E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe145	1.98E-02	1.98E-02	1.98E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs145	2.34E+00	2.34E+00	2.34E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba145	6.14E+01	6.14E+01	6.14E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la145	1.20E+02	1.20E+02	1.20E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce145	1.30E+02	1.30E+02	1.30E+02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr145	1.30E+02	1.30E+02	1.30E+02	8.15E+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	4.49E-08	4.49E-08	4.49E-08	4.49E-08	4.48E-08	4.43E-08	4.31E-08	3.87E-08	3.19E-08
sm145	4.00E-08	4.00E-08	4.00E-08	3.99E-08	3.33E-08	1.90E-08	9.02E-09	9.66E-10	2.34E-11
xe146	1.89E-03	1.89E-03	1.89E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs146	6.38E-01	6.38E-01	6.38E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba146	3.36E+01	3.36E+01	3.36E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la146	8.08E+01	8.08E+01	8.08E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce146	9.94E+01	9.94E+01	9.94E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr146	9.98E+01	9.98E+01	9.98E+01	2.55E-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	9.14E-08	9.14E-08	9.14E-08	9.14E-08	8.86E-08	8.06E-08	7.11E-08	4.88E-08	2.61E-08
sm146	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09
xe147	5.37E-06	5.37E-06	5.37E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs147	6.41E-03	6.41E-03	6.41E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba147	3.73E+00	3.73E+00	3.73E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la147	3.14E+01	3.14E+01	3.14E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce147	7.33E+01	7.33E+01	7.33E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr147	7.59E+01	7.59E+01	7.59E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd147	7.59E+01	7.59E+01	7.59E+01	7.14E+01	2.59E-01	7.37E-09	7.14E-19	.00E+00	.00E+00
pm147	7.59E+01	7.59E+01	7.59E+01	7.59E+01	7.20E+01	5.90E+01	4.53E+01	2.05E+01	5.47E+00
sm147	2.47E-06	2.47E-06	2.47E-06	2.47E-06	2.47E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06
cs148	1.11E-03	1.11E-03	1.11E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba148	5.61E-01	5.61E-01	5.61E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la148	9.13E+00	9.13E+00	9.13E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce148	5.14E+01	5.14E+01	5.14E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr148	5.65E+01	5.65E+01	5.65E+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	1.02E-03	1.02E-03	1.02E-03	9.01E-04	1.06E-05	1.04E-07	2.26E-10	2.33E-18	1.14E-31
pm148m	9.04E-04	9.04E-04	9.04E-04	8.89E-04	2.00E-04	1.97E-06	4.28E-09	4.40E-17	2.14E-30

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 38

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
sm148	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13
cs149	8.03E-06	8.03E-06	8.03E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba149	5.03E-02	5.03E-02	5.03E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la149	2.26E+00	2.26E+00	2.26E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce149	2.59E+01	2.59E+01	2.59E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr149	3.60E+01	3.60E+01	3.60E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd149	3.69E+01	3.69E+01	3.69E+01	2.45E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm149	3.69E+01	3.69E+01	3.69E+01	2.79E+01	2.15E-11	.00E+00	.00E+00	.00E+00	.00E+00
sm149	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12
eu149	9.15E-10	9.15E-10	9.15E-10	9.08E-10	4.68E-10	6.02E-11	3.96E-12	1.13E-15	1.40E-21
cs150	1.03E-06	1.03E-06	1.03E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba150	3.81E-03	3.81E-03	3.81E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la150	2.92E-01	2.92E-01	2.92E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce150	1.00E+01	1.00E+01	1.00E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pr150	2.02E+01	2.02E+01	2.02E+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	3.29E-03	3.29E-03	3.29E-03	6.63E-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	1.11E-06	1.11E-06	1.11E-06	1.11E-06	1.10E-06	1.08E-06	1.06E-06	1.00E-06	9.11E-07
ba151	3.46E-05	3.46E-05	3.46E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la151	3.81E-02	3.81E-02	3.81E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce151	2.38E+00	2.38E+00	2.38E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr151	9.83E+00	9.83E+00	9.83E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd151	1.51E+01	1.51E+01	1.51E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm151	1.52E+01	1.52E+01	1.52E+01	8.55E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm151	1.53E+01	1.53E+01	1.53E+01	1.53E+01	1.52E+01	1.51E+01	1.50E+01	1.47E+01	1.41E+01
eu151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba152	2.70E-07	2.70E-07	2.70E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la152	7.65E-04	7.65E-04	7.65E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce152	3.30E-01	3.30E-01	3.30E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr152	3.20E+00	3.20E+00	3.20E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd152	9.53E+00	9.53E+00	9.53E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152	9.74E+00	9.74E+00	9.74E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152m	2.08E-01	2.08E-01	2.08E-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	3.87E+00	3.87E+00	3.87E+00	3.87E+00	3.82E+00	3.67E+00	3.49E+00	2.98E+00	2.30E+00
eu152m	2.10E+00	2.10E+00	2.10E+00	3.52E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	4.34E-11	4.34E-11	4.34E-11	4.34E-11	4.34E-11	4.34E-11	4.34E-11	4.34E-11	4.34E-11
la153	2.35E-04	2.35E-04	2.35E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce153	7.22E-02	7.22E-02	7.22E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr153	1.13E+00	1.13E+00	1.13E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd153	5.31E+00	5.31E+00	5.31E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm153	6.10E+00	6.10E+00	6.10E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm153	6.58E+00	6.58E+00	6.58E+00	4.60E+00	5.87E-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	1.77E-02	1.77E-02	1.77E-02	1.76E-02	1.37E-02	6.20E-03	2.17E-03	9.36E-05	4.96E-07
la154	5.89E-06	5.89E-06	5.89E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce154	6.31E-03	6.31E-03	6.31E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr154	1.70E-01	1.70E-01	1.70E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd154	2.12E+00	2.12E+00	2.12E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154	2.53E+00	2.53E+00	2.53E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154m	4.10E-01	4.10E-01	4.10E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 39

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
sm154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu154	1.97E-01	1.97E-01	1.97E-01	1.97E-01	1.93E-01	1.82E-01	1.68E-01	1.32E-01	8.80E-02
gd154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la155	2.87E-08	2.87E-08	2.87E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce155	5.02E-04	5.02E-04	5.02E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr155	3.07E-02	3.07E-02	3.07E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd155	6.30E-01	6.30E-01	6.30E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm155	1.30E+00	1.30E+00	1.30E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm155	1.46E+00	1.46E+00	1.46E+00	5.53E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu155	1.46E+00	1.46E+00	1.46E+00	1.46E+00	1.41E+00	1.26E+00	1.09E+00	6.97E-01	3.32E-01
gd155m	3.33E-05	3.33E-05	3.33E-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	3.75E-05	3.75E-05	3.75E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr156	3.55E-03	3.55E-03	3.55E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd156	1.72E-01	1.72E-01	1.72E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm156	4.98E-01	4.98E-01	4.98E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm156	7.13E-01	7.13E-01	7.13E-01	1.21E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

eu156	7.19E-01	7.19E-01	7.19E-01	7.01E-01	1.21E-02	4.24E-08	2.43E-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	1.77E-06	1.77E-06	1.77E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr157	5.00E-04	5.00E-04	5.00E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd157	3.48E-02	3.48E-02	3.48E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm157	1.83E-01	1.83E-01	1.83E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm157	3.69E-01	3.69E-01	3.69E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu157	3.81E-01	3.81E-01	3.81E-01	1.28E-01	.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	2.57E-05	2.57E-05	2.57E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd158	5.44E-03	5.44E-03	5.44E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm158	4.27E-02	4.27E-02	4.27E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm158	1.72E-01	1.72E-01	1.72E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu158	1.90E-01	1.90E-01	1.90E-01	7.69E-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	4.59E-04	4.59E-04	4.59E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm159	8.02E-03	8.02E-03	8.02E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm159	5.81E-02	5.81E-02	5.81E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu159	7.97E-02	7.97E-02	7.97E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd159	8.15E-02	8.15E-02	8.15E-02	3.39E-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	2.91E-05	2.91E-05	2.91E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm160	8.46E-04	8.46E-04	8.46E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm160	1.58E-02	1.58E-02	1.58E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu160	2.96E-02	2.96E-02	2.96E-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	2.07E-04	2.07E-04	2.07E-04	2.05E-04	8.75E-05	6.25E-06	1.89E-07	5.17E-12	1.29E-19
dy160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd161	1.18E-06	1.18E-06	1.18E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm161	9.81E-05	9.81E-05	9.81E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm161	2.89E-03	2.89E-03	2.89E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu161	9.81E-03	9.81E-03	9.81E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd161	1.38E-02	1.38E-02	1.38E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb161	1.39E-02	1.39E-02	1.39E-02	1.25E-02	1.64E-06	1.61E-18	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 40

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
dy161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm162	6.49E-06	6.49E-06	6.49E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm162	4.76E-04	4.76E-04	4.76E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu162	2.44E-03	2.44E-03	2.44E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd162	5.78E-03	5.78E-03	5.78E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162	5.89E-03	5.89E-03	5.89E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	1.10E-04	1.10E-04	1.10E-04	6.32E-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	3.89E-05	3.89E-05	3.89E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu163	4.67E-04	4.67E-04	4.67E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd163	2.02E-03	2.02E-03	2.02E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163	2.33E-03	2.33E-03	2.33E-03	.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	3.05E-06	3.05E-06	3.05E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu164	5.52E-05	5.52E-05	5.52E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd164	5.97E-04	5.97E-04	5.97E-04	6.09E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	8.42E-04	8.42E-04	8.42E-04	7.06E-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	1.67E-07	1.67E-07	1.67E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

eu165	6.97E-06	6.97E-06	6.97E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	1.37E-04	1.37E-04	1.37E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	3.01E-04	3.01E-04	3.01E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165	4.12E-04	4.12E-04	4.12E-04	3.37E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	3.26E-04	3.26E-04	3.26E-04	.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	5.04E-05	5.04E-05	5.04E-05	4.11E-05	5.43E-13	.00E+00	.00E+00	.00E+00	.00E+00
ho166	5.22E-05	5.22E-05	5.22E-05	4.89E-05	8.09E-13	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	5.32E-07	5.32E-07	5.32E-07	5.32E-07	5.32E-07	5.32E-07	5.32E-07	5.31E-07	5.29E-07
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	1.61E-09	1.61E-09	1.61E-09	.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	8.61E-08	8.61E-08	8.61E-08	8.00E-08	1.13E-10	1.73E-19	3.42E-31	.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	5.19E-10	5.19E-10	5.19E-10	5.16E-10	3.19E-10	7.24E-11	1.01E-11	2.75E-14	1.46E-18
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	1.22E-07	1.22E-07	1.22E-07	1.33E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	1.24E-07	1.24E-07	1.24E-07	1.24E-07	1.14E-07	8.67E-08	6.04E-08	2.05E-08	3.37E-09
yb171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er172	7.63E-08	7.63E-08	7.63E-08	5.45E-08	4.96E-21	.00E+00	.00E+00	.00E+00	.00E+00
tm172	8.00E-08	8.00E-08	8.00E-08	7.64E-08	2.06E-17	.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	2.06E+04	2.06E+04	2.06E+04	4.80E+03	1.64E+03	1.06E+03	9.07E+02	7.58E+02	6.55E+02

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 41

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
he 4	1.17E+01	1.17E+01	1.17E+01	1.18E+01	1.18E+01	1.20E+01	1.22E+01	1.23E+01	1.25E+01	1.26E+01	1.29E+01
tl206	2.19E-15	2.19E-15	2.20E-15	2.20E-15	2.21E-15	2.24E-15	2.27E-15	2.30E-15	2.34E-15	2.37E-15	2.44E-15
tl207	2.08E-10	2.08E-10	2.08E-10	2.09E-10	2.09E-10	2.10E-10	2.12E-10	2.14E-10	2.15E-10	2.17E-10	2.21E-10
tl208	6.94E-12	6.61E-12	6.29E-12	5.69E-12	4.67E-12	2.84E-12	1.73E-12	1.05E-12	6.41E-13	3.91E-13	1.46E-13
tl209	1.47E-12	1.47E-12	1.47E-12	1.48E-12	1.49E-12	1.52E-12	1.54E-12	1.57E-12	1.60E-12	1.63E-12	1.69E-12
pb206	2.76E-01	2.77E-01	2.78E-01	2.79E-01	2.82E-01	2.90E-01	2.97E-01	3.05E-01	3.12E-01	3.20E-01	3.36E-01
pb207	3.96E-02	3.97E-02	3.97E-02	3.99E-02	4.02E-02	4.10E-02	4.18E-02	4.27E-02	4.35E-02	4.43E-02	4.60E-02
pb208	6.29E-03	6.30E-03	6.31E-03	6.33E-03	6.36E-03	6.42E-03	6.46E-03	6.48E-03	6.50E-03	6.51E-03	6.51E-03
pb209	6.20E-09	6.22E-09	6.23E-09	6.25E-09	6.30E-09	6.41E-09	6.53E-09	6.64E-09	6.76E-09	6.88E-09	7.12E-09
pb210	4.73E-03	4.73E-03	4.73E-03	4.74E-03	4.76E-03	4.82E-03	4.89E-03	4.97E-03	5.04E-03	5.11E-03	5.26E-03
pb211	1.61E-09	1.61E-09	1.61E-09	1.61E-09	1.62E-09	1.63E-09	1.64E-09	1.65E-09	1.67E-09	1.68E-09	1.71E-09
pb212	4.11E-09	3.92E-09	3.73E-09	3.37E-09	2.77E-09	1.68E-09	1.03E-09	6.24E-10	3.80E-10	2.32E-10	8.63E-11
pb214	1.10E-08	1.11E-08	1.11E-08	1.11E-08	1.12E-08	1.13E-08	1.15E-08	1.17E-08	1.18E-08	1.20E-08	1.24E-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	2.02E-02	2.02E-02	2.03E-02	2.04E-02	2.06E-02	2.12E-02	2.18E-02	2.25E-02	2.31E-02	2.37E-02	2.50E-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	2.91E-06	2.91E-06	2.91E-06	2.92E-06	2.93E-06	2.97E-06	3.01E-06	3.06E-06	3.10E-06	3.15E-06	3.23E-06
bi211	9.55E-11	9.56E-11	9.56E-11	9.56E-11	9.58E-11	9.64E-11	9.72E-11	9.80E-11	9.88E-11	9.96E-11	1.01E-10
bi212	3.90E-10	3.72E-10	3.54E-10	3.20E-10	2.63E-10	1.60E-10	9.72E-11	5.92E-11	3.61E-11	2.20E-11	8.18E-12
bi213	1.48E-09	1.48E-09	1.48E-09	1.49E-09	1.50E-09	1.53E-09	1.55E-09	1.58E-09	1.61E-09	1.64E-09	1.69E-09
bi214	8.20E-09	8.21E-09	8.22E-09	8.25E-09	8.30E-09	8.42E-09	8.54E-09	8.67E-09	8.79E-09	8.92E-09	9.17E-09
po210	8.04E-05	8.05E-05	8.05E-05	8.06E-05	8.09E-05	8.20E-05	8.32E-05	8.44E-05	8.56E-05	8.69E-05	8.93E-05
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	1.06E-15	1.06E-15	1.06E-15	1.06E-15	1.06E-15	1.07E-15	1.07E-15	1.08E-15	1.09E-15	1.10E-15	1.12E-15
po212	2.05E-20	1.95E-20	1.86E-20	1.68E-20	1.38E-20	8.39E-21	5.11E-21	3.11E-21	1.89E-21	1.15E-21	4.30E-22
po213	2.22E-18	2.22E-18	2.23E-18	2.24E-18	2.25E-18	2.29E-18	2.34E-18	2.38E-18	2.42E-18	2.46E-18	2.55E-18
po214	1.13E-15	1.13E-15	1.13E-15	1.13E-15	1.14E-15	1.16E-15	1.18E-15	1.19E-15	1.21E-15	1.23E-15	1.26E-15

po215	1.35E-15	1.35E-15	1.35E-15	1.35E-15	1.35E-15	1.36E-15	1.37E-15	1.38E-15	1.40E-15	1.41E-15	1.43E-15
po216	1.59E-14	1.51E-14	1.44E-14	1.30E-14	1.07E-14	6.49E-15	3.95E-15	2.41E-15	1.47E-15	8.94E-16	3.33E-16
po218	1.30E-09	1.30E-09	1.31E-09	1.31E-09	1.32E-09	1.34E-09	1.36E-09	1.38E-09	1.40E-09	1.42E-09	1.46E-09
at217	1.78E-14	1.78E-14	1.78E-14	1.79E-14	1.80E-14	1.84E-14	1.87E-14	1.90E-14	1.94E-14	1.97E-14	2.04E-14
rn218	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rn219	3.06E-12	3.06E-12	3.06E-12	3.06E-12	3.07E-12	3.09E-12	3.11E-12	3.14E-12	3.16E-12	3.19E-12	3.24E-12
rn220	6.20E-12	5.90E-12	5.62E-12	5.08E-12	4.17E-12	2.54E-12	1.54E-12	9.40E-13	5.73E-13	3.49E-13	1.30E-13
rn222	2.35E-06	2.36E-06	2.36E-06	2.37E-06	2.38E-06	2.42E-06	2.45E-06	2.49E-06	2.52E-06	2.56E-06	2.63E-06
fr221	1.65E-10	1.65E-10	1.65E-10	1.66E-10	1.67E-10	1.70E-10	1.73E-10	1.76E-10	1.80E-10	1.83E-10	1.89E-10
fr223	1.42E-11	1.42E-11	1.42E-11	1.42E-11	1.42E-11	1.43E-11	1.44E-11	1.46E-11	1.47E-11	1.48E-11	1.50E-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	7.77E-07	7.77E-07	7.77E-07	7.78E-07	7.79E-07	7.84E-07	7.90E-07	7.97E-07	8.03E-07	8.10E-07	8.22E-07
ra224	3.59E-08	3.42E-08	3.25E-08	2.94E-08	2.41E-08	1.47E-08	8.94E-09	5.44E-09	3.32E-09	2.02E-09	7.53E-10
ra225	7.30E-07	7.31E-07	7.32E-07	7.35E-07	7.40E-07	7.54E-07	7.67E-07	7.81E-07	7.95E-07	8.09E-07	8.37E-07
ra226	3.66E-01	3.67E-01	3.67E-01	3.68E-01	3.71E-01	3.76E-01	3.82E-01	3.87E-01	3.93E-01	3.98E-01	4.10E-01
ra228	2.45E-09	2.45E-09	2.45E-09	2.46E-09	2.47E-09	2.49E-09	2.52E-09	2.54E-09	2.56E-09	2.59E-09	2.64E-09
ac225	4.93E-07	4.94E-07	4.95E-07	4.96E-07	5.00E-07	5.09E-07	5.18E-07	5.28E-07	5.37E-07	5.46E-07	5.66E-07
ac227	5.49E-04	5.49E-04	5.49E-04	5.50E-04	5.51E-04	5.55E-04	5.59E-04	5.64E-04	5.68E-04	5.73E-04	5.82E-04
ac228	2.99E-13	2.99E-13	2.99E-13	3.00E-13	3.01E-13	3.04E-13	3.07E-13	3.10E-13	3.13E-13	3.16E-13	3.23E-13
th226	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th227	1.28E-06	1.28E-06	1.28E-06	1.28E-06	1.28E-06	1.29E-06	1.30E-06	1.31E-06	1.32E-06	1.33E-06	1.35E-06
th228	6.97E-06	6.63E-06	6.31E-06	5.72E-06	4.69E-06	2.85E-06	1.74E-06	1.06E-06	6.44E-07	3.93E-07	1.46E-07
th229	1.44E-01	1.45E-01	1.45E-01	1.45E-01	1.47E-01	1.49E-01	1.52E-01	1.55E-01	1.57E-01	1.60E-01	1.66E-01
th230	2.98E+01	2.98E+01	2.98E+01	2.99E+01	3.00E+01	3.03E+01	3.06E+01	3.09E+01	3.12E+01	3.15E+01	3.21E+01
th231	6.65E-07	6.65E-07	6.65E-07	6.65E-07	6.65E-07	6.65E-07	6.65E-07	6.65E-07	6.65E-07	6.65E-07	6.65E-07

1
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 42

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	6.09E+00	6.10E+00	6.11E+00	6.12E+00	6.14E+00	6.20E+00	6.27E+00	6.33E+00	6.39E+00	6.45E+00	6.57E+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	8.41E-01	8.42E-01	8.43E-01	8.44E-01	8.47E-01	8.54E-01	8.61E-01	8.68E-01	8.75E-01	8.82E-01	8.96E-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	3.36E-04	3.36E-04	3.36E-04	3.36E-04	3.36E-04	3.36E-04	3.36E-04	3.36E-04	3.36E-04	3.36E-04	3.36E-04
pa234m	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
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	2.52E-04	2.40E-04	2.28E-04	2.06E-04	1.69E-04	1.03E-04	6.27E-05	3.82E-05	2.32E-05	1.42E-05	5.25E-06
u233	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.55E+01	1.56E+01	1.58E+01	1.59E+01	1.61E+01	1.62E+01	1.66E+01
u234	2.28E+03	2.28E+03	2.28E+03	2.28E+03	2.28E+03	2.28E+03	2.28E+03	2.28E+03	2.28E+03	2.28E+03	2.28E+03
u235	1.63E+05	1.63E+05	1.63E+05	1.63E+05	1.63E+05	1.63E+05	1.63E+05	1.63E+05	1.63E+05	1.63E+05	1.64E+05
u236	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04
u237	8.33E-10	6.54E-10	5.14E-10	3.17E-10	1.21E-10	1.08E-11	9.62E-13	8.59E-14	7.67E-15	6.85E-16	5.47E-18
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	2.95E-35	2.97E-35	3.00E-35	3.05E-35	3.15E-35	3.40E-35	3.65E-35	3.89E-35	4.14E-35	4.39E-35	4.89E-35
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	3.44E-12	1.41E-13	5.76E-15	9.67E-18	2.72E-23	3.60E-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	2.32E-04	2.32E-04	2.32E-04	2.32E-04	2.31E-04	2.31E-04	2.31E-04	2.31E-04	2.31E-04	2.31E-04	2.31E-04
np237	9.90E+03	9.90E+03	9.90E+03	9.90E+03	9.90E+03	9.90E+03	9.90E+03	9.90E+03	9.90E+03	9.90E+03	9.90E+03
np238	8.54E-11	8.33E-11	8.13E-11	7.74E-11	7.01E-11	5.49E-11	4.29E-11	3.35E-11	2.62E-11	2.05E-11	1.26E-11
np239	2.91E-11	2.91E-11	2.91E-11	2.90E-11	2.90E-11	2.89E-11	2.87E-11	2.86E-11	2.84E-11	2.83E-11	2.80E-11
np240m	2.51E-37	2.53E-37	2.56E-37	2.60E-37	2.68E-37	2.90E-37	3.11E-37	3.32E-37	3.54E-37	3.75E-37	4.17E-37
np240	1.80E-39	1.80E-39	1.80E-39	1.80E-39	3.60E-39	3.60E-39	3.60E-39	3.60E-39	3.60E-39	3.60E-39	3.60E-39
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pu236	2.48E-08	7.88E-09	2.75E-09	7.24E-10	5.21E-10	5.19E-10	5.19E-10	5.19E-10	5.19E-10	5.19E-10	5.18E-10
pu237	4.51E-35	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	5.07E+00	4.87E+00	4.68E+00	4.33E+00	3.70E+00	2.49E+00	1.68E+00	1.13E+00	7.61E-01	5.12E-01	2.33E-01
pu239	5.18E+03	5.18E+03	5.18E+03	5.18E+03	5.17E+03	5.17E+03	5.16E+03	5.15E+03	5.14E+03	5.14E+03	5.12E+03
pu240	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.07E+02	1.07E+02	1.06E+02	1.06E+02	1.05E+02	1.05E+02	1.04E+02
pu241	2.75E-02	2.16E-02	1.69E-02	1.05E-02	3.98E-03	3.55E-04	3.17E-05	2.83E-06	2.53E-07	2.26E-08	1.80E-10
pu242	5.23E-03	5.23E-03	5.23E-03	5.23E-03	5.24E-03	5.25E-03	5.26E-03	5.27E-03	5.28E-03	5.28E-03	5.29E-03
pu243	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29
pu244	1.49E-24	1.50E-24	1.52E-24	1.54E-24	1.59E-24	1.72E-24	1.85E-24	1.97E-24	2.10E-24	2.22E-24	2.48E-24
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	1.06E+00	1.05E+00	1.05E+00	1.04E+00	1.01E+00	9.38E-01	8.66E-01	8.00E-01	7.38E-01	6.81E-01	5.80E-01
am242m	4.69E-04	4.58E-04	4.47E-04	4.25E-04	3.86E-04	3.02E-04	2.36E-04	1.84E-04	1.44E-04	1.13E-04	6.90E-05
am242	6.06E-09	5.91E-09	5.76E-09	5.49E-09	4.97E-09	3.89E-09	3.04E-09	2.38E-09	1.86E-09	1.46E-09	8.90E-10
am243	3.38E-05	3.38E-05	3.38E-05	3.37E-05	3.37E-05	3.35E-05	3.34E-05	3.32E-05	3.31E-05	3.29E-05	3.26E-05
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 5K 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	1.22E-06	1.19E-06	1.16E-06	1.11E-06	1.00E-06	7.85E-07	6.14E-07	4.80E-07	3.76E-07	2.94E-07	1.80E-07
cm243	5.04E-15	4.46E-15	3.95E-15	3.10E-15	1.91E-15	5.65E-16	1.67E-16	4.96E-17	1.47E-17	4.36E-18	3.83E-19
cm244	2.76E-09	2.28E-09	1.88E-09	1.28E-09	5.97E-10	8.80E-11	1.30E-11	1.91E-12	2.81E-13	4.15E-14	9.01E-16
cm245	4.24E-12	4.23E-12	4.23E-12	4.23E-12	4.22E-12	4.21E-12	4.19E-12	4.17E-12	4.15E-12	4.14E-12	4.10E-12
cm246	1.99E-14	1.99E-14	1.99E-14	1.98E-14	1.98E-14	1.96E-14	1.95E-14	1.93E-14	1.92E-14	1.91E-14	1.88E-14
cm247	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18
cm248	1.37E-21	1.37E-21	1.37E-21	1.37E-21	1.37E-21	1.37E-21	1.37E-21	1.37E-21	1.37E-21	1.37E-21	1.37E-21
cm249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm250	1.01E-36	1.01E-36	1.01E-36	1.01E-36	1.00E-36	1.00E-36	1.00E-36	9.99E-37	9.97E-37	9.95E-37	9.91E-37
cm251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk249	1.14E-31	2.18E-33	4.17E-35	1.53E-38	.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	6.68E-26	6.61E-26	6.55E-26	6.42E-26	6.17E-26	5.59E-26	5.06E-26	4.58E-26	4.15E-26	3.76E-26	3.09E-26
cf250	5.10E-30	3.91E-30	3.00E-30	1.77E-30	6.12E-31	4.32E-32	3.06E-33	2.16E-34	1.53E-35	1.08E-36	5.49E-39
cf251	1.15E-31	1.15E-31	1.14E-31	1.13E-31	1.12E-31	1.07E-31	1.03E-31	9.94E-32	9.56E-32	9.20E-32	8.52E-32
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	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06

1
Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	4.77E-07	4.77E-07	4.77E-07	4.78E-07	4.80E-07	4.86E-07	4.93E-07	5.01E-07	5.08E-07	5.15E-07	5.30E-07

tl207	3.97E-02	3.97E-02	3.97E-02	3.97E-02	3.98E-02	4.01E-02	4.04E-02	4.07E-02	4.10E-02	4.14E-02	4.20E-02
tl208	2.06E-03	1.96E-03	1.86E-03	1.69E-03	1.38E-03	8.41E-04	5.12E-04	3.12E-04	1.90E-04	1.16E-04	4.31E-05
tl209	6.01E-04	6.02E-04	6.03E-04	6.05E-04	6.10E-04	6.21E-04	6.32E-04	6.43E-04	6.55E-04	6.66E-04	6.89E-04
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	2.86E-02	2.87E-02	2.87E-02	2.88E-02	2.90E-02	2.96E-02	3.01E-02	3.06E-02	3.12E-02	3.17E-02	3.28E-02
pb210	3.61E-01	3.61E-01	3.62E-01	3.62E-01	3.64E-01	3.68E-01	3.74E-01	3.79E-01	3.85E-01	3.90E-01	4.01E-01
pb211	3.98E-02	3.98E-02	3.98E-02	3.98E-02	3.99E-02	4.02E-02	4.05E-02	4.08E-02	4.12E-02	4.15E-02	4.21E-02
pb212	5.72E-03	5.45E-03	5.18E-03	4.69E-03	3.85E-03	2.34E-03	1.42E-03	8.68E-04	5.28E-04	3.22E-04	1.20E-04
pb214	3.62E-01	3.63E-01	3.63E-01	3.64E-01	3.66E-01	3.72E-01	3.77E-01	3.83E-01	3.88E-01	3.94E-01	4.05E-01
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	3.61E-01	3.62E-01	3.62E-01	3.62E-01	3.64E-01	3.68E-01	3.74E-01	3.79E-01	3.85E-01	3.90E-01	4.01E-01
bi211	3.98E-02	3.98E-02	3.98E-02	3.98E-02	3.99E-02	4.02E-02	4.05E-02	4.08E-02	4.12E-02	4.15E-02	4.21E-02
bi212	5.72E-03	5.45E-03	5.18E-03	4.69E-03	3.85E-03	2.34E-03	1.42E-03	8.68E-04	5.28E-04	3.22E-04	1.20E-04
bi213	2.86E-02	2.87E-02	2.87E-02	2.88E-02	2.90E-02	2.96E-02	3.01E-02	3.06E-02	3.12E-02	3.17E-02	3.28E-02
bi214	3.62E-01	3.63E-01	3.63E-01	3.64E-01	3.66E-01	3.72E-01	3.77E-01	3.83E-01	3.88E-01	3.94E-01	4.05E-01
po210	3.61E-01	3.62E-01	3.62E-01	3.62E-01	3.64E-01	3.68E-01	3.74E-01	3.79E-01	3.85E-01	3.90E-01	4.01E-01
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	1.09E-04	1.09E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.11E-04	1.12E-04	1.13E-04	1.14E-04	1.16E-04
po212	3.66E-03	3.49E-03	3.32E-03	3.00E-03	2.46E-03	1.50E-03	9.13E-04	5.56E-04	3.39E-04	2.06E-04	7.68E-05
po213	2.80E-02	2.81E-02	2.81E-02	2.82E-02	2.84E-02	2.89E-02	2.95E-02	3.00E-02	3.05E-02	3.11E-02	3.21E-02
po214	3.62E-01	3.63E-01	3.63E-01	3.64E-01	3.66E-01	3.72E-01	3.77E-01	3.83E-01	3.88E-01	3.94E-01	4.05E-01
po215	3.98E-02	3.98E-02	3.98E-02	3.98E-02	3.99E-02	4.02E-02	4.05E-02	4.08E-02	4.12E-02	4.15E-02	4.21E-02
po216	5.72E-03	5.45E-03	5.18E-03	4.69E-03	3.85E-03	2.34E-03	1.42E-03	8.68E-04	5.28E-04	3.22E-04	1.20E-04
po218	3.62E-01	3.63E-01	3.63E-01	3.64E-01	3.67E-01	3.72E-01	3.78E-01	3.83E-01	3.89E-01	3.94E-01	4.05E-01
at217	2.86E-02	2.87E-02	2.87E-02	2.88E-02	2.90E-02	2.96E-02	3.01E-02	3.06E-02	3.12E-02	3.17E-02	3.28E-02
rn218	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rn219	3.98E-02	3.98E-02	3.98E-02	3.98E-02	3.99E-02	4.02E-02	4.05E-02	4.08E-02	4.12E-02	4.15E-02	4.21E-02
rn220	5.72E-03	5.45E-03	5.18E-03	4.69E-03	3.85E-03	2.34E-03	1.42E-03	8.68E-04	5.28E-04	3.22E-04	1.20E-04
rn222	3.62E-01	3.63E-01	3.63E-01	3.64E-01	3.67E-01	3.72E-01	3.78E-01	3.83E-01	3.89E-01	3.94E-01	4.05E-01
fr221	2.86E-02	2.87E-02	2.87E-02	2.88E-02	2.90E-02	2.96E-02	3.01E-02	3.06E-02	3.12E-02	3.17E-02	3.28E-02
fr223	5.48E-04	5.48E-04	5.48E-04	5.49E-04	5.50E-04	5.54E-04	5.59E-04	5.63E-04	5.68E-04	5.72E-04	5.81E-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	3.98E-02	3.98E-02	3.98E-02	3.98E-02	3.99E-02	4.02E-02	4.05E-02	4.08E-02	4.12E-02	4.15E-02	4.21E-02
ra224	5.72E-03	5.45E-03	5.18E-03	4.69E-03	3.85E-03	2.34E-03	1.42E-03	8.68E-04	5.28E-04	3.22E-04	1.20E-04
ra225	2.86E-02	2.87E-02	2.87E-02	2.88E-02	2.90E-02	2.96E-02	3.01E-02	3.06E-02	3.12E-02	3.17E-02	3.28E-02
ra226	3.62E-01	3.63E-01	3.63E-01	3.64E-01	3.67E-01	3.72E-01	3.77E-01	3.83E-01	3.89E-01	3.94E-01	4.05E-01
ra228	6.68E-07	6.68E-07	6.69E-07	6.70E-07	6.73E-07	6.80E-07	6.86E-07	6.93E-07	7.00E-07	7.07E-07	7.21E-07
ac225	2.86E-02	2.87E-02	2.87E-02	2.88E-02	2.90E-02	2.96E-02	3.01E-02	3.06E-02	3.12E-02	3.17E-02	3.28E-02
ac227	3.97E-02	3.97E-02	3.97E-02	3.98E-02	3.99E-02	4.02E-02	4.05E-02	4.08E-02	4.11E-02	4.15E-02	4.21E-02
ac228	6.68E-07	6.68E-07	6.69E-07	6.70E-07	6.73E-07	6.80E-07	6.86E-07	6.93E-07	7.00E-07	7.07E-07	7.21E-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	3.93E-02	3.93E-02	3.93E-02	3.93E-02	3.94E-02	3.96E-02	3.99E-02	4.03E-02	4.06E-02	4.09E-02	4.15E-02
th228	5.71E-03	5.44E-03	5.18E-03	4.69E-03	3.85E-03	2.34E-03	1.42E-03	8.68E-04	5.28E-04	3.22E-04	1.20E-04
th229	2.86E-02	2.87E-02	2.87E-02	2.88E-02	2.90E-02	2.96E-02	3.01E-02	3.06E-02	3.12E-02	3.17E-02	3.28E-02
th230	6.14E-01	6.14E-01	6.15E-01	6.16E-01	6.19E-01	6.25E-01	6.31E-01	6.37E-01	6.44E-01	6.50E-01	6.62E-01
th231	3.53E-01	3.53E-01	3.53E-01	3.53E-01	3.53E-01	3.53E-01	3.54E-01	3.54E-01	3.54E-01	3.54E-01	3.54E-01

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	6.69E-07	6.69E-07	6.70E-07	6.71E-07	6.74E-07	6.81E-07	6.87E-07	6.94E-07	7.01E-07	7.08E-07	7.21E-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	3.98E-02	3.98E-02	3.98E-02	3.99E-02	4.00E-02	4.03E-02	4.07E-02	4.10E-02	4.13E-02	4.17E-02	4.23E-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	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+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	5.56E-03	5.29E-03	5.04E-03	4.56E-03	3.74E-03	2.28E-03	1.39E-03	8.43E-04	5.13E-04	3.13E-04	1.16E-04
u233	1.48E-01	1.48E-01	1.48E-01	1.49E-01	1.49E-01	1.51E-01	1.52E-01	1.54E-01	1.55E-01	1.57E-01	1.60E-01
u234	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01
u235	3.53E-01	3.53E-01	3.53E-01	3.53E-01	3.53E-01	3.53E-01	3.54E-01	3.54E-01	3.54E-01	3.54E-01	3.54E-01
u236	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00
u237	6.80E-05	5.34E-05	4.19E-05	2.59E-05	9.85E-06	8.79E-07	7.85E-08	7.01E-09	6.26E-10	5.60E-11	4.46E-13
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	2.73E-29	2.75E-29	2.78E-29	2.82E-29	2.91E-29	3.15E-29	3.38E-29	3.61E-29	3.84E-29	4.07E-29	4.53E-29
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	4.82E-09	1.98E-10	8.09E-12	1.36E-14	3.81E-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	3.05E-06	3.05E-06	3.05E-06	3.05E-06	3.05E-06	3.05E-06	3.05E-06	3.05E-06	3.05E-06	3.05E-06	3.04E-06
np237	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.98E+00
np238	2.21E-05	2.16E-05	2.11E-05	2.01E-05	1.82E-05	1.42E-05	1.11E-05	8.70E-06	6.80E-06	5.32E-06	3.25E-06
np239	6.75E-06	6.75E-06	6.75E-06	6.74E-06	6.73E-06	6.70E-06	6.66E-06	6.63E-06	6.60E-06	6.57E-06	6.51E-06
np240m	2.73E-29	2.75E-29	2.78E-29	2.82E-29	2.91E-29	3.15E-29	3.38E-29	3.61E-29	3.84E-29	4.07E-29	4.53E-29
np240	2.28E-32	2.28E-32	2.28E-32	2.28E-32	4.56E-32	4.56E-32	4.56E-32	4.56E-32	4.56E-32	4.56E-32	4.56E-32
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	1.30E-05	4.12E-06	1.44E-06	3.78E-07	2.72E-07	2.71E-07	2.71E-07	2.71E-07	2.71E-07	2.71E-07	2.71E-07
pu237	5.48E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	8.69E+01	8.35E+01	8.03E+01	7.42E+01	6.33E+01	4.26E+01	2.87E+01	1.94E+01	1.30E+01	8.78E+00	3.98E+00
pu239	3.21E+02	3.21E+02	3.21E+02	3.21E+02	3.21E+02	3.21E+02	3.20E+02	3.20E+02	3.19E+02	3.19E+02	3.18E+02
pu240	2.45E+01	2.45E+01	2.45E+01	2.44E+01	2.44E+01	2.43E+01	2.41E+01	2.40E+01	2.39E+01	2.38E+01	2.35E+01
pu241	2.84E+00	2.23E+00	1.75E+00	1.08E+00	4.11E-01	3.67E-02	3.28E-03	2.93E-04	2.62E-05	2.34E-06	1.87E-08
pu242	2.07E-05	2.07E-05	2.07E-05	2.07E-05	2.07E-05	2.08E-05	2.08E-05	2.09E-05	2.09E-05	2.09E-05	2.09E-05
pu243	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22
pu244	2.73E-29	2.76E-29	2.78E-29	2.82E-29	2.92E-29	3.15E-29	3.38E-29	3.61E-29	3.84E-29	4.08E-29	4.54E-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	3.62E+00	3.61E+00	3.60E+00	3.57E+00	3.47E+00	3.22E+00	2.97E+00	2.74E+00	2.53E+00	2.34E+00	1.99E+00
am242m	4.92E-03	4.80E-03	4.68E-03	4.46E-03	4.04E-03	3.16E-03	2.47E-03	1.93E-03	1.51E-03	1.18E-03	7.23E-04
am242	4.90E-03	4.78E-03	4.66E-03	4.44E-03	4.02E-03	3.15E-03	2.46E-03	1.92E-03	1.50E-03	1.18E-03	7.20E-04
am243	6.75E-06	6.75E-06	6.75E-06	6.74E-06	6.73E-06	6.70E-06	6.66E-06	6.63E-06	6.60E-06	6.57E-06	6.51E-06
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 5K 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	4.05E-03	3.95E-03	3.86E-03	3.67E-03	3.33E-03	2.60E-03	2.03E-03	1.59E-03	1.24E-03	9.73E-04	5.95E-04
cm243	2.60E-13	2.30E-13	2.04E-13	1.60E-13	9.84E-14	2.92E-14	8.64E-15	2.56E-15	7.59E-16	2.25E-16	1.98E-17
cm244	2.24E-07	1.85E-07	1.53E-07	1.04E-07	4.83E-08	7.12E-09	1.05E-09	1.55E-10	2.28E-11	3.36E-12	7.29E-14
cm245	7.28E-13	7.27E-13	7.27E-13	7.27E-13	7.25E-13	7.22E-13	7.19E-13	7.17E-13	7.14E-13	7.11E-13	7.05E-13
cm246	6.11E-15	6.11E-15	6.10E-15	6.09E-15	6.08E-15	6.03E-15	5.99E-15	5.94E-15	5.90E-15	5.86E-15	5.77E-15
cm247	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22
cm248	5.82E-24	5.82E-24	5.82E-24	5.82E-24	5.82E-24	5.82E-24	5.82E-24	5.82E-24	5.82E-24	5.82E-24	5.82E-24
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	1.87E-28	3.58E-30	6.85E-32	.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	2.74E-25	2.71E-25	2.68E-25	2.63E-25	2.53E-25	2.29E-25	2.07E-25	1.88E-25	1.70E-25	1.54E-25	1.27E-25
cf250	5.57E-28	4.28E-28	3.28E-28	1.93E-28	6.69E-29	4.72E-30	3.42E-31	2.28E-32	.00E+00	.00E+00	.00E+00
cf251	1.83E-31	1.83E-31	1.83E-31	1.83E-31	1.83E-31	1.60E-31	1.60E-31	1.60E-31	1.60E-31	1.37E-31	1.37E-31
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	4.84E+02	4.80E+02	4.76E+02	4.70E+02	4.58E+02	4.36E+02	4.21E+02	4.11E+02	4.04E+02	3.99E+02	3.93E+02

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.22E-05	1.68E-05	1.27E-05	7.21E-06	2.34E-06	1.41E-07	8.47E-09	5.10E-10	3.06E-11	1.84E-12	6.67E-15
li 6	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05
li 7	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06
be 9	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06
be 10	2.94E-05	2.94E-05	2.94E-05	2.94E-05	2.94E-05	2.94E-05	2.94E-05	2.94E-05	2.94E-05	2.94E-05	2.94E-05
c 14	4.46E-06	4.46E-06	4.46E-06	4.45E-06	4.44E-06	4.42E-06	4.39E-06	4.36E-06	4.34E-06	4.31E-06	4.26E-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	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-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	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08
zn 68	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-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	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08
zn 70	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07
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	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10
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	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-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	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-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	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03
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	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03
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	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02
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 5K yr burn fission products page 48

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
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	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-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	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05
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	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
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	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-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	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00
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	5.98E-03	5.99E-03	6.00E-03	6.03E-03	6.08E-03	6.19E-03	6.31E-03	6.43E-03	6.55E-03	6.67E-03	6.91E-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	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+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	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06

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	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00
kr 81	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07
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 5K 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	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+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	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03
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	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01
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	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01
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	1.14E-02	8.25E-03	5.97E-03	3.13E-03	8.58E-04	3.38E-05	1.33E-06	5.26E-08	2.08E-09	8.18E-11	1.27E-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	3.32E+01	3.32E+01	3.32E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01
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	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+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	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
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	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01
sr 87	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04
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 5K yr burn fission products page 50

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
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	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02
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	9.60E-25	1.28E-35	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02
y 89m	3.28E-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	1.04E+00	9.23E-01	8.16E-01	6.38E-01	3.90E-01	1.14E-01	3.32E-02	9.69E-03	2.83E-03	8.26E-04	7.04E-05
y 90	2.71E-04	2.40E-04	2.12E-04	1.66E-04	1.01E-04	2.96E-05	8.63E-06	2.52E-06	7.35E-07	2.15E-07	1.83E-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	1.67E+02	1.67E+02	1.67E+02	1.67E+02	1.67E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02
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	1.27E-21	5.07E-31	2.03E-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	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02
nb 91	2.09E-11	2.08E-11	2.07E-11	2.05E-11	2.01E-11	1.91E-11	1.81E-11	1.72E-11	1.64E-11	1.56E-11	1.41E-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	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02
nb 92	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08
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	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
nb 93	1.43E-01	1.43E-01	1.44E-01	1.44E-01	1.45E-01	1.48E-01	1.51E-01	1.54E-01	1.57E-01	1.60E-01	1.65E-01
nb 93m	1.33E-03	1.33E-03	1.33E-03	1.33E-03	1.33E-03	1.33E-03	1.33E-03	1.33E-03	1.33E-03	1.33E-03	1.33E-03
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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 51

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
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	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02
nb 94	5.78E-05	5.78E-05	5.78E-05	5.77E-05	5.77E-05	5.76E-05	5.75E-05	5.74E-05	5.73E-05	5.72E-05	5.70E-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	6.67E-20	1.72E-28	4.44E-37	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95	8.02E-20	2.07E-28	5.93E-39	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95m	4.42E-23	1.14E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 95	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02
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	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02
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	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01
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	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02
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	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02
tc 98	3.19E-05	3.19E-05	3.19E-05	3.19E-05	3.19E-05	3.19E-05	3.19E-05	3.19E-05	3.19E-05	3.19E-05	3.19E-05
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	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.96E+02	1.95E+02	1.95E+02
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	1.62E+00	1.63E+00	1.63E+00	1.64E+00	1.65E+00	1.68E+00	1.71E+00	1.75E+00	1.78E+00	1.81E+00	1.88E+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 5K 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	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02
tc100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru100	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01
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	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02
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	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02
rh102	8.94E-10	2.71E-10	8.19E-11	7.51E-12	6.30E-14	4.06E-19	2.62E-24	1.69E-29	1.09E-34	7.03E-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	3.47E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02
rh103m	3.44E-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	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+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	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+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	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01

1
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	7.87E-06	2.61E-07	8.66E-09	9.52E-12	1.15E-17	1.85E-32	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106	7.31E-12	2.42E-13	8.04E-15	8.84E-18	1.07E-23	1.72E-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	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01
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	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.81E+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	2.33E-03	2.33E-03	2.34E-03	2.35E-03	2.37E-03	2.42E-03	2.47E-03	2.53E-03	2.58E-03	2.63E-03	2.74E-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	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00
ag108	1.22E-17	1.19E-17	1.15E-17	1.09E-17	9.79E-18	7.45E-18	5.67E-18	4.32E-18	3.29E-18	2.50E-18	1.45E-18
ag108m	3.95E-09	3.84E-09	3.74E-09	3.54E-09	3.17E-09	2.41E-09	1.84E-09	1.40E-09	1.06E-09	8.11E-10	4.70E-10
cd108	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06
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	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00
ag109m	2.54E-21	1.65E-22	1.07E-23	4.48E-26	7.90E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd109	2.57E-15	1.66E-16	1.08E-17	4.53E-20	7.98E-25	1.04E-36	.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	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00
ag110	3.20E-19	2.01E-21	1.26E-23	5.01E-28	7.84E-37	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag110m	2.06E-11	1.30E-13	8.16E-16	3.23E-20	5.06E-29	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02
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	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+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	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-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	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01
cd113m	3.09E-05	2.42E-05	1.89E-05	1.16E-05	4.32E-06	3.70E-07	3.17E-08	2.71E-09	2.32E-10	1.99E-11	1.46E-13
in113	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02
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	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00
in114	4.63E-37	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in114m	2.88E-32	1.60E-43	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn114	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06
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	1.63E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in115	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01
in115m	7.54E-38	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 55

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	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02

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	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-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	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03
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	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01
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	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01
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	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01
sn119m	8.37E-11	1.11E-12	1.48E-14	2.62E-18	8.20E-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	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-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 5K yr burn fission products page 56
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
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	2.79E-09	2.62E-09	2.46E-09	2.17E-09	1.69E-09	8.99E-10	4.79E-10	2.55E-10	1.36E-10	7.23E-11	2.05E-11
sn121m	6.41E-05	6.02E-05	5.65E-05	4.99E-05	3.87E-05	2.06E-05	1.10E-05	5.85E-06	3.12E-06	1.66E-06	4.71E-07
sb121	5.83E-01	5.83E-01	5.83E-01	5.83E-01	5.83E-01	5.84E-01	5.84E-01	5.84E-01	5.84E-01	5.84E-01	5.84E-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	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-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	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04
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	2.28E-14	1.26E-18	6.98E-23	2.14E-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	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01
te123	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08
te123m	3.14E-21	7.99E-26	2.03E-30	1.32E-39	.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	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00
sb124	2.68E-26	1.97E-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	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-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	8.94E-05	2.51E-05	7.05E-06	5.57E-07	3.47E-09	1.06E-14	3.25E-20	9.96E-26	3.05E-31	9.34E-37	.00E+00
te125	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00
te125m	1.27E-06	3.57E-07	1.00E-07	7.91E-09	4.92E-11	1.51E-16	4.62E-22	1.41E-27	4.33E-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	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	9.52E-08	9.52E-08	9.52E-08	9.52E-08	9.52E-08	9.51E-08	9.51E-08	9.51E-08	9.50E-08	9.50E-08	9.49E-08
sb126m	7.24E-10	7.24E-10	7.24E-10	7.24E-10	7.23E-10	7.23E-10	7.23E-10	7.23E-10	7.22E-10	7.22E-10	7.22E-10
te126	4.90E-02	4.91E-02	4.91E-02	4.93E-02	4.96E-02	5.03E-02	5.10E-02	5.16E-02	5.23E-02	5.30E-02	5.44E-02
xe126	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10
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	2.73E-17	2.47E-22	2.23E-27	1.82E-37	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127m	7.79E-15	7.04E-20	6.37E-25	5.20E-35	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i127	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+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	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01
i128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe128	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03
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	3.15E-37	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i129	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01
xe129	3.63E-03	3.63E-03	3.64E-03	3.66E-03	3.69E-03	3.76E-03	3.83E-03	3.90E-03	3.98E-03	4.05E-03	4.20E-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	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+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	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02
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	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02
xe131m	.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 5K yr burn fission products page 58

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
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	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02
cs132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba132	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07

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	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02
ba133	1.07E-11	7.70E-12	5.54E-12	2.87E-12	7.67E-13	2.85E-14	1.06E-15	3.91E-17	1.45E-18	5.38E-20	7.40E-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	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02
xe134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134	3.27E-05	6.09E-06	1.13E-06	3.93E-08	4.72E-11	2.37E-18	1.18E-25	5.94E-33	2.97E-40	.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	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01
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	2.90E+02	2.90E+02	2.90E+02	2.90E+02	2.90E+02	2.90E+02	2.90E+02	2.90E+02	2.90E+02	2.90E+02	2.90E+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	2.19E-01	2.20E-01	2.20E-01	2.21E-01	2.23E-01	2.27E-01	2.32E-01	2.36E-01	2.40E-01	2.45E-01	2.53E-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	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02
cs136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01
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 5K 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	7.70E-01	2.42E-01	7.64E-02	2.41E-02	7.58E-03	2.39E-03	2.37E-04
ba137	2.80E+02	2.80E+02	2.81E+02	2.81E+02	2.81E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02
ba137m	2.96E-07	2.64E-07	2.35E-07	1.87E-07	1.18E-07	3.70E-08	1.17E-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	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02
la138	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03
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	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02
ce139	2.85E-18	2.88E-22	2.91E-26	2.98E-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	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02
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	1.01E-36	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr141	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02
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	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02
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	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01
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

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 60

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	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02
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	7.84E-06	9.22E-08	1.08E-09	1.50E-13	2.88E-21	1.46E-40	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144	3.30E-10	3.88E-12	4.57E-14	6.32E-18	1.21E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144m	1.93E-12	2.27E-14	2.67E-16	3.69E-20	7.06E-28	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd144	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02

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	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02
pm145	2.29E-10	1.88E-10	1.55E-10	1.04E-10	4.77E-11	6.74E-12	9.51E-13	1.34E-13	1.89E-14	2.67E-15	5.32E-17
sm145	8.82E-15	2.13E-16	5.15E-18	3.01E-21	1.02E-27	.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	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02
pm146	5.89E-11	3.15E-11	1.68E-11	4.80E-12	3.91E-13	7.41E-16	1.41E-18	2.66E-21	5.05E-24	9.58E-27	3.44E-32
sm146	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05
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	5.90E-03	1.57E-03	4.20E-04	2.99E-05	1.52E-07	2.77E-13	5.07E-19	9.28E-25	1.70E-30	3.10E-36	.00E+00
sm147	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02
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	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+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	1.00E-34	.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 5K yr burn fission products page 61

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	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01
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	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00
eu149	1.48E-25	1.83E-31	2.26E-37	.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	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01
pm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01
eu150	1.37E-08	1.24E-08	1.13E-08	9.29E-09	6.31E-09	2.40E-09	9.10E-10	3.46E-10	1.31E-10	4.99E-11	7.20E-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	5.37E-01	5.17E-01	4.97E-01	4.60E-01	3.95E-01	2.68E-01	1.83E-01	1.24E-01	8.45E-02	5.75E-02	2.66E-02
eu151	1.65E+01	1.66E+01	1.66E+01	1.66E+01	1.67E+01	1.68E+01	1.69E+01	1.70E+01	1.70E+01	1.70E+01	1.70E+01
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	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01
eu152	1.30E-02	1.00E-02	7.75E-03	4.61E-03	1.63E-03	1.21E-04	8.97E-06	6.66E-07	4.94E-08	3.67E-09	2.02E-11
eu152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	1.99E+00	1.99E+00	1.99E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00
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	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00
gd153	1.40E-10	7.43E-13	3.93E-15	1.10E-19	8.67E-29	.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 5K yr burn fission products page 62

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
sm154	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00
eu154	3.25E-04	2.17E-04	1.45E-04	6.48E-05	1.29E-05	2.28E-07	4.04E-09	7.14E-11	1.26E-12	2.24E-14	7.00E-18
gd154	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01
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	6.74E-04	3.21E-04	1.53E-04	3.48E-05	1.80E-06	1.10E-09	6.66E-13	4.05E-16	2.46E-19	1.50E-22	5.53E-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	7.01E-01	7.01E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-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	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+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	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-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	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01
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	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-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	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02
tb160	1.14E-23	2.84E-31	7.06E-39	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy160	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04
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 5K yr burn fission products page 63

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
dy161	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02
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	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03
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	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03
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	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04
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	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04
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	2.95E-07	2.94E-07	2.93E-07	2.91E-07	2.88E-07	2.80E-07	2.72E-07	2.64E-07	2.57E-07	2.49E-07	2.35E-07
er166	4.70E-05	4.70E-05	4.70E-05	4.70E-05	4.70E-05	4.70E-05	4.70E-05	4.70E-05	4.70E-05	4.70E-05	4.70E-05
er167	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08
er167m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08
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	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08
yb169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er170	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08
tm170	2.44E-22	1.29E-26	6.86E-31	1.93E-39	.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	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10
er171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	3.09E-12	5.08E-13	8.36E-14	2.26E-15	1.66E-18	2.40E-26	3.48E-34	5.03E-42	.00E+00	.00E+00	.00E+00
yb171	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07
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	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08
total	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 64

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
h 3	2.15E-01	1.62E-01	1.22E-01	6.97E-02	2.27E-02	1.36E-03	8.19E-05	4.93E-06	2.96E-07	1.78E-08	6.45E-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	6.58E-07	6.58E-07	6.58E-07	6.58E-07	6.58E-07	6.58E-07	6.58E-07	6.58E-07	6.58E-07	6.58E-07	6.58E-07
c 14	1.99E-05	1.99E-05	1.99E-05	1.99E-05	1.98E-05	1.97E-05	1.96E-05	1.95E-05	1.93E-05	1.92E-05	1.90E-05
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

1
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02
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	2.46E-09	2.46E-09	2.46E-09	2.46E-09	2.46E-09	2.46E-09	2.46E-09	2.46E-09	2.46E-09	2.46E-09	2.46E-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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 66

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
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	4.48E+00	3.24E+00	2.34E+00	1.23E+00	3.37E-01	1.33E-02	5.24E-04	2.07E-05	8.14E-07	3.21E-08	4.99E-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	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 67

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
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	2.79E-20	3.65E-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	2.59E-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	1.47E+02	1.30E+02	1.15E+02	9.00E+01	5.50E+01	1.61E+01	4.69E+00	1.37E+00	4.00E-01	1.17E-01	9.94E-03
y 90	1.47E+02	1.30E+02	1.15E+02	9.01E+01	5.50E+01	1.61E+01	4.69E+00	1.37E+00	4.00E-01	1.17E-01	9.94E-03
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	3.11E-17	1.24E-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	1.21E-10	1.20E-10	1.20E-10	1.18E-10	1.16E-10	1.10E-10	1.05E-10	9.96E-11	9.47E-11	9.00E-11	8.13E-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	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12
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	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01
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	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01	3.17E-01
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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 68

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
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	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.07E-05	1.07E-05	1.07E-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	1.43E-15	3.69E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95	3.15E-15	8.14E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 95m	1.68E-17	4.34E-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	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08
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	3.35E+00	3.35E+00	3.35E+00	3.35E+00	3.35E+00	3.35E+00	3.35E+00	3.35E+00	3.35E+00	3.35E+00	3.34E+00
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 5K 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	1.08E-06	3.27E-07	9.91E-08	9.07E-09	7.61E-11	4.91E-16	3.17E-21	2.04E-26	1.37E-31	.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	1.12E-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	1.12E-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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 70

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
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	2.61E-02	8.66E-04	2.87E-05	3.16E-08	3.82E-14	6.14E-29	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106	2.61E-02	8.66E-04	2.87E-05	3.16E-08	3.82E-14	6.14E-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	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03
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	8.95E-09	8.71E-09	8.48E-09	8.03E-09	7.20E-09	5.48E-09	4.17E-09	3.17E-09	2.42E-09	1.84E-09	1.07E-09
ag108m	1.03E-07	1.00E-07	9.74E-08	9.23E-08	8.27E-08	6.30E-08	4.79E-08	3.65E-08	2.78E-08	2.11E-08	1.22E-08
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	6.65E-12	4.31E-13	2.79E-14	1.17E-16	2.07E-21	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd109	6.65E-12	4.31E-13	2.79E-14	1.17E-16	2.07E-21	.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	1.33E-09	8.38E-12	5.28E-14	2.09E-18	3.27E-27	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag110m	9.80E-08	6.17E-10	3.88E-12	1.54E-16	2.41E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 71

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
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	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14
cd113m	6.93E-03	5.42E-03	4.24E-03	2.59E-03	9.70E-04	8.31E-05	7.11E-06	6.09E-07	5.21E-08	4.46E-09	3.27E-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	6.38E-28	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in114m	6.67E-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	4.16E-27	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in115	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12
in115m	4.56E-31	.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 5K yr burn fission products page 72

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	3.13E-07	4.17E-09	5.54E-11	9.81E-15	3.07E-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

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 73

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	2.67E-03	2.51E-03	2.36E-03	2.08E-03	1.62E-03	8.60E-04	4.58E-04	2.44E-04	1.30E-04	6.92E-05	1.96E-05
sn121m	3.45E-03	3.24E-03	3.04E-03	2.68E-03	2.08E-03	1.11E-03	5.90E-04	3.14E-04	1.67E-04	8.92E-05	2.53E-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	1.87E-10	1.04E-14	5.74E-19	1.76E-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	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17
te123m	2.78E-17	7.09E-22	1.80E-26	.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	4.69E-22	3.42E-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	9.37E-02	2.63E-02	7.39E-03	5.83E-04	3.63E-06	1.11E-11	3.41E-17	1.04E-22	3.20E-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	2.29E-02	6.43E-03	1.81E-03	1.42E-04	8.87E-07	2.72E-12	8.32E-18	2.55E-23	7.80E-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	5.69E-02	5.69E-02	5.69E-02	5.69E-02	5.68E-02	5.68E-02	5.68E-02	5.68E-02	5.68E-02	5.68E-02	5.67E-02

1

Part B 8% UO2 in Tuff (47% H2O) OBF Fuel 5K 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	7.96E-03	7.96E-03	7.96E-03	7.96E-03	7.96E-03	7.96E-03	7.95E-03	7.95E-03	7.95E-03	7.95E-03	7.94E-03
sb126m	5.69E-02	5.69E-02	5.69E-02	5.69E-02	5.68E-02	5.68E-02	5.68E-02	5.68E-02	5.68E-02	5.68E-02	5.67E-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	7.20E-11	6.51E-16	5.88E-21	4.79E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127m	7.35E-11	6.65E-16	6.01E-21	5.02E-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	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-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

1
Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.74E-09	1.97E-09	1.42E-09	7.33E-10	1.96E-10	7.27E-12	2.70E-13	1.00E-14	3.71E-16	1.38E-17	1.89E-20
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	4.23E-02	7.88E-03	1.47E-03	5.09E-05	6.11E-08	3.06E-15	1.53E-22	7.69E-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	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-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	.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

1
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 76

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	6.70E+01	2.11E+01	6.65E+00	2.09E+00	6.59E-01	2.08E-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	1.27E+02	1.00E+02	6.33E+01	1.99E+01	6.28E+00	1.98E+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	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11
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	1.95E-14	1.97E-18	1.99E-22	2.03E-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	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-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

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.50E-02	2.94E-04	3.45E-06	4.78E-10	9.16E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144	2.50E-02	2.94E-04	3.45E-06	4.78E-10	9.16E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144m	3.49E-04	4.11E-06	4.84E-08	6.69E-12	1.28E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd144	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10
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	3.19E-08	2.62E-08	2.15E-08	1.46E-08	6.65E-09	9.39E-10	1.32E-10	1.87E-11	2.64E-12	3.72E-13	7.42E-15
sm145	2.34E-11	5.64E-13	1.36E-14	7.96E-18	2.71E-24	.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	2.61E-08	1.39E-08	7.45E-09	2.13E-09	1.73E-10	3.28E-13	6.23E-16	1.18E-18	2.24E-21	4.24E-24	1.52E-29
sm146	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09
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	5.47E+00	1.46E+00	3.89E-01	2.77E-02	1.41E-04	2.57E-10	4.70E-16	8.60E-22	1.57E-27	.00E+00	.00E+00
sm147	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06
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	2.14E-30	.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 5K 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	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13
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	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12
eu149	1.40E-21	1.73E-27	.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	9.11E-07	8.27E-07	7.50E-07	6.18E-07	4.20E-07	1.59E-07	6.06E-08	2.30E-08	8.74E-09	3.32E-09	4.79E-10
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	1.41E+01	1.36E+01	1.31E+01	1.21E+01	1.04E+01	7.06E+00	4.81E+00	3.27E+00	2.22E+00	1.51E+00	7.01E-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	2.30E+00	1.77E+00	1.37E+00	8.13E-01	2.87E-01	2.13E-02	1.58E-03	1.18E-04	8.72E-06	6.48E-07	3.57E-09
eu152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	4.34E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11
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	4.96E-07	2.63E-09	1.39E-11	3.90E-16	3.07E-25	.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
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 79

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	8.80E-02	5.88E-02	3.92E-02	1.75E-02	3.49E-03	6.17E-05	1.09E-06	1.93E-08	3.42E-10	6.04E-12	1.89E-15
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	3.32E-01	1.58E-01	7.55E-02	1.72E-02	8.88E-04	5.40E-07	3.28E-10	2.00E-13	1.21E-16	7.37E-20	2.72E-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	1.29E-19	3.20E-27	.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 5K 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	5.29E-07	5.28E-07	5.26E-07	5.23E-07	5.17E-07	5.02E-07	4.88E-07	4.74E-07	4.61E-07	4.48E-07	4.22E-07
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	1.46E-18	7.74E-23	4.10E-27	.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	3.37E-09	5.54E-10	9.11E-11	2.46E-12	1.80E-15	2.61E-23	3.88E-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	6.55E+02	5.78E+02	5.13E+02	4.06E+02	2.56E+02	8.47E+01	3.16E+01	1.45E+01	8.77E+00	6.61E+00	5.22E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.29E+01	1.32E+01	1.46E+01	1.74E+01	2.28E+01	2.79E+01	3.27E+01	3.73E+01	4.16E+01	4.58E+01	4.97E+01
tl206	2.44E-15	2.50E-15	2.87E-15	3.57E-15	5.01E-15	6.45E-15	7.88E-15	9.28E-15	1.06E-14	1.20E-14	1.33E-14
tl207	2.21E-10	2.24E-10	2.42E-10	2.76E-10	3.41E-10	4.04E-10	4.65E-10	5.23E-10	5.78E-10	6.32E-10	6.83E-10
tl208	1.46E-13	5.47E-14	1.67E-15	1.46E-15	1.79E-15	2.11E-15	2.44E-15	2.77E-15	3.09E-15	3.42E-15	3.74E-15
tl209	1.69E-12	1.74E-12	2.04E-12	2.70E-12	4.23E-12	6.00E-12	7.95E-12	1.01E-11	1.23E-11	1.47E-11	1.71E-11
pb206	3.36E-01	3.52E-01	4.41E-01	6.54E-01	1.22E+00	1.98E+00	2.92E+00	4.06E+00	5.37E+00	6.87E+00	8.54E+00
pb207	4.60E-02	4.77E-02	5.66E-02	7.64E-02	1.24E-01	1.81E-01	2.47E-01	3.23E-01	4.07E-01	5.00E-01	6.01E-01
pb208	6.51E-03	6.52E-03	6.52E-03	6.52E-03	6.52E-03	6.52E-03	6.52E-03	6.52E-03	6.53E-03	6.53E-03	6.53E-03
pb209	7.12E-09	7.36E-09	8.63E-09	1.14E-08	1.79E-08	2.53E-08	3.36E-08	4.25E-08	5.20E-08	6.20E-08	7.22E-08
pb210	5.26E-03	5.40E-03	6.19E-03	7.71E-03	1.08E-02	1.39E-02	1.70E-02	2.00E-02	2.30E-02	2.58E-02	2.87E-02
pb211	1.71E-09	1.73E-09	1.87E-09	2.14E-09	2.64E-09	3.13E-09	3.59E-09	4.04E-09	4.47E-09	4.89E-09	5.29E-09
pb212	8.63E-11	3.24E-11	9.91E-13	8.68E-13	1.06E-12	1.25E-12	1.45E-12	1.64E-12	1.83E-12	2.03E-12	2.22E-12
pb214	1.24E-08	1.27E-08	1.44E-08	1.79E-08	2.52E-08	3.24E-08	3.96E-08	4.66E-08	5.35E-08	6.02E-08	6.68E-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	2.50E-02	2.64E-02	3.38E-02	5.25E-02	1.07E-01	1.87E-01	2.97E-01	4.39E-01	6.16E-01	8.29E-01	1.08E+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	3.23E-06	3.32E-06	3.81E-06	4.74E-06	6.65E-06	8.57E-06	1.05E-05	1.23E-05	1.41E-05	1.59E-05	1.76E-05
bi211	1.01E-10	1.03E-10	1.11E-10	1.27E-10	1.57E-10	1.85E-10	2.13E-10	2.40E-10	2.65E-10	2.90E-10	3.13E-10
bi212	8.18E-12	3.08E-12	9.40E-14	8.23E-14	1.01E-13	1.19E-13	1.37E-13	1.56E-13	1.74E-13	1.92E-13	2.10E-13
bi213	1.69E-09	1.75E-09	2.05E-09	2.72E-09	4.25E-09	6.03E-09	8.00E-09	1.01E-08	1.24E-08	1.47E-08	1.72E-08
bi214	9.17E-09	9.42E-09	1.07E-08	1.33E-08	1.87E-08	2.41E-08	2.94E-08	3.46E-08	3.97E-08	4.47E-08	4.96E-08
po210	8.93E-05	9.18E-05	1.05E-04	1.31E-04	1.84E-04	2.37E-04	2.89E-04	3.40E-04	3.90E-04	4.39E-04	4.87E-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	1.12E-15	1.14E-15	1.23E-15	1.40E-15	1.73E-15	2.05E-15	2.36E-15	2.65E-15	2.93E-15	3.20E-15	3.46E-15
po212	4.30E-22	1.62E-22	4.94E-24	4.33E-24	5.29E-24	6.25E-24	7.21E-24	8.17E-24	9.14E-24	1.01E-23	1.11E-23
po213	2.55E-18	2.63E-18	3.09E-18	4.09E-18	6.40E-18	9.06E-18	1.20E-17	1.52E-17	1.86E-17	2.22E-17	2.58E-17
po214	1.26E-15	1.30E-15	1.47E-15	1.83E-15	2.57E-15	3.31E-15	4.04E-15	4.76E-15	5.46E-15	6.15E-15	6.82E-15

po215	1.43E-15	1.45E-15	1.57E-15	1.79E-15	2.21E-15	2.62E-15	3.01E-15	3.39E-15	3.75E-15	4.09E-15	4.43E-15
po216	3.33E-16	1.25E-16	3.82E-18	3.35E-18	4.09E-18	4.84E-18	5.58E-18	6.33E-18	7.07E-18	7.81E-18	8.56E-18
po218	1.46E-09	1.50E-09	1.70E-09	2.12E-09	2.97E-09	3.82E-09	4.66E-09	5.49E-09	6.30E-09	7.09E-09	7.87E-09
at217	2.04E-14	2.11E-14	2.47E-14	3.27E-14	5.12E-14	7.25E-14	9.62E-14	1.22E-13	1.49E-13	1.77E-13	2.07E-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	3.24E-12	3.29E-12	3.56E-12	4.05E-12	5.01E-12	5.94E-12	6.82E-12	7.67E-12	8.49E-12	9.28E-12	1.00E-11
rn220	1.30E-13	4.88E-14	1.49E-15	1.31E-15	1.60E-15	1.89E-15	2.18E-15	2.47E-15	2.76E-15	3.05E-15	3.34E-15
rn222	2.63E-06	2.71E-06	3.07E-06	3.83E-06	5.37E-06	6.91E-06	8.44E-06	9.93E-06	1.14E-05	1.28E-05	1.42E-05
fr221	1.89E-10	1.95E-10	2.29E-10	3.03E-10	4.75E-10	6.72E-10	8.92E-10	1.13E-09	1.38E-09	1.65E-09	1.92E-09
fr223	1.50E-11	1.53E-11	1.65E-11	1.88E-11	2.33E-11	2.75E-11	3.17E-11	3.56E-11	3.94E-11	4.31E-11	4.66E-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	8.22E-07	8.35E-07	9.03E-07	1.03E-06	1.27E-06	1.51E-06	1.73E-06	1.95E-06	2.16E-06	2.36E-06	2.55E-06
ra224	7.53E-10	2.83E-10	8.65E-12	7.57E-12	9.25E-12	1.09E-11	1.26E-11	1.43E-11	1.60E-11	1.77E-11	1.94E-11
ra225	8.37E-07	8.66E-07	1.02E-06	1.34E-06	2.10E-06	2.98E-06	3.95E-06	5.00E-06	6.12E-06	7.29E-06	8.49E-06
ra226	4.10E-01	4.21E-01	4.78E-01	5.95E-01	8.35E-01	1.08E+00	1.31E+00	1.55E+00	1.77E+00	2.00E+00	2.21E+00
ra228	2.64E-09	2.69E-09	2.94E-09	3.44E-09	4.43E-09	5.43E-09	6.42E-09	7.42E-09	8.41E-09	9.40E-09	1.04E-08
ac225	5.66E-07	5.85E-07	6.86E-07	9.07E-07	1.42E-06	2.01E-06	2.67E-06	3.38E-06	4.13E-06	4.92E-06	5.74E-06
ac227	5.82E-04	5.91E-04	6.40E-04	7.29E-04	9.01E-04	1.07E-03	1.23E-03	1.38E-03	1.53E-03	1.67E-03	1.80E-03
ac228	3.23E-13	3.29E-13	3.59E-13	4.20E-13	5.41E-13	6.62E-13	7.84E-13	9.05E-13	1.03E-12	1.15E-12	1.27E-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	1.35E-06	1.37E-06	1.48E-06	1.69E-06	2.09E-06	2.48E-06	2.85E-06	3.20E-06	3.54E-06	3.87E-06	4.19E-06
th228	1.46E-07	5.50E-08	1.68E-09	1.47E-09	1.80E-09	2.13E-09	2.45E-09	2.78E-09	3.11E-09	3.43E-09	3.76E-09
th229	1.66E-01	1.71E-01	2.01E-01	2.66E-01	4.16E-01	5.89E-01	7.82E-01	9.90E-01	1.21E+00	1.44E+00	1.68E+00
th230	3.21E+01	3.27E+01	3.57E+01	4.17E+01	5.34E+01	6.48E+01	7.60E+01	8.69E+01	9.75E+01	1.08E+02	1.18E+02
th231	6.65E-07	6.65E-07	6.65E-07	6.66E-07	6.67E-07	6.68E-07	6.69E-07	6.70E-07	6.71E-07	6.71E-07	6.72E-07

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	6.57E+00	6.70E+00	7.32E+00	8.55E+00	1.10E+01	1.35E+01	1.60E+01	1.84E+01	2.09E+01	2.34E+01	2.59E+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	8.96E-01	9.10E-01	9.79E-01	1.12E+00	1.38E+00	1.63E+00	1.88E+00	2.11E+00	2.34E+00	2.55E+00	2.76E+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	3.36E-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	3.35E-04	3.34E-04
pa234m	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
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	5.25E-06	1.95E-06	2.57E-08	1.22E-08	1.20E-08	1.19E-08	1.17E-08	1.16E-08	1.14E-08	1.13E-08	1.12E-08
u233	1.66E+01	1.69E+01	1.84E+01	2.15E+01	2.75E+01	3.36E+01	3.96E+01	4.55E+01	5.13E+01	5.71E+01	6.29E+01
u234	2.28E+03	2.28E+03	2.28E+03	2.27E+03	2.26E+03	2.25E+03	2.24E+03	2.23E+03	2.22E+03	2.21E+03	2.20E+03
u235	1.64E+05	1.64E+05	1.64E+05	1.64E+05	1.64E+05	1.64E+05	1.64E+05	1.65E+05	1.65E+05	1.65E+05	1.65E+05
u236	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04
u237	5.47E-18	4.38E-20	1.97E-22	1.81E-22	1.54E-22	1.31E-22	1.11E-22	9.45E-23	8.02E-23	6.82E-23	5.79E-23
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	4.89E-35	5.39E-35	7.88E-35	1.29E-34	2.28E-34	3.27E-34	4.25E-34	5.23E-34	6.21E-34	7.18E-34	8.15E-34
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	2.31E-04	2.31E-04	2.30E-04	2.29E-04	2.26E-04	2.23E-04	2.21E-04	2.18E-04	2.15E-04	2.13E-04	2.10E-04
np237	9.90E+03	9.90E+03	9.90E+03	9.89E+03	9.89E+03	9.88E+03	9.87E+03	9.87E+03	9.86E+03	9.85E+03	9.85E+03
np238	1.26E-11	7.68E-12	6.57E-13	4.82E-15	2.59E-19	1.39E-23	7.47E-28	4.01E-32	2.11E-36	.00E+00	.00E+00
np239	2.80E-11	2.78E-11	2.65E-11	2.41E-11	2.00E-11	1.66E-11	1.37E-11	1.14E-11	9.42E-12	7.81E-12	6.47E-12
np240m	4.17E-37	4.60E-37	6.73E-37	1.10E-36	1.94E-36	2.79E-36	3.63E-36	4.46E-36	5.30E-36	6.13E-36	6.95E-36
np240	3.60E-39	5.41E-39	7.21E-39	1.08E-38	1.98E-38	2.88E-38	3.78E-38	4.51E-38	5.41E-38	6.31E-38	7.21E-38
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pu236	5.18E-10	5.18E-10	5.17E-10	5.13E-10	5.07E-10	5.01E-10	4.95E-10	4.89E-10	4.83E-10	4.78E-10	4.72E-10
pu237	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	2.33E-01	1.06E-01	2.03E-03	7.65E-07	2.01E-12	1.03E-16	5.52E-21	2.96E-25	1.59E-29	8.55E-34	4.59E-38
pu239	5.12E+03	5.11E+03	5.03E+03	4.89E+03	4.62E+03	4.36E+03	4.12E+03	3.89E+03	3.67E+03	3.46E+03	3.27E+03
pu240	1.04E+02	1.02E+02	9.72E+01	8.74E+01	7.08E+01	5.73E+01	4.64E+01	3.76E+01	3.04E+01	2.46E+01	1.99E+01
pu241	1.80E-10	1.45E-12	6.50E-15	5.99E-15	5.09E-15	4.32E-15	3.67E-15	3.12E-15	2.65E-15	2.25E-15	1.91E-15
pu242	5.29E-03	5.29E-03	5.30E-03	5.29E-03	5.27E-03	5.25E-03	5.23E-03	5.21E-03	5.19E-03	5.17E-03	5.15E-03
pu243	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29
pu244	2.48E-24	2.73E-24	3.99E-24	6.51E-24	1.15E-23	1.65E-23	2.15E-23	2.65E-23	3.14E-23	3.63E-23	4.12E-23
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	5.80E-01	4.94E-01	2.22E-01	4.47E-02	1.81E-03	7.35E-05	2.98E-06	1.21E-07	4.90E-09	1.99E-10	8.11E-12
am242m	6.90E-05	4.22E-05	3.61E-06	2.65E-08	1.42E-12	7.64E-17	4.10E-21	2.20E-25	1.18E-29	6.36E-34	3.42E-38
am242	8.90E-10	5.44E-10	4.66E-11	3.42E-13	1.84E-17	9.86E-22	5.29E-26	2.84E-30	1.53E-34	.00E+00	.00E+00
am243	3.26E-05	3.23E-05	3.08E-05	2.80E-05	2.32E-05	1.92E-05	1.59E-05	1.32E-05	1.09E-05	9.07E-06	7.52E-06
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 5K 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	1.80E-07	1.10E-07	9.41E-09	6.90E-11	3.72E-15	2.00E-19	1.07E-23	5.76E-28	3.09E-32	1.66E-36	8.92E-41
cm243	3.83E-19	3.36E-20	1.76E-25	4.80E-36	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm244	9.01E-16	1.96E-17	9.44E-26	2.05E-42	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm245	4.10E-12	4.07E-12	3.91E-12	3.60E-12	3.06E-12	2.60E-12	2.21E-12	1.88E-12	1.59E-12	1.35E-12	1.15E-12
cm246	1.88E-14	1.85E-14	1.72E-14	1.49E-14	1.11E-14	8.27E-15	6.17E-15	4.60E-15	3.43E-15	2.56E-15	1.91E-15
cm247	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18
cm248	1.37E-21	1.37E-21	1.37E-21	1.37E-21	1.36E-21	1.36E-21	1.35E-21	1.35E-21	1.34E-21	1.33E-21	1.33E-21
cm249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm250	9.91E-37	9.87E-37	9.67E-37	9.29E-37	8.58E-37	7.93E-37	7.32E-37	6.76E-37	6.24E-37	5.76E-37	5.32E-37
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	3.09E-26	2.53E-26	9.42E-27	1.30E-27	2.50E-29	4.78E-31	9.14E-33	1.75E-34	3.35E-36	6.41E-38	1.23E-39
cf250	5.49E-39	1.31E-40	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf251	8.52E-32	7.89E-32	5.36E-32	2.48E-32	5.29E-33	1.13E-33	2.41E-34	5.15E-35	1.10E-35	2.35E-36	5.02E-37
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	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 84

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
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	5.30E-07	5.45E-07	6.24E-07	7.77E-07	1.09E-06	1.40E-06	1.71E-06	2.02E-06	2.31E-06	2.61E-06	2.89E-06

tl207	4.20E-02	4.27E-02	4.62E-02	5.26E-02	6.51E-02	7.70E-02	8.85E-02	9.96E-02	1.10E-01	1.20E-01	1.30E-01
tl208	4.31E-05	1.62E-05	4.95E-07	4.34E-07	5.30E-07	6.26E-07	7.23E-07	8.19E-07	9.16E-07	1.01E-06	1.11E-06
tl209	6.89E-04	7.13E-04	8.36E-04	1.11E-03	1.73E-03	2.45E-03	3.25E-03	4.12E-03	5.04E-03	6.00E-03	7.00E-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	3.28E-02	3.40E-02	3.98E-02	5.27E-02	8.24E-02	1.17E-01	1.55E-01	1.96E-01	2.40E-01	2.86E-01	3.33E-01
pb210	4.01E-01	4.13E-01	4.73E-01	5.89E-01	8.25E-01	1.06E+00	1.30E+00	1.53E+00	1.75E+00	1.97E+00	2.19E+00
pb211	4.21E-02	4.28E-02	4.63E-02	5.27E-02	6.52E-02	7.72E-02	8.88E-02	9.99E-02	1.10E-01	1.21E-01	1.31E-01
pb212	1.20E-04	4.51E-05	1.38E-06	1.21E-06	1.47E-06	1.74E-06	2.01E-06	2.28E-06	2.55E-06	2.82E-06	3.08E-06
pb214	4.05E-01	4.16E-01	4.73E-01	5.89E-01	8.26E-01	1.06E+00	1.30E+00	1.53E+00	1.75E+00	1.97E+00	2.19E+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	4.01E-01	4.13E-01	4.73E-01	5.89E-01	8.25E-01	1.06E+00	1.30E+00	1.53E+00	1.75E+00	1.97E+00	2.19E+00
bi211	4.21E-02	4.28E-02	4.63E-02	5.27E-02	6.52E-02	7.72E-02	8.88E-02	9.99E-02	1.10E-01	1.21E-01	1.31E-01
bi212	1.20E-04	4.51E-05	1.38E-06	1.21E-06	1.47E-06	1.74E-06	2.01E-06	2.28E-06	2.55E-06	2.82E-06	3.08E-06
bi213	3.28E-02	3.40E-02	3.98E-02	5.27E-02	8.24E-02	1.17E-01	1.55E-01	1.96E-01	2.40E-01	2.86E-01	3.33E-01
bi214	4.05E-01	4.16E-01	4.73E-01	5.89E-01	8.26E-01	1.06E+00	1.30E+00	1.53E+00	1.75E+00	1.97E+00	2.19E+00
po210	4.01E-01	4.13E-01	4.73E-01	5.89E-01	8.25E-01	1.06E+00	1.30E+00	1.53E+00	1.75E+00	1.97E+00	2.19E+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	1.16E-04	1.18E-04	1.27E-04	1.45E-04	1.79E-04	2.12E-04	2.44E-04	2.75E-04	3.04E-04	3.32E-04	3.59E-04
po212	7.68E-05	2.89E-05	8.83E-07	7.73E-07	9.45E-07	1.12E-06	1.29E-06	1.46E-06	1.63E-06	1.80E-06	1.98E-06
po213	3.21E-02	3.32E-02	3.90E-02	5.16E-02	8.07E-02	1.14E-01	1.52E-01	1.92E-01	2.35E-01	2.80E-01	3.26E-01
po214	4.05E-01	4.16E-01	4.73E-01	5.89E-01	8.25E-01	1.06E+00	1.30E+00	1.53E+00	1.75E+00	1.97E+00	2.19E+00
po215	4.21E-02	4.28E-02	4.63E-02	5.27E-02	6.52E-02	7.72E-02	8.88E-02	9.99E-02	1.10E-01	1.21E-01	1.31E-01
po216	1.20E-04	4.51E-05	1.38E-06	1.21E-06	1.47E-06	1.74E-06	2.01E-06	2.28E-06	2.55E-06	2.82E-06	3.08E-06
po218	4.05E-01	4.16E-01	4.73E-01	5.89E-01	8.26E-01	1.06E+00	1.30E+00	1.53E+00	1.75E+00	1.97E+00	2.19E+00
at217	3.28E-02	3.40E-02	3.98E-02	5.27E-02	8.24E-02	1.17E-01	1.55E-01	1.96E-01	2.40E-01	2.86E-01	3.33E-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	4.21E-02	4.28E-02	4.63E-02	5.27E-02	6.52E-02	7.72E-02	8.88E-02	9.99E-02	1.10E-01	1.21E-01	1.31E-01
rn220	1.20E-04	4.51E-05	1.38E-06	1.21E-06	1.47E-06	1.74E-06	2.01E-06	2.28E-06	2.55E-06	2.82E-06	3.08E-06
rn222	4.05E-01	4.16E-01	4.73E-01	5.89E-01	8.26E-01	1.06E+00	1.30E+00	1.53E+00	1.75E+00	1.97E+00	2.19E+00
fr221	3.28E-02	3.40E-02	3.98E-02	5.27E-02	8.24E-02	1.17E-01	1.55E-01	1.96E-01	2.40E-01	2.86E-01	3.33E-01
fr223	5.81E-04	5.90E-04	6.39E-04	7.28E-04	9.00E-04	1.07E-03	1.23E-03	1.38E-03	1.52E-03	1.67E-03	1.80E-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	4.21E-02	4.28E-02	4.63E-02	5.27E-02	6.52E-02	7.72E-02	8.88E-02	9.99E-02	1.10E-01	1.21E-01	1.31E-01
ra224	1.20E-04	4.51E-05	1.38E-06	1.21E-06	1.47E-06	1.74E-06	2.01E-06	2.28E-06	2.55E-06	2.82E-06	3.08E-06
ra225	3.28E-02	3.40E-02	3.98E-02	5.27E-02	8.24E-02	1.17E-01	1.55E-01	1.96E-01	2.40E-01	2.86E-01	3.33E-01
ra226	4.05E-01	4.16E-01	4.73E-01	5.89E-01	8.26E-01	1.06E+00	1.30E+00	1.53E+00	1.75E+00	1.97E+00	2.19E+00
ra228	7.21E-07	7.35E-07	8.03E-07	9.38E-07	1.21E-06	1.48E-06	1.75E-06	2.02E-06	2.30E-06	2.57E-06	2.84E-06
ac225	3.28E-02	3.40E-02	3.98E-02	5.27E-02	8.24E-02	1.17E-01	1.55E-01	1.96E-01	2.40E-01	2.86E-01	3.33E-01
ac227	4.21E-02	4.28E-02	4.63E-02	5.27E-02	6.52E-02	7.72E-02	8.88E-02	9.99E-02	1.10E-01	1.21E-01	1.31E-01
ac228	7.21E-07	7.35E-07	8.03E-07	9.38E-07	1.21E-06	1.48E-06	1.75E-06	2.02E-06	2.30E-06	2.57E-06	2.84E-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	4.15E-02	4.22E-02	4.56E-02	5.20E-02	6.43E-02	7.62E-02	8.76E-02	9.85E-02	1.09E-01	1.19E-01	1.29E-01
th228	1.20E-04	4.51E-05	1.38E-06	1.21E-06	1.47E-06	1.74E-06	2.01E-06	2.28E-06	2.55E-06	2.82E-06	3.08E-06
th229	3.28E-02	3.40E-02	3.98E-02	5.27E-02	8.24E-02	1.17E-01	1.55E-01	1.96E-01	2.40E-01	2.86E-01	3.33E-01
th230	6.62E-01	6.75E-01	7.37E-01	8.59E-01	1.10E+00	1.34E+00	1.57E+00	1.79E+00	2.01E+00	2.23E+00	2.44E+00
th231	3.54E-01	3.54E-01	3.54E-01	3.54E-01	3.55E-01	3.55E-01	3.56E-01	3.56E-01	3.57E-01	3.57E-01	3.58E-01

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	7.21E-07	7.35E-07	8.03E-07	9.38E-07	1.21E-06	1.48E-06	1.75E-06	2.02E-06	2.30E-06	2.57E-06	2.84E-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	4.23E-02	4.30E-02	4.63E-02	5.27E-02	6.52E-02	7.72E-02	8.87E-02	9.98E-02	1.10E-01	1.21E-01	1.30E-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	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.97E+00	6.97E+00	6.96E+00	6.96E+00	6.95E+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	1.16E-04	4.31E-05	5.67E-07	2.68E-07	2.65E-07	2.62E-07	2.59E-07	2.56E-07	2.53E-07	2.50E-07	2.47E-07
u233	1.60E-01	1.63E-01	1.77E-01	2.07E-01	2.66E-01	3.24E-01	3.81E-01	4.38E-01	4.95E-01	5.51E-01	6.06E-01
u234	1.42E+01	1.42E+01	1.42E+01	1.41E+01	1.41E+01	1.40E+01	1.39E+01	1.39E+01	1.38E+01	1.38E+01	1.37E+01
u235	3.54E-01	3.54E-01	3.54E-01	3.54E-01	3.55E-01	3.55E-01	3.56E-01	3.56E-01	3.57E-01	3.57E-01	3.58E-01
u236	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00
u237	4.46E-13	3.58E-15	1.61E-17	1.48E-17	1.26E-17	1.07E-17	9.08E-18	7.71E-18	6.55E-18	5.57E-18	4.73E-18
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	4.53E-29	4.99E-29	7.30E-29	1.19E-28	2.11E-28	3.03E-28	3.94E-28	4.85E-28	5.75E-28	6.65E-28	7.55E-28
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	3.04E-06	3.04E-06	3.03E-06	3.01E-06	2.98E-06	2.94E-06	2.91E-06	2.87E-06	2.84E-06	2.80E-06	2.77E-06
np237	6.98E+00	6.98E+00	6.98E+00	6.98E+00	6.97E+00	6.97E+00	6.96E+00	6.96E+00	6.95E+00	6.95E+00	6.94E+00
np238	3.25E-06	1.99E-06	1.70E-07	1.25E-09	6.71E-14	3.60E-18	1.94E-22	1.04E-26	5.48E-31	.00E+00	.00E+00
np239	6.51E-06	6.45E-06	6.15E-06	5.60E-06	4.64E-06	3.84E-06	3.18E-06	2.64E-06	2.19E-06	1.81E-06	1.50E-06
np240m	4.53E-29	4.99E-29	7.30E-29	1.19E-28	2.11E-28	3.03E-28	3.94E-28	4.85E-28	5.75E-28	6.65E-28	7.55E-28
np240	4.56E-32	6.85E-32	9.13E-32	1.37E-31	2.51E-31	3.65E-31	4.79E-31	5.70E-31	6.85E-31	7.99E-31	9.13E-31
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	2.71E-07	2.71E-07	2.70E-07	2.68E-07	2.65E-07	2.62E-07	2.59E-07	2.56E-07	2.53E-07	2.50E-07	2.47E-07
pu237	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	3.98E+00	1.81E+00	3.48E-02	1.31E-05	3.45E-11	1.76E-15	9.45E-20	5.08E-24	2.73E-28	2.28E-32	.00E+00
pu239	3.18E+02	3.17E+02	3.12E+02	3.04E+02	2.87E+02	2.71E+02	2.56E+02	2.41E+02	2.28E+02	2.15E+02	2.03E+02
pu240	2.35E+01	2.33E+01	2.21E+01	1.99E+01	1.61E+01	1.30E+01	1.05E+01	8.53E+00	6.90E+00	5.59E+00	4.52E+00
pu241	1.87E-08	1.49E-10	6.72E-13	6.20E-13	5.26E-13	4.47E-13	3.80E-13	3.23E-13	2.74E-13	2.33E-13	1.98E-13
pu242	2.09E-05	2.09E-05	2.10E-05	2.09E-05	2.08E-05	2.08E-05	2.07E-05	2.06E-05	2.05E-05	2.05E-05	2.04E-05
pu243	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22
pu244	4.54E-29	5.00E-29	7.31E-29	1.19E-28	2.11E-28	3.03E-28	3.94E-28	4.85E-28	5.76E-28	6.66E-28	7.56E-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	1.99E+00	1.70E+00	7.61E-01	1.53E-01	6.22E-03	2.52E-04	1.02E-05	4.14E-07	1.68E-08	6.82E-10	2.78E-11
am242m	7.23E-04	4.42E-04	3.79E-05	2.78E-07	1.49E-11	8.01E-16	4.30E-20	2.31E-24	1.24E-28	.00E+00	.00E+00
am242	7.20E-04	4.40E-04	3.77E-05	2.76E-07	1.48E-11	7.97E-16	4.28E-20	2.30E-24	1.24E-28	.00E+00	.00E+00
am243	6.51E-06	6.45E-06	6.15E-06	5.60E-06	4.64E-06	3.84E-06	3.18E-06	2.64E-06	2.19E-06	1.81E-06	1.50E-06
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 5K 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	5.95E-04	3.64E-04	3.12E-05	2.28E-07	1.23E-11	6.61E-16	3.55E-20	1.91E-24	1.02E-28	.00E+00	.00E+00
cm243	1.98E-17	1.74E-18	9.08E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm244	7.29E-14	1.58E-15	7.64E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm245	7.05E-13	6.99E-13	6.71E-13	6.19E-13	5.26E-13	4.46E-13	3.79E-13	3.22E-13	2.74E-13	2.32E-13	1.97E-13
cm246	5.77E-15	5.69E-15	5.29E-15	4.57E-15	3.41E-15	2.54E-15	1.90E-15	1.41E-15	1.05E-15	7.87E-16	5.87E-16
cm247	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.51E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22
cm248	5.82E-24	5.82E-24	5.81E-24	5.80E-24	5.78E-24	5.75E-24	5.73E-24	5.71E-24	5.68E-24	5.66E-24	5.64E-24
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	1.27E-25	1.04E-25	3.86E-26	5.34E-27	1.02E-28	1.96E-30	4.56E-32	.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	1.37E-31	1.14E-31	9.13E-32	4.56E-32	.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	3.93E+02	3.89E+02	3.82E+02	3.71E+02	3.53E+02	3.37E+02	3.22E+02	3.08E+02	2.96E+02	2.84E+02	2.74E+02

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	6.67E-15	2.41E-17	1.49E-29	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
li 6	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05
li 7	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06
be 9	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06
be 10	2.94E-05	2.94E-05	2.94E-05	2.94E-05	2.94E-05	2.94E-05	2.93E-05	2.93E-05	2.93E-05	2.93E-05	2.92E-05
c 14	4.26E-06	4.21E-06	3.96E-06	3.51E-06	2.75E-06	2.16E-06	1.70E-06	1.33E-06	1.05E-06	8.22E-07	6.45E-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	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-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	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08
zn 68	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-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	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08
zn 70	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07
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	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10
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	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-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	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-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	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03
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	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03
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	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02
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 5K yr burn fission products page 88

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
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	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-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	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05
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	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
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	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-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	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.12E+00	1.12E+00	1.11E+00	1.11E+00	1.10E+00	1.10E+00	1.10E+00
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	6.91E-03	7.15E-03	8.33E-03	1.07E-02	1.54E-02	2.01E-02	2.48E-02	2.95E-02	3.42E-02	3.88E-02	4.34E-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	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+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	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06

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	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00
kr 81	1.19E-07	1.19E-07	1.18E-07	1.18E-07	1.17E-07	1.17E-07	1.16E-07	1.15E-07	1.14E-07	1.14E-07	1.13E-07
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 5K 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	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+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	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03
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	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01
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	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01
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	1.27E-13	1.98E-16	1.80E-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	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01
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	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+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
br 86	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
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	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01
sr 87	1.30E-04	1.30E-04	1.31E-04	1.32E-04	1.34E-04	1.36E-04	1.38E-04	1.40E-04	1.42E-04	1.44E-04	1.46E-04
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 5K 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	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02
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	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02
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	7.04E-05	6.00E-06	2.69E-11	5.43E-22	2.52E-43	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90	1.83E-08	1.56E-09	7.00E-15	1.41E-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	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02
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	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02
nb 91	1.41E-11	1.27E-11	7.63E-12	2.75E-12	3.58E-13	4.66E-14	6.07E-15	7.91E-16	1.03E-16	1.34E-17	1.74E-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	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02
nb 92	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08
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	1.26E+02	1.26E+02	1.26E+02	1.26E+02	1.26E+02	1.26E+02	1.25E+02	1.25E+02	1.25E+02	1.25E+02	1.25E+02
nb 93	1.65E-01	1.71E-01	2.00E-01	2.57E-01	3.71E-01	4.85E-01	5.98E-01	7.12E-01	8.26E-01	9.39E-01	1.05E+00
nb 93m	1.33E-03	1.33E-03	1.33E-03	1.33E-03	1.33E-03	1.32E-03	1.32E-03	1.32E-03	1.32E-03	1.32E-03	1.32E-03
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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02
nb 94	5.70E-05	5.68E-05	5.59E-05	5.40E-05	5.04E-05	4.71E-05	4.40E-05	4.11E-05	3.84E-05	3.58E-05	3.35E-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	.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	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02
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	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02
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	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01
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	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02
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	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02
tc 98	3.19E-05	3.19E-05	3.19E-05	3.19E-05	3.19E-05	3.19E-05	3.19E-05	3.19E-05	3.18E-05	3.18E-05	3.18E-05
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	1.95E+02	1.95E+02	1.95E+02	1.94E+02	1.93E+02	1.92E+02	1.91E+02	1.89E+02	1.88E+02	1.87E+02	1.86E+02
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	1.88E+00	1.94E+00	2.26E+00	2.90E+00	4.17E+00	5.44E+00	6.69E+00	7.94E+00	9.18E+00	1.04E+01	1.16E+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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 92

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
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	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02
tc100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru100	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01
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	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02
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	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02
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	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02
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	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+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	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+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	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01

1
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01
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	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.81E+00	9.80E+00	9.80E+00	9.80E+00	9.80E+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	2.74E-03	2.84E-03	3.36E-03	4.41E-03	6.50E-03	8.60E-03	1.07E-02	1.28E-02	1.49E-02	1.70E-02	1.91E-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	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00
ag108	1.45E-18	8.40E-19	5.48E-20	2.34E-22	4.24E-27	7.71E-32	1.40E-36	3.10E-41	.00E+00	.00E+00	.00E+00
ag108m	4.70E-10	2.72E-10	1.78E-11	7.57E-14	1.38E-18	2.50E-23	4.54E-28	8.24E-33	1.50E-37	2.72E-42	.00E+00
cd108	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06
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	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+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	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+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

1
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02
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	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+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	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-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	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01
cd113m	1.46E-13	1.07E-15	2.26E-26	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in113	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02
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	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+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	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06
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	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01
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 5K yr burn fission products page 95

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	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02

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	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-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	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03
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	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01
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	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01
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	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-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	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-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 5K yr burn fission products page 96

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
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	2.05E-11	5.81E-12	1.07E-14	3.59E-20	4.08E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121m	4.71E-07	1.34E-07	2.45E-10	8.25E-16	9.36E-27	1.06E-37	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb121	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
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	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-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	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04
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	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01
te123	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08
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	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+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	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-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	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+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	2.00E+00	2.00E+00	1.99E+00	1.98E+00	1.95E+00	1.92E+00	1.90E+00	1.87E+00	1.84E+00	1.82E+00	1.79E+00

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 97

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
sb126	9.49E-08	9.49E-08	9.45E-08	9.39E-08	9.26E-08	9.13E-08	9.01E-08	8.88E-08	8.76E-08	8.64E-08	8.52E-08
sb126m	7.22E-10	7.21E-10	7.19E-10	7.14E-10	7.04E-10	6.94E-10	6.85E-10	6.75E-10	6.66E-10	6.57E-10	6.48E-10
te126	5.44E-02	5.58E-02	6.27E-02	7.65E-02	1.04E-01	1.30E-01	1.57E-01	1.83E-01	2.09E-01	2.34E-01	2.59E-01
xe126	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10
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	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+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	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01
i128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe128	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03
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	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01
xe129	4.20E-03	4.34E-03	5.07E-03	6.53E-03	9.45E-03	1.24E-02	1.53E-02	1.82E-02	2.11E-02	2.40E-02	2.69E-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	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+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	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02
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	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02
xe131m	.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 5K 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	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02
cs132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba132	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07

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	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02
ba133	7.40E-23	1.02E-25	5.01E-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	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02
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	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01
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	2.90E+02	2.90E+02	2.90E+02	2.90E+02	2.90E+02	2.90E+02	2.89E+02	2.89E+02	2.89E+02	2.89E+02	2.89E+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	2.53E-01	2.62E-01	3.06E-01	3.93E-01	5.68E-01	7.43E-01	9.17E-01	1.09E+00	1.27E+00	1.44E+00	1.61E+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	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02
cs136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01
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 5K 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	2.37E-04	2.35E-05	2.25E-10	2.08E-20	1.76E-40	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba137	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02
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	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02
la138	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03
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	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02
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	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02
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	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02
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	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02
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	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01
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

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02
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	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02

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	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02
pm145	5.32E-17	1.06E-18	3.32E-27	.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	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02
pm146	3.44E-32	1.24E-37	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm146	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05
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	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02
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	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01
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	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+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	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01
pm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01
eu150	7.20E-12	1.04E-12	6.49E-17	2.54E-25	3.99E-42	.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	2.66E-02	1.23E-02	2.62E-04	1.18E-07	2.41E-14	4.92E-21	1.00E-27	2.04E-34	4.17E-41	.00E+00	.00E+00
eu151	1.70E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01
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	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01
eu152	2.02E-11	1.11E-13	5.66E-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	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00
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	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+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 5K yr burn fission products page 102

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
sm154	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00
eu154	7.00E-18	2.19E-21	6.58E-39	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd154	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01
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	5.53E-29	2.04E-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	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-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	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+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	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-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	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01
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	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-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	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02
tb160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy160	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04
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 5K 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	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02
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	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03
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	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03
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	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04
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	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04
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	2.35E-07	2.22E-07	1.66E-07	9.34E-08	2.94E-08	9.26E-09	2.92E-09	9.19E-10	2.89E-10	9.12E-11	2.87E-11
er166	4.70E-05	4.70E-05	4.71E-05	4.72E-05	4.72E-05	4.72E-05	4.73E-05	4.73E-05	4.73E-05	4.73E-05	4.73E-05
er167	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08
er167m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08
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	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08
yb169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er170	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08
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	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10
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	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07
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	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08
total	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	6.45E-11	2.33E-13	1.44E-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	6.58E-07	6.58E-07	6.58E-07	6.57E-07	6.57E-07	6.56E-07	6.56E-07	6.55E-07	6.54E-07	6.54E-07	6.53E-07
c 14	1.90E-05	1.88E-05	1.77E-05	1.56E-05	1.23E-05	9.64E-06	7.57E-06	5.94E-06	4.67E-06	3.66E-06	2.88E-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

1
Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.54E-02	1.53E-02	1.53E-02	1.52E-02	1.52E-02	1.51E-02	1.50E-02
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	2.46E-09	2.46E-09	2.46E-09	2.45E-09	2.43E-09	2.42E-09	2.40E-09	2.39E-09	2.37E-09	2.35E-09	2.34E-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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	4.99E-11	7.76E-14	7.05E-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	.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	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 107

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
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	9.94E-03	8.47E-04	3.80E-09	7.67E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90	9.94E-03	8.47E-04	3.80E-09	7.67E-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	8.13E-11	7.34E-11	4.41E-11	1.59E-11	2.07E-12	2.70E-13	3.51E-14	4.57E-15	5.95E-16	7.75E-17	1.01E-17
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	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12
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	3.17E-01	3.16E-01	3.16E-01	3.16E-01	3.16E-01	3.16E-01	3.15E-01	3.15E-01	3.15E-01	3.15E-01	3.14E-01
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	3.17E-01	3.16E-01	3.16E-01	3.16E-01	3.16E-01	3.16E-01	3.15E-01	3.15E-01	3.15E-01	3.15E-01	3.14E-01
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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 108

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
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	1.07E-05	1.07E-05	1.05E-05	1.01E-05	9.45E-06	8.83E-06	8.24E-06	7.70E-06	7.19E-06	6.72E-06	6.27E-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	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08	2.77E-08
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	3.34E+00	3.34E+00	3.34E+00	3.33E+00	3.31E+00	3.28E+00	3.26E+00	3.24E+00	3.22E+00	3.20E+00	3.18E+00
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 5K yr burn fission products page 109

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
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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 110

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
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	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.05E-03	5.04E-03	5.04E-03	5.04E-03	5.04E-03	5.04E-03	5.04E-03
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	1.07E-09	6.17E-10	4.03E-11	1.72E-13	3.12E-18	5.67E-23	1.03E-27	2.28E-32	.00E+00	.00E+00	.00E+00
ag108m	1.22E-08	7.09E-09	4.63E-10	1.97E-12	3.59E-17	6.51E-22	1.18E-26	2.05E-31	.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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 111

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
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	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14
cd113m	3.27E-11	2.40E-13	5.07E-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	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12
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 5K 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

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.96E-05	5.57E-06	1.02E-08	3.44E-14	3.90E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121m	2.53E-05	7.17E-06	1.32E-08	4.43E-14	5.03E-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	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17
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	5.67E-02	5.67E-02	5.65E-02	5.61E-02	5.53E-02	5.46E-02	5.38E-02	5.31E-02	5.23E-02	5.16E-02	5.09E-02

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	7.94E-03	7.93E-03	7.91E-03	7.85E-03	7.74E-03	7.64E-03	7.53E-03	7.43E-03	7.33E-03	7.23E-03	7.13E-03
sb126m	5.67E-02	5.67E-02	5.65E-02	5.61E-02	5.53E-02	5.46E-02	5.38E-02	5.31E-02	5.23E-02	5.16E-02	5.09E-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	.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	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-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

1
Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.89E-20	2.60E-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	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.34E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-01	3.33E-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	.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

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 116

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	1.81E-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	1.71E-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	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11
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	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-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

1
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 117

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	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10
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	7.42E-15	1.48E-16	4.63E-25	.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	1.52E-29	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm146	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09
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	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06
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

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13
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	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-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	4.79E-10	6.91E-11	4.32E-15	1.69E-23	.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	7.01E-01	3.24E-01	6.89E-03	3.11E-06	6.35E-13	1.29E-19	2.64E-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	3.57E-09	1.97E-11	9.99E-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	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11
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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.89E-15	5.92E-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	2.72E-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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	4.22E-07	3.99E-07	2.99E-07	1.68E-07	5.28E-08	1.66E-08	5.24E-09	1.65E-09	5.20E-10	1.64E-10	5.15E-11
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	5.22E+00	4.79E+00	4.46E+00	4.44E+00	4.42E+00	4.39E+00	4.37E+00	4.34E+00	4.32E+00	4.30E+00	4.27E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	4.97E+01	5.36E+01	5.72E+01	6.07E+01	6.40E+01	6.73E+01	7.04E+01	7.34E+01	7.63E+01	8.18E+01	8.44E+01
tl206	1.33E-14	1.46E-14	1.58E-14	1.70E-14	1.82E-14	1.94E-14	2.05E-14	2.16E-14	2.27E-14	2.48E-14	2.58E-14
tl207	6.83E-10	7.33E-10	7.80E-10	8.25E-10	8.69E-10	9.11E-10	9.51E-10	9.90E-10	1.03E-09	1.10E-09	1.13E-09
tl208	3.74E-15	4.07E-15	4.39E-15	4.72E-15	5.05E-15	5.37E-15	5.70E-15	6.02E-15	6.35E-15	7.00E-15	7.33E-15
tl209	1.71E-11	1.96E-11	2.21E-11	2.47E-11	2.73E-11	3.00E-11	3.26E-11	3.53E-11	3.79E-11	4.32E-11	4.58E-11
pb206	8.54E+00	1.04E+01	1.24E+01	1.46E+01	1.69E+01	1.94E+01	2.20E+01	2.48E+01	2.77E+01	3.40E+01	3.74E+01
pb207	6.01E-01	7.09E-01	8.25E-01	9.48E-01	1.08E+00	1.21E+00	1.36E+00	1.51E+00	1.66E+00	1.99E+00	2.16E+00
pb208	6.53E-03	6.53E-03	6.54E-03	6.54E-03	6.54E-03	6.55E-03	6.55E-03	6.55E-03	6.56E-03	6.57E-03	6.57E-03
pb209	7.22E-08	8.28E-08	9.35E-08	1.04E-07	1.15E-07	1.27E-07	1.38E-07	1.49E-07	1.60E-07	1.82E-07	1.94E-07
pb210	2.87E-02	3.14E-02	3.41E-02	3.67E-02	3.93E-02	4.18E-02	4.42E-02	4.66E-02	4.90E-02	5.34E-02	5.56E-02
pb211	5.29E-09	5.67E-09	6.03E-09	6.39E-09	6.72E-09	7.05E-09	7.36E-09	7.66E-09	7.94E-09	8.48E-09	8.74E-09
pb212	2.22E-12	2.41E-12	2.61E-12	2.80E-12	2.99E-12	3.19E-12	3.38E-12	3.57E-12	3.77E-12	4.15E-12	4.35E-12
pb214	6.68E-08	7.32E-08	7.94E-08	8.56E-08	9.15E-08	9.74E-08	1.03E-07	1.09E-07	1.14E-07	1.24E-07	1.30E-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	1.08E+00	1.37E+00	1.70E+00	2.07E+00	2.48E+00	2.93E+00	3.42E+00	3.96E+00	4.54E+00	5.82E+00	6.52E+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	1.76E-05	1.93E-05	2.10E-05	2.26E-05	2.42E-05	2.57E-05	2.72E-05	2.87E-05	3.01E-05	3.29E-05	3.42E-05
bi211	3.13E-10	3.36E-10	3.58E-10	3.79E-10	3.99E-10	4.18E-10	4.36E-10	4.54E-10	4.71E-10	5.03E-10	5.18E-10
bi212	2.10E-13	2.29E-13	2.47E-13	2.65E-13	2.84E-13	3.02E-13	3.20E-13	3.39E-13	3.57E-13	3.94E-13	4.12E-13
bi213	1.72E-08	1.97E-08	2.23E-08	2.49E-08	2.75E-08	3.01E-08	3.28E-08	3.55E-08	3.81E-08	4.34E-08	4.61E-08
bi214	4.96E-08	5.43E-08	5.90E-08	6.35E-08	6.80E-08	7.23E-08	7.65E-08	8.06E-08	8.47E-08	9.24E-08	9.62E-08
po210	4.87E-04	5.34E-04	5.80E-04	6.24E-04	6.68E-04	7.10E-04	7.52E-04	7.92E-04	8.32E-04	9.08E-04	9.45E-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	3.46E-15	3.71E-15	3.95E-15	4.18E-15	4.40E-15	4.62E-15	4.82E-15	5.02E-15	5.20E-15	5.56E-15	5.72E-15
po212	1.11E-23	1.20E-23	1.30E-23	1.39E-23	1.49E-23	1.59E-23	1.68E-23	1.78E-23	1.88E-23	2.07E-23	2.17E-23
po213	2.58E-17	2.96E-17	3.35E-17	3.74E-17	4.13E-17	4.53E-17	4.93E-17	5.33E-17	5.73E-17	6.53E-17	6.93E-17
po214	6.82E-15	7.48E-15	8.12E-15	8.74E-15	9.35E-15	9.95E-15	1.05E-14	1.11E-14	1.16E-14	1.27E-14	1.32E-14

po215	4.43E-15	4.75E-15	5.05E-15	5.35E-15	5.63E-15	5.90E-15	6.16E-15	6.41E-15	6.65E-15	7.10E-15	7.32E-15
po216	8.56E-18	9.31E-18	1.01E-17	1.08E-17	1.15E-17	1.23E-17	1.30E-17	1.38E-17	1.45E-17	1.60E-17	1.68E-17
po218	7.87E-09	8.62E-09	9.36E-09	1.01E-08	1.08E-08	1.15E-08	1.21E-08	1.28E-08	1.34E-08	1.47E-08	1.53E-08
at217	2.07E-13	2.37E-13	2.68E-13	2.99E-13	3.31E-13	3.63E-13	3.95E-13	4.27E-13	4.59E-13	5.23E-13	5.54E-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	1.00E-11	1.08E-11	1.14E-11	1.21E-11	1.28E-11	1.34E-11	1.40E-11	1.45E-11	1.51E-11	1.61E-11	1.66E-11
rn220	3.34E-15	3.63E-15	3.93E-15	4.22E-15	4.51E-15	4.80E-15	5.09E-15	5.38E-15	5.67E-15	6.25E-15	6.55E-15
rn222	1.42E-05	1.56E-05	1.69E-05	1.82E-05	1.95E-05	2.08E-05	2.20E-05	2.32E-05	2.43E-05	2.65E-05	2.76E-05
fr221	1.92E-09	2.20E-09	2.48E-09	2.77E-09	3.07E-09	3.36E-09	3.66E-09	3.95E-09	4.25E-09	4.84E-09	5.14E-09
fr223	4.66E-11	4.99E-11	5.31E-11	5.62E-11	5.92E-11	6.21E-11	6.48E-11	6.74E-11	7.00E-11	7.47E-11	7.70E-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	2.55E-06	2.73E-06	2.91E-06	3.08E-06	3.24E-06	3.40E-06	3.55E-06	3.69E-06	3.83E-06	4.09E-06	4.21E-06
ra224	1.94E-11	2.10E-11	2.27E-11	2.44E-11	2.61E-11	2.78E-11	2.95E-11	3.12E-11	3.28E-11	3.62E-11	3.79E-11
ra225	8.49E-06	9.73E-06	1.10E-05	1.23E-05	1.36E-05	1.49E-05	1.62E-05	1.75E-05	1.88E-05	2.15E-05	2.28E-05
ra226	2.21E+00	2.43E+00	2.63E+00	2.84E+00	3.04E+00	3.23E+00	3.42E+00	3.60E+00	3.78E+00	4.13E+00	4.30E+00
ra228	1.04E-08	1.14E-08	1.24E-08	1.34E-08	1.44E-08	1.54E-08	1.64E-08	1.74E-08	1.84E-08	2.03E-08	2.13E-08
ac225	5.74E-06	6.58E-06	7.43E-06	8.30E-06	9.17E-06	1.01E-05	1.09E-05	1.18E-05	1.27E-05	1.45E-05	1.54E-05
ac227	1.80E-03	1.93E-03	2.06E-03	2.18E-03	2.29E-03	2.40E-03	2.51E-03	2.61E-03	2.71E-03	2.89E-03	2.98E-03
ac228	1.27E-12	1.39E-12	1.51E-12	1.63E-12	1.76E-12	1.88E-12	2.00E-12	2.12E-12	2.24E-12	2.48E-12	2.60E-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	4.19E-06	4.49E-06	4.78E-06	5.06E-06	5.32E-06	5.58E-06	5.83E-06	6.07E-06	6.29E-06	6.72E-06	6.92E-06
th228	3.76E-09	4.09E-09	4.42E-09	4.74E-09	5.07E-09	5.40E-09	5.73E-09	6.06E-09	6.38E-09	7.04E-09	7.37E-09
th229	1.68E+00	1.93E+00	2.18E+00	2.43E+00	2.69E+00	2.95E+00	3.21E+00	3.47E+00	3.73E+00	4.25E+00	4.50E+00
th230	1.18E+02	1.28E+02	1.38E+02	1.47E+02	1.56E+02	1.65E+02	1.74E+02	1.83E+02	1.91E+02	2.07E+02	2.15E+02
th231	6.72E-07	6.73E-07	6.74E-07	6.74E-07	6.75E-07	6.75E-07	6.76E-07	6.77E-07	6.77E-07	6.78E-07	6.78E-07

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.59E+01	2.83E+01	3.08E+01	3.33E+01	3.58E+01	3.82E+01	4.07E+01	4.32E+01	4.57E+01	5.06E+01	5.31E+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	2.76E+00	2.96E+00	3.15E+00	3.34E+00	3.51E+00	3.68E+00	3.84E+00	4.00E+00	4.15E+00	4.43E+00	4.56E+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	3.34E-04	3.34E-04	3.33E-04	3.33E-04	3.33E-04	3.33E-04	3.32E-04	3.32E-04
pa234m	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
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	1.12E-08	1.10E-08	1.09E-08	1.08E-08	1.06E-08	1.05E-08	1.04E-08	1.03E-08	1.01E-08	9.90E-09	9.78E-09
u233	6.29E+01	6.86E+01	7.42E+01	7.98E+01	8.54E+01	9.08E+01	9.63E+01	1.02E+02	1.07E+02	1.18E+02	1.23E+02
u234	2.20E+03	2.19E+03	2.18E+03	2.17E+03	2.16E+03	2.15E+03	2.14E+03	2.14E+03	2.13E+03	2.11E+03	2.10E+03
u235	1.65E+05	1.66E+05	1.66E+05	1.66E+05	1.66E+05	1.66E+05	1.66E+05	1.66E+05	1.67E+05	1.67E+05	1.67E+05
u236	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04
u237	5.79E-23	4.92E-23	4.18E-23	3.55E-23	3.01E-23	2.56E-23	2.18E-23	1.85E-23	1.57E-23	1.13E-23	9.62E-24
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	8.15E-34	9.11E-34	1.01E-33	1.10E-33	1.20E-33	1.29E-33	1.39E-33	1.48E-33	1.57E-33	1.76E-33	1.85E-33
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	2.10E-04	2.08E-04	2.05E-04	2.03E-04	2.00E-04	1.98E-04	1.96E-04	1.93E-04	1.91E-04	1.86E-04	1.84E-04
np237	9.85E+03	9.84E+03	9.83E+03	9.83E+03	9.82E+03	9.82E+03	9.81E+03	9.80E+03	9.80E+03	9.78E+03	9.78E+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	6.47E-12	5.36E-12	4.44E-12	3.68E-12	3.05E-12	2.53E-12	2.09E-12	1.73E-12	1.44E-12	9.86E-13	8.17E-13
np240m	6.95E-36	7.77E-36	8.59E-36	9.41E-36	1.02E-35	1.10E-35	1.18E-35	1.26E-35	1.34E-35	1.50E-35	1.58E-35
np240	7.21E-38	7.93E-38	8.83E-38	9.73E-38	1.05E-37	1.14E-37	1.23E-37	1.30E-37	1.39E-37	1.55E-37	1.62E-37
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pu236	4.72E-10	4.66E-10	4.61E-10	4.55E-10	4.50E-10	4.44E-10	4.39E-10	4.34E-10	4.29E-10	4.18E-10	4.13E-10
pu237	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	4.59E-38	2.33E-42	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu239	3.27E+03	3.09E+03	2.92E+03	2.75E+03	2.60E+03	2.45E+03	2.32E+03	2.19E+03	2.06E+03	1.84E+03	1.74E+03
pu240	1.99E+01	1.61E+01	1.31E+01	1.06E+01	8.56E+00	6.93E+00	5.61E+00	4.54E+00	3.68E+00	2.41E+00	1.95E+00
pu241	1.91E-15	1.62E-15	1.38E-15	1.17E-15	9.96E-16	8.46E-16	7.19E-16	6.11E-16	5.19E-16	3.74E-16	3.18E-16
pu242	5.15E-03	5.13E-03	5.11E-03	5.09E-03	5.08E-03	5.06E-03	5.04E-03	5.02E-03	5.00E-03	4.96E-03	4.95E-03
pu243	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.78E-29	5.77E-29	5.77E-29	5.77E-29	5.77E-29
pu244	4.12E-23	4.61E-23	5.10E-23	5.58E-23	6.06E-23	6.54E-23	7.02E-23	7.50E-23	7.97E-23	8.92E-23	9.38E-23
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	8.11E-12	3.78E-13	5.67E-14	3.74E-14	3.14E-14	2.66E-14	2.26E-14	1.92E-14	1.63E-14	1.18E-14	1.00E-14
am242m	3.42E-38	1.70E-42	.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	7.52E-06	6.23E-06	5.16E-06	4.27E-06	3.54E-06	2.93E-06	2.43E-06	2.01E-06	1.67E-06	1.15E-06	9.49E-07
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 5K 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	8.92E-41	.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	1.15E-12	9.77E-13	8.30E-13	7.05E-13	5.99E-13	5.09E-13	4.32E-13	3.67E-13	3.12E-13	2.25E-13	1.91E-13
cm246	1.91E-15	1.43E-15	1.06E-15	7.93E-16	5.92E-16	4.41E-16	3.29E-16	2.46E-16	1.83E-16	1.02E-16	7.61E-17
cm247	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18
cm248	1.33E-21	1.32E-21	1.32E-21	1.31E-21	1.31E-21	1.30E-21	1.30E-21	1.29E-21	1.29E-21	1.28E-21	1.27E-21
cm249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm250	5.32E-37	4.91E-37	4.54E-37	4.19E-37	3.87E-37	3.57E-37	3.30E-37	3.05E-37	2.81E-37	2.40E-37	2.21E-37
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	1.23E-39	2.34E-41	3.49E-43	.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	5.02E-37	1.07E-37	2.29E-38	4.89E-39	1.04E-39	2.23E-40	4.75E-41	1.02E-41	2.11E-42	.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	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06

1
Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.89E-06	3.17E-06	3.44E-06	3.70E-06	3.96E-06	4.21E-06	4.46E-06	4.70E-06	4.94E-06	5.39E-06	5.61E-06

tl207	1.30E-01	1.40E-01	1.49E-01	1.57E-01	1.66E-01	1.74E-01	1.81E-01	1.89E-01	1.96E-01	2.09E-01	2.15E-01
tl208	1.11E-06	1.21E-06	1.30E-06	1.40E-06	1.49E-06	1.59E-06	1.69E-06	1.78E-06	1.88E-06	2.07E-06	2.17E-06
tl209	7.00E-03	8.02E-03	9.06E-03	1.01E-02	1.12E-02	1.23E-02	1.33E-02	1.44E-02	1.55E-02	1.77E-02	1.87E-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	3.33E-01	3.82E-01	4.31E-01	4.82E-01	5.33E-01	5.84E-01	6.35E-01	6.87E-01	7.38E-01	8.41E-01	8.93E-01
pb210	2.19E+00	2.40E+00	2.61E+00	2.81E+00	3.00E+00	3.19E+00	3.38E+00	3.56E+00	3.74E+00	4.08E+00	4.25E+00
pb211	1.31E-01	1.40E-01	1.49E-01	1.58E-01	1.66E-01	1.74E-01	1.82E-01	1.89E-01	1.96E-01	2.10E-01	2.16E-01
pb212	3.08E-06	3.35E-06	3.62E-06	3.89E-06	4.16E-06	4.43E-06	4.70E-06	4.97E-06	5.23E-06	5.77E-06	6.04E-06
pb214	2.19E+00	2.40E+00	2.61E+00	2.81E+00	3.00E+00	3.19E+00	3.38E+00	3.56E+00	3.74E+00	4.08E+00	4.25E+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	2.19E+00	2.40E+00	2.61E+00	2.81E+00	3.00E+00	3.19E+00	3.38E+00	3.56E+00	3.74E+00	4.08E+00	4.25E+00
bi211	1.31E-01	1.40E-01	1.49E-01	1.58E-01	1.66E-01	1.74E-01	1.82E-01	1.89E-01	1.96E-01	2.10E-01	2.16E-01
bi212	3.08E-06	3.35E-06	3.62E-06	3.89E-06	4.16E-06	4.43E-06	4.70E-06	4.97E-06	5.23E-06	5.77E-06	6.04E-06
bi213	3.33E-01	3.82E-01	4.31E-01	4.82E-01	5.33E-01	5.84E-01	6.35E-01	6.87E-01	7.38E-01	8.41E-01	8.93E-01
bi214	2.19E+00	2.40E+00	2.61E+00	2.81E+00	3.00E+00	3.19E+00	3.38E+00	3.56E+00	3.74E+00	4.08E+00	4.25E+00
po210	2.19E+00	2.40E+00	2.61E+00	2.81E+00	3.00E+00	3.19E+00	3.38E+00	3.56E+00	3.74E+00	4.08E+00	4.25E+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	3.59E-04	3.85E-04	4.10E-04	4.34E-04	4.57E-04	4.79E-04	5.00E-04	5.20E-04	5.40E-04	5.76E-04	5.93E-04
po212	1.98E-06	2.15E-06	2.32E-06	2.49E-06	2.66E-06	2.84E-06	3.01E-06	3.18E-06	3.35E-06	3.70E-06	3.87E-06
po213	3.26E-01	3.74E-01	4.22E-01	4.72E-01	5.21E-01	5.72E-01	6.22E-01	6.72E-01	7.23E-01	8.24E-01	8.74E-01
po214	2.19E+00	2.40E+00	2.61E+00	2.81E+00	3.00E+00	3.19E+00	3.38E+00	3.56E+00	3.74E+00	4.08E+00	4.25E+00
po215	1.31E-01	1.40E-01	1.49E-01	1.58E-01	1.66E-01	1.74E-01	1.82E-01	1.89E-01	1.96E-01	2.10E-01	2.16E-01
po216	3.08E-06	3.35E-06	3.62E-06	3.89E-06	4.16E-06	4.43E-06	4.70E-06	4.97E-06	5.23E-06	5.77E-06	6.04E-06
po218	2.19E+00	2.40E+00	2.61E+00	2.81E+00	3.00E+00	3.19E+00	3.38E+00	3.56E+00	3.74E+00	4.08E+00	4.25E+00
at217	3.33E-01	3.82E-01	4.31E-01	4.82E-01	5.33E-01	5.84E-01	6.35E-01	6.87E-01	7.39E-01	8.41E-01	8.93E-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	1.31E-01	1.40E-01	1.49E-01	1.58E-01	1.66E-01	1.74E-01	1.82E-01	1.89E-01	1.96E-01	2.10E-01	2.16E-01
rn220	3.08E-06	3.35E-06	3.62E-06	3.89E-06	4.16E-06	4.43E-06	4.70E-06	4.97E-06	5.23E-06	5.77E-06	6.04E-06
rn222	2.19E+00	2.40E+00	2.61E+00	2.81E+00	3.00E+00	3.19E+00	3.38E+00	3.56E+00	3.74E+00	4.08E+00	4.25E+00
fr221	3.33E-01	3.82E-01	4.31E-01	4.82E-01	5.33E-01	5.84E-01	6.35E-01	6.87E-01	7.39E-01	8.41E-01	8.93E-01
fr223	1.80E-03	1.93E-03	2.06E-03	2.18E-03	2.29E-03	2.40E-03	2.51E-03	2.61E-03	2.71E-03	2.89E-03	2.98E-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	1.31E-01	1.40E-01	1.49E-01	1.58E-01	1.66E-01	1.74E-01	1.82E-01	1.89E-01	1.96E-01	2.10E-01	2.16E-01
ra224	3.08E-06	3.35E-06	3.62E-06	3.89E-06	4.16E-06	4.43E-06	4.70E-06	4.97E-06	5.23E-06	5.77E-06	6.04E-06
ra225	3.33E-01	3.82E-01	4.31E-01	4.82E-01	5.33E-01	5.84E-01	6.35E-01	6.87E-01	7.39E-01	8.41E-01	8.93E-01
ra226	2.19E+00	2.40E+00	2.61E+00	2.81E+00	3.00E+00	3.19E+00	3.38E+00	3.56E+00	3.74E+00	4.08E+00	4.25E+00
ra228	2.84E-06	3.11E-06	3.38E-06	3.65E-06	3.92E-06	4.20E-06	4.47E-06	4.74E-06	5.01E-06	5.55E-06	5.82E-06
ac225	3.33E-01	3.82E-01	4.31E-01	4.82E-01	5.33E-01	5.84E-01	6.35E-01	6.87E-01	7.39E-01	8.41E-01	8.93E-01
ac227	1.31E-01	1.40E-01	1.49E-01	1.58E-01	1.66E-01	1.74E-01	1.82E-01	1.89E-01	1.96E-01	2.10E-01	2.16E-01
ac228	2.84E-06	3.11E-06	3.38E-06	3.65E-06	3.92E-06	4.20E-06	4.47E-06	4.74E-06	5.01E-06	5.55E-06	5.82E-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	1.29E-01	1.38E-01	1.47E-01	1.56E-01	1.64E-01	1.72E-01	1.79E-01	1.86E-01	1.93E-01	2.07E-01	2.13E-01
th228	3.08E-06	3.35E-06	3.62E-06	3.89E-06	4.16E-06	4.43E-06	4.70E-06	4.97E-06	5.23E-06	5.77E-06	6.04E-06
th229	3.33E-01	3.82E-01	4.31E-01	4.82E-01	5.33E-01	5.84E-01	6.35E-01	6.87E-01	7.39E-01	8.41E-01	8.93E-01
th230	2.44E+00	2.64E+00	2.84E+00	3.04E+00	3.23E+00	3.41E+00	3.59E+00	3.77E+00	3.94E+00	4.28E+00	4.44E+00
th231	3.58E-01	3.58E-01	3.58E-01	3.59E-01	3.59E-01	3.59E-01	3.60E-01	3.60E-01	3.60E-01	3.61E-01	3.61E-01

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 125

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
th232	2.84E-06	3.11E-06	3.38E-06	3.65E-06	3.92E-06	4.20E-06	4.47E-06	4.74E-06	5.01E-06	5.55E-06	5.82E-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	1.30E-01	1.40E-01	1.49E-01	1.58E-01	1.66E-01	1.74E-01	1.82E-01	1.89E-01	1.96E-01	2.09E-01	2.16E-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	6.94E+00	6.93E+00	6.93E+00	6.92E+00	6.92E+00	6.91E+00	6.91E+00	6.90E+00	6.90E+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	2.47E-07	2.44E-07	2.41E-07	2.38E-07	2.35E-07	2.32E-07	2.29E-07	2.27E-07	2.24E-07	2.19E-07	2.16E-07
u233	6.06E-01	6.61E-01	7.16E-01	7.70E-01	8.23E-01	8.76E-01	9.28E-01	9.80E-01	1.03E+00	1.13E+00	1.18E+00
u234	1.37E+01	1.36E+01	1.36E+01	1.35E+01	1.35E+01	1.34E+01	1.33E+01	1.33E+01	1.32E+01	1.31E+01	1.30E+01
u235	3.58E-01	3.58E-01	3.58E-01	3.59E-01	3.59E-01	3.59E-01	3.60E-01	3.60E-01	3.60E-01	3.61E-01	3.61E-01
u236	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00
u237	4.73E-18	4.02E-18	3.41E-18	2.90E-18	2.46E-18	2.09E-18	1.78E-18	1.51E-18	1.28E-18	9.25E-19	7.86E-19
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	7.55E-28	8.44E-28	9.33E-28	1.02E-27	1.11E-27	1.20E-27	1.29E-27	1.37E-27	1.46E-27	1.63E-27	1.72E-27
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	2.77E-06	2.74E-06	2.70E-06	2.67E-06	2.64E-06	2.61E-06	2.58E-06	2.55E-06	2.52E-06	2.46E-06	2.43E-06
np237	6.94E+00	6.94E+00	6.94E+00	6.93E+00	6.93E+00	6.92E+00	6.92E+00	6.91E+00	6.91E+00	6.90E+00	6.90E+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	1.50E-06	1.24E-06	1.03E-06	8.54E-07	7.07E-07	5.86E-07	4.85E-07	4.02E-07	3.33E-07	2.29E-07	1.90E-07
np240m	7.55E-28	8.44E-28	9.33E-28	1.02E-27	1.11E-27	1.20E-27	1.29E-27	1.37E-27	1.46E-27	1.63E-27	1.72E-27
np240	9.13E-31	1.00E-30	1.12E-30	1.23E-30	1.32E-30	1.44E-30	1.55E-30	1.64E-30	1.76E-30	1.96E-30	2.05E-30
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	2.47E-07	2.44E-07	2.41E-07	2.38E-07	2.35E-07	2.32E-07	2.29E-07	2.27E-07	2.24E-07	2.19E-07	2.16E-07
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	2.03E+02	1.92E+02	1.81E+02	1.71E+02	1.61E+02	1.52E+02	1.44E+02	1.36E+02	1.28E+02	1.14E+02	1.08E+02
pu240	4.52E+00	3.66E+00	2.97E+00	2.40E+00	1.94E+00	1.57E+00	1.27E+00	1.03E+00	8.35E-01	5.47E-01	4.43E-01
pu241	1.98E-13	1.68E-13	1.43E-13	1.21E-13	1.03E-13	8.75E-14	7.43E-14	6.31E-14	5.36E-14	3.87E-14	3.29E-14
pu242	2.04E-05	2.03E-05	2.02E-05	2.02E-05	2.01E-05	2.00E-05	1.99E-05	1.99E-05	1.98E-05	1.96E-05	1.96E-05
pu243	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22
pu244	7.56E-28	8.45E-28	9.34E-28	1.02E-27	1.11E-27	1.20E-27	1.29E-27	1.37E-27	1.46E-27	1.63E-27	1.72E-27
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	2.78E-11	1.30E-12	1.94E-13	1.28E-13	1.08E-13	9.13E-14	7.76E-14	6.59E-14	5.60E-14	4.05E-14	3.43E-14
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	1.50E-06	1.24E-06	1.03E-06	8.54E-07	7.07E-07	5.86E-07	4.85E-07	4.02E-07	3.33E-07	2.29E-07	1.90E-07
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 5K 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
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	1.97E-13	1.68E-13	1.43E-13	1.21E-13	1.03E-13	8.74E-14	7.42E-14	6.30E-14	5.35E-14	3.86E-14	3.28E-14
cm246	5.87E-16	4.38E-16	3.27E-16	2.44E-16	1.82E-16	1.36E-16	1.01E-16	7.55E-17	5.63E-17	3.13E-17	2.34E-17
cm247	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22
cm248	5.64E-24	5.61E-24	5.59E-24	5.57E-24	5.55E-24	5.52E-24	5.50E-24	5.48E-24	5.46E-24	5.41E-24	5.39E-24
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	2.74E+02	2.64E+02	2.55E+02	2.47E+02	2.40E+02	2.33E+02	2.26E+02	2.20E+02	2.15E+02	2.05E+02	2.00E+02

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05
li 7	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06
be 9	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06
be 10	2.92E-05	2.92E-05	2.92E-05	2.91E-05	2.91E-05	2.91E-05	2.91E-05	2.90E-05	2.90E-05	2.90E-05	2.89E-05
c 14	6.45E-07	5.06E-07	3.97E-07	3.12E-07	2.45E-07	1.92E-07	1.51E-07	1.19E-07	9.31E-08	5.74E-08	4.50E-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	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-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	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08
zn 68	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-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	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08
zn 70	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07
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	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10
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	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-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	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-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	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03
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	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03
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	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02
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 5K 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	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-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	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05
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	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
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	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-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	1.10E+00	1.09E+00	1.09E+00	1.08E+00	1.08E+00	1.07E+00	1.07E+00	1.06E+00	1.06E+00	1.05E+00	1.05E+00
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	4.34E-02	4.80E-02	5.26E-02	5.71E-02	6.17E-02	6.62E-02	7.07E-02	7.52E-02	7.96E-02	8.85E-02	9.29E-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	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+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	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06

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	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00
kr 81	1.13E-07	1.12E-07	1.11E-07	1.11E-07	1.10E-07	1.09E-07	1.09E-07	1.08E-07	1.07E-07	1.06E-07	1.05E-07
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 5K 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	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+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	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03
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	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01
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	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01
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	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01
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	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+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	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
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	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01
sr 87	1.46E-04	1.48E-04	1.50E-04	1.52E-04	1.54E-04	1.56E-04	1.58E-04	1.60E-04	1.62E-04	1.67E-04	1.69E-04
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 5K 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	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02
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	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02
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	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02
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	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02
nb 91	1.74E-18	2.27E-19	2.96E-20	3.85E-21	5.01E-22	6.53E-23	8.50E-24	1.11E-24	1.44E-25	2.44E-27	3.18E-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	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02
nb 92	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08
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	1.25E+02	1.25E+02	1.25E+02	1.25E+02	1.25E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02
nb 93	1.05E+00	1.17E+00	1.28E+00	1.39E+00	1.50E+00	1.62E+00	1.73E+00	1.84E+00	1.96E+00	2.18E+00	2.29E+00
nb 93m	1.32E-03	1.32E-03	1.32E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03	1.31E-03
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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02
nb 94	3.35E-05	3.13E-05	2.92E-05	2.73E-05	2.55E-05	2.38E-05	2.22E-05	2.08E-05	1.94E-05	1.69E-05	1.58E-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	.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	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02
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	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02
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	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01
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	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02
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	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02
tc 98	3.18E-05	3.18E-05	3.18E-05	3.18E-05	3.18E-05	3.18E-05	3.18E-05	3.17E-05	3.17E-05	3.17E-05	3.17E-05
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	1.86E+02	1.84E+02	1.83E+02	1.82E+02	1.81E+02	1.80E+02	1.79E+02	1.77E+02	1.76E+02	1.74E+02	1.73E+02
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	1.16E+01	1.28E+01	1.41E+01	1.53E+01	1.64E+01	1.76E+01	1.88E+01	2.00E+01	2.11E+01	2.34E+01	2.46E+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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02
tc100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru100	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01
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	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02
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	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02
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	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02
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	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+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	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+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	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01

1
Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 133
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
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	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01
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	9.80E+00	9.80E+00	9.79E+00	9.79E+00	9.79E+00	9.79E+00	9.79E+00	9.78E+00	9.78E+00	9.78E+00	9.77E+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	1.91E-02	2.11E-02	2.32E-02	2.53E-02	2.74E-02	2.95E-02	3.16E-02	3.37E-02	3.58E-02	3.99E-02	4.20E-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	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+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	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06
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	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+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	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+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

1
Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 134
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
cd110	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02
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	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+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	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-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	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01
cd113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in113	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02
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	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+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	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06
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	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01
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 5K 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	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02

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	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-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	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03
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	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01
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	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01
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	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-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	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-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 5K 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	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
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	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-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	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04
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	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01
te123	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08
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	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+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	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-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	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+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	1.79E+00	1.77E+00	1.74E+00	1.72E+00	1.70E+00	1.67E+00	1.65E+00	1.63E+00	1.61E+00	1.56E+00	1.54E+00

1
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	8.52E-08	8.40E-08	8.29E-08	8.17E-08	8.06E-08	7.95E-08	7.84E-08	7.73E-08	7.63E-08	7.42E-08	7.31E-08
sb126m	6.48E-10	6.39E-10	6.30E-10	6.21E-10	6.13E-10	6.04E-10	5.96E-10	5.88E-10	5.80E-10	5.64E-10	5.56E-10
te126	2.59E-01	2.84E-01	3.08E-01	3.32E-01	3.56E-01	3.79E-01	4.02E-01	4.25E-01	4.47E-01	4.91E-01	5.13E-01
xe126	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10
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	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+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	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01
i128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe128	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03
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	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01
xe129	2.69E-02	2.99E-02	3.28E-02	3.57E-02	3.86E-02	4.15E-02	4.44E-02	4.73E-02	5.03E-02	5.61E-02	5.90E-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	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+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	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02
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	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02
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 5K 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
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	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02
cs132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba132	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07

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	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02
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	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02
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	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01
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	2.89E+02	2.89E+02	2.88E+02	2.88E+02	2.88E+02	2.88E+02	2.88E+02	2.88E+02	2.87E+02	2.87E+02	2.87E+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	1.61E+00	1.79E+00	1.96E+00	2.14E+00	2.31E+00	2.48E+00	2.66E+00	2.83E+00	3.00E+00	3.35E+00	3.52E+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	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02
cs136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01
ba136m	.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 5K yr burn fission products page 139

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	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02
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	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02
la138	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03
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	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02
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	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02
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	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02
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	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02
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	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01
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 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 140

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	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02
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	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02

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	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02
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	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02
pm146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm146	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05
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	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02
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	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01
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	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+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	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01
pm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01
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	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01
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	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01
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	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00
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	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+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 5K 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
sm154	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+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	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01
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	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-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	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+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	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-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	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01
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	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-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	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02
tb160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy160	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04
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 5K yr burn fission products page 143

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
dy161	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02
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	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03
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	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03
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	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04
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	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04
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	2.87E-11	9.04E-12	2.85E-12	8.97E-13	2.83E-13	8.90E-14	2.80E-14	8.83E-15	2.78E-15	2.76E-16	8.69E-17
er166	4.73E-05	4.73E-05	4.73E-05	4.73E-05	4.73E-05	4.73E-05	4.73E-05	4.73E-05	4.73E-05	4.73E-05	4.73E-05
er167	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08
er167m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08
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	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08
yb169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er170	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08
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	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10
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	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07
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	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08
total	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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
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	6.53E-07	6.53E-07	6.52E-07	6.52E-07	6.51E-07	6.50E-07	6.50E-07	6.49E-07	6.49E-07	6.48E-07	6.47E-07
c 14	2.88E-06	2.26E-06	1.77E-06	1.39E-06	1.09E-06	8.58E-07	6.73E-07	5.29E-07	4.15E-07	2.56E-07	2.01E-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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 145

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	1.50E-02	1.50E-02	1.49E-02	1.48E-02	1.48E-02	1.47E-02	1.47E-02	1.46E-02	1.45E-02	1.44E-02	1.44E-02
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	2.34E-09	2.32E-09	2.31E-09	2.29E-09	2.28E-09	2.26E-09	2.25E-09	2.23E-09	2.22E-09	2.19E-09	2.18E-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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.01E-17	1.31E-18	1.71E-19	2.23E-20	2.90E-21	3.77E-22	4.91E-23	6.39E-24	8.32E-25	1.41E-26	1.84E-27
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	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12
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	3.14E-01	3.14E-01	3.14E-01	3.13E-01	3.13E-01	3.13E-01	3.13E-01	3.12E-01	3.12E-01	3.11E-01	3.11E-01
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	3.14E-01	3.14E-01	3.14E-01	3.13E-01	3.13E-01	3.13E-01	3.13E-01	3.12E-01	3.12E-01	3.11E-01	3.11E-01
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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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
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	6.27E-06	5.86E-06	5.47E-06	5.11E-06	4.77E-06	4.46E-06	4.16E-06	3.89E-06	3.63E-06	3.17E-06	2.96E-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	2.77E-08	2.76E-08	2.76E-08	2.76E-08	2.76E-08	2.76E-08	2.76E-08	2.76E-08	2.76E-08	2.76E-08	2.76E-08
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	3.18E+00	3.16E+00	3.14E+00	3.12E+00	3.10E+00	3.07E+00	3.05E+00	3.03E+00	3.01E+00	2.98E+00	2.96E+00
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 5K yr burn fission products page 149

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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	5.04E-03	5.04E-03	5.04E-03	5.04E-03	5.03E-03	5.03E-03	5.03E-03	5.03E-03	5.03E-03	5.03E-03	5.03E-03
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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 151

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
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	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-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	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12
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 5K 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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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
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	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17
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	5.09E-02	5.02E-02	4.95E-02	4.88E-02	4.82E-02	4.75E-02	4.68E-02	4.62E-02	4.56E-02	4.43E-02	4.37E-02

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 154

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
sb126	7.13E-03	7.03E-03	6.93E-03	6.84E-03	6.74E-03	6.65E-03	6.56E-03	6.47E-03	6.38E-03	6.20E-03	6.12E-03
sb126m	5.09E-02	5.02E-02	4.95E-02	4.88E-02	4.82E-02	4.75E-02	4.68E-02	4.62E-02	4.56E-02	4.43E-02	4.37E-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	.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	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.83E-03	5.82E-03	5.82E-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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	3.33E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.32E-01	3.31E-01	3.31E-01	3.31E-01	3.31E-01	3.30E-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	.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

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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
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	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11
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	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-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

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 157

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	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10
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	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09
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	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06
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

1
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 158

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	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13
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	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-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	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11
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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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 5K 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	5.15E-11	1.62E-11	5.11E-12	1.61E-12	5.07E-13	1.60E-13	5.03E-14	1.58E-14	4.99E-15	4.95E-16	1.56E-16
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	4.27E+00	4.25E+00	4.23E+00	4.20E+00	4.18E+00	4.16E+00	4.14E+00	4.11E+00	4.09E+00	4.05E+00	4.03E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	8.44E+01	8.70E+01	9.30E+01	9.87E+01	1.04E+02	1.09E+02	1.14E+02	1.19E+02	1.44E+02	2.25E+02	2.65E+02
tl206	2.58E-14	2.68E-14	2.91E-14	3.13E-14	3.34E-14	3.53E-14	3.71E-14	3.88E-14	4.79E-14	5.63E-14	5.59E-14
tl207	1.13E-09	1.16E-09	1.23E-09	1.30E-09	1.36E-09	1.41E-09	1.46E-09	1.51E-09	1.69E-09	1.88E-09	1.90E-09
tl208	7.33E-15	7.66E-15	8.47E-15	9.29E-15	1.01E-14	1.09E-14	1.17E-14	1.26E-14	1.74E-14	3.38E-14	4.19E-14
tl209	4.58E-11	4.84E-11	5.49E-11	6.13E-11	6.75E-11	7.36E-11	7.96E-11	8.55E-11	1.18E-10	2.08E-10	2.24E-10
pb206	3.74E+01	4.08E+01	5.01E+01	6.00E+01	7.07E+01	8.21E+01	9.40E+01	1.07E+02	1.93E+02	5.45E+02	7.30E+02
pb207	2.16E+00	2.33E+00	2.79E+00	3.28E+00	3.79E+00	4.32E+00	4.87E+00	5.44E+00	9.14E+00	2.31E+01	3.03E+01
pb208	6.57E-03	6.58E-03	6.59E-03	6.60E-03	6.62E-03	6.64E-03	6.66E-03	6.68E-03	6.83E-03	7.68E-03	8.31E-03
pb209	1.94E-07	2.05E-07	2.32E-07	2.59E-07	2.85E-07	3.11E-07	3.36E-07	3.61E-07	4.98E-07	8.80E-07	9.46E-07
pb210	5.56E-02	5.77E-02	6.28E-02	6.75E-02	7.19E-02	7.61E-02	8.00E-02	8.36E-02	1.03E-01	1.22E-01	1.21E-01
pb211	8.74E-09	8.98E-09	9.55E-09	1.01E-08	1.05E-08	1.09E-08	1.13E-08	1.17E-08	1.31E-08	1.46E-08	1.47E-08
pb212	4.35E-12	4.54E-12	5.02E-12	5.51E-12	5.99E-12	6.47E-12	6.96E-12	7.44E-12	1.03E-11	2.00E-11	2.49E-11
pb214	1.30E-07	1.34E-07	1.46E-07	1.57E-07	1.68E-07	1.77E-07	1.86E-07	1.95E-07	2.40E-07	2.83E-07	2.81E-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	6.52E+00	7.26E+00	9.30E+00	1.16E+01	1.41E+01	1.69E+01	1.99E+01	2.32E+01	4.74E+01	1.79E+02	2.63E+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	3.42E-05	3.55E-05	3.86E-05	4.15E-05	4.43E-05	4.68E-05	4.92E-05	5.15E-05	6.35E-05	7.48E-05	7.42E-05
bi211	5.18E-10	5.32E-10	5.66E-10	5.96E-10	6.24E-10	6.49E-10	6.71E-10	6.91E-10	7.76E-10	8.63E-10	8.71E-10
bi212	4.12E-13	4.31E-13	4.76E-13	5.22E-13	5.68E-13	6.14E-13	6.60E-13	7.06E-13	9.81E-13	1.90E-12	2.36E-12
bi213	4.61E-08	4.87E-08	5.52E-08	6.16E-08	6.79E-08	7.40E-08	8.01E-08	8.59E-08	1.18E-07	2.09E-07	2.25E-07
bi214	9.62E-08	9.98E-08	1.09E-07	1.17E-07	1.24E-07	1.32E-07	1.38E-07	1.45E-07	1.79E-07	2.10E-07	2.09E-07
po210	9.45E-04	9.81E-04	1.07E-03	1.15E-03	1.22E-03	1.29E-03	1.36E-03	1.42E-03	1.75E-03	2.07E-03	2.05E-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	5.72E-15	5.88E-15	6.26E-15	6.59E-15	6.89E-15	7.17E-15	7.41E-15	7.64E-15	8.58E-15	9.53E-15	9.62E-15
po212	2.17E-23	2.26E-23	2.50E-23	2.74E-23	2.99E-23	3.23E-23	3.47E-23	3.71E-23	5.16E-23	9.98E-23	1.24E-22
po213	6.93E-17	7.32E-17	8.30E-17	9.26E-17	1.02E-16	1.11E-16	1.20E-16	1.29E-16	1.78E-16	3.15E-16	3.39E-16
po214	1.32E-14	1.37E-14	1.49E-14	1.61E-14	1.71E-14	1.81E-14	1.90E-14	1.99E-14	2.46E-14	2.89E-14	2.87E-14

po215	7.32E-15	7.52E-15	8.00E-15	8.43E-15	8.81E-15	9.16E-15	9.48E-15	9.76E-15	1.10E-14	1.22E-14	1.23E-14
po216	1.68E-17	1.75E-17	1.94E-17	2.12E-17	2.31E-17	2.50E-17	2.68E-17	2.87E-17	3.99E-17	7.73E-17	9.59E-17
po218	1.53E-08	1.58E-08	1.72E-08	1.85E-08	1.97E-08	2.09E-08	2.20E-08	2.30E-08	2.83E-08	3.34E-08	3.31E-08
at217	5.54E-13	5.86E-13	6.64E-13	7.41E-13	8.17E-13	8.91E-13	9.63E-13	1.03E-12	1.43E-12	2.52E-12	2.71E-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	1.66E-11	1.70E-11	1.81E-11	1.91E-11	2.00E-11	2.08E-11	2.15E-11	2.21E-11	2.49E-11	2.76E-11	2.79E-11
rn220	6.55E-15	6.84E-15	7.57E-15	8.29E-15	9.02E-15	9.75E-15	1.05E-14	1.12E-14	1.56E-14	3.02E-14	3.75E-14
rn222	2.76E-05	2.87E-05	3.12E-05	3.35E-05	3.57E-05	3.78E-05	3.97E-05	4.15E-05	5.13E-05	6.03E-05	5.99E-05
fr221	5.14E-09	5.43E-09	6.16E-09	6.87E-09	7.57E-09	8.26E-09	8.93E-09	9.59E-09	1.32E-08	2.34E-08	2.51E-08
fr223	7.70E-11	7.91E-11	8.41E-11	8.86E-11	9.27E-11	9.64E-11	9.97E-11	1.03E-10	1.15E-10	1.28E-10	1.29E-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	4.21E-06	4.33E-06	4.60E-06	4.85E-06	5.07E-06	5.27E-06	5.46E-06	5.62E-06	6.31E-06	7.01E-06	7.08E-06
ra224	3.79E-11	3.96E-11	4.38E-11	4.80E-11	5.22E-11	5.65E-11	6.07E-11	6.49E-11	9.02E-11	1.75E-10	2.17E-10
ra225	2.28E-05	2.41E-05	2.73E-05	3.04E-05	3.35E-05	3.66E-05	3.95E-05	4.25E-05	5.85E-05	1.03E-04	1.11E-04
ra226	4.30E+00	4.46E+00	4.85E+00	5.21E+00	5.56E+00	5.88E+00	6.18E+00	6.46E+00	7.98E+00	9.39E+00	9.32E+00
ra228	2.13E-08	2.23E-08	2.48E-08	2.73E-08	2.98E-08	3.23E-08	3.48E-08	3.73E-08	5.22E-08	1.02E-07	1.26E-07
ac225	1.54E-05	1.63E-05	1.84E-05	2.06E-05	2.27E-05	2.47E-05	2.67E-05	2.87E-05	3.95E-05	6.99E-05	7.52E-05
ac227	2.98E-03	3.06E-03	3.26E-03	3.43E-03	3.59E-03	3.73E-03	3.86E-03	3.98E-03	4.47E-03	4.97E-03	5.01E-03
ac228	2.60E-12	2.73E-12	3.03E-12	3.33E-12	3.64E-12	3.94E-12	4.24E-12	4.55E-12	6.36E-12	1.24E-11	1.54E-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	6.92E-06	7.11E-06	7.56E-06	7.97E-06	8.34E-06	8.67E-06	8.96E-06	9.23E-06	1.04E-05	1.15E-05	1.16E-05
th228	7.37E-09	7.69E-09	8.51E-09	9.33E-09	1.02E-08	1.10E-08	1.18E-08	1.26E-08	1.75E-08	3.40E-08	4.22E-08
th229	4.50E+00	4.76E+00	5.40E+00	6.02E+00	6.64E+00	7.24E+00	7.83E+00	8.40E+00	1.16E+01	2.05E+01	2.20E+01
th230	2.15E+02	2.23E+02	2.41E+02	2.58E+02	2.74E+02	2.89E+02	3.03E+02	3.16E+02	3.77E+02	4.47E+02	4.41E+02
th231	6.78E-07	6.79E-07	6.80E-07	6.80E-07	6.81E-07	6.82E-07	6.82E-07	6.83E-07	6.84E-07	6.85E-07	6.85E-07

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 162

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
th232	5.31E+01	5.56E+01	6.17E+01	6.79E+01	7.41E+01	8.03E+01	8.65E+01	9.26E+01	1.30E+02	2.53E+02	3.15E+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	4.56E+00	4.69E+00	4.99E+00	5.26E+00	5.50E+00	5.71E+00	5.91E+00	6.09E+00	6.84E+00	7.60E+00	7.67E+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	3.32E-04	3.32E-04	3.31E-04	3.31E-04	3.30E-04	3.30E-04	3.29E-04	3.29E-04	3.25E-04	3.15E-04	3.10E-04
pa234m	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
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	9.78E-09	9.66E-09	9.38E-09	9.10E-09	8.83E-09	8.57E-09	8.31E-09	8.06E-09	6.73E-09	3.68E-09	2.72E-09
u233	1.23E+02	1.28E+02	1.40E+02	1.53E+02	1.65E+02	1.77E+02	1.88E+02	1.99E+02	2.61E+02	4.12E+02	4.63E+02
u234	2.10E+03	2.09E+03	2.07E+03	2.04E+03	2.02E+03	2.00E+03	1.98E+03	1.96E+03	1.84E+03	1.50E+03	1.36E+03
u235	1.67E+05	1.67E+05	1.67E+05	1.67E+05	1.67E+05	1.68E+05	1.68E+05	1.68E+05	1.68E+05	1.68E+05	1.69E+05
u236	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.25E+04	4.24E+04	4.23E+04	4.22E+04
u237	9.62E-24	8.18E-24	5.44E-24	3.62E-24	2.41E-24	1.60E-24	1.06E-24	7.08E-25	6.12E-26	1.76E-29	2.98E-31
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	1.85E-33	1.95E-33	2.17E-33	2.40E-33	2.62E-33	2.85E-33	3.07E-33	3.28E-33	4.54E-33	8.22E-33	9.79E-33
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	1.84E-04	1.82E-04	1.77E-04	1.71E-04	1.66E-04	1.61E-04	1.56E-04	1.52E-04	1.27E-04	6.94E-05	5.13E-05
np237	9.78E+03	9.77E+03	9.76E+03	9.74E+03	9.72E+03	9.71E+03	9.69E+03	9.68E+03	9.58E+03	9.28E+03	9.13E+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	8.17E-13	6.77E-13	4.23E-13	2.64E-13	1.65E-13	1.03E-13	6.45E-14	4.03E-14	2.40E-15	1.97E-19	1.79E-21
np240m	1.58E-35	1.66E-35	1.86E-35	2.05E-35	2.24E-35	2.43E-35	2.62E-35	2.80E-35	3.88E-35	7.01E-35	8.36E-35
np240	1.62E-37	1.71E-37	1.91E-37	2.11E-37	2.31E-37	2.50E-37	2.68E-37	2.88E-37	3.98E-37	7.21E-37	8.60E-37
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pu236	4.13E-10	4.08E-10	3.96E-10	3.84E-10	3.73E-10	3.62E-10	3.51E-10	3.41E-10	2.84E-10	1.56E-10	1.15E-10
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	1.74E+03	1.64E+03	1.42E+03	1.23E+03	1.07E+03	9.23E+02	7.99E+02	6.92E+02	2.92E+02	1.65E+01	3.91E+00
pu240	1.95E+00	1.58E+00	9.31E-01	5.49E-01	3.24E-01	1.91E-01	1.13E-01	6.64E-02	2.79E-03	7.22E-08	3.67E-10
pu241	3.18E-16	2.70E-16	1.80E-16	1.19E-16	7.95E-17	5.28E-17	3.51E-17	2.34E-17	2.02E-18	5.80E-22	9.83E-24
pu242	4.95E-03	4.93E-03	4.88E-03	4.84E-03	4.79E-03	4.75E-03	4.70E-03	4.66E-03	4.41E-03	3.66E-03	3.34E-03
pu243	5.77E-29	5.77E-29	5.77E-29	5.77E-29	5.77E-29	5.77E-29	5.77E-29	5.76E-29	5.76E-29	5.73E-29	5.72E-29
pu244	9.38E-23	9.85E-23	1.10E-22	1.22E-22	1.33E-22	1.44E-22	1.55E-22	1.66E-22	2.30E-22	4.16E-22	4.96E-22
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	1.00E-14	8.50E-15	5.42E-15	3.60E-15	2.40E-15	1.59E-15	1.06E-15	7.05E-16	6.10E-17	1.84E-20	2.96E-22
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	9.49E-07	7.86E-07	4.91E-07	3.07E-07	1.92E-07	1.20E-07	7.49E-08	4.68E-08	2.79E-09	2.29E-13	2.08E-15
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
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 163

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	1.91E-13	1.62E-13	1.08E-13	7.18E-14	4.78E-14	3.18E-14	2.11E-14	1.41E-14	1.22E-15	3.49E-19	5.91E-21
cm246	7.61E-17	5.67E-17	2.73E-17	1.31E-17	6.30E-18	3.03E-18	1.46E-18	7.00E-19	8.63E-21	3.74E-27	2.46E-30
cm247	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.66E-18	1.65E-18	1.65E-18
cm248	1.27E-21	1.27E-21	1.25E-21	1.24E-21	1.23E-21	1.21E-21	1.20E-21	1.19E-21	1.12E-21	9.13E-22	8.25E-22
cm249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm250	2.21E-37	2.05E-37	1.68E-37	1.37E-37	1.13E-37	9.22E-38	7.55E-38	6.19E-38	1.87E-38	3.49E-40	4.76E-41
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	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06	8.87E+06

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 164

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	5.61E-06	5.82E-06	6.33E-06	6.80E-06	7.25E-06	7.67E-06	8.06E-06	8.43E-06	1.04E-05	1.23E-05	1.22E-05

tl207	2.15E-01	2.21E-01	2.35E-01	2.48E-01	2.59E-01	2.69E-01	2.79E-01	2.87E-01	3.23E-01	3.58E-01	3.62E-01
tl208	2.17E-06	2.27E-06	2.51E-06	2.75E-06	2.99E-06	3.23E-06	3.48E-06	3.72E-06	5.17E-06	1.00E-05	1.24E-05
tl209	1.87E-02	1.98E-02	2.25E-02	2.51E-02	2.76E-02	3.01E-02	3.26E-02	3.50E-02	4.82E-02	8.52E-02	9.16E-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	8.93E-01	9.43E-01	1.07E+00	1.19E+00	1.32E+00	1.43E+00	1.55E+00	1.66E+00	2.30E+00	4.06E+00	4.36E+00
pb210	4.25E+00	4.41E+00	4.79E+00	5.15E+00	5.49E+00	5.81E+00	6.11E+00	6.39E+00	7.89E+00	9.28E+00	9.21E+00
pb211	2.16E-01	2.22E-01	2.36E-01	2.48E-01	2.60E-01	2.70E-01	2.79E-01	2.88E-01	3.23E-01	3.59E-01	3.63E-01
pb212	6.04E-06	6.31E-06	6.98E-06	7.65E-06	8.33E-06	9.00E-06	9.67E-06	1.03E-05	1.44E-05	2.78E-05	3.46E-05
pb214	4.25E+00	4.41E+00	4.79E+00	5.16E+00	5.49E+00	5.81E+00	6.11E+00	6.39E+00	7.89E+00	9.28E+00	9.21E+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	4.25E+00	4.41E+00	4.79E+00	5.15E+00	5.49E+00	5.81E+00	6.11E+00	6.39E+00	7.89E+00	9.28E+00	9.21E+00
bi211	2.16E-01	2.22E-01	2.36E-01	2.48E-01	2.60E-01	2.70E-01	2.79E-01	2.88E-01	3.23E-01	3.59E-01	3.63E-01
bi212	6.04E-06	6.31E-06	6.98E-06	7.65E-06	8.33E-06	9.00E-06	9.67E-06	1.03E-05	1.44E-05	2.78E-05	3.46E-05
bi213	8.93E-01	9.43E-01	1.07E+00	1.19E+00	1.32E+00	1.43E+00	1.55E+00	1.66E+00	2.30E+00	4.06E+00	4.36E+00
bi214	4.25E+00	4.41E+00	4.79E+00	5.16E+00	5.49E+00	5.81E+00	6.11E+00	6.39E+00	7.89E+00	9.28E+00	9.21E+00
po210	4.25E+00	4.41E+00	4.79E+00	5.15E+00	5.49E+00	5.81E+00	6.11E+00	6.39E+00	7.89E+00	9.28E+00	9.21E+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	5.93E-04	6.10E-04	6.49E-04	6.83E-04	7.15E-04	7.43E-04	7.69E-04	7.92E-04	8.89E-04	9.88E-04	9.97E-04
po212	3.87E-06	4.04E-06	4.47E-06	4.90E-06	5.33E-06	5.76E-06	6.20E-06	6.63E-06	9.21E-06	1.78E-05	2.21E-05
po213	8.74E-01	9.24E-01	1.05E+00	1.17E+00	1.29E+00	1.40E+00	1.52E+00	1.63E+00	2.25E+00	3.97E+00	4.27E+00
po214	4.25E+00	4.41E+00	4.79E+00	5.15E+00	5.49E+00	5.81E+00	6.11E+00	6.39E+00	7.89E+00	9.28E+00	9.21E+00
po215	2.16E-01	2.22E-01	2.36E-01	2.48E-01	2.60E-01	2.70E-01	2.79E-01	2.88E-01	3.23E-01	3.59E-01	3.63E-01
po216	6.04E-06	6.31E-06	6.98E-06	7.65E-06	8.33E-06	9.00E-06	9.67E-06	1.03E-05	1.44E-05	2.78E-05	3.46E-05
po218	4.25E+00	4.41E+00	4.79E+00	5.16E+00	5.50E+00	5.81E+00	6.11E+00	6.39E+00	7.89E+00	9.29E+00	9.21E+00
at217	8.93E-01	9.44E-01	1.07E+00	1.19E+00	1.32E+00	1.43E+00	1.55E+00	1.67E+00	2.30E+00	4.06E+00	4.36E+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	2.16E-01	2.22E-01	2.36E-01	2.48E-01	2.60E-01	2.70E-01	2.79E-01	2.88E-01	3.23E-01	3.59E-01	3.63E-01
rn220	6.04E-06	6.31E-06	6.98E-06	7.65E-06	8.33E-06	9.00E-06	9.67E-06	1.03E-05	1.44E-05	2.78E-05	3.46E-05
rn222	4.25E+00	4.41E+00	4.79E+00	5.16E+00	5.50E+00	5.81E+00	6.11E+00	6.39E+00	7.89E+00	9.29E+00	9.21E+00
fr221	8.93E-01	9.44E-01	1.07E+00	1.19E+00	1.32E+00	1.43E+00	1.55E+00	1.67E+00	2.30E+00	4.06E+00	4.36E+00
fr223	2.98E-03	3.06E-03	3.25E-03	3.43E-03	3.59E-03	3.73E-03	3.86E-03	3.97E-03	4.46E-03	4.96E-03	5.01E-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	2.16E-01	2.22E-01	2.36E-01	2.48E-01	2.60E-01	2.70E-01	2.79E-01	2.88E-01	3.23E-01	3.59E-01	3.63E-01
ra224	6.04E-06	6.31E-06	6.98E-06	7.65E-06	8.33E-06	9.00E-06	9.67E-06	1.03E-05	1.44E-05	2.78E-05	3.46E-05
ra225	8.93E-01	9.44E-01	1.07E+00	1.19E+00	1.32E+00	1.43E+00	1.55E+00	1.67E+00	2.30E+00	4.06E+00	4.36E+00
ra226	4.25E+00	4.41E+00	4.79E+00	5.16E+00	5.50E+00	5.81E+00	6.11E+00	6.39E+00	7.89E+00	9.29E+00	9.21E+00
ra228	5.82E-06	6.10E-06	6.77E-06	7.45E-06	8.13E-06	8.81E-06	9.49E-06	1.02E-05	1.42E-05	2.78E-05	3.45E-05
ac225	8.93E-01	9.44E-01	1.07E+00	1.19E+00	1.32E+00	1.43E+00	1.55E+00	1.67E+00	2.30E+00	4.06E+00	4.36E+00
ac227	2.16E-01	2.22E-01	2.36E-01	2.48E-01	2.60E-01	2.70E-01	2.79E-01	2.88E-01	3.23E-01	3.59E-01	3.63E-01
ac228	5.82E-06	6.10E-06	6.77E-06	7.45E-06	8.13E-06	8.81E-06	9.49E-06	1.02E-05	1.42E-05	2.78E-05	3.45E-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	2.13E-01	2.19E-01	2.33E-01	2.45E-01	2.56E-01	2.66E-01	2.76E-01	2.84E-01	3.19E-01	3.54E-01	3.58E-01
th228	6.04E-06	6.31E-06	6.98E-06	7.65E-06	8.33E-06	9.00E-06	9.67E-06	1.03E-05	1.44E-05	2.78E-05	3.46E-05
th229	8.93E-01	9.44E-01	1.07E+00	1.19E+00	1.32E+00	1.43E+00	1.55E+00	1.67E+00	2.30E+00	4.06E+00	4.36E+00
th230	4.44E+00	4.59E+00	4.97E+00	5.32E+00	5.65E+00	5.96E+00	6.24E+00	6.51E+00	7.78E+00	9.22E+00	9.09E+00
th231	3.61E-01	3.61E-01	3.61E-01	3.62E-01	3.62E-01	3.62E-01	3.63E-01	3.63E-01	3.64E-01	3.64E-01	3.64E-01

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	5.82E-06	6.10E-06	6.77E-06	7.45E-06	8.13E-06	8.81E-06	9.49E-06	1.02E-05	1.42E-05	2.78E-05	3.45E-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	2.16E-01	2.22E-01	2.36E-01	2.48E-01	2.60E-01	2.70E-01	2.79E-01	2.88E-01	3.23E-01	3.59E-01	3.63E-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	6.90E+00	6.89E+00	6.88E+00	6.87E+00	6.86E+00	6.85E+00	6.84E+00	6.82E+00	6.76E+00	6.54E+00	6.44E+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	2.16E-07	2.13E-07	2.07E-07	2.01E-07	1.95E-07	1.89E-07	1.84E-07	1.78E-07	1.49E-07	8.13E-08	6.02E-08
u233	1.18E+00	1.23E+00	1.35E+00	1.47E+00	1.59E+00	1.70E+00	1.81E+00	1.92E+00	2.52E+00	3.97E+00	4.47E+00
u234	1.30E+01	1.30E+01	1.29E+01	1.27E+01	1.26E+01	1.24E+01	1.23E+01	1.22E+01	1.14E+01	9.33E+00	8.48E+00
u235	3.61E-01	3.61E-01	3.61E-01	3.62E-01	3.62E-01	3.62E-01	3.63E-01	3.63E-01	3.64E-01	3.64E-01	3.64E-01
u236	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.75E+00	2.74E+00	2.73E+00
u237	7.86E-19	6.68E-19	4.44E-19	2.95E-19	1.96E-19	1.31E-19	8.69E-20	5.78E-20	5.00E-21	1.43E-24	2.43E-26
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	1.72E-27	1.80E-27	2.01E-27	2.22E-27	2.43E-27	2.64E-27	2.84E-27	3.04E-27	4.21E-27	7.61E-27	9.07E-27
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	2.43E-06	2.40E-06	2.33E-06	2.26E-06	2.19E-06	2.13E-06	2.06E-06	2.00E-06	1.67E-06	9.14E-07	6.76E-07
np237	6.90E+00	6.89E+00	6.88E+00	6.87E+00	6.86E+00	6.85E+00	6.84E+00	6.82E+00	6.76E+00	6.54E+00	6.44E+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	1.90E-07	1.57E-07	9.81E-08	6.13E-08	3.83E-08	2.39E-08	1.50E-08	9.35E-09	5.56E-10	4.58E-14	4.16E-16
np240m	1.72E-27	1.80E-27	2.01E-27	2.22E-27	2.43E-27	2.64E-27	2.84E-27	3.04E-27	4.21E-27	7.61E-27	9.07E-27
np240	2.05E-30	2.17E-30	2.42E-30	2.67E-30	2.92E-30	3.17E-30	3.40E-30	3.65E-30	5.04E-30	9.13E-30	1.09E-29
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	2.16E-07	2.13E-07	2.07E-07	2.01E-07	1.95E-07	1.89E-07	1.84E-07	1.78E-07	1.49E-07	8.13E-08	6.02E-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	1.08E+02	1.02E+02	8.82E+01	7.64E+01	6.61E+01	5.73E+01	4.96E+01	4.30E+01	1.81E+01	1.02E+00	2.43E-01
pu240	4.43E-01	3.59E-01	2.11E-01	1.25E-01	7.35E-02	4.34E-02	2.56E-02	1.51E-02	6.34E-04	1.64E-08	8.34E-11
pu241	3.29E-14	2.79E-14	1.86E-14	1.24E-14	8.22E-15	5.47E-15	3.64E-15	2.42E-15	2.09E-16	6.00E-20	1.02E-21
pu242	1.96E-05	1.95E-05	1.93E-05	1.91E-05	1.90E-05	1.88E-05	1.86E-05	1.84E-05	1.74E-05	1.45E-05	1.32E-05
pu243	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.49E-22	1.49E-22
pu244	1.72E-27	1.80E-27	2.02E-27	2.23E-27	2.43E-27	2.64E-27	2.84E-27	3.05E-27	4.21E-27	7.62E-27	9.08E-27
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	3.43E-14	2.91E-14	1.86E-14	1.24E-14	8.22E-15	5.47E-15	3.64E-15	2.42E-15	2.09E-16	6.32E-20	1.02E-21
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	1.90E-07	1.57E-07	9.81E-08	6.13E-08	3.83E-08	2.39E-08	1.50E-08	9.35E-09	5.56E-10	4.58E-14	4.16E-16
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 5K 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	3.28E-14	2.79E-14	1.85E-14	1.23E-14	8.20E-15	5.46E-15	3.63E-15	2.41E-15	2.09E-16	5.99E-20	1.02E-21
cm246	2.34E-17	1.74E-17	8.38E-18	4.03E-18	1.94E-18	9.31E-19	4.47E-19	2.15E-19	2.65E-21	1.15E-27	7.53E-31
cm247	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.50E-22	1.49E-22	1.49E-22
cm248	5.39E-24	5.37E-24	5.31E-24	5.26E-24	5.21E-24	5.15E-24	5.10E-24	5.05E-24	4.75E-24	3.87E-24	3.50E-24
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	2.00E+02	1.96E+02	1.87E+02	1.80E+02	1.74E+02	1.70E+02	1.66E+02	1.63E+02	1.58E+02	1.68E+02	1.68E+02

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05	9.49E-05
li 7	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06	2.29E-06
be 9	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06	4.42E-06
be 10	2.89E-05	2.89E-05	2.89E-05	2.88E-05	2.87E-05	2.87E-05	2.86E-05	2.85E-05	2.82E-05	2.70E-05	2.64E-05
c 14	4.50E-08	3.53E-08	1.93E-08	1.05E-08	5.76E-09	3.14E-09	1.72E-09	9.37E-10	2.49E-11	1.38E-16	3.26E-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	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-08	7.52E-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	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08	1.28E-08
zn 68	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-10	6.92E-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	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08	2.17E-08
zn 70	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07	5.31E-07
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	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10	4.98E-10
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	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-06	6.77E-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	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-04	6.82E-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	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03	2.85E-03
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	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03	2.47E-03
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	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02	2.82E-02
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 5K 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	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-02	9.28E-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	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05	1.17E-05
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	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
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	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-01	5.54E-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	1.05E+00	1.04E+00	1.03E+00	1.02E+00	1.01E+00	9.98E-01	9.88E-01	9.78E-01	9.18E-01	7.44E-01	6.70E-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	9.29E-02	9.73E-02	1.08E-01	1.19E-01	1.30E-01	1.40E-01	1.51E-01	1.61E-01	2.21E-01	3.95E-01	4.69E-01
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	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+00	3.37E+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	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06	5.14E-06

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	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00	5.03E+00
kr 81	1.05E-07	1.04E-07	1.03E-07	1.01E-07	9.94E-08	9.78E-08	9.62E-08	9.47E-08	8.59E-08	6.20E-08	5.27E-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 5K 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	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+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	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03	5.27E-03
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	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01	1.42E+01
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	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01	2.89E+01
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	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01
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	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+01	5.38E+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	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
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	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01	7.04E+01
sr 87	1.69E-04	1.71E-04	1.76E-04	1.81E-04	1.86E-04	1.91E-04	1.96E-04	2.01E-04	2.32E-04	3.33E-04	3.84E-04
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 5K 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	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02	1.01E+02
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	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02	1.37E+02
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	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02	1.68E+02
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	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02	1.72E+02
nb 91	3.18E-28	4.14E-29	2.53E-31	1.55E-33	9.47E-36	5.79E-38	3.54E-40	2.17E-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	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02	1.76E+02
nb 92	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08	1.46E-08
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	1.24E+02	1.24E+02	1.23E+02	1.23E+02	1.23E+02	1.23E+02	1.22E+02	1.22E+02	1.20E+02	1.15E+02	1.12E+02
nb 93	2.29E+00	2.40E+00	2.68E+00	2.96E+00	3.24E+00	3.52E+00	3.80E+00	4.07E+00	5.72E+00	1.11E+01	1.36E+01
nb 93m	1.31E-03	1.30E-03	1.30E-03	1.30E-03	1.30E-03	1.29E-03	1.29E-03	1.29E-03	1.27E-03	1.21E-03	1.19E-03
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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 171

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
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	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02
nb 94	1.58E-05	1.47E-05	1.24E-05	1.05E-05	8.84E-06	7.45E-06	6.28E-06	5.29E-06	1.90E-06	6.25E-08	1.13E-08
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	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02	1.99E+02
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	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02	1.95E+02
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	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01	2.44E-01
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	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02
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	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02	1.86E+02
tc 98	3.17E-05	3.17E-05	3.17E-05	3.16E-05	3.16E-05	3.16E-05	3.16E-05	3.15E-05	3.14E-05	3.09E-05	3.06E-05
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	1.73E+02	1.72E+02	1.69E+02	1.66E+02	1.63E+02	1.61E+02	1.58E+02	1.56E+02	1.41E+02	1.01E+02	8.61E+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	2.46E+01	2.57E+01	2.85E+01	3.12E+01	3.40E+01	3.66E+01	3.92E+01	4.18E+01	5.64E+01	9.58E+01	1.11E+02

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 5K 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	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02	2.05E+02
tc100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru100	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01	4.36E-01
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	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02	1.70E+02
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	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02	1.45E+02
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	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02	1.09E+02
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	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+01	7.03E+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	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+00	1.19E+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	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01	2.06E+01
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	9.77E+00	9.77E+00	9.77E+00	9.76E+00	9.76E+00	9.75E+00	9.75E+00	9.74E+00	9.71E+00	9.61E+00	9.56E+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	4.20E-02	4.41E-02	4.93E-02	5.45E-02	5.97E-02	6.49E-02	7.01E-02	7.53E-02	1.06E-01	2.09E-01	2.61E-01
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	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+00	5.35E+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	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06	2.38E-06
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	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+00	3.58E+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	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+00	1.87E+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

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02	2.78E-02
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	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+00	1.13E+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	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-01	7.83E-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	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01	1.90E-01
cd113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in113	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02
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	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+00	1.12E+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	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06	7.66E-06
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	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01	4.50E-01
in115m	.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 5K yr burn fission products page 175

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	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02

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	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-01	7.12E-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	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03	5.47E-03
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	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01	5.02E-01
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	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01	4.89E-01
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	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-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	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-01	5.36E-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 5K 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	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
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	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-01	6.85E-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	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04	2.57E-04
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	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01	7.06E-01
te123	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08	4.75E-08
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	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+00	1.16E+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	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-04	7.94E-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	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+00	1.34E+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	1.54E+00	1.52E+00	1.47E+00	1.42E+00	1.37E+00	1.32E+00	1.28E+00	1.23E+00	1.00E+00	5.01E-01	3.54E-01

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	7.31E-08	7.21E-08	6.97E-08	6.73E-08	6.50E-08	6.28E-08	6.07E-08	5.86E-08	4.76E-08	2.38E-08	1.68E-08
sb126m	5.56E-10	5.48E-10	5.30E-10	5.12E-10	4.94E-10	4.77E-10	4.61E-10	4.46E-10	3.62E-10	1.81E-10	1.28E-10
te126	5.13E-01	5.34E-01	5.86E-01	6.36E-01	6.84E-01	7.31E-01	7.76E-01	8.19E-01	1.05E+00	1.55E+00	1.70E+00
xe126	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10	2.36E-10
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	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+00	5.66E+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	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01	1.54E+01
i128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe128	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03	2.31E-03
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	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.30E+01	3.29E+01	3.29E+01	3.29E+01	3.29E+01	3.27E+01	3.27E+01
xe129	5.90E-02	6.19E-02	6.92E-02	7.65E-02	8.37E-02	9.10E-02	9.83E-02	1.06E-01	1.49E-01	2.94E-01	3.66E-01
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	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+01	7.56E+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	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02	4.97E-02
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	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02	1.24E+02
xe131m	.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 5K 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	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02	1.90E+02
cs132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba132	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07	4.14E-07

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	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02	2.91E+02
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	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02	3.43E+02
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	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01	7.98E-01
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	2.87E+02	2.87E+02	2.86E+02	2.86E+02	2.85E+02	2.85E+02	2.85E+02	2.84E+02	2.82E+02	2.73E+02	2.69E+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	3.52E+00	3.70E+00	4.13E+00	4.56E+00	4.99E+00	5.42E+00	5.85E+00	6.28E+00	8.83E+00	1.72E+01	2.13E+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	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02	2.81E+02
cs136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01	5.29E-01
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 5K yr burn fission products page 179

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
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	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02	2.82E+02
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	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02	3.00E+02
la138	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03
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	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02
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	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02	2.87E+02
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	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02	2.66E+02
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	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02
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	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01
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

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 180

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	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02	2.70E+02
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	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02	2.57E+02

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	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02	1.84E+02
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	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02	1.43E+02
pm146	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm146	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.38E-05	6.37E-05	6.37E-05
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	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.08E+02
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	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+01	8.14E+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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01	6.52E-01
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	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+00	7.89E+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	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01	3.33E+01
pm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01	4.54E+01
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	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01	1.71E+01
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	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01	1.69E+01
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	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00	2.00E+00
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	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+00	8.99E+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
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 182

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	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+00	4.24E+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	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01	1.45E-01
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	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-01	7.02E-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	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+00	2.25E+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	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-02	5.42E-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	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01	6.67E-01
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	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-02	9.66E-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	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02	3.72E-02
tb160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy160	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04
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 5K 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	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02	1.43E-02
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	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03	6.06E-03
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	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03	2.28E-03
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	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04	7.78E-04
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	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04	3.77E-04
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	8.69E-17	2.74E-17	1.52E-18	8.48E-20	4.72E-21	2.63E-22	1.46E-23	8.15E-25	2.43E-32	.00E+00	.00E+00
er166	4.73E-05	4.73E-05	4.73E-05	4.73E-05	4.73E-05	4.73E-05	4.73E-05	4.73E-05	4.73E-05	4.73E-05	4.73E-05
er167	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08	5.75E-08
er167m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08	3.50E-08
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	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08	7.86E-08
yb169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er170	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08	8.42E-08
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	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10	4.53E-10
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	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07
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	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08	8.13E-08
total	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03	7.57E+03

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	6.47E-07	6.47E-07	6.45E-07	6.44E-07	6.42E-07	6.41E-07	6.40E-07	6.38E-07	6.30E-07	6.03E-07	5.90E-07
c 14	2.01E-07	1.58E-07	8.61E-08	4.70E-08	2.57E-08	1.40E-08	7.65E-09	4.18E-09	1.11E-10	6.17E-16	1.45E-18
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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.44E-02	1.43E-02	1.41E-02	1.40E-02	1.38E-02	1.37E-02	1.36E-02	1.34E-02	1.26E-02	1.02E-02	9.19E-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	2.18E-09	2.16E-09	2.13E-09	2.09E-09	2.06E-09	2.03E-09	1.99E-09	1.96E-09	1.78E-09	1.29E-09	1.09E-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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 186

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
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	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-06	6.02E-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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.84E-27	2.39E-28	1.46E-30	.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	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.63E-12	1.62E-12	1.62E-12	1.62E-12
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	3.11E-01	3.11E-01	3.10E-01	3.09E-01	3.09E-01	3.08E-01	3.07E-01	3.07E-01	3.03E-01	2.89E-01	2.83E-01
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	3.11E-01	3.11E-01	3.10E-01	3.09E-01	3.09E-01	3.08E-01	3.07E-01	3.07E-01	3.03E-01	2.89E-01	2.83E-01
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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 188

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
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	2.96E-06	2.76E-06	2.33E-06	1.96E-06	1.66E-06	1.40E-06	1.18E-06	9.92E-07	3.56E-07	1.17E-08	2.12E-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	.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	2.76E-08	2.75E-08	2.75E-08	2.75E-08	2.75E-08	2.75E-08	2.74E-08	2.74E-08	2.73E-08	2.68E-08	2.66E-08
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	2.96E+00	2.94E+00	2.89E+00	2.84E+00	2.80E+00	2.75E+00	2.71E+00	2.66E+00	2.41E+00	1.74E+00	1.47E+00
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 5K yr burn fission products page 189

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
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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 190

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
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	5.03E-03	5.03E-03	5.02E-03	5.02E-03	5.02E-03	5.02E-03	5.01E-03	5.01E-03	4.99E-03	4.94E-03	4.91E-03
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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 191

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
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	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-14	6.45E-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	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12	3.17E-12
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 5K yr burn fission products page 192

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
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

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17	1.11E-17
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	4.37E-02	4.31E-02	4.16E-02	4.02E-02	3.88E-02	3.75E-02	3.62E-02	3.50E-02	2.84E-02	1.42E-02	1.01E-02

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 194

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
sb126	6.12E-03	6.03E-03	5.83E-03	5.63E-03	5.44E-03	5.25E-03	5.07E-03	4.90E-03	3.98E-03	1.99E-03	1.41E-03
sb126m	4.37E-02	4.31E-02	4.16E-02	4.02E-02	3.88E-02	3.75E-02	3.62E-02	3.50E-02	2.84E-02	1.42E-02	1.01E-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	.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	5.82E-03	5.82E-03	5.82E-03	5.82E-03	5.82E-03	5.82E-03	5.82E-03	5.82E-03	5.81E-03	5.78E-03	5.77E-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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	3.30E-01	3.30E-01	3.30E-01	3.29E-01	3.29E-01	3.28E-01	3.28E-01	3.27E-01	3.24E-01	3.15E-01	3.10E-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	.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

1
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 196

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	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11	3.84E-11
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	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-06	6.49E-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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10	3.06E-10
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	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09	1.52E-09
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	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06	2.48E-06
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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 198

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
sm148	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13	1.99E-13
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	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-12	1.89E-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	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11	4.35E-11
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

1
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 199

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

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 200

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	1.56E-16	4.91E-17	2.73E-18	1.52E-19	8.48E-21	4.72E-22	2.63E-23	1.46E-24	4.56E-32	.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	4.03E+00	4.01E+00	3.95E+00	3.90E+00	3.85E+00	3.80E+00	3.75E+00	3.70E+00	3.43E+00	2.68E+00	2.39E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.65E+02	3.06E+02	4.60E+02	7.78E+02
tl206	5.59E-14	5.37E-14	4.08E-14	2.35E-14
tl207	1.90E-09	1.90E-09	1.91E-09	1.91E-09
tl208	4.19E-14	5.01E-14	8.26E-14	1.63E-13
tl209	2.24E-10	2.44E-10	2.92E-10	2.77E-10
pb206	7.30E+02	9.10E+02	1.53E+03	2.53E+03
pb207	3.03E+01	3.76E+01	6.68E+01	1.40E+02
pb208	8.31E-03	9.07E-03	1.35E-02	3.39E-02
pb209	9.46E-07	1.03E-06	1.23E-06	1.17E-06
pb210	1.21E-01	1.16E-01	8.80E-02	5.08E-02
pb211	1.47E-08	1.47E-08	1.48E-08	1.47E-08
pb212	2.49E-11	2.97E-11	4.90E-11	9.68E-11
pb214	2.81E-07	2.70E-07	2.05E-07	1.18E-07
bi208	.00E+00	.00E+00	.00E+00	.00E+00
bi209	2.63E+02	3.56E+02	7.90E+02	1.94E+03
bi210m	.00E+00	.00E+00	.00E+00	.00E+00
bi210	7.42E-05	7.12E-05	5.42E-05	3.12E-05
bi211	8.71E-10	8.73E-10	8.74E-10	8.74E-10
bi212	2.36E-12	2.82E-12	4.65E-12	9.18E-12
bi213	2.25E-07	2.46E-07	2.93E-07	2.78E-07
bi214	2.09E-07	2.00E-07	1.52E-07	8.78E-08
po210	2.05E-03	1.97E-03	1.50E-03	8.63E-04
po211m	1.00E+00	.00E+00	.00E+00	.00E+00
po211	9.62E-15	9.65E-15	9.66E-15	9.66E-15
po212	1.24E-22	1.48E-22	2.44E-22	4.82E-22
po213	3.39E-16	3.69E-16	4.41E-16	4.18E-16
po214	2.87E-14	2.75E-14	2.09E-14	1.21E-14

po215	1.23E-14	1.23E-14	1.24E-14	1.23E-14
po216	9.59E-17	1.15E-16	1.89E-16	3.73E-16
po218	3.31E-08	3.18E-08	2.42E-08	1.39E-08
at217	2.71E-12	2.96E-12	3.53E-12	3.35E-12
rn218	.00E+00	.00E+00	.00E+00	.00E+00
rn219	2.79E-11	2.80E-11	2.80E-11	2.80E-11
rn220	3.75E-14	4.47E-14	7.38E-14	1.46E-13
rn222	5.99E-05	5.75E-05	4.37E-05	2.52E-05
fr221	2.51E-08	2.74E-08	3.27E-08	3.10E-08
fr223	1.29E-10	1.30E-10	1.30E-10	1.30E-10
ra222	.00E+00	.00E+00	.00E+00	.00E+00
ra223	7.08E-06	7.10E-06	7.11E-06	7.11E-06
ra224	2.17E-10	2.59E-10	4.27E-10	8.44E-10
ra225	1.11E-04	1.21E-04	1.45E-04	1.38E-04
ra226	9.32E+00	8.94E+00	6.80E+00	3.92E+00
ra228	1.26E-07	1.51E-07	2.50E-07	4.93E-07
ac225	7.52E-05	8.20E-05	9.79E-05	9.29E-05
ac227	5.01E-03	5.03E-03	5.03E-03	5.03E-03
ac228	1.54E-11	1.84E-11	3.05E-11	6.02E-11
th226	.00E+00	.00E+00	.00E+00	.00E+00
th227	1.16E-05	1.17E-05	1.17E-05	1.17E-05
th228	4.22E-08	5.04E-08	8.31E-08	1.64E-07
th229	2.20E+01	2.40E+01	2.87E+01	2.72E+01
th230	4.41E+02	4.23E+02	3.25E+02	1.88E+02
th231	6.85E-07	6.85E-07	6.85E-07	6.85E-07

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 202

0

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

	initial	300000. yr	500000. yr	999999. yr
th232	3.15E+02	3.76E+02	6.21E+02	1.23E+03
th233	.00E+00	.00E+00	.00E+00	.00E+00
th234	1.26E-04	1.26E-04	1.26E-04	1.26E-04
pa231	7.67E+00	7.70E+00	7.71E+00	7.71E+00
pa232	.00E+00	.00E+00	.00E+00	.00E+00
pa233	3.10E-04	3.05E-04	2.86E-04	2.43E-04
pa234m	4.23E-09	4.23E-09	4.23E-09	4.23E-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	2.72E-09	2.02E-09	6.04E-10	2.96E-11
u233	4.63E+02	5.02E+02	5.78E+02	5.56E+02
u234	1.36E+03	1.25E+03	9.10E+02	5.76E+02
u235	1.69E+05	1.68E+05	1.68E+05	1.68E+05
u236	4.22E+04	4.22E+04	4.19E+04	4.13E+04
u237	2.98E-31	5.04E-33	4.15E-40	.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	9.79E-33	1.12E-32	1.56E-32	2.12E-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	5.13E-05	3.80E-05	1.14E-05	5.58E-07
np237	9.13E+03	8.98E+03	8.42E+03	7.16E+03
np238	.00E+00	.00E+00	.00E+00	.00E+00
np239	1.79E-21	1.62E-23	6.35E-28	6.21E-28
np240m	8.36E-35	9.57E-35	1.33E-34	1.81E-34
np240	8.60E-37	9.84E-37	1.37E-36	1.86E-36
np241	.00E+00	.00E+00	.00E+00	.00E+00

```
     pu236   1.15E-10  8.52E-11  2.55E-11  1.25E-12
     pu237    .00E+00   .00E+00   .00E+00   .00E+00
     pu238    .00E+00   .00E+00   .00E+00   .00E+00
     pu239   3.91E+00  9.29E-01  2.96E-03  1.69E-09
     pu240   3.67E-10  1.87E-12  1.25E-21  8.65E-26
     pu241   9.83E-24  1.66E-25  1.37E-32   .00E+00
     pu242   3.34E-03  3.04E-03  2.10E-03  8.30E-04
     pu243   5.72E-29  5.71E-29  5.66E-29  5.54E-29
     pu244   4.96E-22  5.68E-22  7.92E-22  1.07E-21
     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   2.96E-22  5.02E-24  4.35E-31   .00E+00
     am242m   .00E+00   .00E+00   .00E+00   .00E+00
     am242    .00E+00   .00E+00   .00E+00   .00E+00
     am243   2.08E-15  1.89E-17  7.38E-22  7.22E-22
     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  5K yr burn                                actinides        page  203
0                                          nuclide concentrations, grams
                                           basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. 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   5.91E-21  1.00E-22  8.24E-30   .00E+00
     cm246   2.46E-30  1.62E-33   .00E+00   .00E+00
     cm247   1.65E-18  1.64E-18  1.63E-18  1.59E-18
     cm248   8.25E-22  7.45E-22  4.95E-22  1.79E-22
     cm249    .00E+00   .00E+00   .00E+00   .00E+00
     cm250   4.76E-41  6.66E-42   .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     8.87E+06  8.87E+06  8.87E+06  8.87E+06
1
     Part B 8% UO2 in Tuff (47%  H2O) DBF Fuel  5K yr burn                                actinides        page  204
0                                          nuclide radioactivity, curies
                                           basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. yr
     he  4    .00E+00   .00E+00   .00E+00   .00E+00
     tl206   1.22E-05  1.17E-05  8.87E-06  5.12E-06
```

tl207	3.62E-01	3.63E-01	3.63E-01	3.63E-01
tl208	1.24E-05	1.48E-05	2.45E-05	4.84E-05
tl209	9.16E-02	1.00E-01	1.19E-01	1.13E-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	4.36E+00	4.76E+00	5.68E+00	5.39E+00
pb210	9.21E+00	8.84E+00	6.72E+00	3.88E+00
pb211	3.63E-01	3.64E-01	3.64E-01	3.64E-01
pb212	3.46E-05	4.13E-05	6.81E-05	1.35E-04
pb214	9.21E+00	8.84E+00	6.72E+00	3.88E+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	9.21E+00	8.84E+00	6.72E+00	3.88E+00
bi211	3.63E-01	3.64E-01	3.64E-01	3.64E-01
bi212	3.46E-05	4.13E-05	6.81E-05	1.35E-04
bi213	4.36E+00	4.76E+00	5.68E+00	5.39E+00
bi214	9.21E+00	8.84E+00	6.72E+00	3.88E+00
po210	9.21E+00	8.84E+00	6.72E+00	3.88E+00
po211m	.00E+00	.00E+00	.00E+00	.00E+00
po211	9.97E-04	1.00E-03	1.00E-03	1.00E-03
po212	2.21E-05	2.65E-05	4.36E-05	8.62E-05
po213	4.27E+00	4.66E+00	5.56E+00	5.28E+00
po214	9.21E+00	8.84E+00	6.72E+00	3.88E+00
po215	3.63E-01	3.64E-01	3.64E-01	3.64E-01
po216	3.46E-05	4.13E-05	6.81E-05	1.35E-04
po218	9.21E+00	8.84E+00	6.73E+00	3.88E+00
at217	4.36E+00	4.76E+00	5.68E+00	5.39E+00
rn218	.00E+00	.00E+00	.00E+00	.00E+00
rn219	3.63E-01	3.64E-01	3.64E-01	3.64E-01
rn220	3.46E-05	4.13E-05	6.81E-05	1.35E-04
rn222	9.21E+00	8.84E+00	6.73E+00	3.88E+00
fr221	4.36E+00	4.76E+00	5.68E+00	5.39E+00
fr223	5.01E-03	5.02E-03	5.03E-03	5.02E-03
ra222	.00E+00	.00E+00	.00E+00	.00E+00
ra223	3.63E-01	3.64E-01	3.64E-01	3.64E-01
ra224	3.46E-05	4.13E-05	6.81E-05	1.35E-04
ra225	4.36E+00	4.76E+00	5.68E+00	5.39E+00
ra226	9.21E+00	8.84E+00	6.73E+00	3.88E+00
ra228	3.45E-05	4.12E-05	6.81E-05	1.35E-04
ac225	4.36E+00	4.76E+00	5.68E+00	5.39E+00
ac227	3.63E-01	3.64E-01	3.64E-01	3.64E-01
ac228	3.45E-05	4.12E-05	6.81E-05	1.35E-04
th226	.00E+00	.00E+00	.00E+00	.00E+00
th227	3.58E-01	3.59E-01	3.59E-01	3.59E-01
th228	3.46E-05	4.13E-05	6.81E-05	1.35E-04
th229	4.36E+00	4.76E+00	5.68E+00	5.39E+00
th230	9.09E+00	8.72E+00	6.70E+00	3.88E+00
th231	3.64E-01	3.64E-01	3.64E-01	3.64E-01

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	3.45E-05	4.12E-05	6.81E-05	1.35E-04
th233	.00E+00	.00E+00	.00E+00	.00E+00
th234	2.91E+00	2.91E+00	2.91E+00	2.91E+00
pa231	3.63E-01	3.64E-01	3.64E-01	3.64E-01
pa232	.00E+00	.00E+00	.00E+00	.00E+00

pa233	6.44E+00	6.33E+00	5.94E+00	5.05E+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	6.02E-08	4.45E-08	1.33E-08	6.55E-10
u233	4.47E+00	4.84E+00	5.58E+00	5.36E+00
u234	8.48E+00	7.75E+00	5.66E+00	3.58E+00
u235	3.64E-01	3.64E-01	3.64E-01	3.64E-01
u236	2.73E+00	2.73E+00	2.71E+00	2.67E+00
u237	2.43E-26	4.12E-28	.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	9.07E-27	1.04E-26	1.45E-26	1.96E-26
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	6.76E-07	5.00E-07	1.50E-07	7.35E-09
np237	6.44E+00	6.33E+00	5.94E+00	5.05E+00
np238	.00E+00	.00E+00	.00E+00	.00E+00
np239	4.16E-16	3.77E-18	1.47E-22	1.44E-22
np240m	9.07E-27	1.04E-26	1.45E-26	1.96E-26
np240	1.09E-29	1.25E-29	1.74E-29	2.36E-29
np241	.00E+00	.00E+00	.00E+00	.00E+00
pu236	6.02E-08	4.45E-08	1.33E-08	6.55E-10
pu237	.00E+00	.00E+00	.00E+00	.00E+00
pu238	.00E+00	.00E+00	.00E+00	.00E+00
pu239	2.43E-01	5.77E-02	1.83E-04	1.05E-10
pu240	8.34E-11	4.24E-13	2.83E-22	1.96E-26
pu241	1.02E-21	1.72E-23	1.41E-30	.00E+00
pu242	1.32E-05	1.20E-05	8.30E-06	3.28E-06
pu243	1.49E-22	1.49E-22	1.47E-22	1.44E-22
pu244	9.08E-27	1.04E-26	1.45E-26	1.97E-26
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	1.02E-21	1.72E-23	1.48E-30	.00E+00
am242m	.00E+00	.00E+00	.00E+00	.00E+00
am242	.00E+00	.00E+00	.00E+00	.00E+00
am243	4.16E-16	3.77E-18	1.47E-22	1.44E-22
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 5K 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	1.02E-21	1.72E-23	1.41E-30	.00E+00
cm246	7.53E-31	.00E+00	.00E+00	.00E+00
cm247	1.49E-22	1.49E-22	1.47E-22	1.44E-22
cm248	3.50E-24	3.16E-24	2.10E-24	7.58E-25
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	1.68E+02	1.67E+02	1.51E+02	1.16E+02

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	9.49E-05	9.49E-05	9.49E-05	9.49E-05
li 7	2.29E-06	2.29E-06	2.29E-06	2.29E-06
be 9	4.42E-06	4.42E-06	4.42E-06	4.42E-06
be 10	2.64E-05	2.58E-05	2.37E-05	1.91E-05
c 14	3.26E-19	7.69E-22	2.38E-32	.00E+00
ni 66	.00E+00	.00E+00	.00E+00	.00E+00
cu 66	.00E+00	.00E+00	.00E+00	.00E+00
zn 66	7.52E-08	7.52E-08	7.52E-08	7.52E-08
cu 67	.00E+00	.00E+00	.00E+00	.00E+00
zn 67	1.28E-08	1.28E-08	1.28E-08	1.28E-08
zn 68	6.92E-10	6.92E-10	6.92E-10	6.92E-10
zn 69	.00E+00	.00E+00	.00E+00	.00E+00
zn 69m	.00E+00	.00E+00	.00E+00	.00E+00
ga 69	2.17E-08	2.17E-08	2.17E-08	2.17E-08
zn 70	5.31E-07	5.31E-07	5.31E-07	5.31E-07
ga 70	.00E+00	.00E+00	.00E+00	.00E+00
ge 70	4.98E-10	4.98E-10	4.98E-10	4.98E-10
zn 71	.00E+00	.00E+00	.00E+00	.00E+00
zn 71m	.00E+00	.00E+00	.00E+00	.00E+00
ga 71	6.77E-06	6.77E-06	6.77E-06	6.77E-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	6.82E-04	6.82E-04	6.82E-04	6.82E-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	2.85E-03	2.85E-03	2.85E-03	2.85E-03
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	2.47E-03	2.47E-03	2.47E-03	2.47E-03
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	2.82E-02	2.82E-02	2.82E-02	2.82E-02
ni 76	.00E+00	.00E+00	.00E+00	.00E+00
cu 76	.00E+00	.00E+00	.00E+00	.00E+00

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 208

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	9.28E-02	9.28E-02	9.28E-02	9.28E-02
as 76	.00E+00	.00E+00	.00E+00	.00E+00
se 76	1.17E-05	1.17E-05	1.17E-05	1.17E-05
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	2.07E-01	2.07E-01	2.07E-01	2.07E-01
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	5.54E-01	5.54E-01	5.54E-01	5.54E-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	6.70E-01	6.03E-01	3.96E-01	1.38E-01
se 79m	.00E+00	.00E+00	.00E+00	.00E+00
br 79	4.69E-01	5.36E-01	7.43E-01	1.00E+00
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	3.37E+00	3.37E+00	3.37E+00	3.37E+00
br 80	.00E+00	.00E+00	.00E+00	.00E+00
br 80m	.00E+00	.00E+00	.00E+00	.00E+00
kr 80	5.14E-06	5.14E-06	5.14E-06	5.14E-06

```
     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    5.03E+00  5.03E+00  5.03E+00  5.03E+00
     kr 81    5.27E-08  4.48E-08  2.34E-08  4.59E-09
     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  5K yr burn                                  fission products        page  209
0                                                 nuclide concentrations, grams
                                                  basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. 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    8.60E+00  8.60E+00  8.60E+00  8.60E+00
     br 82     .00E+00   .00E+00   .00E+00   .00E+00
     br 82m    .00E+00   .00E+00   .00E+00   .00E+00
     kr 82    5.27E-03  5.27E-03  5.27E-03  5.27E-03
     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    1.42E+01  1.42E+01  1.42E+01  1.42E+01
     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    2.89E+01  2.89E+01  2.89E+01  2.89E+01
     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    3.33E+01  3.33E+01  3.33E+01  3.33E+01
     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    5.38E+01  5.38E+01  5.38E+01  5.38E+01
     rb 86     .00E+00   .00E+00   .00E+00   .00E+00
     rb 86m    .00E+00   .00E+00   .00E+00   .00E+00
     sr 86    1.14E-03  1.14E-03  1.14E-03  1.14E-03
     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   7.04E+01  7.04E+01  7.04E+01  7.04E+01
     sr 87   3.84E-04  4.35E-04  6.38E-04  1.15E-03
     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  5K yr burn                    fission products        page  210
0                                        nuclide concentrations, grams
                                         basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. 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   1.01E+02  1.01E+02  1.01E+02  1.01E+02
     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   1.37E+02  1.37E+02  1.37E+02  1.37E+02
      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   1.68E+02  1.68E+02  1.68E+02  1.68E+02
     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   1.72E+02  1.72E+02  1.72E+02  1.72E+02
     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   1.76E+02  1.76E+02  1.76E+02  1.76E+02
     nb 92   1.46E-08  1.46E-08  1.45E-08  1.44E-08
     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    1.12E+02  1.10E+02  1.00E+02  8.01E+01
     nb 93    1.36E+01  1.61E+01  2.57E+01  4.60E+01
     nb 93m   1.19E-03  1.16E-03  1.06E-03  8.44E-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  5K yr burn                                  fission products        page  211
0                                          nuclide concentrations, grams
                                           basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. yr
     sr 94     .00E+00   .00E+00   .00E+00   .00E+00
      y 94     .00E+00   .00E+00   .00E+00   .00E+00
     zr 94    1.95E+02  1.95E+02  1.95E+02  1.95E+02
     nb 94    1.13E-08  2.05E-09  2.22E-12  8.54E-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    1.99E+02  1.99E+02  1.99E+02  1.99E+02
     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    1.95E+02  1.95E+02  1.95E+02  1.95E+02
     nb 96     .00E+00   .00E+00   .00E+00   .00E+00
     mo 96    2.44E-01  2.44E-01  2.44E-01  2.44E-01
     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    1.78E+02  1.78E+02  1.78E+02  1.78E+02
     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    1.86E+02  1.86E+02  1.86E+02  1.86E+02
     tc 98    3.06E-05  3.04E-05  2.94E-05  2.70E-05
     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    8.61E+01  7.31E+01  3.79E+01  7.34E+00
     tc 99m    .00E+00   .00E+00   .00E+00   .00E+00
     ru 99    1.11E+02  1.24E+02  1.59E+02  1.90E+02
```

```
     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  5K yr burn                                  fission products        page  212
0                                          nuclide concentrations, grams
                                           basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. 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    2.05E+02  2.05E+02  2.05E+02  2.05E+02
     tc100     .00E+00   .00E+00   .00E+00   .00E+00
     ru100    4.36E-01  4.36E-01  4.36E-01  4.36E-01
     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    1.70E+02  1.70E+02  1.70E+02  1.70E+02
     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    1.45E+02  1.45E+02  1.45E+02  1.45E+02
     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    1.09E+02  1.09E+02  1.09E+02  1.09E+02
     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    7.03E+01  7.03E+01  7.03E+01  7.03E+01
     rh104     .00E+00   .00E+00   .00E+00   .00E+00
     rh104m    .00E+00   .00E+00   .00E+00   .00E+00
     pd104    1.19E+00  1.19E+00  1.19E+00  1.19E+00
      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    4.14E+01  4.14E+01  4.14E+01  4.14E+01
```

1
Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	2.06E+01	2.06E+01	2.06E+01	2.06E+01
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	9.56E+00	9.51E+00	9.30E+00	8.82E+00
pd107m	.00E+00	.00E+00	.00E+00	.00E+00
ag107	2.61E-01	3.11E-01	5.12E-01	9.95E-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	5.35E+00	5.35E+00	5.35E+00	5.35E+00
ag108	.00E+00	.00E+00	.00E+00	.00E+00
ag108m	.00E+00	.00E+00	.00E+00	.00E+00
cd108	2.38E-06	2.38E-06	2.38E-06	2.38E-06
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	3.58E+00	3.58E+00	3.58E+00	3.58E+00
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	1.87E+00	1.87E+00	1.87E+00	1.87E+00
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 5K 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	2.78E-02	2.78E-02	2.78E-02	2.78E-02
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	1.13E+00	1.13E+00	1.13E+00	1.13E+00
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	7.83E-01	7.83E-01	7.83E-01	7.83E-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	1.90E-01	1.90E-01	1.90E-01	1.90E-01
cd113m	.00E+00	.00E+00	.00E+00	.00E+00
in113	1.15E-02	1.15E-02	1.15E-02	1.15E-02
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	1.12E+00	1.12E+00	1.12E+00	1.12E+00
in114	.00E+00	.00E+00	.00E+00	.00E+00
in114m	.00E+00	.00E+00	.00E+00	.00E+00
sn114	7.66E-06	7.66E-06	7.66E-06	7.66E-06
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	4.50E-01	4.50E-01	4.50E-01	4.50E-01
in115m	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% N2O) DBF Fuel 5K 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	2.29E-02	2.29E-02	2.29E-02	2.29E-02

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	7.12E-01	7.12E-01	7.12E-01	7.12E-01
in116	.00E+00	.00E+00	.00E+00	.00E+00
in116m	.00E+00	.00E+00	.00E+00	.00E+00
sn116	5.47E-03	5.47E-03	5.47E-03	5.47E-03
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	5.02E-01	5.02E-01	5.02E-01	5.02E-01
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	4.89E-01	4.89E-01	4.89E-01	4.89E-01
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	5.36E-01	5.36E-01	5.36E-01	5.36E-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	5.36E-01	5.36E-01	5.36E-01	5.36E-01
rh121	.00E+00	.00E+00	.00E+00	.00E+00

1

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

0

nuclide concentrations, grams fission products page 216

basis =per critical mass 10.1 MT UO2

	initial	300000. 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	5.84E-01	5.84E-01	5.84E-01	5.84E-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	6.85E-01	6.85E-01	6.85E-01	6.85E-01
sb122	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	.00E+00	.00E+00	.00E+00	.00E+00
te122	2.57E-04	2.57E-04	2.57E-04	2.57E-04
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	7.06E-01	7.06E-01	7.06E-01	7.06E-01
te123	4.75E-08	4.75E-08	4.75E-08	4.75E-08
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	1.16E+00	1.16E+00	1.16E+00	1.16E+00
sb124	.00E+00	.00E+00	.00E+00	.00E+00
sb124m	.00E+00	.00E+00	.00E+00	.00E+00
te124	7.94E-04	7.94E-04	7.94E-04	7.94E-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	1.34E+00	1.34E+00	1.34E+00	1.34E+00
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	3.54E-01	2.50E-01	6.26E-02	1.96E-03

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.68E-08	1.19E-08	2.97E-09	9.30E-11
sb126m	1.28E-10	9.05E-11	2.26E-11	7.07E-13
te126	1.70E+00	1.80E+00	1.99E+00	2.05E+00
xe126	2.36E-10	2.36E-10	2.36E-10	2.36E-10
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	5.66E+00	5.66E+00	5.66E+00	5.66E+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	1.54E+01	1.54E+01	1.54E+01	1.54E+01
i128	.00E+00	.00E+00	.00E+00	.00E+00
xe128	2.31E-03	2.31E-03	2.31E-03	2.31E-03
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	3.27E+01	3.26E+01	3.23E+01	3.16E+01
xe129	3.66E-01	4.38E-01	7.25E-01	1.43E+00
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	7.56E+01	7.56E+01	7.56E+01	7.56E+01
i130	.00E+00	.00E+00	.00E+00	.00E+00
i130m	.00E+00	.00E+00	.00E+00	.00E+00
xe130	4.97E-02	4.97E-02	4.97E-02	4.97E-02
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	1.24E+02	1.24E+02	1.24E+02	1.24E+02
xe131m	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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	1.90E+02	1.90E+02	1.90E+02	1.90E+02
cs132	.00E+00	.00E+00	.00E+00	.00E+00
ba132	4.14E-07	4.14E-07	4.14E-07	4.14E-07

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	2.91E+02	2.91E+02	2.91E+02	2.91E+02
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	3.43E+02	3.43E+02	3.43E+02	3.43E+02
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	7.98E-01	7.98E-01	7.98E-01	7.98E-01
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	2.69E+02	2.65E+02	2.50E+02	2.15E+02
cs135m	.00E+00	.00E+00	.00E+00	.00E+00
ba135	2.13E+01	2.53E+01	4.08E+01	7.57E+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	2.81E+02	2.81E+02	2.81E+02	2.81E+02
cs136	.00E+00	.00E+00	.00E+00	.00E+00
ba136	5.29E-01	5.29E-01	5.29E-01	5.29E-01
ba136m	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 219

0

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

	initial	300000. 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	2.82E+02	2.82E+02	2.82E+02	2.82E+02
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	3.00E+02	3.00E+02	3.00E+02	3.00E+02
la138	1.56E-03	1.56E-03	1.56E-03	1.56E-03
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	2.87E+02	2.87E+02	2.87E+02	2.87E+02
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	2.87E+02	2.87E+02	2.87E+02	2.87E+02
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	2.66E+02	2.66E+02	2.66E+02	2.66E+02
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	2.70E+02	2.70E+02	2.70E+02	2.70E+02
pr142	.00E+00	.00E+00	.00E+00	.00E+00
pr142m	.00E+00	.00E+00	.00E+00	.00E+00
nd142	1.41E-01	1.41E-01	1.41E-01	1.41E-01
i143	.00E+00	.00E+00	.00E+00	.00E+00

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 220

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

	initial	300000. 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	2.70E+02	2.70E+02	2.70E+02	2.70E+02
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	2.57E+02	2.57E+02	2.57E+02	2.57E+02

i145	.00E+00	.00E+00	.00E+00	.00E+00
xe145	.00E+00	.00E+00	.00E+00	.00E+00
cs145	.00E+00	.00E+00	.00E+00	.00E+00
ba145	.00E+00	.00E+00	.00E+00	.00E+00
la145	.00E+00	.00E+00	.00E+00	.00E+00
ce145	.00E+00	.00E+00	.00E+00	.00E+00
pr145	.00E+00	.00E+00	.00E+00	.00E+00
nd145	1.84E+02	1.84E+02	1.84E+02	1.84E+02
pm145	.00E+00	.00E+00	.00E+00	.00E+00
sm145	.00E+00	.00E+00	.00E+00	.00E+00
xe146	.00E+00	.00E+00	.00E+00	.00E+00
cs146	.00E+00	.00E+00	.00E+00	.00E+00
ba146	.00E+00	.00E+00	.00E+00	.00E+00
la146	.00E+00	.00E+00	.00E+00	.00E+00
ce146	.00E+00	.00E+00	.00E+00	.00E+00
pr146	.00E+00	.00E+00	.00E+00	.00E+00
nd146	1.43E+02	1.43E+02	1.43E+02	1.43E+02
pm146	.00E+00	.00E+00	.00E+00	.00E+00
sm146	6.37E-05	6.37E-05	6.36E-05	6.34E-05
xe147	.00E+00	.00E+00	.00E+00	.00E+00
cs147	.00E+00	.00E+00	.00E+00	.00E+00
ba147	.00E+00	.00E+00	.00E+00	.00E+00
la147	.00E+00	.00E+00	.00E+00	.00E+00
ce147	.00E+00	.00E+00	.00E+00	.00E+00
pr147	.00E+00	.00E+00	.00E+00	.00E+00
nd147	.00E+00	.00E+00	.00E+00	.00E+00
pm147	.00E+00	.00E+00	.00E+00	.00E+00
sm147	1.08E+02	1.08E+02	1.08E+02	1.08E+02
cs148	.00E+00	.00E+00	.00E+00	.00E+00
ba148	.00E+00	.00E+00	.00E+00	.00E+00
la148	.00E+00	.00E+00	.00E+00	.00E+00
ce148	.00E+00	.00E+00	.00E+00	.00E+00
pr148	.00E+00	.00E+00	.00E+00	.00E+00
nd148	8.14E+01	8.14E+01	8.14E+01	8.14E+01
pm148	.00E+00	.00E+00	.00E+00	.00E+00
pm148m	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 221

0

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

	initial	300000. yr	500000. yr	999999. yr
sm148	6.52E-01	6.52E-01	6.52E-01	6.52E-01
cs149	.00E+00	.00E+00	.00E+00	.00E+00
ba149	.00E+00	.00E+00	.00E+00	.00E+00
la149	.00E+00	.00E+00	.00E+00	.00E+00
ce149	.00E+00	.00E+00	.00E+00	.00E+00
pr149	.00E+00	.00E+00	.00E+00	.00E+00
nd149	.00E+00	.00E+00	.00E+00	.00E+00
pm149	.00E+00	.00E+00	.00E+00	.00E+00
sm149	7.89E+00	7.89E+00	7.89E+00	7.89E+00
eu149	.00E+00	.00E+00	.00E+00	.00E+00
cs150	.00E+00	.00E+00	.00E+00	.00E+00
ba150	.00E+00	.00E+00	.00E+00	.00E+00
la150	.00E+00	.00E+00	.00E+00	.00E+00
ce150	.00E+00	.00E+00	.00E+00	.00E+00
pr150	.00E+00	.00E+00	.00E+00	.00E+00
nd150	3.33E+01	3.33E+01	3.33E+01	3.33E+01
pm150	.00E+00	.00E+00	.00E+00	.00E+00
sm150	4.54E+01	4.54E+01	4.54E+01	4.54E+01
eu150	.00E+00	.00E+00	.00E+00	.00E+00

```
     ba151     .00E+00   .00E+00   .00E+00   .00E+00
     la151     .00E+00   .00E+00   .00E+00   .00E+00
     ce151     .00E+00   .00E+00   .00E+00   .00E+00
     pr151     .00E+00   .00E+00   .00E+00   .00E+00
     nd151     .00E+00   .00E+00   .00E+00   .00E+00
     pm151     .00E+00   .00E+00   .00E+00   .00E+00
     sm151     .00E+00   .00E+00   .00E+00   .00E+00
     eu151    1.71E+01  1.71E+01  1.71E+01  1.71E+01
     ba152     .00E+00   .00E+00   .00E+00   .00E+00
     la152     .00E+00   .00E+00   .00E+00   .00E+00
     ce152     .00E+00   .00E+00   .00E+00   .00E+00
     pr152     .00E+00   .00E+00   .00E+00   .00E+00
     nd152     .00E+00   .00E+00   .00E+00   .00E+00
     pm152     .00E+00   .00E+00   .00E+00   .00E+00
     pm152m    .00E+00   .00E+00   .00E+00   .00E+00
     sm152    1.69E+01  1.69E+01  1.69E+01  1.69E+01
     eu152     .00E+00   .00E+00   .00E+00   .00E+00
     eu152m    .00E+00   .00E+00   .00E+00   .00E+00
     gd152    2.00E+00  2.00E+00  2.00E+00  2.00E+00
     la153     .00E+00   .00E+00   .00E+00   .00E+00
     ce153     .00E+00   .00E+00   .00E+00   .00E+00
     pr153     .00E+00   .00E+00   .00E+00   .00E+00
     nd153     .00E+00   .00E+00   .00E+00   .00E+00
     pm153     .00E+00   .00E+00   .00E+00   .00E+00
     sm153     .00E+00   .00E+00   .00E+00   .00E+00
     eu153    8.99E+00  8.99E+00  8.99E+00  8.99E+00
     gd153     .00E+00   .00E+00   .00E+00   .00E+00
     la154     .00E+00   .00E+00   .00E+00   .00E+00
     ce154     .00E+00   .00E+00   .00E+00   .00E+00
     pr154     .00E+00   .00E+00   .00E+00   .00E+00
     nd154     .00E+00   .00E+00   .00E+00   .00E+00
     pm154     .00E+00   .00E+00   .00E+00   .00E+00
     pm154m    .00E+00   .00E+00   .00E+00   .00E+00
1
     Part B 8% UO2 in Tuff (47%  H2O) DBF Fuel  5K yr burn                    fission products        page  222
0                                          nuclide concentrations, grams
                                           basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. yr
     sm154    4.24E+00  4.24E+00  4.24E+00  4.24E+00
     eu154     .00E+00   .00E+00   .00E+00   .00E+00
     gd154    1.45E-01  1.45E-01  1.45E-01  1.45E-01
     la155     .00E+00   .00E+00   .00E+00   .00E+00
     ce155     .00E+00   .00E+00   .00E+00   .00E+00
     pr155     .00E+00   .00E+00   .00E+00   .00E+00
     nd155     .00E+00   .00E+00   .00E+00   .00E+00
     pm155     .00E+00   .00E+00   .00E+00   .00E+00
     sm155     .00E+00   .00E+00   .00E+00   .00E+00
     eu155     .00E+00   .00E+00   .00E+00   .00E+00
     gd155m    .00E+00   .00E+00   .00E+00   .00E+00
     gd155    7.02E-01  7.02E-01  7.02E-01  7.02E-01
     ce156     .00E+00   .00E+00   .00E+00   .00E+00
     pr156     .00E+00   .00E+00   .00E+00   .00E+00
     nd156     .00E+00   .00E+00   .00E+00   .00E+00
     pm156     .00E+00   .00E+00   .00E+00   .00E+00
     sm156     .00E+00   .00E+00   .00E+00   .00E+00
     eu156     .00E+00   .00E+00   .00E+00   .00E+00
     gd156    2.25E+00  2.25E+00  2.25E+00  2.25E+00
     ce157     .00E+00   .00E+00   .00E+00   .00E+00
     pr157     .00E+00   .00E+00   .00E+00   .00E+00
     nd157     .00E+00   .00E+00   .00E+00   .00E+00
```

pm157	.00E+00	.00E+00	.00E+00	.00E+00
sm157	.00E+00	.00E+00	.00E+00	.00E+00
eu157	.00E+00	.00E+00	.00E+00	.00E+00
gd157	5.42E-02	5.42E-02	5.42E-02	5.42E-02
pr158	.00E+00	.00E+00	.00E+00	.00E+00
nd158	.00E+00	.00E+00	.00E+00	.00E+00
pm158	.00E+00	.00E+00	.00E+00	.00E+00
sm158	.00E+00	.00E+00	.00E+00	.00E+00
eu158	.00E+00	.00E+00	.00E+00	.00E+00
gd158	6.67E-01	6.67E-01	6.67E-01	6.67E-01
pr159	.00E+00	.00E+00	.00E+00	.00E+00
nd159	.00E+00	.00E+00	.00E+00	.00E+00
pm159	.00E+00	.00E+00	.00E+00	.00E+00
sm159	.00E+00	.00E+00	.00E+00	.00E+00
eu159	.00E+00	.00E+00	.00E+00	.00E+00
gd159	.00E+00	.00E+00	.00E+00	.00E+00
tb159	9.66E-02	9.66E-02	9.66E-02	9.66E-02
nd160	.00E+00	.00E+00	.00E+00	.00E+00
pm160	.00E+00	.00E+00	.00E+00	.00E+00
sm160	.00E+00	.00E+00	.00E+00	.00E+00
eu160	.00E+00	.00E+00	.00E+00	.00E+00
gd160	3.72E-02	3.72E-02	3.72E-02	3.72E-02
tb160	.00E+00	.00E+00	.00E+00	.00E+00
dy160	1.48E-04	1.48E-04	1.48E-04	1.48E-04
nd161	.00E+00	.00E+00	.00E+00	.00E+00
pm161	.00E+00	.00E+00	.00E+00	.00E+00
sm161	.00E+00	.00E+00	.00E+00	.00E+00
eu161	.00E+00	.00E+00	.00E+00	.00E+00
gd161	.00E+00	.00E+00	.00E+00	.00E+00
tb161	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 223

0

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

	initial	300000. yr	500000. yr	999999. yr
dy161	1.43E-02	1.43E-02	1.43E-02	1.43E-02
pm162	.00E+00	.00E+00	.00E+00	.00E+00
sm162	.00E+00	.00E+00	.00E+00	.00E+00
eu162	.00E+00	.00E+00	.00E+00	.00E+00
gd162	.00E+00	.00E+00	.00E+00	.00E+00
tb162	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	.00E+00	.00E+00	.00E+00	.00E+00
dy162	6.06E-03	6.06E-03	6.06E-03	6.06E-03
sm163	.00E+00	.00E+00	.00E+00	.00E+00
eu163	.00E+00	.00E+00	.00E+00	.00E+00
gd163	.00E+00	.00E+00	.00E+00	.00E+00
tb163	.00E+00	.00E+00	.00E+00	.00E+00
tb163m	.00E+00	.00E+00	.00E+00	.00E+00
dy163	2.28E-03	2.28E-03	2.28E-03	2.28E-03
sm164	.00E+00	.00E+00	.00E+00	.00E+00
eu164	.00E+00	.00E+00	.00E+00	.00E+00
gd164	.00E+00	.00E+00	.00E+00	.00E+00
tb164	.00E+00	.00E+00	.00E+00	.00E+00
dy164	7.78E-04	7.78E-04	7.78E-04	7.78E-04
sm165	.00E+00	.00E+00	.00E+00	.00E+00
eu165	.00E+00	.00E+00	.00E+00	.00E+00
gd165	.00E+00	.00E+00	.00E+00	.00E+00
tb165	.00E+00	.00E+00	.00E+00	.00E+00
dy165	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	.00E+00	.00E+00	.00E+00	.00E+00

ho165	3.77E-04	3.77E-04	3.77E-04	3.77E-04
dy166	.00E+00	.00E+00	.00E+00	.00E+00
ho166	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	.00E+00	.00E+00	.00E+00	.00E+00
er166	4.73E-05	4.73E-05	4.73E-05	4.73E-05
er167	5.75E-08	5.75E-08	5.75E-08	5.75E-08
er167m	.00E+00	.00E+00	.00E+00	.00E+00
er168	3.50E-08	3.50E-08	3.50E-08	3.50E-08
yb168	.00E+00	.00E+00	.00E+00	.00E+00
er169	.00E+00	.00E+00	.00E+00	.00E+00
tm169	7.86E-08	7.86E-08	7.86E-08	7.86E-08
yb169	.00E+00	.00E+00	.00E+00	.00E+00
er170	8.42E-08	8.42E-08	8.42E-08	8.42E-08
tm170	.00E+00	.00E+00	.00E+00	.00E+00
tm170m	.00E+00	.00E+00	.00E+00	.00E+00
yb170	4.53E-10	4.53E-10	4.53E-10	4.53E-10
er171	.00E+00	.00E+00	.00E+00	.00E+00
tm171	.00E+00	.00E+00	.00E+00	.00E+00
yb171	1.19E-07	1.19E-07	1.19E-07	1.19E-07
er172	.00E+00	.00E+00	.00E+00	.00E+00
tm172	.00E+00	.00E+00	.00E+00	.00E+00
yb172	8.13E-08	8.13E-08	8.13E-08	8.13E-08
total	7.57E+03	7.57E+03	7.57E+03	7.57E+03

1

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

0 nuclide radioactivity, curies fission products page 224

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	.00E+00	.00E+00	.00E+00	.00E+00
li 7	.00E+00	.00E+00	.00E+00	.00E+00
be 9	.00E+00	.00E+00	.00E+00	.00E+00
be 10	5.90E-07	5.78E-07	5.30E-07	4.27E-07
c 14	1.45E-18	3.43E-21	1.14E-31	.00E+00
ni 66	.00E+00	.00E+00	.00E+00	.00E+00
cu 66	.00E+00	.00E+00	.00E+00	.00E+00
zn 66	.00E+00	.00E+00	.00E+00	.00E+00
cu 67	.00E+00	.00E+00	.00E+00	.00E+00
zn 67	.00E+00	.00E+00	.00E+00	.00E+00
zn 68	.00E+00	.00E+00	.00E+00	.00E+00
zn 69	.00E+00	.00E+00	.00E+00	.00E+00
zn 69m	.00E+00	.00E+00	.00E+00	.00E+00
ga 69	.00E+00	.00E+00	.00E+00	.00E+00
zn 70	.00E+00	.00E+00	.00E+00	.00E+00
ga 70	.00E+00	.00E+00	.00E+00	.00E+00
ge 70	.00E+00	.00E+00	.00E+00	.00E+00
zn 71	.00E+00	.00E+00	.00E+00	.00E+00
zn 71m	.00E+00	.00E+00	.00E+00	.00E+00
ga 71	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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 5K yr burn

0 nuclide radioactivity, curies fission products page 225

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	.00E+00	.00E+00	.00E+00	.00E+00
as 76	.00E+00	.00E+00	.00E+00	.00E+00
se 76	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	9.19E-03	8.28E-03	5.44E-03	1.90E-03
se 79m	.00E+00	.00E+00	.00E+00	.00E+00
br 79	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
br 80	.00E+00	.00E+00	.00E+00	.00E+00
br 80m	.00E+00	.00E+00	.00E+00	.00E+00
kr 80	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
kr 81	1.09E-09	9.28E-10	4.84E-10	9.51E-11
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 5K yr burn

0

nuclide radioactivity, curies fission products page 226

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	.00E+00	.00E+00	.00E+00	.00E+00
br 82	.00E+00	.00E+00	.00E+00	.00E+00
br 82m	.00E+00	.00E+00	.00E+00	.00E+00
kr 82	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+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	.00E+00	.00E+00	.00E+00	.00E+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	.00E+00	.00E+00	.00E+00	.00E+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	.00E+00	.00E+00	.00E+00	.00E+00

rb 86	.00E+00	.00E+00	.00E+00	.00E+00
rb 86m	.00E+00	.00E+00	.00E+00	.00E+00
sr 86	.00E+00	.00E+00	.00E+00	.00E+00
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	6.02E-06	6.02E-06	6.02E-06	6.02E-06
sr 87	.00E+00	.00E+00	.00E+00	.00E+00
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 5K yr burn

0 fission products page 227

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

	initial	300000. 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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
nb 92	1.62E-12	1.62E-12	1.61E-12	1.60E-12
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    2.83E-01  2.76E-01  2.52E-01  2.01E-01
     nb 93     .00E+00   .00E+00   .00E+00   .00E+00
     nb 93m   2.83E-01  2.76E-01  2.52E-01  2.01E-01
     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  5K yr burn                                  fission products        page  228
0                                                nuclide radioactivity, curies
                                                 basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. yr
     sr 94     .00E+00   .00E+00   .00E+00   .00E+00
      y 94     .00E+00   .00E+00   .00E+00   .00E+00
     zr 94     .00E+00   .00E+00   .00E+00   .00E+00
     nb 94    2.12E-09  3.85E-10  4.16E-13  1.60E-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     .00E+00   .00E+00   .00E+00   .00E+00
     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     .00E+00   .00E+00   .00E+00   .00E+00
     nb 96     .00E+00   .00E+00   .00E+00   .00E+00
     mo 96     .00E+00   .00E+00   .00E+00   .00E+00
     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     .00E+00   .00E+00   .00E+00   .00E+00
     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     .00E+00   .00E+00   .00E+00   .00E+00
     tc 98    2.66E-08  2.64E-08  2.55E-08  2.35E-08
     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	1.47E+00	1.25E+00	6.48E-01	1.26E-01
tc 99m	.00E+00	.00E+00	.00E+00	.00E+00
ru 99	.00E+00	.00E+00	.00E+00	.00E+00
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 5K yr burn fission products page 229
0 nuclide radioactivity, curies
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	.00E+00	.00E+00	.00E+00	.00E+00
tc100	.00E+00	.00E+00	.00E+00	.00E+00
ru100	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
rh104	.00E+00	.00E+00	.00E+00	.00E+00
rh104m	.00E+00	.00E+00	.00E+00	.00E+00
pd104	.00E+00	.00E+00	.00E+00	.00E+00
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    .00E+00   .00E+00   .00E+00   .00E+00
1
     Part B 8% UO2 in Tuff (47%  H2O) DBF Fuel  5K yr burn                                  fission products        page  230
0                                                 nuclide radioactivity, curies
                                                  basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. 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    .00E+00   .00E+00   .00E+00   .00E+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   4.91E-03  4.89E-03  4.79E-03  4.54E-03
     pd107m   .00E+00   .00E+00   .00E+00   .00E+00
     ag107    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
     ag108    .00E+00   .00E+00   .00E+00   .00E+00
     ag108m   .00E+00   .00E+00   .00E+00   .00E+00
     cd108    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
```

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 5K yr burn

0

nuclide radioactivity, curies — fission products —

basis =per critical mass 10.1 MT UO2

	initial	300000. yr	500000. yr	999999. yr
cd110	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	6.45E-14	6.45E-14	6.45E-14	6.45E-14
cd113m	.00E+00	.00E+00	.00E+00	.00E+00
in113	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
in114	.00E+00	.00E+00	.00E+00	.00E+00
in114m	.00E+00	.00E+00	.00E+00	.00E+00
sn114	.00E+00	.00E+00	.00E+00	.00E+00
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	3.17E-12	3.17E-12	3.17E-12	3.17E-12
in115m	.00E+00	.00E+00	.00E+00	.00E+00

1

```
     Part B 8% UO2 in Tuff (47%  H2O) DBF Fuel  5K yr burn                                  fission products        page  232
0                                               nuclide radioactivity, curies
                                                basis =per critical mass 10.1 MT UO2
              initial300000. yr500000. yr999999. yr
     sn115    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
     in116    .00E+00   .00E+00   .00E+00   .00E+00
     in116m   .00E+00   .00E+00   .00E+00   .00E+00
     sn116    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
     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    .00E+00   .00E+00   .00E+00   .00E+00
     rh121    .00E+00   .00E+00   .00E+00   .00E+00
1
     Part B 8% UO2 in Tuff (47%  H2O) DBF Fuel  5K yr burn                                  fission products        page  233
0                                               nuclide radioactivity, curies
                                                basis =per critical mass 10.1 MT UO2
```

	initial	300000. 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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
sb122	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	.00E+00	.00E+00	.00E+00	.00E+00
te122	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
te123	1.11E-17	1.11E-17	1.11E-17	1.11E-17
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	.00E+00	.00E+00	.00E+00	.00E+00
sb124	.00E+00	.00E+00	.00E+00	.00E+00
sb124m	.00E+00	.00E+00	.00E+00	.00E+00
te124	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	1.01E-02	7.11E-03	1.78E-03	5.55E-05

1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 234

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

	initial	300000. yr	500000. yr	999999. yr
sb126	1.41E-03	9.95E-04	2.49E-04	7.77E-06
sb126m	1.01E-02	7.11E-03	1.78E-03	5.55E-05

te126	.00E+00	.00E+00	.00E+00	.00E+00
xe126	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+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	.00E+00	.00E+00	.00E+00	.00E+00
i128	.00E+00	.00E+00	.00E+00	.00E+00
xe128	.00E+00	.00E+00	.00E+00	.00E+00
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	5.77E-03	5.76E-03	5.71E-03	5.58E-03
xe129	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
i130	.00E+00	.00E+00	.00E+00	.00E+00
i130m	.00E+00	.00E+00	.00E+00	.00E+00
xe130	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
xe131m	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 235

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

	initial300000. yr500000. yr999999. 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	.00E+00	.00E+00	.00E+00	.00E+00
cs132	.00E+00	.00E+00	.00E+00	.00E+00
ba132	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	3.10E-01	3.05E-01	2.87E-01	2.47E-01
cs135m	.00E+00	.00E+00	.00E+00	.00E+00
ba135	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
cs136	.00E+00	.00E+00	.00E+00	.00E+00
ba136	.00E+00	.00E+00	.00E+00	.00E+00
ba136m	.00E+00	.00E+00	.00E+00	.00E+00

1

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

0 nuclide radioactivity, curies fission products page 236

basis =per critical mass 10.1 MT UO2

	initial	300000. 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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
la138	3.84E-11	3.84E-11	3.84E-11	3.84E-11
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	.00E+00	.00E+00	.00E+00	.00E+00
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	6.49E-06	6.49E-06	6.49E-06	6.49E-06
pr142	.00E+00	.00E+00	.00E+00	.00E+00
pr142m	.00E+00	.00E+00	.00E+00	.00E+00
nd142	.00E+00	.00E+00	.00E+00	.00E+00
i143	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 237

0

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

	initial	300000. 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	.00E+00	.00E+00	.00E+00	.00E+00
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	3.06E-10	3.06E-10	3.06E-10	3.06E-10
i145	.00E+00	.00E+00	.00E+00	.00E+00
xe145	.00E+00	.00E+00	.00E+00	.00E+00
cs145	.00E+00	.00E+00	.00E+00	.00E+00
ba145	.00E+00	.00E+00	.00E+00	.00E+00
la145	.00E+00	.00E+00	.00E+00	.00E+00
ce145	.00E+00	.00E+00	.00E+00	.00E+00
pr145	.00E+00	.00E+00	.00E+00	.00E+00
nd145	.00E+00	.00E+00	.00E+00	.00E+00
pm145	.00E+00	.00E+00	.00E+00	.00E+00
sm145	.00E+00	.00E+00	.00E+00	.00E+00
xe146	.00E+00	.00E+00	.00E+00	.00E+00
cs146	.00E+00	.00E+00	.00E+00	.00E+00
ba146	.00E+00	.00E+00	.00E+00	.00E+00
la146	.00E+00	.00E+00	.00E+00	.00E+00
ce146	.00E+00	.00E+00	.00E+00	.00E+00
pr146	.00E+00	.00E+00	.00E+00	.00E+00
nd146	.00E+00	.00E+00	.00E+00	.00E+00
pm146	.00E+00	.00E+00	.00E+00	.00E+00
sm146	1.52E-09	1.51E-09	1.51E-09	1.51E-09
xe147	.00E+00	.00E+00	.00E+00	.00E+00
cs147	.00E+00	.00E+00	.00E+00	.00E+00
ba147	.00E+00	.00E+00	.00E+00	.00E+00
la147	.00E+00	.00E+00	.00E+00	.00E+00
ce147	.00E+00	.00E+00	.00E+00	.00E+00
pr147	.00E+00	.00E+00	.00E+00	.00E+00
nd147	.00E+00	.00E+00	.00E+00	.00E+00
pm147	.00E+00	.00E+00	.00E+00	.00E+00
sm147	2.48E-06	2.48E-06	2.48E-06	2.48E-06
cs148	.00E+00	.00E+00	.00E+00	.00E+00
ba148	.00E+00	.00E+00	.00E+00	.00E+00
la148	.00E+00	.00E+00	.00E+00	.00E+00
ce148	.00E+00	.00E+00	.00E+00	.00E+00
pr148	.00E+00	.00E+00	.00E+00	.00E+00
nd148	.00E+00	.00E+00	.00E+00	.00E+00
pm148	.00E+00	.00E+00	.00E+00	.00E+00
pm148m	.00E+00	.00E+00	.00E+00	.00E+00

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 238

0

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

	initial	300000. yr	500000. yr	999999. yr
sm148	1.99E-13	1.99E-13	1.99E-13	1.99E-13
cs149	.00E+00	.00E+00	.00E+00	.00E+00
ba149	.00E+00	.00E+00	.00E+00	.00E+00
la149	.00E+00	.00E+00	.00E+00	.00E+00
ce149	.00E+00	.00E+00	.00E+00	.00E+00
pr149	.00E+00	.00E+00	.00E+00	.00E+00
nd149	.00E+00	.00E+00	.00E+00	.00E+00
pm149	.00E+00	.00E+00	.00E+00	.00E+00
sm149	1.89E-12	1.89E-12	1.89E-12	1.89E-12
eu149	.00E+00	.00E+00	.00E+00	.00E+00
cs150	.00E+00	.00E+00	.00E+00	.00E+00
ba150	.00E+00	.00E+00	.00E+00	.00E+00
la150	.00E+00	.00E+00	.00E+00	.00E+00
ce150	.00E+00	.00E+00	.00E+00	.00E+00

pr150	.00E+00	.00E+00	.00E+00	.00E+00
nd150	.00E+00	.00E+00	.00E+00	.00E+00
pm150	.00E+00	.00E+00	.00E+00	.00E+00
sm150	.00E+00	.00E+00	.00E+00	.00E+00
eu150	.00E+00	.00E+00	.00E+00	.00E+00
ba151	.00E+00	.00E+00	.00E+00	.00E+00
la151	.00E+00	.00E+00	.00E+00	.00E+00
ce151	.00E+00	.00E+00	.00E+00	.00E+00
pr151	.00E+00	.00E+00	.00E+00	.00E+00
nd151	.00E+00	.00E+00	.00E+00	.00E+00
pm151	.00E+00	.00E+00	.00E+00	.00E+00
sm151	.00E+00	.00E+00	.00E+00	.00E+00
eu151	.00E+00	.00E+00	.00E+00	.00E+00
ba152	.00E+00	.00E+00	.00E+00	.00E+00
la152	.00E+00	.00E+00	.00E+00	.00E+00
ce152	.00E+00	.00E+00	.00E+00	.00E+00
pr152	.00E+00	.00E+00	.00E+00	.00E+00
nd152	.00E+00	.00E+00	.00E+00	.00E+00
pm152	.00E+00	.00E+00	.00E+00	.00E+00
pm152m	.00E+00	.00E+00	.00E+00	.00E+00
sm152	.00E+00	.00E+00	.00E+00	.00E+00
eu152	.00E+00	.00E+00	.00E+00	.00E+00
eu152m	.00E+00	.00E+00	.00E+00	.00E+00
gd152	4.35E-11	4.35E-11	4.35E-11	4.35E-11
la153	.00E+00	.00E+00	.00E+00	.00E+00
ce153	.00E+00	.00E+00	.00E+00	.00E+00
pr153	.00E+00	.00E+00	.00E+00	.00E+00
nd153	.00E+00	.00E+00	.00E+00	.00E+00
pm153	.00E+00	.00E+00	.00E+00	.00E+00
sm153	.00E+00	.00E+00	.00E+00	.00E+00
eu153	.00E+00	.00E+00	.00E+00	.00E+00
gd153	.00E+00	.00E+00	.00E+00	.00E+00
la154	.00E+00	.00E+00	.00E+00	.00E+00
ce154	.00E+00	.00E+00	.00E+00	.00E+00
pr154	.00E+00	.00E+00	.00E+00	.00E+00
nd154	.00E+00	.00E+00	.00E+00	.00E+00
pm154	.00E+00	.00E+00	.00E+00	.00E+00
pm154m	.00E+00	.00E+00	.00E+00	.00E+00

1
0 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 239

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

	initial	300000. yr	500000. yr	999999. yr
sm154	.00E+00	.00E+00	.00E+00	.00E+00
eu154	.00E+00	.00E+00	.00E+00	.00E+00
gd154	.00E+00	.00E+00	.00E+00	.00E+00
la155	.00E+00	.00E+00	.00E+00	.00E+00
ce155	.00E+00	.00E+00	.00E+00	.00E+00
pr155	.00E+00	.00E+00	.00E+00	.00E+00
nd155	.00E+00	.00E+00	.00E+00	.00E+00
pm155	.00E+00	.00E+00	.00E+00	.00E+00
sm155	.00E+00	.00E+00	.00E+00	.00E+00
eu155	.00E+00	.00E+00	.00E+00	.00E+00
gd155m	.00E+00	.00E+00	.00E+00	.00E+00
gd155	.00E+00	.00E+00	.00E+00	.00E+00
ce156	.00E+00	.00E+00	.00E+00	.00E+00
pr156	.00E+00	.00E+00	.00E+00	.00E+00
nd156	.00E+00	.00E+00	.00E+00	.00E+00
pm156	.00E+00	.00E+00	.00E+00	.00E+00
sm156	.00E+00	.00E+00	.00E+00	.00E+00

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

1

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 240

0

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

	initial	300000. yr	500000. yr	999999. yr
dy161	.00E+00	.00E+00	.00E+00	.00E+00
pm162	.00E+00	.00E+00	.00E+00	.00E+00
sm162	.00E+00	.00E+00	.00E+00	.00E+00
eu162	.00E+00	.00E+00	.00E+00	.00E+00
gd162	.00E+00	.00E+00	.00E+00	.00E+00
tb162	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	.00E+00	.00E+00	.00E+00	.00E+00
dy162	.00E+00	.00E+00	.00E+00	.00E+00
sm163	.00E+00	.00E+00	.00E+00	.00E+00
eu163	.00E+00	.00E+00	.00E+00	.00E+00
gd163	.00E+00	.00E+00	.00E+00	.00E+00
tb163	.00E+00	.00E+00	.00E+00	.00E+00
tb163m	.00E+00	.00E+00	.00E+00	.00E+00
dy163	.00E+00	.00E+00	.00E+00	.00E+00
sm164	.00E+00	.00E+00	.00E+00	.00E+00
eu164	.00E+00	.00E+00	.00E+00	.00E+00
gd164	.00E+00	.00E+00	.00E+00	.00E+00
tb164	.00E+00	.00E+00	.00E+00	.00E+00
dy164	.00E+00	.00E+00	.00E+00	.00E+00
sm165	.00E+00	.00E+00	.00E+00	.00E+00