















	ag110	ag110m	Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn	nuclide radioactivity, curies							fission products		page 31
	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				
1	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				
0	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				

Part B 8X UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn										fission products	page 32
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	.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	.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	.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	.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	.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	.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	.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	2.05E-03	2.05E-03	2.05E-03	.00E+00	.00E+00	.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	.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	6.33E-08	6.33E-08	6.33E-08	.00E+00	.00E+00	.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	.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	.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	.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	.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	.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	.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	.00E+00	.00E+00
in117	2.91E-01	2.91E-01	2.91E-01	2.91E-01	1.86E-03	.00E+00	.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	.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	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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	1.04E-05	1.04E-05	1.04E-05	.00E+00	.00E+00	.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	.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	.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	.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	.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	.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	.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	.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	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	.00E+00	.00E+00
ru120	1.24E-06	1.24E-06	1.24E-06	.00E+00	.00E+00	.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	.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	.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	.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	.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	.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	.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	9.61E-05	9.61E-05	9.61E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

Part B 8X UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn										fission products	page 33
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

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

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

fission products







la144	1.78E+02	1.78E+02	1.78E+02	.00E+00	.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	

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	Part B 8X UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn									
	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	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	.00E+00
ba149	5.03E-02	5.03E-02	5.03E-02	.00E+00	.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	.00E+00
ce149	2.59E+01	2.59E+01	2.59E+01	.00E+00	.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	.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	.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	.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
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	.00E+00
ba150	3.81E-03	3.81E-03	3.81E-03	.00E+00	.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	.00E+00
ce150	1.00E+01	1.00E+01	1.00E+01	.00E+00	.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	.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	.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	.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	.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	.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	5.04E-05	5.04E-05	5.04E-05	4.11E-05	5.43E-13	.00E+00	.00E+00	.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	.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	5.32E-07	5.31E-07	5.29E-07	.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	1.61E-09	1.61E-09	1.61E-09	.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	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	.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	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	.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	1.22E-07	1.22E-07	1.22E-07	1.33E-08	.00E+00	.00E+00	.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	.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	7.63E-08	7.63E-08	7.63E-08	5.45E-08	4.96E-21	.00E+00	.00E+00	.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	.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	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	.00E+00	.00E+00

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

	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	2.28E-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	



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	5.19E-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	.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	3.82E-09	2.36E-09	1.46E-09	8.86E-10	5.28E-10	2.99E-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	

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 43

	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	

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 44

	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	













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	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	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	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	.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	.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	.00E+00

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

	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
	basis =per critical mass 10.1 MT UO2										
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



Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn												
	nuclide concentrations, grams											
	basis =per critical mass 10.1 MT UO2											
	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr	page 53
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	

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn												
	nuclide concentrations, grams											
	basis =per critical mass 10.1 MT UO2											
	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr	page 54





in121m	.00E+00	.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	5.83E-01	5.83E-01	5.83E-01	5.83E-01	5.83E-01	5.83E-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	

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	Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn										fission products				page 57
	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	.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	.00E+00
sb127m	.00E+00	.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	.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	.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	.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	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	.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	.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	.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	.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	.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	.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	.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	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	.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	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	.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	.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	.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	.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	.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	.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	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	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	.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	.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	.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	.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	.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	.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	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	.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	.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	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	.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	.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	.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	.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	.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	.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	.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	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	.00E+00

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	Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn												
	nuclide concentrations, grams basis per critical mass 10.1 MT UO2												
	Initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr		
cd132	.00E+00	.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	.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	.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	.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	.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	.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	.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	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	.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	4.14E-07	





i145	.00E+00	.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	.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	.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	.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	.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	.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	.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	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	.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	.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	.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	.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	.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	.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	.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	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	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	.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	.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	.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	.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	.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	.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	.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	.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	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	.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	.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	.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	.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	.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	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	.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	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn											
nuclide concentrations, grams											
basis =per critical mass 10.1 MT UO2											
	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
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



















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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

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



	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

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Part B 8X UO2 in Tuff (47X N2O) DBF Fuel 5K yr burn  
 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

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te132	.00E+00	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.00E+00

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	Part B 8X UO2 in Tuff (47X	H2O) DBF Fuel 5K yr burn					nuclide radioactivity, curies					fission products				page 76
	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					
	basis =per critical mass 10.1 MT UO2															
sb137	.00E+00	.00E+00	.00E+00	.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	.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	.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	.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					









eu165	.00E+00	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 81

	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	



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

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Part B 8X UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 83

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

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

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

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

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











zr 93	1.26E+02	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	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	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	.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	.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	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 91

	nuclide concentrations, grams											
	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	.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	.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	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	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	.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	.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	.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	.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	.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	.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	.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	.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	.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	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	.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	.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	.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	.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	.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	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	.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	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	.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	.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	.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	.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	.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	.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	.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	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	.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	.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	.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	.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	.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	.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	.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	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	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	.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	.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	.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	.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	.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	.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	.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	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	.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	1.16E+01



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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn		nuclide concentrations, grams										fission products	page 93
		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		

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn		nuclide concentrations, grams										fission products	page 94
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in121m	.00E+00	.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	.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	.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	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	.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	.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	.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	.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	.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	.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	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	.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	.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	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	.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	.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	.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	.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	.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	.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	.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	.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	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	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	.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	.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	.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	.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	.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	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	.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	.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	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	.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	.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	.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	.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	.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	.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	.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	.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	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	.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	.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	.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	.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	.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	

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































	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
 nuclide radioactivity, curies  
 basis =per critical mass 10.1 MT UO2  
 fission products page 114

	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













eu165	.00E+00	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 121

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



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

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0 Part B 8X UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 123

		nuclide concentrations, grams										
		basis =per critical mass 10.1 MT UO2										
	initial	18000.0	yr20000.0	yr22000.0	yr24000.0	yr26000.0	yr28000.0	yr30000.0	yr32000.0	yr36000.0	yr38000.0	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	.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	.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	.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	

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0 Part B 8X UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 124

		nuclide radioactivity, curies										
		basis =per critical mass 10.1 MT UO2										
	initial	18000.0	yr20000.0	yr22000.0	yr24000.0	yr26000.0	yr28000.0	yr30000.0	yr32000.0	yr36000.0	yr38000.0	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	













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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn nuclide concentrations, grams fission products page 131

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	3.18E-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









































	initial18000.0	yr20000.0	yr22000.0	yr24000.0	yr26000.0	yr28000.0	yr30000.0	yr32000.0	yr36000.0	yr38000.0	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

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

basis =per critical mass 10.1 MT UO2

	initial18000.0	yr20000.0	yr22000.0	yr24000.0	yr26000.0	yr28000.0	yr30000.0	yr32000.0	yr36000.0	yr38000.0	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













eu165	.00E+00	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn actinides page 161

	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	



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 Part B 8X UO2 in Tuff (47X H2O) DBF Fuel 5K yr burn actinides page 163

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

	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













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

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

	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	



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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	

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn											fission products	page 174
nuclide concentrations, grams												



















































eu165	.00E+00	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	.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	

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
 nuclide concentrations, grams  
 basis =per critical mass 10.1 MT UO2

actinides

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	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	.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
st217	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide concentrations, grams  
basis =per critical mass 10.1 MT UO2

actinides

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	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide concentrations, grams  
basis =per critical mass 10.1 MT UO2

actinides

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	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	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide radioactivity, curies  
basis =per critical mass 10.1 MT UO2

actinides

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	initial	300000. yr	500000. yr	999999. 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

Part B 8X UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
 nuclide radioactivity, curies  
 basis =per critical mass 10.1 MT UO2

actinides

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	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

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Part B 8X UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
 nuclide radioactivity, curies  
 basis =per critical mass 10.1 MT UO2

actinides

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	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	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide concentrations, grams  
basis =per critical mass 10.1 MT UO2

fission products

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	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide concentrations, grams  
basis =per critical mass 10.1 MT UO2

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	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide concentrations, grams  
basis =per critical mass 10.1 MT UO2

fission products

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	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	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide concentrations, grams  
basis =per critical mass 10.1 MT UO2

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	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide concentrations, grams  
basis =per critical mass 10.1 MT UO2

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	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	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

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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

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

fission products

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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

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

fission products

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	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

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

fission products

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nuclide concentrations, grams

	basis =per critical mass 10.1 MT UO2			
	initial300000.	yr500000.	yr999999.	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

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Part B 8% UO2 in Tuff (47% M20) DBF Fuel 5K yr burn  
 nuclide concentrations, grams  
 basis =per critical mass 10.1 MT UO2

	initial300000.	yr500000.	yr999999.	yr
sn115	2.29E-02	2.29E-02	2.29E-02	2.29E-02

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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

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Part B 8X UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
 nuclide concentrations, grams  
 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

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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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide concentrations, grams  
basis =per critical mass 10.1 MT UO2

fission products

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	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide concentrations, grams  
basis =per critical mass 10.1 MT UO2

fission products

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	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide concentrations, grams  
basis =per critical mass 10.1 MT UO2

fission products

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	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide concentrations, grams  
basis =per critical mass 10.1 MT UO2

fission products

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	initial	300000.	yr500000.	yr999999.	yr
xe143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr143	.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
i144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144m	.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

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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide concentrations, grams  
basis =per critical mass 10.1 MT UO2

fission products

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	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide concentrations, grams  
basis =per critical mass 10.1 MT UO2

fission products

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	initial	300000. yr	500000. yr	999999. 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

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

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

fission products

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	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide radioactivity, curies  
basis =per critical mass 10.1 MT UO2

fission products

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	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide radioactivity, curies  
basis =per critical mass 10.1 MT UO2

fission products

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	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
 nuclide radioactivity, curies  
 basis =per critical mass 10.1 MT UO2

fission products

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	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	.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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
 nuclide radioactivity, curies  
 basis =per critical mass 10.1 MT UO2

fission products

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	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide radioactivity, curies  
basis =per critical mass 10.1 MT UO2

fission products

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	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	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide radioactivity, curies  
basis =per critical mass 10.1 MT UO2

fission products

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	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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide radioactivity, curies  
basis =per critical mass 10.1 MT UO2

fission products

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	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	.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

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
 nuclide radioactivity, curies  
 basis =per critical mass 10.1 MT UO2

fission products page 231

	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

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0 Part B 8X UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn fission products page 232  
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 8X 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.	yr500000.	yr999999.	yr
pd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb123	.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
te123m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb124m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te125m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn126	1.01E-02	7.11E-03	1.78E-03	5.55E-05	

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide radioactivity, curies  
basis =per critical mass 10.1 MT UO2

fission products

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	initial	300000.	yr500000.	yr999999.	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

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Part B 8X UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
 nuclide radioactivity, curies  
 basis =per critical mass 10.1 MT UO2

fission products

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	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

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

fission products

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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  
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide radioactivity, curies  
basis =per critical mass 10.1 MT UO2

fission products

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	initial300000.	yr500000.	yr999999.	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  
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide radioactivity, curies  
basis =per critical mass 10.1 MT UO2

fission products

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

fission products

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	initial	300000.	yr500000.	yr999999.	yr
sm154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm156	.00E+00	.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  
0

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn  
nuclide radioactivity, curies  
basis =per critical mass 10.1 MT UO2

fission products

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	initial	300000.	yr500000.	yr999999.	yr
dy161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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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 2.39E+00 2.14E+00 1.46E+00 7.87E-01

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1 \* normal termination of execution \*  
0  
0

table of contents for material tables  
case or subcase printed page

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1
2 41
3 81
4 121
5 161
6 201

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Ondset 21 33 4 1 27 6 0 0 0 0
0 0 0 0 0 0 0 -1 1698 690
0 880 7935 0 5 99 3 13 96 18 130
0 18 0 71 5 99 3 13 96 18 18

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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

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0 6t
  l140 66851
  used 100723 in size 150000
0jopt
  0 12
  0 0 0 0 0 0 0 0 0 0 0
Otherm
  5.272101E-01 3.663942E-01 2.909018E+00 1.000000E-25
0non
  7935 5 20 6 18 1697
0mmn
  0 19 7 0 0 1 1 0 0 0 0
  21 100 7 -1 4 3 0 4 0 0 0
0tconst
  8.640000E+04 .000000E+00 .000000E+00 .000000E+00 5.000000E-02
0mzero
  0 4 689 129 879
0pow
  .000000E+00 .000000E+00 .000000E+00
0 lnp
  6 9 0 51 26 2 3000 1000 1697 5
0 case or subcase 1 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K 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
  0 12
  0 0 0 0 0 0 0 0 0 0 0
Otherm
  5.272101E-01 3.663942E-01 2.909018E+00 1.000000E-25
0non
  7935 5 20 6 18 1697
0mmn
  0 19 10 0 0 1 1 0 0 0 0
  21 100 10 0 5 0 0 4 0 0 0
0tconst
  3.156000E+07 1.000000E+01 2.300000E+01 .000000E+00 5.000000E-02
0mzero
  18 4 689 129 879
0pow
  .000000E+00 .000000E+00 .000000E+00
0 lnp
  6 9 0 51 26 2 3000 1000 1697 5
0 case or subcase 2 Part B 8% UO2 in Tuff (47% H2O) DBF Fuel 5K yr burn
0 56$ array 20 entries read

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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
  0 12
  0 0 0 0 0 0 0 0 0 0 0
0therm
  5.272101E-01 3.663942E-01 2.909018E+00 1.000000E-25
0non
  7935 5 20 6 18 1697
0mn
  0 19 10 0 0 1 1 0 0 0 10
  21 100 0 5 0 4 0 0
0tconst
  3.156000E+07 4.000000E+02 2.800000E+01 .000000E+00 5.000000E-02
0mzero
  21 4 689 129 879
0pow
  .000000E+00 .000000E+00 .000000E+00
0 linp
  6 9 0 51 26 2 3000 1000 1697 5
0 case or subcase 3 Part B 8% U02 in Tuff (47% H2O) DBF Fuel 5K 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
  0 12
  0 0 0 0 0 0 0 0 0 0 0
0therm
  5.272101E-01 3.663942E-01 2.909018E+00 1.000000E-25
0non
  7935 5 20 6 18 1697
0mn
  0 19 10 0 0 1 1 0 0 0 10
  21 100 0 5 0 4 0 0
0tconst
  3.156000E+07 1.600000E+04 2.500000E+01 .000000E+00 5.000000E-02
0mzero
  21 4 689 129 879

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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 5K 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
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
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 5K 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
0therm        4
5.272101E-01 3.663942E-01 2.909018E+00 1.000000E-25
0non          5
          7935          20          6          18          1697
0mmn          19

```



1 primary module access and input record ( scale driver - 95/03/29 - 09:06:37 )  
 - module origins will be called

```

0$$ a8 26 a11 71 e
1$$ 1 1t
DBF Fuel 8% UO2 in Tuff (47% water)
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
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 origins	is finished.	completion code	0. cpu time used	7.00 (seconds).			
1	oooooooooooo	rrrrrrrrrrrr	iiiiiiiiiiii	gggggggggggg	eeeeeeeeeeee	nn	nn	ssssssssss
	oooooooooooo	rrrrrrrrrrrr	iiiiiiiiiiii	gggggggggggg	eeeeeeeeeeee	nnn	nn	ssssssssss
	oo	rr	rr	ii	gg	ee	nnnn	nn ss
	oo	rr	rr	ii	gg	ee	nn nn	nn ss
	oo	rr	rr	ii	gg	ee	nn nn	nn ss
	oo	rrrrrrrrrrrr	iiiiiiiiiiii	gg	gggggggg	eeeeeeee	nn nn	nn ssssssssss
	oo	rrrrrrrrrrrr	iiiiiiiiiiii	gg	gggggggg	eeeeeeee	nn nn	nn ssssssssss





```

' 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
Owhen 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
0 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 densities
pass n applies mid time densities of nth library interval
first library updated was...
*****
*
*          prelim lwr origen-s binary working library--id = 1143
*

```







tl207	8.03E-02	8.03E-02	8.03E-02	8.03E-02	8.03E-02	8.05E-02	8.04E-02	8.04E-02	8.04E-02
tl208	4.44E-03	4.44E-03	4.44E-03	4.53E-03	4.46E-03	4.44E-03	4.42E-03	4.32E-03	4.12E-03
tl209	2.04E-03	2.04E-03	2.04E-03	2.04E-03	2.04E-03	2.04E-03	2.04E-03	2.04E-03	2.05E-03
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	9.73E-02	9.73E-02	9.73E-02	9.27E-02	9.73E-02	9.73E-02	9.73E-02	9.74E-02	9.74E-02
pb210	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01
pb211	8.05E-02	8.05E-02	8.05E-02	8.05E-02	8.05E-02	8.05E-02	8.07E-02	8.06E-02	8.06E-02
pb212	1.23E-02	1.23E-02	1.23E-02	1.23E-02	1.24E-02	1.24E-02	1.23E-02	1.20E-02	1.15E-02
pb214	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.54E-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	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.54E-01	9.54E-01	9.53E-01	9.53E-01	9.53E-01
bi211	8.05E-02	8.05E-02	8.05E-02	8.05E-02	8.05E-02	8.07E-02	8.07E-02	8.06E-02	8.06E-02
bi212	1.23E-02	1.23E-02	1.23E-02	1.26E-02	1.24E-02	1.24E-02	1.23E-02	1.20E-02	1.15E-02
bi213	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.74E-02	9.74E-02
bi214	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.54E-01
po210	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.48E-01	9.42E-01	9.42E-01	9.47E-01	9.54E-01
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	2.21E-04	2.21E-04	2.21E-04	2.21E-04	2.21E-04	2.22E-04	2.22E-04	2.22E-04	2.22E-04
po212	7.91E-03	7.91E-03	7.91E-03	8.08E-03	7.94E-03	7.92E-03	7.88E-03	7.70E-03	7.35E-03
po213	9.52E-02	9.52E-02	9.52E-02	9.52E-02	9.52E-02	9.52E-02	9.53E-02	9.53E-02	9.54E-02
po214	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.54E-01
po215	8.05E-02	8.05E-02	8.05E-02	8.05E-02	8.05E-02	8.07E-02	8.07E-02	8.06E-02	8.06E-02
po216	1.23E-02	1.23E-02	1.23E-02	1.23E-02	1.24E-02	1.24E-02	1.23E-02	1.20E-02	1.15E-02
po218	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.54E-01	9.54E-01
at217	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.74E-02	9.75E-02
rn218	1.99E-13	1.99E-13	1.99E-13	1.92E-13	9.90E-15	1.03E-18	5.31E-24	.00E+00	.00E+00
rn219	8.05E-02	8.05E-02	8.05E-02	8.05E-02	8.05E-02	8.07E-02	8.07E-02	8.06E-02	8.06E-02
rn220	1.23E-02	1.23E-02	1.23E-02	1.23E-02	1.24E-02	1.24E-02	1.23E-02	1.20E-02	1.15E-02
rn222	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.54E-01	9.54E-01
fr221	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.74E-02	9.75E-02
fr223	1.11E-03	1.11E-03	1.11E-03	1.11E-03	1.11E-03	1.11E-03	1.11E-03	1.11E-03	1.11E-03
ra222	1.99E-13	1.99E-13	1.99E-13	1.92E-13	9.90E-15	1.03E-18	5.31E-24	.00E+00	.00E+00
ra223	8.05E-02	8.05E-02	8.05E-02	8.05E-02	8.05E-02	8.07E-02	8.07E-02	8.06E-02	8.06E-02
ra224	1.23E-02	1.23E-02	1.23E-02	1.23E-02	1.24E-02	1.24E-02	1.23E-02	1.20E-02	1.15E-02
ra225	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.74E-02	9.75E-02
ra226	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.53E-01	9.54E-01	9.54E-01
ra228	1.35E-06	1.35E-06	1.35E-06	1.35E-06	1.35E-06	1.35E-06	1.35E-06	1.35E-06	1.35E-06
ac225	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.74E-02	9.75E-02
ac227	8.05E-02	8.05E-02	8.05E-02	8.05E-02	8.05E-02	8.05E-02	8.05E-02	8.05E-02	8.05E-02
ac228	1.35E-06	1.35E-06	1.35E-06	1.35E-06	1.35E-06	1.35E-06	1.35E-06	1.35E-06	1.35E-06
th226	1.99E-13	1.99E-13	1.99E-13	1.92E-13	9.90E-15	1.03E-18	5.31E-24	.00E+00	.00E+00
th227	7.94E-02	7.94E-02	7.94E-02	7.94E-02	7.94E-02	7.96E-02	7.96E-02	7.95E-02	7.95E-02
th228	1.23E-02	1.23E-02	1.23E-02	1.23E-02	1.23E-02	1.23E-02	1.23E-02	1.20E-02	1.15E-02
th229	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.73E-02	9.74E-02	9.75E-02
th230	1.24E+00	1.24E+00	1.24E+00	1.24E+00	1.24E+00	1.24E+00	1.24E+00	1.24E+00	1.24E+00
th231	4.83E-01	4.83E-01	4.83E-01	4.14E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01

1  
0

Part B 8X UO2 in Tuff (47X H2O) DBF Fuel

actinides

page 5

	charge	discharge	.0 d	nuclide radioactivity, curies							
				1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d		
th232	1.35E-06	1.35E-06	1.35E-06	1.35E-06	1.35E-06	1.35E-06	1.35E-06	1.35E-06	1.36E-06	1.36E-06	
th233	4.04E-03	4.04E-03	4.04E-03	1.47E-22	.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	
pa231	8.04E-02	8.04E-02	8.04E-02	8.04E-02	8.04E-02	8.04E-02	8.04E-02	8.04E-02	8.04E-02	8.05E-02	
pa232	1.23E-02	1.23E-02	1.23E-02	7.25E-03	2.58E-23	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	

pa233	6.93E+00	6.93E+00	6.93E+00	6.93E+00	6.93E+00	6.93E+00	6.94E+00	6.93E+00	6.93E+00	6.93E+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
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
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	1.99E-13	1.99E-13	1.99E-13	1.92E-13	9.89E-15	1.03E-18	5.31E-24	.00E+00	.00E+00	.00E+00
u231	3.04E-09	3.04E-09	3.04E-09	2.58E-09	1.08E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u232	1.23E-02	1.23E-02	1.23E-02	1.23E-02	1.23E-02	1.23E-02	1.22E-02	1.21E-02	1.17E-02	1.12E-02
u233	2.85E-01	2.85E-01	2.85E-01	2.85E-01	2.85E-01	2.85E-01	2.85E-01	2.85E-01	2.85E-01	2.85E-01
u234	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01	1.51E+01
u235	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01	3.38E-01
u236	2.83E+00	2.83E+00	2.83E+00	2.83E+00	2.83E+00	2.83E+00	2.83E+00	2.83E+00	2.83E+00	2.83E+00
u237	6.37E+01	6.37E+01	6.37E+01	5.74E+01	6.49E-03	3.11E-04	2.96E-04	2.56E-04	2.01E-04	2.01E-04
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
u239	2.54E+03	2.54E+03	2.54E+03	8.56E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	9.25E-27	9.25E-27	9.25E-27	9.25E-27	9.25E-27	9.25E-27	9.26E-27	9.26E-27	9.29E-27	9.32E-27
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	2.90E-06	2.90E-06	2.90E-06	2.90E-06	2.48E-06	1.53E-06	8.09E-07	1.19E-07	4.87E-09	4.87E-09
np236m	2.91E-04	2.91E-04	2.91E-04	1.39E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	5.99E-06	5.99E-06	5.99E-06	5.99E-06	5.99E-06	5.99E-06	5.99E-06	5.99E-06	5.99E-06	5.99E-06
np237	6.93E+00	6.93E+00	6.93E+00	6.93E+00	6.93E+00	6.93E+00	6.93E+00	6.93E+00	6.93E+00	6.93E+00
np238	9.29E+01	9.29E+01	9.29E+01	6.70E+01	8.07E-05	8.04E-05	8.00E-05	7.88E-05	7.69E-05	7.69E-05
np239	2.54E+03	2.54E+03	2.54E+03	1.91E+03	6.91E-05	6.91E-05	6.91E-05	6.91E-05	6.90E-05	6.90E-05
np240m	9.25E-27	9.25E-27	9.25E-27	9.27E-27	9.25E-27	9.26E-27	9.26E-27	9.29E-27	9.32E-27	9.32E-27
np240	2.77E-05	2.77E-05	2.77E-05	2.76E-12	1.11E-29	1.11E-29	1.11E-29	1.11E-29	1.12E-29	1.12E-29
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	1.40E-04	1.40E-04	1.40E-04	1.40E-04	1.32E-04	1.11E-04	8.72E-05	4.29E-05	1.33E-05	1.33E-05
pu237	1.63E-06	1.63E-06	1.63E-06	1.61E-06	4.10E-07	6.00E-09	2.21E-11	1.10E-18	7.53E-31	7.53E-31
pu238	9.30E+01	9.30E+01	9.30E+01	9.30E+01	9.28E+01	9.22E+01	9.15E+01	8.94E+01	8.59E+01	8.59E+01
pu239	5.61E+02	5.61E+02	5.61E+02	5.61E+02	5.61E+02	5.61E+02	5.61E+02	5.61E+02	5.61E+02	5.61E+02
pu240	7.28E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01	7.28E+01	7.27E+01	7.27E+01
pu241	1.36E+01	1.36E+01	1.36E+01	1.36E+01	1.35E+01	1.30E+01	1.24E+01	1.07E+01	8.41E+00	8.41E+00
pu242	1.51E-04	1.51E-04	1.51E-04	1.51E-04	1.51E-04	1.51E-04	1.51E-04	1.51E-04	1.51E-04	1.51E-04
pu243	2.11E-04	2.11E-04	2.11E-04	7.37E-06	1.18E-20	1.18E-20	1.18E-20	1.18E-20	1.18E-20	1.18E-20
pu244	9.26E-27	9.26E-27	9.26E-27	9.26E-27	9.26E-27	9.27E-27	9.27E-27	9.30E-27	9.34E-27	9.34E-27
pu245	2.46E-26	2.46E-26	2.46E-26	5.05E-27	.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
am239	1.10E-09	1.10E-09	1.10E-09	2.71E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am240	1.17E-07	1.17E-07	1.17E-07	8.44E-08	1.95E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am241	1.21E+01	1.21E+01	1.21E+01	1.21E+01	1.21E+01	1.21E+01	1.21E+01	1.21E+01	1.21E+01	1.21E+01
am242m	1.79E-02	1.79E-02	1.79E-02	1.79E-02	1.79E-02	1.79E-02	1.78E-02	1.75E-02	1.71E-02	1.71E-02
am242	1.15E-01	1.15E-01	1.15E-01	5.24E-02	1.78E-02	1.78E-02	1.77E-02	1.74E-02	1.70E-02	1.70E-02
am243	6.91E-05	6.91E-05	6.91E-05	6.91E-05	6.91E-05	6.91E-05	6.91E-05	6.91E-05	6.90E-05	6.90E-05
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	3.35E-06	3.35E-06	3.35E-06	6.46E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am245	2.58E-26	2.58E-26	2.58E-26	7.50E-27	1.00E-27	5.52E-28	2.50E-28	2.33E-29	4.56E-31	4.56E-31
am246	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm241	1.41E-13	1.41E-13	1.41E-13	1.38E-13	2.10E-14	6.26E-17	2.78E-20	2.44E-30	.00E+00	.00E+00

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Part B 8X UO2 in Tuff (47X H2O) DBF Fuel

actinides page 6

	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	9.53E-02	9.53E-02	9.53E-02	9.52E-02	6.99E-02	3.18E-02	1.83E-02	1.45E-02	1.41E-02	
cm243	1.18E-12	1.18E-12	1.18E-12	1.18E-12	1.17E-12	1.15E-12	1.12E-12	1.04E-12	9.23E-13	
cm244	3.35E-06	3.35E-06	3.35E-06	3.35E-06	3.32E-06	3.23E-06	3.11E-06	2.77E-06	2.29E-06	
cm245	1.43E-11	1.43E-11	1.43E-11	1.43E-11	1.43E-11	1.43E-11	1.43E-11	1.43E-11	1.43E-11	
cm246	2.26E-13	2.26E-13	2.26E-13	2.26E-13	2.26E-13	2.26E-13	2.26E-13	2.26E-13	2.26E-13	
cm247	1.18E-20	1.18E-20	1.18E-20	1.18E-20	1.18E-20	1.18E-20	1.18E-20	1.18E-20	1.18E-20	
cm248	9.60E-22	9.60E-22	9.60E-22	9.60E-22	9.60E-22	9.60E-22	9.60E-22	9.60E-22	9.60E-22	
cm249	8.39E-23	8.39E-23	8.39E-23	1.47E-29	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	









zr 93	2.49E+02	2.49E+02	2.49E+02	2.49E+02	2.49E+02	2.49E+02	2.49E+02	2.49E+02	2.49E+02	2.49E+02
nb 93	5.67E-01	5.67E-01	5.67E-01	5.67E-01	5.67E-01	5.67E-01	5.67E-01	5.67E-01	5.67E-01	5.68E-01
nb 93m	2.62E-03	2.62E-03	2.62E-03	2.62E-03	2.62E-03	2.62E-03	2.62E-03	2.62E-03	2.62E-03	2.62E-03
br 94	7.91E-15	7.91E-15	7.91E-15	7.91E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 94	1.28E-11	1.28E-11	1.28E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 94	1.30E-09	1.30E-09	1.30E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel fission products

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	nuclide concentrations, grams									
	basis =per critical mass 10.1 MT UO2									
	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d	
sr 94	1.21E-07	1.21E-07	1.21E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 94	1.94E-06	1.94E-06	1.94E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 94	3.86E+02	3.86E+02	3.86E+02	3.86E+02	3.86E+02	3.86E+02	3.86E+02	3.86E+02	3.86E+02	3.86E+02
nb 94	1.46E-04	1.46E-04	1.46E-04	1.46E-04	1.46E-04	1.46E-04	1.46E-04	1.46E-04	1.46E-04	1.46E-04
nb 94m	3.21E-13	3.21E-13	3.21E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 95	6.42E-17	6.42E-17	6.42E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 95	2.37E-12	2.37E-12	2.37E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 95	8.69E-11	8.69E-11	8.69E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 95	3.67E-08	3.67E-08	3.67E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 95	1.11E-06	1.11E-06	1.11E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 95	9.85E-03	9.85E-03	9.85E-03	9.75E-03	3.72E-03	1.89E-04	3.62E-06	2.55E-11	6.58E-20	
nb 95	5.38E-03	5.38E-03	5.38E-03	5.38E-03	3.38E-03	2.22E-04	4.49E-06	3.06E-11	7.91E-20	
nb 95m	6.17E-06	6.17E-06	6.17E-06	6.17E-06	2.47E-06	1.25E-07	2.40E-09	1.69E-14	4.36E-23	
mo 95	3.94E+02	3.94E+02	3.94E+02	3.94E+02	3.94E+02	3.94E+02	3.94E+02	3.94E+02	3.94E+02	3.94E+02
br 96	1.27E-17	1.27E-17	1.27E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 96	1.79E-13	1.79E-13	1.79E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 96	1.15E-11	1.15E-11	1.15E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 96	1.14E-09	1.14E-09	1.14E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 96	9.88E-09	9.88E-09	9.88E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 96	3.88E+02	3.88E+02	3.88E+02	3.88E+02	3.88E+02	3.88E+02	3.88E+02	3.88E+02	3.88E+02	3.88E+02
nb 96	2.08E-08	2.08E-08	2.08E-08	1.02E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 96	9.32E-01	9.32E-01	9.32E-01	9.32E-01	9.32E-01	9.32E-01	9.32E-01	9.32E-01	9.32E-01	9.32E-01
kr 97	5.74E-16	5.74E-16	5.74E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 97	3.52E-12	3.52E-12	3.52E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 97	2.36E-10	2.36E-10	2.36E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 97	4.83E-09	4.83E-09	4.83E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 97	9.80E-05	9.80E-05	9.80E-05	3.66E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97	6.99E-06	6.99E-06	6.99E-06	2.62E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 97m	9.17E-08	9.17E-08	9.17E-08	3.43E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 97	3.55E+02	3.55E+02	3.55E+02	3.55E+02	3.55E+02	3.55E+02	3.55E+02	3.55E+02	3.55E+02	3.55E+02
kr 98	2.98E-16	2.98E-16	2.98E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 98	1.10E-13	1.10E-13	1.10E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 98	1.32E-10	1.32E-10	1.32E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 98	6.57E-10	6.57E-10	6.57E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 98	5.15E-08	5.15E-08	5.15E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98	4.82E-09	4.82E-09	4.82E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 98m	2.43E-08	2.43E-08	2.43E-08	8.62E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 98	3.71E+02	3.71E+02	3.71E+02	3.71E+02	3.71E+02	3.71E+02	3.71E+02	3.71E+02	3.71E+02	3.71E+02
tc 98	8.28E-05	8.28E-05	8.28E-05	8.28E-05	8.28E-05	8.28E-05	8.28E-05	8.28E-05	8.28E-05	8.28E-05
rb 99	1.35E-15	1.35E-15	1.35E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 99	2.69E-11	2.69E-11	2.69E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 99	9.95E-10	9.95E-10	9.95E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 99	3.47E-09	3.47E-09	3.47E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 99	1.60E-08	1.60E-08	1.60E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb 99m	1.12E-07	1.12E-07	1.12E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo 99	4.28E-04	4.28E-04	4.28E-04	3.33E-04	5.91E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc 99	3.87E+02	3.87E+02	3.87E+02	3.87E+02	3.87E+02	3.87E+02	3.87E+02	3.87E+02	3.87E+02	3.87E+02
tc 99m	3.43E-05	3.43E-05	3.43E-05	2.91E-05	5.21E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru 99	6.41E+00	6.41E+00	6.41E+00	6.41E+00	6.41E+00	6.41E+00	6.41E+00	6.42E+00	6.42E+00	6.42E+00

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel

fission products

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	nuclide concentrations, grams									
	basis =per critical mass 10.1 MT UO2									
	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d	
y106	2.71E-18	2.71E-18	2.71E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr106	2.97E-13	2.97E-13	2.97E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb106	1.08E-11	1.08E-11	1.08E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo106	1.61E-09	1.61E-09	1.61E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc106	9.22E-09	9.22E-09	9.22E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru106	8.89E-03	8.89E-03	8.89E-03	8.87E-03	7.52E-03	4.50E-03	2.28E-03	2.95E-04	9.78E-06	
rh106	8.25E-09	8.25E-09	8.25E-09	8.23E-09	6.97E-09	4.17E-09	2.11E-09	2.74E-10	9.08E-12	
rh106m	8.17E-11	8.17E-11	8.17E-11	3.78E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd106	4.82E+01	4.82E+01	4.82E+01	4.82E+01	4.82E+01	4.82E+01	4.82E+01	4.82E+01	4.82E+01	
ag106	6.42E-18	6.42E-18	6.42E-18	5.56E-36	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
y107	2.55E-20	2.55E-20	2.55E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
zr107	7.56E-16	7.56E-16	7.56E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nb107	1.30E-12	1.30E-12	1.30E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
mo107	2.20E-10	2.20E-10	2.20E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
tc107	2.84E-09	2.84E-09	2.84E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ru107	3.68E-08	3.68E-08	3.68E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh107	2.14E-07	2.14E-07	2.14E-07	2.77E-27	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd107	2.54E+01	2.54E+01	2.54E+01	2.54E+01	2.54E+01	2.54E+01	2.54E+01	2.54E+01	2.54E+01	
pd107m	3.74E-13	3.74E-13	3.74E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag107	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	
zr108	4.63E-17	4.63E-17	4.63E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nb108	1.02E-14	1.02E-14	1.02E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
mo108	8.96E-12	8.96E-12	8.96E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
tc108	2.02E-10	2.02E-10	2.02E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ru108	2.58E-08	2.58E-08	2.58E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh108	1.62E-09	1.62E-09	1.62E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh108m	6.10E-10	6.10E-10	6.10E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd108	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	
ag108	4.57E-14	4.57E-14	4.57E-14	3.92E-17	3.92E-17	3.90E-17	3.88E-17	3.82E-17	3.71E-17	
ag108m	1.27E-08	1.27E-08	1.27E-08	1.27E-08	1.27E-08	1.26E-08	1.26E-08	1.24E-08	1.20E-08	
cd108	2.11E-05	2.11E-05	2.11E-05	2.11E-05	2.11E-05	2.11E-05	2.11E-05	2.11E-05	2.11E-05	
zr109	1.28E-20	1.28E-20	1.28E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nb109	5.62E-16	5.62E-16	5.62E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
mo109	8.54E-13	8.54E-13	8.54E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
tc109	1.78E-11	1.78E-11	1.78E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ru109	2.25E-09	2.25E-09	2.25E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh109	6.08E-09	6.08E-09	6.08E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh109m	1.90E-09	1.90E-09	1.90E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd109	3.78E-06	3.78E-06	3.78E-06	1.13E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd109m	6.34E-11	6.34E-11	6.34E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag109	1.05E+01	1.05E+01	1.05E+01	1.05E+01	1.05E+01	1.05E+01	1.05E+01	1.05E+01	1.05E+01	
ag109m	3.04E-09	3.04E-09	3.04E-09	9.05E-10	1.41E-18	9.32E-19	5.39E-19	1.04E-19	6.77E-21	
cd109	1.63E-12	1.63E-12	1.63E-12	1.62E-12	1.42E-12	9.41E-13	5.45E-13	1.05E-13	6.83E-15	
nb110	1.08E-17	1.08E-17	1.08E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
mo110	2.05E-13	2.05E-13	2.05E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
tc110	1.70E-12	1.70E-12	1.70E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ru110	3.30E-10	3.30E-10	3.30E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh110	1.25E-11	1.25E-11	1.25E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh110m	7.41E-10	7.41E-10	7.41E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd110	4.79E+00	4.79E+00	4.79E+00	4.79E+00	4.79E+00	4.79E+00	4.79E+00	4.79E+00	4.79E+00	
ag110	4.28E-11	4.28E-11	4.28E-11	2.32E-14	1.81E-14	8.45E-15	3.07E-15	1.47E-16	9.22E-19	
ag110m	1.50E-06	1.50E-06	1.50E-06	1.50E-06	1.17E-06	5.45E-07	1.98E-07	9.45E-09	5.95E-11	

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel

fission products

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nuclide concentrations, grams





in121m	1.31E-09	1.31E-09	1.31E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121	5.82E-07	5.82E-07	5.82E-07	3.17E-07	3.79E-09	3.75E-09	3.71E-09	3.57E-09	3.35E-09	
sn121m	8.73E-05	8.73E-05	8.73E-05	8.73E-05	8.70E-05	8.62E-05	8.51E-05	8.20E-05	7.70E-05	
sb121	1.22E+00	1.22E+00	1.22E+00	1.22E+00	1.22E+00	1.22E+00	1.22E+00	1.22E+00	1.22E+00	
rh122	1.21E-17	1.21E-17	1.21E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd122	8.69E-14	8.69E-14	8.69E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag122	4.74E-13	4.74E-13	4.74E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd122	3.20E-11	3.20E-11	3.20E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in122	9.92E-12	9.92E-12	9.92E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in122m	5.20E-12	5.20E-12	5.20E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sn122	1.44E+00	1.44E+00	1.44E+00	1.44E+00	1.44E+00	1.44E+00	1.44E+00	1.44E+00	1.44E+00	
sb122	2.35E-09	2.35E-09	2.35E-09	1.82E-09	2.18E-19	.00E+00	.00E+00	.00E+00	.00E+00	
sb122m	2.60E-13	2.60E-13	2.60E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
te122	1.05E-03	1.05E-03	1.05E-03	1.05E-03	1.05E-03	1.05E-03	1.05E-03	1.05E-03	1.05E-03	
rh123	1.22E-18	1.22E-18	1.22E-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	1.39E-13	1.39E-13	1.39E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd123	3.49E-11	3.49E-11	3.49E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in123	2.74E-11	2.74E-11	2.74E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in123m	6.06E-11	6.06E-11	6.06E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sn123	7.65E-06	7.65E-06	7.65E-06	7.60E-06	4.72E-06	1.08E-06	1.52E-07	4.24E-10	2.35E-14	
sn123m	1.56E-08	1.56E-08	1.56E-08	2.41E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sb123	1.47E+00	1.47E+00	1.47E+00	1.47E+00	1.47E+00	1.47E+00	1.47E+00	1.47E+00	1.47E+00	
te123	3.07E-07	3.07E-07	3.07E-07	3.07E-07	3.07E-07	3.07E-07	3.07E-07	3.07E-07	3.07E-07	
te123m	1.55E-11	1.55E-11	1.55E-11	1.54E-11	9.19E-12	1.87E-12	2.25E-13	3.94E-16	1.01E-20	
pd124	2.88E-15	2.88E-15	2.88E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag124	8.22E-14	8.22E-14	8.22E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd124	6.23E-12	6.23E-12	6.23E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in124	3.61E-11	3.61E-11	3.61E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sn124	2.44E+00	2.44E+00	2.44E+00	2.44E+00	2.44E+00	2.44E+00	2.44E+00	2.44E+00	2.44E+00	
sb124	7.65E-08	7.65E-08	7.65E-08	7.56E-08	2.71E-08	1.14E-09	1.70E-11	5.64E-17	4.15E-26	
sb124m	2.46E-13	2.46E-13	2.46E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
te124	2.18E-03	2.18E-03	2.18E-03	2.18E-03	2.18E-03	2.18E-03	2.18E-03	2.18E-03	2.18E-03	
pd125	1.99E-16	1.99E-16	1.99E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag125	4.41E-14	4.41E-14	4.41E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd125	6.46E-12	6.46E-12	6.46E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in125	1.41E-11	1.41E-11	1.41E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in125m	5.37E-11	5.37E-11	5.37E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sn125	3.35E-06	3.35E-06	3.35E-06	3.12E-06	5.19E-09	1.32E-17	5.18E-29	.00E+00	.00E+00	
sn125m	5.92E-09	5.92E-09	5.92E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sb125	1.24E-03	1.24E-03	1.24E-03	1.24E-03	1.17E-03	9.67E-04	7.50E-04	3.50E-04	9.84E-05	
te125	2.85E+00	2.85E+00	2.85E+00	2.85E+00	2.85E+00	2.85E+00	2.85E+00	2.85E+00	2.85E+00	
te125m	1.66E-05	1.66E-05	1.66E-05	1.66E-05	1.63E-05	1.37E-05	1.07E-05	4.97E-06	1.40E-06	
pd126	6.76E-17	6.76E-17	6.76E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag126	8.07E-15	8.07E-15	8.07E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd126	2.57E-12	2.57E-12	2.57E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in126	1.97E-11	1.97E-11	1.97E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sn126	4.36E+00	4.36E+00	4.36E+00	4.36E+00	4.36E+00	4.36E+00	4.36E+00	4.36E+00	4.36E+00	

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel										fission products		page 17
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	3.26E-07	3.26E-07	3.26E-07	3.20E-07	2.08E-07	2.07E-07	2.07E-07	2.07E-07	2.07E-07			
sb126m	1.75E-09	1.75E-09	1.75E-09	1.57E-09	1.57E-09	1.57E-09	1.57E-09	1.57E-09	1.57E-09			
te126	1.82E-01	1.82E-01	1.82E-01	1.82E-01	1.82E-01	1.82E-01	1.82E-01	1.82E-01	1.82E-01			
xe126	4.59E-10	4.59E-10	4.59E-10	4.59E-10	4.59E-10	4.59E-10	4.59E-10	4.59E-10	4.59E-10			
ag127	4.74E-15	4.74E-15	4.74E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00			
cd127	2.18E-12	2.18E-12	2.18E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00			
in127	1.61E-11	1.61E-11	1.61E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00			







i145	3.46E-18	3.46E-18	3.46E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe145	2.29E-13	2.29E-13	2.29E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs145	1.74E-11	1.74E-11	1.74E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba145	3.30E-09	3.30E-09	3.30E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la145	3.74E-08	3.74E-08	3.74E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce145	2.98E-07	2.98E-07	2.98E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr145	3.55E-05	3.55E-05	3.55E-05	2.23E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd145	3.64E+02	3.64E+02	3.64E+02	3.64E+02	3.64E+02	3.64E+02	3.64E+02	3.64E+02	3.64E+02	3.64E+02
pm145	6.46E-10	6.46E-10	6.46E-10	6.46E-10	6.45E-10	6.37E-10	6.20E-10	5.57E-10	4.58E-10	
sm145	3.04E-11	3.04E-11	3.04E-11	3.03E-11	2.53E-11	1.44E-11	6.86E-12	7.35E-13	1.78E-14	
xe146	1.37E-14	1.37E-14	1.37E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs146	2.72E-12	2.72E-12	2.72E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba146	9.19E-10	9.19E-10	9.19E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la146	6.40E-09	6.40E-09	6.40E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce146	1.03E-06	1.03E-06	1.03E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr146	1.85E-06	1.85E-06	1.85E-06	4.73E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd146	2.84E+02	2.84E+02	2.84E+02	2.84E+02	2.84E+02	2.84E+02	2.84E+02	2.84E+02	2.84E+02	2.84E+02
pm146	2.92E-10	2.92E-10	2.92E-10	2.92E-10	2.84E-10	2.58E-10	2.28E-10	1.56E-10	8.35E-11	
sm146	2.55E-04	2.55E-04	2.55E-04	2.55E-04	2.55E-04	2.55E-04	2.55E-04	2.55E-04	2.55E-04	2.55E-04
xe147	1.40E-17	1.40E-17	1.40E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs147	4.52E-14	4.52E-14	4.52E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba147	3.30E-11	3.30E-11	3.30E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la147	1.76E-09	1.76E-09	1.76E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce147	5.33E-08	5.33E-08	5.33E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr147	8.01E-07	8.01E-07	8.01E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd147	9.32E-04	9.32E-04	9.32E-04	8.76E-04	3.18E-06	9.05E-14	8.77E-24	.00E+00	.00E+00	.00E+00
pm147	8.14E-02	8.14E-02	8.14E-02	8.14E-02	7.71E-02	6.32E-02	4.85E-02	2.20E-02	5.86E-03	
sm147	2.14E+02	2.14E+02	2.14E+02	2.14E+02	2.14E+02	2.14E+02	2.14E+02	2.14E+02	2.14E+02	2.14E+02
cs148	2.99E-15	2.99E-15	2.99E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba148	4.37E-12	4.37E-12	4.37E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la148	1.23E-10	1.23E-10	1.23E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce148	3.73E-08	3.73E-08	3.73E-08	.00E+00	.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	.00E+00
nd148	1.63E+02	1.63E+02	1.63E+02	1.63E+02	1.63E+02	1.63E+02	1.63E+02	1.63E+02	1.63E+02	1.63E+02
pm148	6.26E-09	6.26E-09	6.26E-09	5.53E-09	6.63E-11	6.53E-13	1.42E-15	1.46E-23	6.38E-37	
pm148m	4.36E-08	4.36E-08	4.36E-08	4.29E-08	9.63E-09	9.49E-11	2.06E-13	2.12E-21	1.03E-34	

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Part B 8X UO2 in Tuff (47X H2O) DBF Fuel											fission products		page 21
	nuclide concentrations, grams												
	basis =per critical mass 10.1 MT UO2												
	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d				
sm148	2.58E+00	2.58E+00	2.58E+00	2.58E+00	2.58E+00	2.58E+00	2.58E+00	2.58E+00	2.58E+00	2.58E+00	2.58E+00	2.58E+00	
cs149	2.60E-17	2.60E-17	2.60E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ba149	4.56E-13	4.56E-13	4.56E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
la149	7.00E-11	7.00E-11	7.00E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ce149	1.75E-09	1.75E-09	1.75E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pr149	6.46E-08	6.46E-08	6.46E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nd149	3.04E-06	3.04E-06	3.04E-06	2.02E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pm149	9.37E-05	9.37E-05	9.37E-05	7.08E-05	5.46E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sm149	8.02E+00	8.02E+00	8.02E+00	8.02E+00	8.02E+00	8.02E+00	8.02E+00	8.02E+00	8.02E+00	8.02E+00	8.02E+00	8.02E+00	
eu149	1.64E-13	1.64E-13	1.64E-13	1.63E-13	8.39E-14	1.08E-14	7.11E-16	2.03E-19	2.51E-25				
cs150	1.70E-18	1.70E-18	1.70E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ba150	4.86E-14	4.86E-14	4.86E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
la150	2.31E-12	2.31E-12	2.31E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ce150	5.25E-10	5.25E-10	5.25E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pr150	1.67E-09	1.67E-09	1.67E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nd150	6.73E+01	6.73E+01	6.73E+01	6.73E+01	6.73E+01	6.73E+01	6.73E+01	6.73E+01	6.73E+01	6.73E+01	6.73E+01	6.73E+01	
pm150	6.35E-10	6.35E-10	6.35E-10	1.28E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sm150	9.83E+01	9.83E+01	9.83E+01	9.83E+01	9.83E+01	9.83E+01	9.83E+01	9.83E+01	9.83E+01	9.83E+01	9.83E+01	9.83E+01	
eu150	2.82E-08	2.82E-08	2.82E-08	2.82E-08	2.81E-08	2.76E-08	2.71E-08	2.56E-08	2.32E-08				



















ag110 1.78E-01 1.78E-01 1.78E-01 9.68E-05 7.57E-05 3.52E-05 1.28E-05 6.11E-07 3.85E-09  
 ag110m 7.14E-03 7.14E-03 7.14E-03 7.12E-03 5.56E-03 2.59E-03 9.40E-04 4.49E-05 2.83E-07

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Part B 8X UO2 in Tuff (47% H2O) DBF Fuel

fission products

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	nuclide radioactivity, curies									
	basis =per critical mass 10.1 MT UO2									
	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d	
cd110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb111	7.45E-08	7.45E-08	7.45E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo111	8.03E-04	8.03E-04	8.03E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc111	4.68E-02	4.68E-02	4.68E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru111	8.17E-01	8.17E-01	8.17E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh111	1.62E+00	1.62E+00	1.62E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111	1.72E+00	1.72E+00	1.72E+00	2.92E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111m	7.66E-02	7.66E-02	7.66E-02	3.72E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111	1.73E+00	1.73E+00	1.73E+00	1.58E+00	4.00E-04	3.02E-15	5.27E-30	.00E+00	.00E+00	.00E+00
ag111m	1.72E+00	1.72E+00	1.72E+00	3.63E-03	.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
cd111m	4.51E-06	4.51E-06	4.51E-06	5.43E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb112	2.77E-09	2.77E-09	2.77E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo112	1.26E-04	1.26E-04	1.26E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc112	9.79E-03	9.79E-03	9.79E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru112	3.56E-01	3.56E-01	3.56E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh112	8.25E-01	8.25E-01	8.25E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd112	1.00E+00	1.00E+00	1.00E+00	4.55E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag112	1.01E+00	1.01E+00	1.01E+00	5.34E-01	.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
mo113	2.47E-06	2.47E-06	2.47E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc113	2.59E-03	2.59E-03	2.59E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru113	1.41E-01	1.41E-01	1.41E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh113	5.22E-01	5.22E-01	5.22E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd113	7.54E-01	7.54E-01	7.54E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113	7.32E-01	7.32E-01	7.32E-01	3.32E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113m	1.45E-01	1.45E-01	1.45E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd113	7.43E-14	7.43E-14	7.43E-14	7.43E-14	7.43E-14	7.43E-14	7.43E-14	7.43E-14	7.43E-14	7.43E-14
cd113m	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.24E-02	1.20E-02	1.14E-02	9.82E-03	7.68E-03	
in113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in113m	4.30E-10	4.30E-10	4.30E-10	1.89E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo114	1.27E-06	1.27E-06	1.27E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc114	4.11E-04	4.11E-04	4.11E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru114	5.51E-02	5.51E-02	5.51E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh114	2.95E-01	2.95E-01	2.95E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd114	6.47E-01	6.47E-01	6.47E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag114	6.65E-01	6.65E-01	6.65E-01	.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
in114	3.03E-05	3.03E-05	3.03E-05	2.15E-05	6.19E-06	1.31E-07	7.90E-10	1.72E-16	1.36E-27	
in114m	2.28E-05	2.28E-05	2.28E-05	2.25E-05	6.47E-06	1.37E-07	8.26E-10	1.80E-16	1.42E-27	
sn114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo115	5.48E-09	5.48E-09	5.48E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc115	1.30E-05	1.30E-05	1.30E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru115	1.19E-02	1.19E-02	1.19E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh115	1.34E-01	1.34E-01	1.34E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd115	4.48E-01	4.48E-01	4.48E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115	3.48E-01	3.48E-01	3.48E-01	7.61E-23	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115m	1.42E-01	1.42E-01	1.42E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115	4.71E-01	4.71E-01	4.71E-01	3.46E-01	3.27E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115m	2.05E-02	2.05E-02	2.05E-02	2.02E-02	5.05E-03	7.01E-05	2.40E-07	9.62E-15	4.52E-27	
in115	6.60E-12	6.60E-12	6.60E-12	6.60E-12	6.60E-12	6.60E-12	6.60E-12	6.60E-12	6.60E-12	6.60E-12
in115m	4.71E-01	4.71E-01	4.71E-01	3.77E-01	5.58E-07	7.74E-09	2.65E-11	1.06E-18	5.02E-31	

Part B 8% UO2 in Tuff (47% H2O) DBF Fuel		nuclide radioactivity, curies										fission products	page 32
		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	.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	.00E+00	.00E+00	.00E+00	
ru116	3.95E-03	3.95E-03	3.95E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh116	7.72E-02	7.72E-02	7.72E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd116	5.81E-01	5.81E-01	5.81E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag116	6.44E-01	6.44E-01	6.44E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag116m	6.13E-02	6.13E-02	6.13E-02	.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	.00E+00	
in116	4.24E-03	4.24E-03	4.24E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in116m	1.59E-02	1.59E-02	1.59E-02	1.58E-10	.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	.00E+00	
tc117	6.37E-08	6.37E-08	6.37E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ru117	5.44E-04	5.44E-04	5.44E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh117	2.58E-02	2.58E-02	2.58E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd117	3.46E-01	3.46E-01	3.46E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag117	2.61E-01	2.61E-01	2.61E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag117m	2.61E-01	2.61E-01	2.61E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd117	4.55E-01	4.55E-01	4.55E-01	5.73E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd117m	9.72E-02	9.72E-02	9.72E-02	6.91E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in117	3.32E-01	3.32E-01	3.32E-01	2.13E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in117m	4.15E-01	4.15E-01	4.15E-01	2.47E-03	.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	.00E+00	
sn117m	1.06E-03	1.06E-03	1.06E-03	1.03E-03	1.10E-05	8.88E-12	7.30E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
tc118	1.89E-09	1.89E-09	1.89E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ru118	7.82E-05	7.82E-05	7.82E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh118	5.11E-03	5.11E-03	5.11E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd118	1.57E-01	1.57E-01	1.57E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag118	2.91E-01	2.91E-01	2.91E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag118m	2.07E-01	2.07E-01	2.07E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd118	4.88E-01	4.88E-01	4.88E-01	1.18E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in118	4.88E-01	4.88E-01	4.88E-01	1.18E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in118m	3.74E-04	3.74E-04	3.74E-04	.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	.00E+00	
ru119	1.04E-05	1.04E-05	1.04E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh119	2.01E-03	2.01E-03	2.01E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd119	1.06E-01	1.06E-01	1.06E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag119	3.74E-01	3.74E-01	3.74E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd119	3.68E-01	3.68E-01	3.68E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd119m	1.58E-01	1.58E-01	1.58E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in119	2.06E-01	2.06E-01	2.06E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in119m	3.31E-01	3.31E-01	3.31E-01	.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	.00E+00	
sn119m	1.95E-03	1.95E-03	1.95E-03	1.95E-03	1.58E-03	8.22E-04	3.47E-04	2.59E-05	3.45E-07	.00E+00	.00E+00	.00E+00	
ru120	1.24E-06	1.24E-06	1.24E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rh120	3.84E-04	3.84E-04	3.84E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pd120	4.87E-02	4.87E-02	4.87E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ag120	2.43E-01	2.43E-01	2.43E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cd120	5.07E-01	5.07E-01	5.07E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in120	5.13E-01	5.13E-01	5.13E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
in120m	6.05E-03	6.05E-03	6.05E-03	.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	.00E+00	
rh121	9.60E-05	9.60E-05	9.60E-05	.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		nuclide radioactivity, curies										fission products	page 33
		basis =per critical mass 10.1 MT UO2											











pr150	2.04E+01	2.04E+01	2.04E+01	.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
pm150	4.96E-03	4.96E-03	4.96E-03	9.98E-06	.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
eu150	1.88E-06	1.88E-06	1.88E-06	1.88E-06	1.87E-06	1.84E-06	1.81E-06	1.70E-06	1.55E-06	
ba151	3.47E-05	3.47E-05	3.47E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
la151	3.77E-02	3.77E-02	3.77E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ce151	2.34E+00	2.34E+00	2.34E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pr151	9.92E+00	9.92E+00	9.92E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nd151	1.56E+01	1.56E+01	1.56E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pm151	1.57E+01	1.57E+01	1.57E+01	8.83E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sm151	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.61E+01	1.60E+01	1.59E+01	1.55E+01	1.49E+01	
eu151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ba152	2.57E-07	2.57E-07	2.57E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
la152	7.36E-04	7.36E-04	7.36E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ce152	3.22E-01	3.22E-01	3.22E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pr152	3.23E+00	3.23E+00	3.23E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nd152	9.92E+00	9.92E+00	9.92E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pm152	1.02E+01	1.02E+01	1.02E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pm152m	2.42E-01	2.42E-01	2.42E-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	6.43E+00	6.43E+00	6.43E+00	6.43E+00	6.35E+00	6.11E+00	5.80E+00	4.96E+00	3.82E+00	
eu152m	3.49E+00	3.49E+00	3.49E+00	5.85E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
gd152	1.55E-10	1.55E-10	1.55E-10	1.55E-10	1.55E-10	1.55E-10	1.55E-10	1.55E-10	1.55E-10	
la153	2.35E-04	2.35E-04	2.35E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ce153	7.17E-02	7.17E-02	7.17E-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	5.48E+00	5.48E+00	5.48E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pm153	6.38E+00	6.38E+00	6.38E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sm153	7.43E+00	7.43E+00	7.43E+00	5.20E+00	6.63E-14	.00E+00	.00E+00	.00E+00	.00E+00	
eu153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
gd153	6.24E-02	6.24E-02	6.24E-02	6.22E-02	4.82E-02	2.19E-02	7.67E-03	3.31E-04	1.75E-06	
la154	5.91E-06	5.91E-06	5.91E-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	1.71E-01	1.71E-01	1.71E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nd154	2.24E+00	2.24E+00	2.24E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pm154	2.72E+00	2.72E+00	2.72E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pm154m	4.82E-01	4.82E-01	4.82E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel

fission products

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	nuclide radioactivity, curies									
	basis =per critical mass 10.1 MT UO2									
	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d	
sm154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu154	4.15E-01	4.15E-01	4.15E-01	4.14E-01	4.06E-01	3.82E-01	3.53E-01	2.77E-01	1.85E-01	
gd154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
la155	2.90E-08	2.90E-08	2.90E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ce155	5.04E-04	5.04E-04	5.04E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pr155	3.09E-02	3.09E-02	3.09E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nd155	6.63E-01	6.63E-01	6.63E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pm155	1.45E+00	1.45E+00	1.45E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sm155	1.66E+00	1.66E+00	1.66E+00	6.26E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
eu155	1.66E+00	1.66E+00	1.66E+00	1.66E+00	1.60E+00	1.43E+00	1.23E+00	7.91E-01	3.77E-01	
gd155m	4.11E-05	4.11E-05	4.11E-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	3.77E-05	3.77E-05	3.77E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pr156	3.60E-03	3.60E-03	3.60E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nd156	1.83E-01	1.83E-01	1.83E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pm156	5.79E-01	5.79E-01	5.79E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
sm156	8.66E-01	8.66E-01	8.66E-01	1.48E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	



eu165	8.98E-06	8.98E-06	8.98E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	2.10E-04	2.10E-04	2.10E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	4.81E-04	4.81E-04	4.81E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165	7.84E-04	7.84E-04	7.84E-04	6.40E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	6.13E-04	6.13E-04	6.13E-04	.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
dy166	8.47E-05	8.47E-05	8.47E-05	6.91E-05	9.13E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166	9.05E-05	9.05E-05	9.05E-05	8.37E-05	1.36E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.14E-06	1.13E-06
er166	.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
er167m	2.75E-09	2.75E-09	2.75E-09	.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
yb168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er169	1.45E-07	1.45E-07	1.45E-07	1.35E-07	1.91E-10	2.92E-19	5.93E-31	.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
yb169	.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
tm170	8.96E-10	8.96E-10	8.96E-10	8.91E-10	5.51E-10	1.25E-10	1.75E-11	4.75E-14	2.52E-18	
tm170m	.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
er171	2.01E-07	2.01E-07	2.01E-07	2.20E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	2.05E-07	2.05E-07	2.05E-07	2.05E-07	1.88E-07	1.43E-07	9.98E-08	3.38E-08	5.56E-09	
yb171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er172	1.22E-07	1.22E-07	1.22E-07	8.72E-08	7.93E-21	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm172	1.28E-07	1.28E-07	1.28E-07	1.23E-07	3.29E-17	.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
total	2.05E+04	2.05E+04	2.05E+04	4.79E+03	1.64E+03	1.06E+03	9.05E+02	7.56E+02	6.52E+02	

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

	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	3.61E+01	3.61E+01	3.61E+01	3.62E+01	3.63E+01	3.66E+01	3.69E+01	3.71E+01	3.74E+01	3.77E+01	3.82E+01	
tl206	5.79E-15	5.79E-15	5.79E-15	5.79E-15	5.80E-15	5.84E-15	5.87E-15	5.91E-15	5.95E-15	5.98E-15	6.06E-15	
tl207	4.22E-10	4.22E-10	4.22E-10	4.22E-10	4.22E-10	4.23E-10	4.24E-10	4.26E-10	4.27E-10	4.29E-10	4.31E-10	
tl208	1.39E-11	1.33E-11	1.26E-11	1.14E-11	9.37E-12	5.70E-12	3.47E-12	2.11E-12	1.29E-12	7.84E-13	2.92E-13	
tl209	5.00E-12	5.01E-12	5.01E-12	5.02E-12	5.04E-12	5.08E-12	5.12E-12	5.16E-12	5.21E-12	5.25E-12	5.34E-12	
pb206	1.58E+00	1.58E+00	1.59E+00	1.59E+00	1.60E+00	1.62E+00	1.64E+00	1.65E+00	1.67E+00	1.69E+00	1.73E+00	
pb207	1.60E-01	1.60E-01	1.60E-01	1.60E-01	1.61E-01	1.63E-01	1.64E-01	1.66E-01	1.68E-01	1.69E-01	1.73E-01	
pb208	2.50E-02	2.51E-02	2.51E-02	2.51E-02	2.52E-02	2.53E-02	2.54E-02	2.54E-02	2.55E-02	2.55E-02	2.55E-02	
pb209	2.11E-08	2.11E-08	2.12E-08	2.12E-08	2.13E-08	2.15E-08	2.16E-08	2.18E-08	2.20E-08	2.22E-08	2.25E-08	
pb210	1.25E-02	1.25E-02	1.25E-02	1.25E-02	1.25E-02	1.26E-02	1.27E-02	1.27E-02	1.28E-02	1.29E-02	1.31E-02	
pb211	3.27E-09	3.27E-09	3.27E-09	3.26E-09	3.27E-09	3.27E-09	3.28E-09	3.29E-09	3.31E-09	3.32E-09	3.34E-09	
pb212	8.25E-09	7.86E-09	7.48E-09	6.77E-09	5.55E-09	3.38E-09	2.06E-09	1.25E-09	7.63E-10	4.65E-10	1.73E-10	
pb214	2.91E-08	2.91E-08	2.91E-08	2.92E-08	2.92E-08	2.94E-08	2.96E-08	2.98E-08	3.00E-08	3.02E-08	3.06E-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	1.43E-01	1.43E-01	1.43E-01	1.44E-01	1.44E-01	1.46E-01	1.48E-01	1.50E-01	1.52E-01	1.55E-01	1.59E-01	
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
bi210	7.68E-06	7.68E-06	7.69E-06	7.69E-06	7.70E-06	7.74E-06	7.79E-06	7.84E-06	7.89E-06	7.94E-06	8.04E-06	
bi211	1.94E-10	1.94E-10	1.94E-10	1.94E-10	1.94E-10	1.94E-10	1.95E-10	1.95E-10	1.96E-10	1.97E-10	1.98E-10	
bi212	7.83E-10	7.46E-10	7.10E-10	6.42E-10	5.27E-10	3.20E-10	1.95E-10	1.19E-10	7.23E-11	4.41E-11	1.64E-11	
bi213	5.03E-09	5.03E-09	5.04E-09	5.05E-09	5.06E-09	5.11E-09	5.15E-09	5.19E-09	5.24E-09	5.28E-09	5.37E-09	
bi214	2.16E-08	2.16E-08	2.16E-08	2.17E-08	2.17E-08	2.18E-08	2.20E-08	2.21E-08	2.23E-08	2.24E-08	2.27E-08	
po210	2.12E-04	2.12E-04	2.12E-04	2.12E-04	2.13E-04	2.14E-04	2.15E-04	2.17E-04	2.18E-04	2.19E-04	2.22E-04	
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
po211	2.14E-15	2.14E-15	2.14E-15	2.14E-15	2.14E-15	2.14E-15	2.15E-15	2.16E-15	2.17E-15	2.17E-15	2.19E-15	
po212	4.11E-20	3.92E-20	3.73E-20	3.37E-20	2.77E-20	1.68E-20	1.03E-20	6.24E-21	3.80E-21	2.32E-21	8.63E-22	
po213	7.56E-18	7.57E-18	7.57E-18	7.59E-18	7.61E-18	7.68E-18	7.74E-18	7.81E-18	7.87E-18	7.94E-18	8.07E-18	
po214	2.97E-15	2.97E-15	2.98E-15	2.98E-15	2.99E-15	3.01E-15	3.03E-15	3.04E-15	3.06E-15	3.08E-15	3.12E-15	

po215	2.73E-15	2.73E-15	2.73E-15	2.73E-15	2.73E-15	2.74E-15	2.75E-15	2.76E-15	2.77E-15	2.78E-15	2.79E-15
po216	3.18E-14	3.03E-14	2.89E-14	2.61E-14	2.14E-14	1.30E-14	7.93E-15	4.83E-15	2.94E-15	1.79E-15	6.68E-16
po218	3.43E-09	3.43E-09	3.43E-09	3.44E-09	3.45E-09	3.47E-09	3.49E-09	3.51E-09	3.53E-09	3.56E-09	3.60E-09
at217	6.05E-14	6.06E-14	6.06E-14	6.07E-14	6.09E-14	6.14E-14	6.20E-14	6.25E-14	6.30E-14	6.35E-14	6.46E-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	6.20E-12	6.20E-12	6.20E-12	6.20E-12	6.20E-12	6.21E-12	6.23E-12	6.25E-12	6.27E-12	6.29E-12	6.33E-12
rn220	1.24E-11	1.18E-11	1.13E-11	1.02E-11	8.37E-12	5.09E-12	3.10E-12	1.89E-12	1.15E-12	7.00E-13	2.61E-13
rn222	6.20E-06	6.20E-06	6.21E-06	6.22E-06	6.23E-06	6.27E-06	6.31E-06	6.35E-06	6.39E-06	6.43E-06	6.52E-06
fr221	5.61E-10	5.62E-10	5.62E-10	5.63E-10	5.65E-10	5.70E-10	5.74E-10	5.79E-10	5.84E-10	5.89E-10	5.99E-10
fr223	2.87E-11	2.87E-11	2.87E-11	2.87E-11	2.87E-11	2.87E-11	2.88E-11	2.89E-11	2.90E-11	2.91E-11	2.92E-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	1.57E-06	1.57E-06	1.57E-06	1.57E-06	1.57E-06	1.58E-06	1.58E-06	1.59E-06	1.59E-06	1.60E-06	1.61E-06
ra224	7.20E-08	6.86E-08	6.53E-08	5.90E-08	4.84E-08	2.95E-08	1.79E-08	1.09E-08	6.65E-09	4.05E-09	1.51E-09
ra225	2.48E-06	2.49E-06	2.49E-06	2.49E-06	2.50E-06	2.52E-06	2.54E-06	2.57E-06	2.59E-06	2.61E-06	2.65E-06
ra226	9.65E-01	9.65E-01	9.66E-01	9.67E-01	9.70E-01	9.76E-01	9.82E-01	9.88E-01	9.95E-01	1.00E+00	1.01E+00
ra228	4.96E-09	4.97E-09	4.97E-09	4.97E-09	4.98E-09	5.01E-09	5.04E-09	5.06E-09	5.09E-09	5.11E-09	5.17E-09
ac225	1.68E-06	1.68E-06	1.68E-06	1.68E-06	1.69E-06	1.70E-06	1.72E-06	1.73E-06	1.75E-06	1.76E-06	1.79E-06
ac227	1.11E-03	1.11E-03	1.11E-03	1.11E-03	1.11E-03	1.12E-03	1.12E-03	1.12E-03	1.13E-03	1.13E-03	1.14E-03
ac228	6.06E-13	6.06E-13	6.07E-13	6.07E-13	6.08E-13	6.11E-13	6.15E-13	6.18E-13	6.21E-13	6.24E-13	6.31E-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	2.59E-06	2.59E-06	2.59E-06	2.59E-06	2.59E-06	2.59E-06	2.60E-06	2.61E-06	2.62E-06	2.63E-06	2.64E-06
th228	1.40E-05	1.33E-05	1.27E-05	1.15E-05	9.41E-06	5.73E-06	3.49E-06	2.12E-06	1.29E-06	7.88E-07	2.93E-07
th229	4.92E-01	4.92E-01	4.93E-01	4.93E-01	4.95E-01	4.99E-01	5.03E-01	5.08E-01	5.12E-01	5.16E-01	5.25E-01
th230	6.01E+01	6.01E+01	6.02E+01	6.02E+01	6.03E+01	6.07E+01	6.10E+01	6.13E+01	6.16E+01	6.19E+01	6.25E+01
th231	6.36E-07	6.36E-07	6.36E-07	6.36E-07	6.36E-07	6.36E-07	6.36E-07	6.36E-07	6.36E-07	6.36E-07	6.36E-07

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Part B 8% UO2 in Tuff (47% H2O) DBF Fuel											
nuclide concentrations, grams											
basis =per critical mass 10.1 MT UO2											
	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
th232	1.24E+01	1.24E+01	1.24E+01	1.24E+01	1.24E+01	1.25E+01	1.25E+01	1.26E+01	1.27E+01	1.27E+01	1.29E+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	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04
pa231	1.70E+00	1.70E+00	1.70E+00	1.71E+00	1.71E+00	1.71E+00	1.72E+00	1.72E+00	1.73E+00	1.74E+00	1.75E+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	3.34E-04	3.34E-04	3.34E-04	3.34E-04	3.34E-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	5.05E-04	4.81E-04	4.57E-04	4.14E-04	3.40E-04	2.07E-04	1.26E-04	7.66E-05	4.66E-05	2.84E-05	1.05E-05
u233	2.96E+01	2.96E+01	2.96E+01	2.96E+01	2.97E+01	2.99E+01	3.00E+01	3.02E+01	3.03E+01	3.05E+01	3.08E+01
u234	2.43E+03	2.43E+03	2.43E+03	2.43E+03	2.43E+03	2.43E+03	2.43E+03	2.44E+03	2.44E+03	2.44E+03	2.44E+03
u235	1.56E+05	1.56E+05	1.56E+05	1.56E+05	1.56E+05	1.56E+05	1.56E+05	1.56E+05	1.56E+05	1.56E+05	1.56E+05
u236	4.37E+04	4.37E+04	4.37E+04	4.37E+04	4.37E+04	4.38E+04	4.38E+04	4.38E+04	4.38E+04	4.38E+04	4.38E+04
u237	2.47E-09	1.94E-09	1.52E-09	9.38E-10	3.57E-10	3.19E-11	2.85E-12	2.54E-13	2.27E-14	2.03E-15	1.62E-17
u238	8.64E+06	8.64E+06	8.64E+06	8.64E+06	8.64E+06	8.64E+06	8.64E+06	8.64E+06	8.64E+06	8.64E+06	8.64E+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	1.01E-32	1.01E-32	1.01E-32	1.02E-32	1.04E-32	1.08E-32	1.12E-32	1.16E-32	1.20E-32	1.24E-32	1.33E-32
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	3.47E-12	1.42E-13	5.82E-15	9.76E-18	2.74E-23	3.64E-37	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	4.54E-04	4.54E-04	4.54E-04	4.54E-04	4.54E-04	4.54E-04	4.54E-04	4.54E-04	4.54E-04	4.54E-04	4.53E-04
np237	9.83E+03	9.83E+03	9.83E+03	9.83E+03	9.83E+03	9.83E+03	9.83E+03	9.83E+03	9.83E+03	9.83E+03	9.83E+03
np238	2.96E-10	2.89E-10	2.82E-10	2.69E-10	2.44E-10	1.90E-10	1.49E-10	1.17E-10	9.11E-11	7.13E-11	4.36E-11
np239	2.97E-10	2.97E-10	2.97E-10	2.97E-10	2.96E-10	2.95E-10	2.94E-10	2.92E-10	2.91E-10	2.89E-10	2.87E-10
np240m	8.59E-35	8.62E-35	8.66E-35	8.73E-35	8.87E-35	9.22E-35	9.57E-35	9.92E-35	1.03E-34	1.06E-34	1.13E-34
np240	8.83E-37	8.87E-37	8.90E-37	8.97E-37	9.12E-37	9.48E-37	9.84E-37	1.02E-36	1.06E-36	1.09E-36	1.17E-36
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pu236	2.55E-08	8.44E-09	3.27E-09	1.23E-09	1.02E-09	1.02E-09	1.02E-09	1.02E-09	1.02E-09	1.02E-09	1.02E-09	1.02E-09
pu237	6.11E-35	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	5.01E+00	4.82E+00	4.63E+00	4.28E+00	3.66E+00	2.46E+00	1.66E+00	1.12E+00	7.53E-01	5.07E-01	2.30E-01	2.30E-01
pu239	9.03E+03	9.03E+03	9.03E+03	9.03E+03	9.02E+03	9.01E+03	9.00E+03	8.98E+03	8.97E+03	8.96E+03	8.93E+03	8.93E+03
pu240	3.20E+02	3.20E+02	3.20E+02	3.20E+02	3.19E+02	3.17E+02	3.16E+02	3.14E+02	3.12E+02	3.11E+02	3.07E+02	3.07E+02
pu241	8.13E-02	6.39E-02	5.02E-02	3.10E-02	1.18E-02	1.05E-03	9.39E-05	8.39E-06	7.49E-07	6.69E-08	5.34E-10	5.34E-10
pu242	3.82E-02	3.82E-02	3.82E-02	3.82E-02	3.82E-02	3.83E-02	3.83E-02	3.84E-02	3.84E-02	3.84E-02	3.84E-02	3.84E-02
pu243	4.55E-27	4.55E-27	4.55E-27	4.55E-27	4.55E-27	4.55E-27	4.55E-27	4.55E-27	4.55E-27	4.55E-27	4.55E-27	4.55E-27
pu244	5.10E-22	5.12E-22	5.14E-22	5.18E-22	5.26E-22	5.47E-22	5.68E-22	5.89E-22	6.09E-22	6.30E-22	6.72E-22	6.72E-22
pu245	.00E+00	.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	.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	.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	.00E+00
am241	3.53E+00	3.52E+00	3.50E+00	3.47E+00	3.38E+00	3.13E+00	2.89E+00	2.67E+00	2.46E+00	2.27E+00	1.93E+00	1.93E+00
am242m	1.63E-03	1.59E-03	1.55E-03	1.48E-03	1.34E-03	1.05E-03	8.19E-04	6.41E-04	5.01E-04	3.92E-04	2.40E-04	2.40E-04
am242	2.10E-08	2.05E-08	2.00E-08	1.91E-08	1.73E-08	1.35E-08	1.06E-08	8.26E-09	6.46E-09	5.05E-09	3.09E-09	3.09E-09
am243	3.46E-04	3.45E-04	3.45E-04	3.45E-04	3.44E-04	3.43E-04	3.41E-04	3.40E-04	3.38E-04	3.36E-04	3.33E-04	3.33E-04
am244m	.00E+00	.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	.00E+00
am245	7.31E-38	.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	.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	.00E+00

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Part B 8X UO2 in Tuff (47% H2O) DBF Fuel													actinides	page	43
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	4.25E-06	4.14E-06	4.04E-06	3.85E-06	3.49E-06	2.73E-06	2.13E-06	1.67E-06	1.30E-06	1.02E-06	6.24E-07				
cm243	1.79E-14	1.58E-14	1.40E-14	1.10E-14	6.76E-15	2.00E-15	5.94E-16	1.76E-16	5.21E-17	1.55E-17	1.36E-18				
cm244	2.82E-08	2.33E-08	1.93E-08	1.31E-08	6.10E-09	8.99E-10	1.32E-10	1.95E-11	2.88E-12	4.24E-13	9.21E-15				
cm245	8.33E-11	8.32E-11	8.32E-11	8.31E-11	8.30E-11	8.27E-11	8.23E-11	8.20E-11	8.17E-11	8.13E-11	8.07E-11				
cm246	7.34E-13	7.34E-13	7.33E-13	7.32E-13	7.30E-13	7.25E-13	7.20E-13	7.14E-13	7.09E-13	7.04E-13	6.94E-13				
cm247	1.31E-16	1.31E-16	1.31E-16	1.31E-16	1.31E-16	1.31E-16	1.31E-16	1.31E-16	1.31E-16	1.31E-16	1.31E-16				
cm248	2.26E-19	2.26E-19	2.26E-19	2.26E-19	2.26E-19	2.26E-19	2.26E-19	2.26E-19	2.26E-19	2.26E-19	2.26E-19				
cm249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00				
cm250	3.36E-34	3.36E-34	3.36E-34	3.36E-34	3.36E-34	3.35E-34	3.34E-34	3.34E-34	3.33E-34	3.32E-34	3.31E-34				
cm251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00				
bk249	1.88E-29	3.59E-31	6.88E-33	2.52E-36	3.49E-43	.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	1.44E-23	1.43E-23	1.41E-23	1.39E-23	1.33E-23	1.21E-23	1.09E-23	9.91E-24	8.98E-24	8.13E-24	6.67E-24				
cf250	1.09E-27	8.38E-28	6.43E-28	3.79E-28	1.31E-28	9.27E-30	6.55E-31	4.63E-32	3.27E-33	2.31E-34	1.19E-36				
cf251	3.88E-29	3.87E-29	3.85E-29	3.82E-29	3.76E-29	3.62E-29	3.48E-29	3.35E-29	3.22E-29	3.10E-29	2.87E-29				
cf252	4.61E-34	1.24E-34	3.35E-35	2.44E-36	1.29E-38	.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				

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Part B 8X UO2 in Tuff (47% H2O) DBF Fuel													actinides	page	44
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	1.26E-06	1.26E-06	1.26E-06	1.26E-06	1.26E-06	1.27E-06	1.28E-06	1.28E-06	1.29E-06	1.30E-06	1.32E-06				

