

ru110	1.03E-01	1.03E-01	1.03E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110	1.80E-02	1.80E-02	1.80E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110m	1.21E-01	1.21E-01	1.21E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag110	6.83E+00	6.83E+00	6.83E+00	6.67E+00	5.21E+00	2.43E+00	8.81E-01	4.21E-02	2.65E-04	
ag110m	4.92E+02	4.92E+02	4.92E+02	4.91E+02	3.83E+02	1.79E+02	6.48E+01	3.10E+00	1.95E-02	

Part B B&W 15x15, 3.00w%, 20g-w/mtu decay

fission products

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	nuclide radioactivity, curies									
	basis = per B&W assembly, 0.409 mtm for grams									
	change	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
rb111	2.67E-09	2.67E-09	2.67E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo111	3.33E-05	3.33E-05	3.33E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc111	2.08E-03	2.08E-03	2.08E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru111	3.38E-02	3.38E-02	3.38E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh111	6.76E-02	6.76E-02	6.76E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111	1.83E+01	1.83E+01	1.83E+01	8.84E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd111m	2.32E+01	2.32E+01	2.32E+01	1.13E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag111	9.60E+03	9.60E+03	9.60E+03	8.75E+03	2.22E+00	1.68E-11	2.92E-26	.00E+00	.00E+00	.00E+00
ag111m	2.27E+01	2.27E+01	2.27E+01	1.10E+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
cd111m	5.75E-05	5.75E-05	5.75E-05	6.92E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb112	9.13E-11	9.13E-11	9.13E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo112	4.31E-06	4.31E-06	4.31E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc112	3.36E-04	3.36E-04	3.36E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru112	1.12E-02	1.12E-02	1.12E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh112	2.71E-02	2.71E-02	2.71E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd112	2.22E+03	2.22E+03	2.22E+03	1.01E+03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag112	2.60E+03	2.60E+03	2.60E+03	1.18E+03	.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	8.04E-08	8.04E-08	8.04E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc113	7.67E-05	7.67E-05	7.67E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru113	3.50E-03	3.50E-03	3.50E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh113	1.29E-02	1.29E-02	1.29E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd113	1.94E-02	1.94E-02	1.94E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113	1.24E+02	1.24E+02	1.24E+02	5.62E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag113m	3.78E-03	3.78E-03	3.78E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd113	1.56E-14	1.56E-14	1.56E-14	1.56E-14	1.56E-14	1.56E-14	1.56E-14	1.56E-14	1.56E-14	1.56E-14
cd113m	6.30E+00	6.30E+00	6.30E+00	6.30E+00	6.22E+00	5.99E+00	5.71E+00	4.92E+00	3.85E+00	
in113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in113m	1.50E-10	1.50E-10	1.50E-10	6.61E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo114	4.01E-08	4.01E-08	4.01E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc114	1.16E-05	1.16E-05	1.16E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru114	1.26E-03	1.26E-03	1.26E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh114	6.58E-03	6.58E-03	6.58E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd114	1.54E-02	1.54E-02	1.54E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag114	1.60E-02	1.60E-02	1.60E-02	.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	2.06E-01	2.06E-01	2.06E-01	2.06E-01	5.83E-02	1.24E-03	7.44E-06	1.62E-12	1.28E-23	
in114m	2.15E-01	2.15E-01	2.15E-01	2.12E-01	6.09E-02	1.29E-03	7.78E-06	1.69E-12	1.34E-23	
sn114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo115	1.75E-10	1.75E-10	1.75E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc115	3.93E-07	3.93E-07	3.93E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru115	2.85E-04	2.85E-04	2.85E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh115	2.69E-03	2.69E-03	2.69E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd115	9.34E-03	9.34E-03	9.34E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115	7.40E-03	7.40E-03	7.40E-03	1.62E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115m	3.10E-03	3.10E-03	3.10E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115	1.11E+03	1.11E+03	1.11E+03	8.15E+02	7.69E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 Part B B&W 15x15, 3.00wt%, 20gd/mtu decay fission products page 33

0 nuclide radioactivity, curies
basis = per B&W assembly, 0.409 mthn for grams

	charge	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
pd121	3.95E-04	3.95E-04	3.95E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag121	3.12E-03	3.12E-03	3.12E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd121	9.79E-03	9.79E-03	9.79E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121	9.46E-04	9.46E-04	9.46E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121m	9.98E-03	9.98E-03	9.98E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr121	8.45E+02	8.45E+02	8.45E+02	4.57E+02	4.47E-01	4.43E-01	4.39E-01	4.21E-01	3.96E-01
sr121m	5.78E-01	5.78E-01	5.78E-01	5.78E-01	5.77E-01	5.71E-01	5.64E-01	5.43E-01	5.10E-01
sb121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh122	3.00E-07	3.00E-07	3.00E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd122	1.30E-04	1.30E-04	1.30E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag122	1.61E-03	1.61E-03	1.61E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd122	1.05E-02	1.05E-02	1.05E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122	1.17E-02	1.17E-02	1.17E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122m	1.21E-03	1.21E-03	1.21E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr122	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb122	1.02E+02	1.02E+02	1.02E+02	7.87E+01	9.42E-09	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	9.05E-05	9.05E-05	9.05E-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	2.55E-08	2.55E-08	2.55E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd123	2.26E-05	2.26E-05	2.26E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag123	6.40E-04	6.40E-04	6.40E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd123	6.74E-03	6.74E-03	6.74E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123	8.65E-03	8.65E-03	8.65E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123m	2.36E-03	2.36E-03	2.36E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr123	1.25E+02	1.25E+02	1.25E+02	1.22E+02	7.94E+01	1.81E+01	2.55E+00	7.14E-03	3.96E-07
sr123m	1.13E-02	1.13E-02	1.13E-02	.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
te123	7.02E-14	7.02E-14	7.02E-14	7.03E-14	7.67E-14	8.44E-14	8.61E-14	8.63E-14	8.63E-14
te123m	6.10E-01	6.10E-01	6.10E-01	6.07E-01	3.62E-01	7.36E-02	8.87E-03	1.56E-05	3.96E-10
pd124	1.22E-05	1.22E-05	1.22E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag124	4.91E-04	4.91E-04	4.91E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd124	1.04E-02	1.04E-02	1.04E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in124	1.95E-02	1.95E-02	1.95E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr124	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb124	9.48E+01	9.48E+01	9.48E+01	9.37E+01	3.36E+01	1.41E+00	2.11E-02	6.98E-08	5.14E-17
sb124m	1.66E-05	1.66E-05	1.66E-05	.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	2.93E-06	2.93E-06	2.93E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag125	2.21E-04	2.21E-04	2.21E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd125	6.43E-03	6.43E-03	6.43E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125	1.11E-02	1.11E-02	1.11E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125m	8.50E-03	8.50E-03	8.50E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr125	8.84E+02	8.84E+02	8.84E+02	8.22E+02	1.37E+00	3.47E-09	1.36E-20	.00E+00	.00E+00
sr125m	2.01E-02	2.01E-02	2.01E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb125	1.94E+03	1.94E+03	1.94E+03	1.94E+03	1.83E+03	1.51E+03	1.17E+03	5.46E+02	1.54E+02
te125	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te125m	4.19E+02	4.19E+02	4.19E+02	4.20E+02	4.27E+02	3.68E+02	2.86E+02	1.33E+02	3.75E+01
pd126	6.66E-07	6.66E-07	6.66E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag126	9.69E-05	9.69E-05	9.69E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd126	7.50E-03	7.50E-03	7.50E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in126	2.60E-02	2.60E-02	2.60E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr126	1.39E-01	1.39E-01	1.39E-01	1.39E-01	1.39E-01	1.39E-01	1.39E-01	1.39E-01	1.39E-01

1 Part B B&W 15x15, 3.00wt%, 20gd/mtu decay fission products page 34

0 nuclide radioactivity, curies

i144	1.40E-06	1.40E-06	1.40E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe144	5.96E-03	5.96E-03	5.96E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs144	1.39E-01	1.39E-01	1.39E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba144	1.40E+00	1.40E+00	1.40E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la144	1.84E+00	1.84E+00	1.84E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce144	2.72E+05	2.72E+05	2.72E+05	2.72E+05	2.19E+05	1.12E+05	4.61E+04	3.21E+03	3.77E+01	
pr144	2.72E+05	2.72E+05	2.72E+05	2.72E+05	2.19E+05	1.12E+05	4.61E+04	3.21E+03	3.77E+01	
pr144m	3.81E+03	3.81E+03	3.81E+03	3.80E+03	3.06E+03	1.57E+03	6.45E+02	4.49E+01	5.29E-01	
nd144	3.05E-10	3.05E-10	3.05E-10	3.05E-10	3.25E-10	3.64E-10	3.89E-10	4.05E-10	4.06E-10	
i145	4.38E-08	4.38E-08	4.38E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
xe145	6.02E-04	6.02E-04	6.02E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cs145	3.42E-02	3.42E-02	3.42E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ba145	6.22E-01	6.22E-01	6.22E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
la145	1.27E+00	1.27E+00	1.27E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ce145	1.42E+00	1.42E+00	1.42E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pr145	1.30E+04	1.30E+04	1.30E+04	8.04E+02	.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	1.10E-02	1.10E-02	1.10E-02	1.11E-02	1.31E-02	1.73E-02	1.98E-02	2.00E-02	1.67E-02	
sm145	2.46E-01	2.46E-01	2.46E-01	2.46E-01	2.05E-01	1.17E-01	5.55E-02	5.95E-03	1.44E-04	
xe146	5.41E-05	5.41E-05	5.41E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cs146	7.53E-03	7.53E-03	7.53E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ba146	3.22E-01	3.22E-01	3.22E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
la146	8.26E-01	8.26E-01	8.26E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ce146	1.13E+00	1.13E+00	1.13E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pr146	1.14E+00	1.14E+00	1.14E+00	2.90E-18	.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	8.29E-01	8.29E-01	8.29E-01	8.29E-01	8.04E-01	7.32E-01	6.45E-01	4.43E-01	2.37E-01	
sm146	4.64E-08	4.64E-08	4.64E-08	4.64E-08	4.68E-08	4.81E-08	4.97E-08	5.34E-08	5.71E-08	
xe147	1.70E-07	1.70E-07	1.70E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cs147	1.69E-04	1.69E-04	1.69E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ba147	5.40E-02	5.40E-02	5.40E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
la147	3.55E-01	3.55E-01	3.55E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ce147	8.50E-01	8.50E-01	8.50E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pr147	8.96E-01	8.96E-01	8.96E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
nd147	1.23E+05	1.23E+05	1.23E+05	1.15E+05	4.19E+02	1.19E-05	1.16E-15	.00E+00	.00E+00	
pm147	5.37E+04	5.37E+04	5.37E+04	5.37E+04	5.16E+04	4.23E+04	3.25E+04	1.47E+04	3.92E+03	
sm147	6.95E-07	6.95E-07	6.95E-07	6.96E-07	7.81E-07	1.01E-06	1.25E-06	1.69E-06	1.96E-06	
cs148	3.09E-05	3.09E-05	3.09E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ba148	1.07E-02	1.07E-02	1.07E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
la148	1.12E-01	1.12E-01	1.12E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ce148	5.99E-01	5.99E-01	5.99E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pr148	6.93E-01	6.93E-01	6.93E-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	2.58E+04	2.58E+04	2.58E+04	2.28E+04	9.38E+01	9.22E-01	2.00E-03	2.06E-11	1.00E-24	
pm148m	8.01E+03	8.01E+03	8.01E+03	7.88E+03	1.77E+03	1.74E+01	3.79E-02	3.90E-10	1.90E-23	

Part B BBW 15x15, 3.00w%, 20g-act/mtu decay

fission products

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nuclide radioactivity, curies
basis = per BBW assembly, 0.409 mtm for grams

	change	discharge	.0 d	1.0 d	90.0 d	365.3 d	730.5 d	1826.3 d	3652.5 d
sm148	8.66E-12	8.66E-12	8.66E-12	8.67E-12	8.80E-12	8.82E-12	8.82E-12	8.82E-12	8.82E-12
cs149	2.54E-07	2.54E-07	2.54E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba149	1.20E-03	1.20E-03	1.20E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la149	3.21E-02	3.21E-02	3.21E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce149	3.09E-01	3.09E-01	3.09E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr149	4.76E-01	4.76E-01	4.76E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd149	5.38E+00	5.38E+00	5.38E+00	3.49E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm149	7.39E+04	7.39E+04	7.39E+04	5.41E+04	4.17E-08	.00E+00	.00E+00	.00E+00	.00E+00
sm149	2.96E-13	2.96E-13	2.96E-13	3.09E-13	3.41E-13	3.41E-13	3.41E-13	3.41E-13	3.41E-13
eu149	3.54E-07	3.54E-07	3.54E-07	3.51E-07	1.81E-07	2.33E-08	1.53E-09	4.38E-13	5.41E-19

gd164	4.92E-05	4.92E-05	4.92E-05	5.01E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	6.90E-05	6.90E-05	6.90E-05	5.82E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm165	7.46E-09	7.46E-09	7.46E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu165	4.90E-07	4.90E-07	4.90E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	1.06E-05	1.06E-05	1.06E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	2.36E-05	2.36E-05	2.36E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165	2.05E-02	2.05E-02	2.05E-02	1.65E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	1.31E-04	1.31E-04	1.31E-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	4.92E-01	4.92E-01	4.92E-01	4.02E-01	5.31E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166	2.53E+00	2.53E+00	2.53E+00	1.56E+00	7.91E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	4.27E-05	4.27E-05	4.27E-05	4.27E-05	4.27E-05	4.27E-05	4.27E-05	4.26E-05	4.25E-05	4.25E-05
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	1.29E-10	1.29E-10	1.29E-10	.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	9.37E-04	9.37E-04	9.37E-04	8.71E-04	1.22E-06	1.89E-15	3.79E-27	.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	5.77E-06	5.77E-06	5.77E-06	5.77E-06	3.55E-06	8.06E-07	1.12E-07	3.06E-10	1.62E-14	1.62E-14
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	1.53E-04	1.53E-04	1.53E-04	1.67E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	7.42E-04	7.42E-04	7.42E-04	7.42E-04	6.79E-04	5.17E-04	3.61E-04	1.22E-04	2.01E-05	2.01E-05
yb171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er172	6.25E-04	6.25E-04	6.25E-04	4.46E-04	4.05E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm172	8.76E-04	8.76E-04	8.76E-04	7.96E-04	1.82E-13	.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	7.20E+06	7.20E+06	7.20E+06	6.07E+06	1.48E+06	5.36E+05	3.03E+05	1.31E+05	9.05E+04	9.05E+04

1 Part B B&W 15x15, 3.00wt%, 20gd/mtu decay actinides page 44

	nuclide radioactivity, curies										
	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
he 4	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tl206	2.82E-14	7.02E-14	1.41E-13	3.88E-13	1.43E-12	8.29E-12	2.20E-11	4.34E-11	7.26E-11	1.10E-10	2.07E-10
tl207	4.37E-06	6.17E-06	7.92E-06	1.13E-05	1.77E-05	3.26E-05	4.70E-05	6.14E-05	7.57E-05	9.01E-05	1.19E-04
tl208	3.34E-03	3.63E-03	3.60E-03	3.32E-03	2.73E-03	1.66E-03	1.01E-03	6.19E-04	3.74E-04	2.28E-04	8.46E-05
tl209	3.60E-10	4.95E-10	6.45E-10	1.01E-09	1.96E-09	5.89E-09	1.23E-08	2.16E-08	3.42E-08	5.03E-08	9.43E-08
pb206	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb207	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pb209	1.71E-08	2.35E-08	3.07E-08	4.79E-08	9.36E-08	2.80E-07	5.86E-07	1.03E-06	1.63E-06	2.39E-06	4.49E-06
pb210	2.13E-08	5.32E-08	1.06E-07	2.94E-07	1.09E-06	6.23E-06	1.67E-05	3.29E-05	5.50E-05	8.30E-05	1.57E-04
pb211	4.38E-06	6.19E-06	7.95E-06	1.13E-05	1.77E-05	3.26E-05	4.72E-05	6.14E-05	7.59E-05	9.03E-05	1.19E-04
pb212	9.29E-03	1.01E-02	1.00E-02	9.24E-03	7.60E-03	4.62E-03	2.81E-03	1.71E-03	1.04E-03	6.34E-04	2.35E-04
pb214	1.68E-07	3.22E-07	5.28E-07	1.10E-06	2.87E-06	1.12E-05	2.52E-05	4.52E-05	7.11E-05	1.03E-04	1.84E-04
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	2.13E-08	5.32E-08	1.06E-07	2.94E-07	1.09E-06	6.23E-06	1.67E-05	3.29E-05	5.50E-05	8.30E-05	1.57E-04
bi211	4.38E-06	6.19E-06	7.95E-06	1.13E-05	1.77E-05	3.26E-05	4.72E-05	6.14E-05	7.59E-05	9.03E-05	1.19E-04
bi212	9.29E-03	1.01E-02	1.00E-02	9.24E-03	7.60E-03	4.62E-03	2.81E-03	1.71E-03	1.04E-03	6.34E-04	2.35E-04
bi213	1.71E-08	2.35E-08	3.07E-08	4.79E-08	9.36E-08	2.80E-07	5.86E-07	1.03E-06	1.63E-06	2.39E-06	4.49E-06
bi214	1.68E-07	3.22E-07	5.28E-07	1.10E-06	2.87E-06	1.12E-05	2.52E-05	4.52E-05	7.11E-05	1.03E-04	1.84E-04
po210	2.13E-08	5.32E-08	1.07E-07	2.94E-07	1.09E-06	6.23E-06	1.67E-05	3.29E-05	5.50E-05	8.30E-05	1.57E-04

pc211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pc211	1.20E-08	1.70E-08	2.18E-08	3.11E-08	4.87E-08	8.99E-08	1.30E-07	1.69E-07	2.09E-07	2.48E-07	3.27E-07
pc212	5.99E-03	6.46E-03	6.42E-03	5.92E-03	4.87E-03	2.96E-03	1.80E-03	1.10E-03	6.67E-04	4.06E-04	1.51E-04
pc213	1.68E-08	2.30E-08	3.01E-08	4.69E-08	9.16E-08	2.74E-07	5.74E-07	1.01E-06	1.59E-06	2.34E-06	4.40E-06
pc214	1.68E-07	3.22E-07	5.29E-07	1.10E-06	2.87E-06	1.12E-05	2.52E-05	4.52E-05	7.11E-05	1.03E-04	1.84E-04
pc215	4.38E-06	6.19E-06	7.99E-06	1.13E-05	1.77E-05	3.26E-05	4.72E-05	6.16E-05	7.59E-05	9.03E-05	1.19E-04
pc216	9.29E-03	1.01E-02	1.00E-02	9.24E-03	7.60E-03	4.62E-03	2.81E-03	1.71E-03	1.04E-03	6.34E-04	2.39E-04
pc218	1.68E-07	3.23E-07	5.28E-07	1.10E-06	2.87E-06	1.12E-05	2.53E-05	4.52E-05	7.11E-05	1.03E-04	1.84E-04
at217	1.71E-08	2.35E-08	3.07E-08	4.79E-08	9.36E-08	2.80E-07	5.86E-07	1.03E-06	1.63E-06	2.39E-06	4.49E-06
m218	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
m219	4.38E-06	6.19E-06	7.99E-06	1.13E-05	1.77E-05	3.26E-05	4.72E-05	6.16E-05	7.59E-05	9.03E-05	1.19E-04
m220	9.29E-03	1.01E-02	1.00E-02	9.24E-03	7.60E-03	4.62E-03	2.81E-03	1.71E-03	1.04E-03	6.34E-04	2.39E-04
m221	1.68E-07	3.23E-07	5.28E-07	1.10E-06	2.87E-06	1.12E-05	2.53E-05	4.52E-05	7.11E-05	1.03E-04	1.84E-04
fr221	1.71E-08	2.35E-08	3.07E-08	4.79E-08	9.36E-08	2.80E-07	5.86E-07	1.03E-06	1.63E-06	2.39E-06	4.49E-06
fr223	6.03E-08	8.53E-08	1.09E-07	1.56E-07	2.44E-07	4.50E-07	6.50E-07	8.49E-07	1.05E-06	1.25E-06	1.64E-06
ra222	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ra223	4.38E-06	6.19E-06	7.99E-06	1.13E-05	1.77E-05	3.26E-05	4.72E-05	6.16E-05	7.59E-05	9.03E-05	1.19E-04
ra224	9.29E-03	1.01E-02	1.00E-02	9.24E-03	7.60E-03	4.62E-03	2.81E-03	1.71E-03	1.04E-03	6.34E-04	2.39E-04
ra225	1.71E-08	2.35E-08	3.07E-08	4.79E-08	9.36E-08	2.80E-07	5.86E-07	1.03E-06	1.63E-06	2.39E-06	4.49E-06
ra226	1.68E-07	3.23E-07	5.28E-07	1.10E-06	2.87E-06	1.12E-05	2.53E-05	4.52E-05	7.11E-05	1.03E-04	1.84E-04
ra228	2.58E-11	4.43E-11	6.47E-11	1.08E-10	1.98E-10	4.24E-10	6.51E-10	8.78E-10	1.11E-09	1.33E-09	1.83E-09
ac225	1.71E-08	2.35E-08	3.07E-08	4.79E-08	9.36E-08	2.80E-07	5.86E-07	1.03E-06	1.63E-06	2.39E-06	4.49E-06
ac227	4.37E-06	6.18E-06	7.99E-06	1.13E-05	1.77E-05	3.26E-05	4.71E-05	6.15E-05	7.59E-05	9.03E-05	1.19E-04
ac228	2.58E-11	4.43E-11	6.47E-11	1.08E-10	1.98E-10	4.24E-10	6.51E-10	8.78E-10	1.11E-09	1.33E-09	1.83E-09
th226	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th227	4.32E-06	6.10E-06	7.84E-06	1.12E-05	1.75E-05	3.22E-05	4.65E-05	6.07E-05	7.49E-05	8.91E-05	1.17E-04
th228	9.29E-03	1.01E-02	1.00E-02	9.24E-03	7.60E-03	4.62E-03	2.81E-03	1.71E-03	1.04E-03	6.34E-04	2.39E-04
th229	1.71E-08	2.35E-08	3.07E-08	4.79E-08	9.36E-08	2.80E-07	5.86E-07	1.03E-06	1.63E-06	2.39E-06	4.49E-06
th230	5.96E-05	8.34E-05	1.08E-04	1.57E-04	2.58E-04	5.26E-04	8.10E-04	1.10E-03	1.40E-03	1.71E-03	2.33E-03
th231	1.36E-02	1.36E-02	1.36E-02	1.36E-02	1.36E-02	1.36E-02	1.36E-02	1.37E-02	1.37E-02	1.37E-02	1.37E-02

Part B B&W 15x15, 3.00w%, 20guc/mtu decay actinides page 45

nuclide radioactivity, curies											
basis = per B&W assembly, 0.409 mtm for grams											
	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	5.44E-11	7.69E-11	9.99E-11	1.45E-10	2.39E-10	4.61E-10	6.88E-10	9.16E-10	1.14E-09	1.37E-09	1.83E-09
th233	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th234	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01
pa231	1.59E-05	1.74E-05	1.88E-05	2.17E-05	2.74E-05	4.18E-05	5.62E-05	7.06E-05	8.49E-05	9.93E-05	1.28E-04
pa232	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pa233	9.19E-02	9.26E-02	9.40E-02	9.72E-02	1.05E-01	1.26E-01	1.45E-01	1.64E-01	1.81E-01	1.96E-01	2.24E-01
pa234m	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01
pa234	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04
pa236	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u231	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u232	1.02E-02	1.02E-02	9.87E-03	9.00E-03	7.39E-03	4.49E-03	2.73E-03	1.66E-03	1.01E-03	6.17E-04	2.29E-04
u233	1.39E-05	1.55E-05	1.75E-05	2.17E-05	3.04E-05	5.59E-05	8.50E-05	1.19E-04	1.56E-04	1.97E-04	2.89E-04
u234	5.19E-01	5.22E-01	5.28E-01	5.40E-01	5.62E-01	6.03E-01	6.30E-01	6.49E-01	6.62E-01	6.70E-01	6.80E-01
u235	1.36E-02	1.36E-02	1.36E-02	1.36E-02	1.36E-02	1.36E-02	1.36E-02	1.37E-02	1.37E-02	1.37E-02	1.37E-02
u236	9.19E-02	9.19E-02	9.19E-02	9.16E-02	9.17E-02	9.19E-02	9.21E-02	9.23E-02	9.25E-02	9.28E-02	9.32E-02
u237	6.18E-01	4.85E-01	3.81E-01	2.39E-01	8.99E-02	7.99E-03	7.14E-04	6.39E-05	5.88E-06	6.92E-07	1.86E-07
u238	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01
u239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	5.72E-16	8.48E-16	1.12E-15	1.66E-15	2.78E-15	5.59E-15	8.31E-15	1.11E-14	1.39E-14	1.66E-14	2.21E-14
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	7.52E-06	3.08E-07	1.26E-08	2.11E-11	5.94E-17	7.99E-31	.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	4.88E-06	4.88E-06	4.88E-06	4.88E-06	4.88E-06	4.88E-06	4.88E-06	4.88E-06	4.88E-06	4.88E-06	4.87E-06
np237	9.19E-02	9.26E-02	9.40E-02	9.72E-02	1.05E-01	1.26E-01	1.45E-01	1.64E-01	1.81E-01	1.96E-01	2.24E-01

np238	1.94E-02	1.89E-02	1.85E-02	1.76E-02	1.59E-02	1.25E-02	9.74E-03	7.62E-03	5.96E-03	4.66E-03	2.85E-03
np239	2.01E+00	2.01E+00	2.01E+00	2.01E+00	2.00E+00	2.00E+00	1.99E+00	1.98E+00	1.97E+00	1.96E+00	1.94E+00
np240m	5.72E-16	8.48E-16	1.12E-15	1.68E-15	2.78E-15	5.59E-15	8.31E-15	1.11E-14	1.38E-14	1.66E-14	2.21E-14
np240	6.86E-19	1.02E-18	1.35E-18	2.01E-18	3.34E-18	6.66E-18	9.97E-18	1.33E-17	1.66E-17	1.99E-17	2.66E-17
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	1.88E-02	5.69E-03	1.72E-03	1.58E-04	1.76E-06	4.35E-07	4.34E-07	4.34E-07	4.34E-07	4.34E-07	4.34E-07
pu237	6.11E-26	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	4.82E+02	4.64E+02	4.46E+02	4.12E+02	3.52E+02	2.38E+02	1.61E+02	1.09E+02	7.38E+01	5.00E+01	2.31E+01
pu239	1.63E+02	1.63E+02	1.63E+02	1.63E+02	1.63E+02	1.63E+02	1.63E+02	1.62E+02	1.62E+02	1.62E+02	1.62E+02
pu240	1.53E+02	1.52E+02	1.52E+02	1.52E+02	1.52E+02	1.51E+02	1.51E+02	1.50E+02	1.49E+02	1.48E+02	1.47E+02
pu241	2.58E+04	2.03E+04	1.59E+04	9.83E+03	3.74E+03	3.34E+02	2.98E+01	2.67E+00	2.46E-01	2.89E-02	7.80E-03
pu242	2.80E-01	2.80E-01	2.80E-01	2.80E-01	2.80E-01	2.80E-01	2.80E-01	2.80E-01	2.80E-01	2.80E-01	2.80E-01
pu243	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09
pu244	5.73E-16	8.49E-16	1.13E-15	1.68E-15	2.79E-15	5.59E-15	8.32E-15	1.11E-14	1.39E-14	1.66E-14	2.22E-14
pu245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu246	6.12E-17	6.12E-17	6.12E-17	6.12E-17	6.11E-17	6.10E-17	6.09E-17	6.07E-17	6.06E-17	6.05E-17	6.03E-17
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	5.85E+02	7.64E+02	9.01E+02	1.09E+03	1.25E+03	1.26E+03	1.17E+03	1.08E+03	1.00E+03	9.24E+02	7.87E+02
am242m	4.31E+00	4.20E+00	4.10E+00	3.91E+00	3.54E+00	2.77E+00	2.16E+00	1.69E+00	1.32E+00	1.04E+00	6.33E-01
am242	4.29E+00	4.19E+00	4.08E+00	3.89E+00	3.52E+00	2.76E+00	2.16E+00	1.69E+00	1.32E+00	1.03E+00	6.31E-01
am243	2.01E+00	2.01E+00	2.01E+00	2.01E+00	2.00E+00	2.00E+00	1.99E+00	1.98E+00	1.97E+00	1.96E+00	1.94E+00
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	1.36E-13	2.61E-15	4.99E-17	1.83E-20	2.46E-27	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am246	6.12E-17	6.12E-17	6.12E-17	6.12E-17	6.11E-17	6.10E-17	6.09E-17	6.07E-17	6.06E-17	6.05E-17	6.03E-17
cm241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

Part B B8W 15x15, 3.00wC%, 20g-cd/mtu decay actinides page 46

	nuclide radioactivity, curies										
	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	3.55E+00	3.46E+00	3.38E+00	3.22E+00	2.91E+00	2.28E+00	1.78E+00	1.39E+00	1.09E+00	8.53E-01	5.21E-01
cm243	2.44E+00	2.16E+00	1.91E+00	1.50E+00	9.22E-01	2.73E-01	8.10E-02	2.40E-02	7.12E-03	2.11E-03	1.85E-04
cm244	8.38E+01	6.92E+01	5.71E+01	3.89E+01	1.81E+01	2.67E+00	3.93E-01	5.79E-02	8.54E-03	1.26E-03	2.73E-05
cm245	7.87E-03	7.86E-03	7.86E-03	7.85E-03	7.84E-03	7.81E-03	7.78E-03	7.74E-03	7.71E-03	7.68E-03	7.62E-03
cm246	9.20E-04	9.19E-04	9.19E-04	9.17E-04	9.15E-04	9.08E-04	9.01E-04	8.95E-04	8.88E-04	8.82E-04	8.69E-04
cm247	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09
cm248	6.96E-09	6.96E-09	6.96E-09	6.96E-09	6.96E-09	6.96E-09	6.96E-09	6.96E-09	6.96E-09	6.96E-09	6.96E-09
cm249	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm250	2.45E-16	2.45E-16	2.45E-16	2.45E-16	2.44E-16	2.44E-16	2.43E-16	2.43E-16	2.42E-16	2.42E-16	2.41E-16
cm251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk249	9.39E-09	1.80E-10	3.44E-12	1.26E-15	1.69E-22	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk250	7.16E-16	4.12E-17	3.43E-17	3.42E-17	3.42E-17	3.42E-17	3.41E-17	3.40E-17	3.39E-17	3.39E-17	3.37E-17
bk251	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cf249	7.45E-08	7.39E-08	7.31E-08	7.16E-08	6.89E-08	6.24E-08	5.65E-08	5.12E-08	4.64E-08	4.20E-08	3.45E-08
cf250	1.12E-07	8.59E-08	6.59E-08	3.88E-08	1.34E-08	9.49E-10	6.71E-11	4.74E-12	3.35E-13	2.37E-14	1.52E-16
cf251	1.34E-09	1.34E-09	1.33E-09	1.32E-09	1.30E-09	1.25E-09	1.21E-09	1.16E-09	1.12E-09	1.07E-09	9.94E-10
cf252	9.84E-09	2.65E-09	7.16E-10	5.21E-11	2.75E-13	5.61E-19	1.14E-24	2.33E-30	.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	4.79E-31	.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	6.81E-16	6.90E-18	7.00E-20	7.18E-24	6.85E-32	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
es255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
s250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	2.73E+04	2.19E+04	1.77E+04	1.17E+04	5.69E+03	2.16E+03	1.69E+03	1.52E+03	1.40E+03	1.29E+03	1.13E+03

Part B B&W 15x15, 3.00wt%, 20gwd/mtu decay nuclide radioactivity, curies fission products page 64

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nuclide radioactivity, curies
basis =per B&W assembly, 0.409 mtm for grams

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
h 3	7.48E+01	5.65E+01	4.27E+01	2.43E+01	7.90E+00	4.75E-01	2.86E-02	1.72E-03	1.03E-04	6.21E-06	2.25E-08
li 6	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
li 7	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
be 9	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
be 10	8.26E-07	8.26E-07	8.26E-07	8.26E-07	8.26E-07	8.26E-07	8.26E-07	8.26E-07	8.26E-07	8.26E-07	8.26E-07
c 14	3.33E-05	3.32E-05	3.32E-05	3.32E-05	3.31E-05	3.29E-05	3.27E-05	3.25E-05	3.23E-05	3.21E-05	3.17E-05
ni 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 67	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 67	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 68	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 69m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 69	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 71m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 72	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 73m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 74	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
co 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 75m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 75	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ni 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 76	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part B B&W 15x15, 3.00wt%, 20gwd/mtu decay nuclide radioactivity, curies fission products page 65

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nuclide radioactivity, curies
basis =per B&W assembly, 0.409 mtm for grams

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	3.92E+03	1.05E+03	2.79E+02	1.99E+01	1.01E-01	1.84E-07	3.37E-13	6.17E-19	1.13E-24	2.05E-30	.00E+00	.00E+00
sm147	1.98E-06	2.03E-06	2.05E-06	2.06E-06	2.06E-06	2.06E-06	2.06E-06	2.06E-06	2.06E-06	2.06E-06	2.06E-06	2.06E-06
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	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm148	1.00E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm148m	1.90E-23	.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 BBW 15x15, 3.00wt%, 20gic/mtu decay fission products page 78

0 nuclide radioactivity, curies
basis = per BBW assembly, 0.409 mthm for grams

	initial	15.0 yr	20.0 yr	30.0 yr	50.0 yr	100.0 yr	150.0 yr	200.0 yr	250.0 yr	300.0 yr	400.0 yr
sm148	8.82E-12	8.82E-12	8.82E-12	8.82E-12	8.82E-12	8.82E-12	8.82E-12	8.82E-12	8.82E-12	8.82E-12	8.82E-12
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	3.41E-13	3.41E-13	3.41E-13	3.41E-13	3.41E-13	3.41E-13	3.41E-13	3.41E-13	3.41E-13	3.41E-13	3.41E-13
eu149	5.41E-19	6.68E-25	8.21E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu150	1.18E-05	1.07E-05	9.69E-06	7.98E-06	5.42E-06	2.06E-06	7.82E-07	2.97E-07	1.13E-07	4.25E-08	6.18E-09
ba151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm151	1.51E+02	1.45E+02	1.40E+02	1.30E+02	1.11E+02	7.55E+01	5.14E+01	3.50E+01	2.38E+01	1.62E+01	7.49E+00
eu151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu152	2.78E+00	2.15E+00	1.66E+00	9.84E-01	3.48E-01	2.58E-02	1.92E-03	1.42E-04	1.06E-05	7.84E-07	4.32E-09
eu152m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	6.00E-13	6.22E-13	6.39E-13	6.62E-13	6.84E-13	6.92E-13	6.98E-13	6.98E-13	6.98E-13	6.98E-13	6.98E-13

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	9.05E+04	7.63E+04	6.66E+04	5.19E+04	3.21E+04	9.80E+03	3.03E+03	9.49E+02	3.08E+02	1.07E+02	2.09E+01	

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Part B B&W 15x15, 3.00w%, 20gud/mtu decay actinides page 84

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	nuclide radioactivity, curies											
	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	15000.0 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	.00E+00
tl206	2.07E-10	3.35E-10	1.48E-09	5.34E-09	1.70E-08	3.12E-08	4.62E-08	6.13E-08	7.63E-08	9.11E-08	9.83E-08	
tl207	1.19E-04	1.47E-04	2.99E-04	5.82E-04	1.14E-03	1.69E-03	2.22E-03	2.75E-03	3.28E-03	3.76E-03	4.01E-03	
tl208	8.46E-05	3.14E-05	3.74E-07	1.58E-07	1.60E-07	1.62E-07	1.64E-07	1.66E-07	1.69E-07	1.71E-07	1.73E-07	
tl209	9.43E-08	1.56E-07	7.77E-07	3.86E-06	1.75E-05	4.01E-05	7.00E-05	1.06E-04	1.47E-04	1.92E-04	2.16E-04	
pb206	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pb207	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pb208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pb209	4.49E-06	7.42E-06	3.70E-05	1.84E-04	8.35E-04	1.91E-03	3.33E-03	5.05E-03	7.00E-03	9.15E-03	1.03E-02	
pb210	1.57E-04	2.54E-04	1.12E-03	4.05E-03	1.29E-02	2.36E-02	3.50E-02	4.66E-02	5.78E-02	6.90E-02	7.45E-02	
pb211	1.19E-04	1.48E-04	3.00E-04	5.84E-04	1.14E-03	1.69E-03	2.22E-03	2.75E-03	3.27E-03	3.77E-03	4.02E-03	
pb212	2.35E-04	8.74E-05	1.04E-06	4.39E-07	4.44E-07	4.50E-07	4.56E-07	4.63E-07	4.70E-07	4.77E-07	4.81E-07	
pb214	1.84E-04	2.89E-04	1.12E-03	4.05E-03	1.29E-02	2.36E-02	3.50E-02	4.66E-02	5.78E-02	6.90E-02	7.45E-02	
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
bi209	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
bi210	1.57E-04	2.54E-04	1.12E-03	4.05E-03	1.29E-02	2.36E-02	3.50E-02	4.66E-02	5.78E-02	6.90E-02	7.45E-02	
bi211	1.19E-04	1.48E-04	3.00E-04	5.84E-04	1.14E-03	1.69E-03	2.22E-03	2.75E-03	3.27E-03	3.77E-03	4.02E-03	
bi212	2.35E-04	8.74E-05	1.04E-06	4.39E-07	4.44E-07	4.50E-07	4.56E-07	4.63E-07	4.70E-07	4.77E-07	4.81E-07	
bi213	4.49E-06	7.42E-06	3.70E-05	1.84E-04	8.35E-04	1.91E-03	3.33E-03	5.05E-03	7.00E-03	9.15E-03	1.03E-02	
bi214	1.84E-04	2.89E-04	1.12E-03	4.05E-03	1.29E-02	2.36E-02	3.50E-02	4.66E-02	5.78E-02	6.90E-02	7.45E-02	
po210	1.57E-04	2.54E-04	1.12E-03	4.05E-03	1.29E-02	2.36E-02	3.50E-02	4.66E-02	5.78E-02	6.90E-02	7.45E-02	
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
po211	3.27E-07	4.06E-07	8.24E-07	1.61E-06	3.14E-06	4.65E-06	6.13E-06	7.57E-06	8.99E-06	1.04E-05	1.10E-05	
po212	1.51E-04	5.60E-05	6.67E-07	2.81E-07	2.84E-07	2.89E-07	2.92E-07	2.96E-07	3.01E-07	3.05E-07	3.08E-07	
po213	4.40E-06	7.27E-06	3.62E-05	1.80E-04	8.10E-04	1.87E-03	3.26E-03	4.94E-03	6.85E-03	8.98E-03	1.01E-02	
po214	1.84E-04	2.89E-04	1.12E-03	4.05E-03	1.29E-02	2.36E-02	3.50E-02	4.66E-02	5.78E-02	6.90E-02	7.45E-02	
po215	1.19E-04	1.48E-04	3.00E-04	5.84E-04	1.14E-03	1.69E-03	2.22E-03	2.75E-03	3.27E-03	3.77E-03	4.02E-03	
po216	2.35E-04	8.74E-05	1.04E-06	4.39E-07	4.44E-07	4.50E-07	4.56E-07	4.63E-07	4.70E-07	4.77E-07	4.81E-07	
po218	1.84E-04	2.89E-04	1.12E-03	4.05E-03	1.29E-02	2.37E-02	3.50E-02	4.66E-02	5.78E-02	6.90E-02	7.45E-02	
at217	4.49E-06	7.42E-06	3.70E-05	1.84E-04	8.35E-04	1.91E-03	3.33E-03	5.05E-03	7.00E-03	9.15E-03	1.03E-02	
rn218	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
rn219	1.19E-04	1.48E-04	3.00E-04	5.84E-04	1.14E-03	1.69E-03	2.22E-03	2.75E-03	3.27E-03	3.77E-03	4.02E-03	
rn220	2.35E-04	8.74E-05	1.04E-06	4.39E-07	4.44E-07	4.50E-07	4.56E-07	4.63E-07	4.70E-07	4.77E-07	4.81E-07	
rn222	1.84E-04	2.89E-04	1.12E-03	4.05E-03	1.29E-02	2.37E-02	3.50E-02	4.66E-02	5.78E-02	6.90E-02	7.45E-02	
fr221	4.49E-06	7.42E-06	3.70E-05	1.84E-04	8.35E-04	1.91E-03	3.33E-03	5.05E-03	7.00E-03	9.15E-03	1.03E-02	
fr223	1.64E-06	2.04E-06	4.14E-06	8.06E-06	1.58E-05	2.33E-05	3.08E-05	3.80E-05	4.51E-05	5.20E-05	5.54E-05	
ra222	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ra223	1.19E-04	1.48E-04	3.00E-04	5.84E-04	1.14E-03	1.69E-03	2.22E-03	2.75E-03	3.27E-03	3.77E-03	4.02E-03	
ra224	2.35E-04	8.74E-05	1.04E-06	4.39E-07	4.44E-07	4.50E-07	4.56E-07	4.63E-07	4.70E-07	4.77E-07	4.81E-07	
ra225	4.49E-06	7.42E-06	3.70E-05	1.84E-04	8.35E-04	1.91E-03	3.33E-03	5.05E-03	7.00E-03	9.15E-03	1.03E-02	
ra226	1.84E-04	2.89E-04	1.12E-03	4.05E-03	1.29E-02	2.37E-02	3.50E-02	4.66E-02	5.78E-02	6.90E-02	7.45E-02	
ra228	1.83E-09	2.29E-09	4.63E-09	9.45E-09	1.96E-08	3.04E-08	4.16E-08	5.32E-08	6.51E-08	7.73E-08	8.35E-08	
ac225	4.49E-06	7.42E-06	3.70E-05	1.84E-04	8.35E-04	1.91E-03	3.33E-03	5.05E-03	7.00E-03	9.15E-03	1.03E-02	
ac227	1.19E-04	1.48E-04	3.00E-04	5.84E-04	1.14E-03	1.69E-03	2.22E-03	2.75E-03	3.27E-03	3.77E-03	4.02E-03	
ac228	1.83E-09	2.29E-09	4.63E-09	9.45E-09	1.96E-08	3.04E-08	4.16E-08	5.32E-08	6.51E-08	7.73E-08	8.35E-08	
th226	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
th227	1.17E-04	1.46E-04	2.98E-04	5.76E-04	1.13E-03	1.67E-03	2.20E-03	2.72E-03	3.22E-03	3.72E-03	3.96E-03	
th228	2.35E-04	8.74E-05	1.04E-06	4.39E-07	4.44E-07	4.50E-07	4.56E-07	4.63E-07	4.70E-07	4.77E-07	4.81E-07	
th229	4.49E-06	7.42E-06	3.70E-05	1.84E-04	8.35E-04	1.91E-03	3.33E-03	5.05E-03	7.00E-03	9.15E-03	1.03E-02	

th230 2.33E-03 2.96E-03 6.09E-03 1.23E-02 2.46E-02 3.66E-02 4.83E-02 5.97E-02 7.09E-02 8.18E-02 8.71E-02
 th231 1.37E-02 1.37E-02 1.38E-02 1.39E-02 1.42E-02 1.45E-02 1.48E-02 1.50E-02 1.53E-02 1.55E-02 1.56E-02

1 Part B B&W 15x15, 3.00wt%, 20gud/mtu decay actinides page 85
 0 nuclide radioactivity, curies
 basis =per B&W assembly, 0.409 mthm for 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	15000.0 yr
th232	1.83E-09	2.29E-09	4.63E-09	9.45E-09	1.96E-08	3.04E-08	4.16E-08	5.32E-08	6.51E-08	7.73E-08	8.35E-08
th233	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th234	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01
pa231	1.28E-04	1.57E-04	3.00E-04	5.84E-04	1.14E-03	1.69E-03	2.23E-03	2.75E-03	3.27E-03	3.77E-03	4.01E-03
pa232	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pa233	2.24E-01	2.47E-01	3.22E-01	3.71E-01	3.82E-01	3.82E-01	3.82E-01	3.82E-01	3.82E-01	3.81E-01	3.81E-01
pa234m	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01
pa234	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u231	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u232	2.29E-04	8.50E-05	1.02E-05	4.30E-07	4.24E-07	4.19E-07	4.14E-07	4.09E-07	4.04E-07	4.00E-07	3.97E-07
u233	2.89E-04	3.91E-04	1.02E-03	2.55E-03	5.81E-03	9.08E-03	1.23E-02	1.55E-02	1.87E-02	2.18E-02	2.34E-02
u234	6.80E-01	6.84E-01	6.88E-01	6.88E-01	6.83E-01	6.80E-01	6.77E-01	6.74E-01	6.71E-01	6.68E-01	6.67E-01
u235	1.37E-02	1.37E-02	1.38E-02	1.39E-02	1.42E-02	1.45E-02	1.48E-02	1.50E-02	1.53E-02	1.55E-02	1.56E-02
u236	9.32E-02	9.36E-02	9.57E-02	9.94E-02	1.06E-01	1.12E-01	1.16E-01	1.19E-01	1.22E-01	1.24E-01	1.25E-01
u237	1.86E-07	1.81E-07	1.74E-07	1.60E-07	1.36E-07	1.16E-07	9.81E-08	8.34E-08	7.08E-08	6.02E-08	5.54E-08
u238	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01
u239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	2.21E-14	2.76E-14	5.53E-14	1.10E-13	2.20E-13	3.30E-13	4.39E-13	5.47E-13	6.55E-13	7.63E-13	8.17E-13
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	4.87E-06	4.87E-06	4.86E-06	4.83E-06	4.77E-06	4.71E-06	4.66E-06	4.60E-06	4.54E-06	4.49E-06	4.46E-06
np237	2.24E-01	2.47E-01	3.22E-01	3.71E-01	3.82E-01	3.82E-01	3.82E-01	3.82E-01	3.82E-01	3.81E-01	3.81E-01
np238	2.85E-03	1.74E-03	1.49E-04	1.09E-06	5.88E-11	3.16E-15	1.70E-19	9.11E-24	4.89E-28	2.28E-32	.00E+00
np239	1.94E+00	1.92E+00	1.83E+00	1.67E+00	1.38E+00	1.15E+00	9.49E-01	7.86E-01	6.52E-01	5.40E-01	4.91E-01
np240m	2.21E-14	2.76E-14	5.53E-14	1.10E-13	2.20E-13	3.30E-13	4.39E-13	5.47E-13	6.55E-13	7.63E-13	8.17E-13
np240	2.66E-17	3.32E-17	6.63E-17	1.32E-16	2.64E-16	3.96E-16	5.26E-16	6.57E-16	7.86E-16	9.16E-16	9.80E-16
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	4.34E-07	4.33E-07	4.32E-07	4.30E-07	4.24E-07	4.19E-07	4.14E-07	4.09E-07	4.04E-07	4.00E-07	3.97E-07
pu237	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	2.31E+01	1.07E+01	2.62E-01	2.98E-04	2.87E-08	1.54E-12	8.28E-17	4.45E-21	2.39E-25	1.28E-29	4.56E-32
pu239	1.62E+02	1.61E+02	1.59E+02	1.54E+02	1.46E+02	1.38E+02	1.30E+02	1.23E+02	1.16E+02	1.10E+02	1.06E+02
pu240	1.47E+02	1.45E+02	1.38E+02	1.24E+02	1.00E+02	8.11E+01	6.57E+01	5.32E+01	4.31E+01	3.49E+01	3.14E+01
pu241	7.80E-03	7.57E-03	7.27E-03	6.70E-03	5.69E-03	4.83E-03	4.11E-03	3.49E-03	2.98E-03	2.52E-03	2.32E-03
pu242	2.80E-01	2.80E-01	2.80E-01	2.79E-01	2.78E-01	2.77E-01	2.76E-01	2.75E-01	2.74E-01	2.73E-01	2.73E-01
pu243	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09
pu244	2.22E-14	2.77E-14	5.53E-14	1.11E-13	2.21E-13	3.30E-13	4.39E-13	5.48E-13	6.56E-13	7.64E-13	8.18E-13
pu245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu246	6.03E-17	6.00E-17	5.88E-17	5.65E-17	5.22E-17	4.82E-17	4.45E-17	4.11E-17	3.80E-17	3.51E-17	3.37E-17
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	7.87E+02	6.71E+02	3.01E+02	6.08E+01	2.46E+00	1.05E-01	8.33E-03	3.80E-03	3.10E-03	2.63E-03	2.42E-03
am242m	6.33E-01	3.87E-01	3.32E-02	2.43E-04	1.31E-08	7.01E-13	3.77E-17	2.02E-21	1.09E-25	5.84E-30	4.56E-32
am242	6.31E-01	3.86E-01	3.30E-02	2.42E-04	1.30E-08	6.98E-13	3.75E-17	2.01E-21	1.08E-25	5.82E-30	4.56E-32
am243	1.94E+00	1.92E+00	1.83E+00	1.67E+00	1.38E+00	1.15E+00	9.49E-01	7.86E-01	6.52E-01	5.40E-01	4.91E-01
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	6.03E-17	6.00E-17	5.88E-17	5.65E-17	5.22E-17	4.82E-17	4.45E-17	4.11E-17	3.80E-17	3.51E-17	3.37E-17
cm241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

pml59	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
smf59	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
eu159	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
gd159	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
tb159	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
nd160	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
pml60	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
smf60	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
eu160	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
gd160	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
tb160	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
d160	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
nd161	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
pml61	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
smf61	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
eu161	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
gd161	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
tb161	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00

Part B BBA 15x15, 3.00x2, 20gd/mtu decay

nucleide radioactivity, curies

fission products

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basis for BBA assembly, 0.49 mtu for grams

	initial	16000.0 yr	17000.0 yr	18000.0 yr	19000.0 yr	20000.0 yr	21000.0 yr	22000.0 yr	23000.0 yr	24000.0 yr	25000.0 yr
d161	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
pml62	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
smf62	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
eu162	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
gd162	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
tb162	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
tb162m	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
d162	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
smf63	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
eu163	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
gd163	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
tb163	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
tb163m	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
d163	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
smf64	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
eu164	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
gd164	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
tb164	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
d164	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
smf65	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
eu165	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
gd165	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
tb165	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
d165	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
d165m	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
ho165	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
ho165m	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
er167	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
er167m	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
er168	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
yo168	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
er169	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
tm169	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00
yo169	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00	.0E+00

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er170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm170m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	5.10E+00	5.08E+00	5.06E+00	5.04E+00	5.03E+00	5.01E+00	4.99E+00	4.98E+00	4.96E+00	4.94E+00	4.93E+00

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Part B B&W 15x15, 3.00wt%, 20g/cd/mtu decay

actinides

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nuclide	radioactivity, curies											
	basis per B&W assembly, 0.409 mthm for grams											
initial	35000. yr	45000. yr	50000. yr	55000. yr	60000. yr	65000. yr	70000. yr	100000. yr	200000. yr	500000. yr	1000000. 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	1.66E-07	2.27E-07	2.81E-07	3.05E-07	3.28E-07	3.50E-07	3.70E-07	3.89E-07	4.90E-07	5.91E-07	5.90E-07	
tl207	6.30E-03	8.31E-03	1.00E-02	1.08E-02	1.15E-02	1.22E-02	1.28E-02	1.34E-02	1.59E-02	1.87E-02	1.90E-02	
tl208	1.87E-07	2.03E-07	2.19E-07	2.27E-07	2.36E-07	2.44E-07	2.53E-07	2.62E-07	3.16E-07	5.14E-07	6.21E-07	
tl209	4.85E-04	7.78E-04	1.07E-03	1.22E-03	1.36E-03	1.50E-03	1.64E-03	1.77E-03	2.52E-03	4.59E-03	4.96E-03	
pb206	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pb207	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pb208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pb209	2.31E-02	3.71E-02	5.11E-02	5.80E-02	6.49E-02	7.15E-02	7.81E-02	8.45E-02	1.20E-01	2.19E-01	2.36E-01	
pb210	1.26E-01	1.72E-01	2.13E-01	2.31E-01	2.48E-01	2.65E-01	2.80E-01	2.94E-01	3.71E-01	4.48E-01	4.47E-01	
pb211	6.32E-03	8.33E-03	1.01E-02	1.09E-02	1.16E-02	1.22E-02	1.28E-02	1.34E-02	1.59E-02	1.88E-02	1.91E-02	
pb212	5.21E-07	5.64E-07	6.10E-07	6.33E-07	6.56E-07	6.80E-07	7.04E-07	7.28E-07	8.80E-07	1.43E-06	1.73E-06	
pb214	1.26E-01	1.72E-01	2.13E-01	2.31E-01	2.49E-01	2.65E-01	2.80E-01	2.94E-01	3.71E-01	4.48E-01	4.47E-01	
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
bi209	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
bi210	1.26E-01	1.72E-01	2.13E-01	2.31E-01	2.48E-01	2.65E-01	2.80E-01	2.94E-01	3.71E-01	4.48E-01	4.47E-01	
bi211	6.32E-03	8.33E-03	1.01E-02	1.09E-02	1.16E-02	1.22E-02	1.28E-02	1.34E-02	1.59E-02	1.88E-02	1.91E-02	
bi212	5.21E-07	5.64E-07	6.10E-07	6.33E-07	6.56E-07	6.80E-07	7.04E-07	7.28E-07	8.80E-07	1.43E-06	1.73E-06	
bi213	2.31E-02	3.71E-02	5.11E-02	5.80E-02	6.49E-02	7.15E-02	7.81E-02	8.45E-02	1.20E-01	2.19E-01	2.36E-01	
bi214	1.26E-01	1.72E-01	2.13E-01	2.31E-01	2.49E-01	2.65E-01	2.80E-01	2.94E-01	3.71E-01	4.48E-01	4.47E-01	
po210	1.26E-01	1.72E-01	2.13E-01	2.31E-01	2.48E-01	2.65E-01	2.80E-01	2.94E-01	3.71E-01	4.48E-01	4.47E-01	
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
po211	1.74E-05	2.29E-05	2.77E-05	2.98E-05	3.18E-05	3.36E-05	3.53E-05	3.69E-05	4.38E-05	5.17E-05	5.25E-05	
po212	3.34E-07	3.62E-07	3.91E-07	4.05E-07	4.20E-07	4.36E-07	4.51E-07	4.67E-07	5.63E-07	9.17E-07	1.11E-06	
po213	2.26E-02	3.63E-02	5.01E-02	5.68E-02	6.35E-02	7.00E-02	7.64E-02	8.27E-02	1.17E-01	2.14E-01	2.31E-01	
po214	1.26E-01	1.72E-01	2.13E-01	2.31E-01	2.48E-01	2.65E-01	2.80E-01	2.94E-01	3.71E-01	4.48E-01	4.47E-01	
po215	6.32E-03	8.33E-03	1.01E-02	1.09E-02	1.16E-02	1.22E-02	1.28E-02	1.34E-02	1.59E-02	1.88E-02	1.91E-02	
po216	5.21E-07	5.64E-07	6.10E-07	6.33E-07	6.56E-07	6.80E-07	7.04E-07	7.28E-07	8.80E-07	1.43E-06	1.73E-06	
po218	1.26E-01	1.72E-01	2.13E-01	2.31E-01	2.49E-01	2.65E-01	2.80E-01	2.94E-01	3.71E-01	4.48E-01	4.47E-01	
at217	2.31E-02	3.71E-02	5.11E-02	5.81E-02	6.49E-02	7.15E-02	7.81E-02	8.45E-02	1.20E-01	2.19E-01	2.36E-01	
m218	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
m219	6.32E-03	8.33E-03	1.01E-02	1.09E-02	1.16E-02	1.22E-02	1.28E-02	1.34E-02	1.59E-02	1.88E-02	1.91E-02	
m220	5.21E-07	5.64E-07	6.10E-07	6.33E-07	6.56E-07	6.80E-07	7.04E-07	7.28E-07	8.80E-07	1.43E-06	1.73E-06	
m222	1.26E-01	1.72E-01	2.13E-01	2.31E-01	2.49E-01	2.65E-01	2.80E-01	2.94E-01	3.71E-01	4.48E-01	4.47E-01	
fr221	2.31E-02	3.71E-02	5.11E-02	5.81E-02	6.49E-02	7.15E-02	7.81E-02	8.45E-02	1.20E-01	2.19E-01	2.36E-01	
fr223	8.72E-05	1.15E-04	1.39E-04	1.50E-04	1.60E-04	1.69E-04	1.77E-04	1.85E-04	2.20E-04	2.59E-04	2.63E-04	
ra222	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ra223	6.32E-03	8.33E-03	1.01E-02	1.09E-02	1.16E-02	1.22E-02	1.28E-02	1.34E-02	1.59E-02	1.88E-02	1.91E-02	
ra224	5.21E-07	5.64E-07	6.10E-07	6.33E-07	6.56E-07	6.80E-07	7.04E-07	7.28E-07	8.80E-07	1.43E-06	1.73E-06	
ra225	2.31E-02	3.71E-02	5.11E-02	5.81E-02	6.49E-02	7.15E-02	7.81E-02	8.45E-02	1.20E-01	2.19E-01	2.36E-01	
ra226	1.26E-01	1.72E-01	2.13E-01	2.31E-01	2.49E-01	2.65E-01	2.80E-01	2.94E-01	3.71E-01	4.48E-01	4.47E-01	

Table with 11 columns of numerical values (scientific notation) corresponding to various isotopes like Pu105, Pu106, Pu107, etc. The values are mostly .00E+00.

1 0 Part B B8W 15x15, 3.00Mc, 20g/ndmu decay nclide radioactivity, curies basis per B8W assembly, 0.409 ndmu for gran fission products page 190

Table with 11 columns of numerical values (scientific notation) corresponding to various isotopes like Y106, Zr106, Nb106, etc. The values are mostly .00E+00.

=origens

0\$\$ a8 26 a11 71 e

1\$\$ 1 1t

b&w 15x15, 3.0%/20 Decay

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 C: 10000 year criticality at 2.182 kw/package

B&W 15x15, 3.00wt%, 20gwd/mtu /per assembly basis.

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 1.5+4

' 61** f1-20

65\$\$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e

6t

' 56\$\$ 10 10 0 a10 10 a14 5 a17 4 1 e 57** 1.5+4 e 5t

58** 1.039-4 1.039-4 1.039-4 1.039-4 1.039-4 1.039-4 1.039-4 1.039-4

1.039-4 1.039-4

60** 1.6+4 1.7+4 1.8+4 1.9+4 2.0+4 2.1+4 2.2+4 2.3+4 2.4+4 2.5+4

' 61** f1-20

65\$\$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e

66\$\$ 0 0 0 0 2 0 0 0 2 e

6t

' 56\$\$ 0 10 a10 10 a14 5 a17 4 1 e 57** 2.5+4 e 5t

60** 2.503+4 2.6+4 3.5+4 4.5+4 6.5+4 8.5+4 9.5+4 1.05+5 1.15+5 1.25+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 4 a10 10 a14 5 a17 4 e 57** 1.25+5 e 5t

60** 2.5+5 5+5 7.5+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

end

```
=origens
0$$ a8 26 a11 71 e
1$$ 1 1t
b&w 15x15, 3.0%/20 Decay
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 D 1000 year criticality at 2.182 kw/package
B&W 15x15, 3.00wt%, 20gwd/mtu /per assembly basis
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$$ 0 10 a10 10 a14 5 a17 4 e 57** 400 e 5t
60** 500 1+3 2+3 4+3 6+3 8+3 1+4 1.2+4 1.4+4 1.5+4
/ 61** f1-20
65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
6t
56$$ 1 1 0 a10 10 a14 5 a17 4 1 e 57** 1.5+4 e 5t
58** 1.039-4
60** 1.6+4
/ 61** f1-20
65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
66$$ 0 0 0 0 2 0 0 0 2 e
6t
56$$ 0 10 a10 1 a14 5 a17 4 1 e 57** 1.6+4 e 5t
60** 1.6030+4 1.7+4 1.8+4 1.9+4 2.0+4 2.1+4 2.2+4 2.3+4 2.4+4 2.5+4
/ 61** f1-20
65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
66$$ 0 0 0 0 2 0 0 0 2 e
6t
56$$ 0 10 a10 10 a14 5 a17 4 1 e 57** 2.5+4 e 5t
60** 3.5+4 4.5+4 5.5+4 6.5+4 7.5+4 8.5+4 9.5+4 1.05+5 1.15+5 1.25+5
/ 61** f1-20
65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
6t
56$$ 0 4 a10 10 a14 5 a17 4 e 57** 1.25+5 e 5t
60** 2.5+5 5+5 7.5+5 999999
/ 61** f1-20
65$$ 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
end
```

```
=origens
0$$ a8 26 a11 71 e
1$$ 1 1t
b&w 15x15, 3.0%/20 Decay
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 E 5000 year criticality at 2.182 kw/package
B&W 15x15, 3.00wt%, 20gwd/mtu /per assembly basis
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$$ 0 10 a10 10 a14 5 a17 4 e 57** 400 e 5t
60** 500 1+3 2+3 4+3 6+3 8+3 1+4 1.2+4 1.4+4 1.5+4
' 61** f1-20
65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
6t
56$$ 5 5 0 a10 10 a14 5 a17 4 1 e 57** 1.5+4 e 5t
58** 1.039-4 1.039-4 1.039-4 1.039-4 1.039-4
60** 1.6+4 1.7+4 1.8+4 1.9+4 2.0+4
' 61** f1-20
65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
66$$ 0 0 0 0 2 0 0 0 2 e
6t
56$$ 0 6 a10 5 a14 5 a17 4 1 e 57** 2.0+4 e 5t
60** 2.0030+4 2.1+4 2.2+4 2.3+4 2.4+4 2.5+4
' 61** f1-20
65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
66$$ 0 0 0 0 2 0 0 0 2 e
6t
56$$ 0 10 a10 6 a14 5 a17 4 1 e 57** 2.5+4 e 5t
60** 3.5+4 4.5+4 5.5+4 6.5+4 7.5+4 8.5+4 9.5+4 1.05+5 1.15+5 1.25+5
' 61** f1-20
65$$ a25 1 0 0 1 0 0 0 a46 1 0 0 1 0 0 0 e
6t
56$$ 0 4 a10 10 a14 5 a17 4 e 57** 1.25+5 e 5t
60** 2.5+5 5+5 7.5+5 999999
' 61** f1-20
65$$ 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
end
```

Part D 1000 year criticality at 2.182 kw/package actinides page 145
 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+01mwd, flux= 2.86E+08n/cm²-sec
 nuclide radioactivity, curies
 basis =88W 15x15, 3.00w/c, 20gud/mfu /per assem

	initial	16080.0 yr	17000.0 yr	18000.0 yr	19000.0 yr	20000.0 yr	21000.0 yr	22000.0 yr	23000.0 yr	24000.0 yr	25000.0 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	1.05E-07	1.06E-07	1.12E-07	1.19E-07	1.26E-07	1.33E-07	1.40E-07	1.47E-07	1.54E-07	1.60E-07	1.67E-07
tl207	4.93E-03	4.93E-03	5.15E-03	5.37E-03	5.59E-03	5.81E-03	6.02E-03	6.23E-03	6.44E-03	6.65E-03	6.85E-03
tl208	2.30E-04	1.77E-04	1.94E-07	1.84E-07	1.85E-07	1.87E-07	1.88E-07	1.89E-07	1.91E-07	1.92E-07	1.94E-07
tl209	2.40E-04	2.41E-04	2.65E-04	2.91E-04	3.17E-04	3.44E-04	3.71E-04	3.99E-04	4.27E-04	4.55E-04	4.84E-04
ps206	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ps207	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ps208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ps209	1.14E-02	1.15E-02	1.26E-02	1.39E-02	1.51E-02	1.64E-02	1.77E-02	1.90E-02	2.03E-02	2.17E-02	2.30E-02
ps210	7.99E-02	7.99E-02	8.52E-02	9.05E-02	9.57E-02	1.01E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
ps211	4.94E-03	4.94E-03	5.16E-03	5.39E-03	5.61E-03	5.82E-03	6.04E-03	6.25E-03	6.46E-03	6.67E-03	6.87E-03
ps212	6.41E-04	4.91E-04	5.40E-07	5.11E-07	5.15E-07	5.19E-07	5.23E-07	5.27E-07	5.31E-07	5.35E-07	5.40E-07
ps214	7.99E-02	8.00E-02	8.52E-02	9.05E-02	9.58E-02	1.01E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	7.99E-02	7.99E-02	8.52E-02	9.05E-02	9.57E-02	1.01E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
bi211	4.94E-03	4.94E-03	5.16E-03	5.39E-03	5.61E-03	5.82E-03	6.04E-03	6.25E-03	6.46E-03	6.67E-03	6.87E-03
bi212	6.41E-04	4.91E-04	5.40E-07	5.11E-07	5.15E-07	5.19E-07	5.23E-07	5.27E-07	5.31E-07	5.35E-07	5.40E-07
bi213	1.14E-02	1.15E-02	1.26E-02	1.39E-02	1.51E-02	1.64E-02	1.77E-02	1.90E-02	2.03E-02	2.17E-02	2.30E-02
bi214	7.99E-02	8.00E-02	8.52E-02	9.05E-02	9.58E-02	1.01E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
po210	7.99E-02	7.99E-02	8.52E-02	9.05E-02	9.57E-02	1.01E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	1.36E-05	1.36E-05	1.42E-05	1.48E-05	1.54E-05	1.60E-05	1.66E-05	1.72E-05	1.78E-05	1.83E-05	1.89E-05
po212	4.11E-04	3.15E-04	3.46E-07	3.28E-07	3.30E-07	3.33E-07	3.36E-07	3.39E-07	3.42E-07	3.43E-07	3.46E-07
po213	1.12E-02	1.12E-02	1.24E-02	1.36E-02	1.48E-02	1.60E-02	1.72E-02	1.84E-02	1.96E-02	2.12E-02	2.26E-02
po214	7.99E-02	8.00E-02	8.52E-02	9.05E-02	9.57E-02	1.01E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
po215	4.94E-03	4.94E-03	5.16E-03	5.39E-03	5.61E-03	5.82E-03	6.04E-03	6.25E-03	6.46E-03	6.67E-03	6.87E-03
po216	6.41E-04	4.91E-04	5.40E-07	5.11E-07	5.15E-07	5.19E-07	5.23E-07	5.27E-07	5.31E-07	5.35E-07	5.40E-07
po218	7.99E-02	8.01E-02	8.52E-02	9.05E-02	9.58E-02	1.01E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
at217	1.14E-02	1.15E-02	1.26E-02	1.39E-02	1.51E-02	1.64E-02	1.77E-02	1.90E-02	2.03E-02	2.17E-02	2.30E-02
m218	5.04E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
m219	4.94E-03	4.94E-03	5.16E-03	5.39E-03	5.61E-03	5.82E-03	6.04E-03	6.25E-03	6.46E-03	6.67E-03	6.87E-03
m220	6.41E-04	4.91E-04	5.40E-07	5.11E-07	5.15E-07	5.19E-07	5.23E-07	5.27E-07	5.31E-07	5.35E-07	5.40E-07
m222	7.99E-02	8.01E-02	8.52E-02	9.05E-02	9.58E-02	1.01E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
fr221	1.14E-02	1.15E-02	1.26E-02	1.39E-02	1.51E-02	1.64E-02	1.77E-02	1.90E-02	2.03E-02	2.17E-02	2.30E-02
fr223	6.82E-05	6.82E-05	7.13E-05	7.43E-05	7.74E-05	8.04E-05	8.33E-05	8.63E-05	8.91E-05	9.20E-05	9.48E-05
ra222	5.04E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ra223	4.94E-03	4.94E-03	5.16E-03	5.39E-03	5.61E-03	5.82E-03	6.04E-03	6.25E-03	6.46E-03	6.67E-03	6.87E-03
ra224	6.41E-04	4.91E-04	5.40E-07	5.11E-07	5.15E-07	5.19E-07	5.23E-07	5.27E-07	5.31E-07	5.35E-07	5.40E-07
ra225	1.14E-02	1.15E-02	1.26E-02	1.39E-02	1.51E-02	1.64E-02	1.77E-02	1.90E-02	2.03E-02	2.17E-02	2.30E-02
ra226	7.99E-02	8.01E-02	8.52E-02	9.05E-02	9.58E-02	1.01E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
ra228	8.97E-08	8.98E-08	9.59E-08	1.02E-07	1.09E-07	1.15E-07	1.21E-07	1.28E-07	1.34E-07	1.41E-07	1.47E-07
ac225	1.14E-02	1.15E-02	1.26E-02	1.39E-02	1.51E-02	1.64E-02	1.77E-02	1.90E-02	2.03E-02	2.17E-02	2.30E-02
ac227	4.94E-03	4.94E-03	5.16E-03	5.39E-03	5.61E-03	5.82E-03	6.04E-03	6.25E-03	6.46E-03	6.67E-03	6.87E-03
ac228	8.97E-08	8.98E-08	9.59E-08	1.02E-07	1.09E-07	1.15E-07	1.21E-07	1.28E-07	1.34E-07	1.41E-07	1.47E-07
th226	5.04E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th227	4.87E-03	4.88E-03	5.09E-03	5.31E-03	5.53E-03	5.74E-03	5.96E-03	6.16E-03	6.37E-03	6.57E-03	6.78E-03
th228	6.41E-04	4.91E-04	5.40E-07	5.11E-07	5.15E-07	5.19E-07	5.23E-07	5.27E-07	5.31E-07	5.35E-07	5.40E-07
th229	1.14E-02	1.15E-02	1.26E-02	1.39E-02	1.51E-02	1.64E-02	1.77E-02	1.90E-02	2.03E-02	2.17E-02	2.30E-02
th230	9.22E-02	9.23E-02	9.75E-02	1.03E-01	1.08E-01	1.13E-01	1.18E-01	1.23E-01	1.28E-01	1.33E-01	1.38E-01
th231	4.96E-02	1.56E-02	1.57E-02	1.58E-02	1.59E-02	1.60E-02	1.61E-02	1.62E-02	1.63E-02	1.64E-02	1.64E-02

Part D 1000 year criticality at 2.182 kw/package actinides page 146
 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+01mwd, flux= 2.86E+08n/cm²-sec

0

nuclide radioactivity, curies
basis =88W 15x15, 3.00w%, 20gud/mtu /per assem

	initial	16030.0 yr	17000.0 yr	18000.0 yr	19000.0 yr	20000.0 yr	21000.0 yr	22000.0 yr	23000.0 yr	24000.0 yr	25000.0 yr
th232	8.97E-08	8.99E-08	9.59E-08	1.02E-07	1.09E-07	1.15E-07	1.21E-07	1.28E-07	1.34E-07	1.41E-07	1.47E-07
th233	4.06E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th234	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01
pa231	4.94E-03	4.94E-03	5.16E-03	5.39E-03	5.60E-03	5.82E-03	6.03E-03	6.25E-03	6.46E-03	6.66E-03	6.87E-03
pa232	5.90E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pa233	3.82E-01	3.82E-01	3.82E-01	3.82E-01	3.82E-01	3.82E-01	3.82E-01	3.81E-01	3.81E-01	3.81E-01	3.81E-01
pa234m	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01
pa234	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	5.04E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u231	1.25E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u232	6.41E-04	4.78E-04	4.43E-07	4.09E-07	4.07E-07	4.04E-07	4.02E-07	3.99E-07	3.97E-07	3.95E-07	3.92E-07
u233	2.48E-02	2.49E-02	2.64E-02	2.79E-02	2.95E-02	3.10E-02	3.25E-02	3.40E-02	3.56E-02	3.71E-02	3.85E-02
u234	6.71E-01	6.72E-01	6.71E-01	6.70E-01	6.69E-01	6.67E-01	6.65E-01	6.64E-01	6.62E-01	6.61E-01	6.59E-01
u235	1.56E-02	1.56E-02	1.57E-02	1.58E-02	1.59E-02	1.60E-02	1.61E-02	1.62E-02	1.63E-02	1.64E-02	1.64E-02
u236	1.27E-01	1.27E-01	1.27E-01	1.28E-01	1.29E-01	1.29E-01	1.30E-01	1.30E-01	1.31E-01	1.31E-01	1.32E-01
u237	2.86E+00	1.83E-05	4.64E-08	4.28E-08	3.94E-08	3.63E-08	3.39E-08	3.09E-08	2.84E-08	2.62E-08	2.42E-08
u238	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01
u239	6.56E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	8.71E-13	8.73E-13	9.27E-13	9.82E-13	1.04E-12	1.09E-12	1.15E-12	1.20E-12	1.26E-12	1.31E-12	1.37E-12
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	5.34E-07	2.52E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236m	1.03E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	4.65E-06	4.65E-06	4.63E-06	4.60E-06	4.57E-06	4.54E-06	4.52E-06	4.49E-06	4.46E-06	4.43E-06	4.41E-06
np237	3.82E-01	3.82E-01	3.82E-01	3.82E-01	3.82E-01	3.82E-01	3.82E-01	3.81E-01	3.81E-01	3.81E-01	3.81E-01
np238	2.88E+00	7.72E-06	6.56E-08	4.81E-10	3.52E-12	2.58E-14	1.89E-16	1.39E-18	1.02E-20	7.45E-23	5.46E-25
np239	6.60E+01	4.78E-01	4.36E-01	3.97E-01	3.61E-01	3.29E-01	2.99E-01	2.72E-01	2.48E-01	2.26E-01	2.05E-01
np240m	8.71E-13	8.73E-13	9.27E-13	9.82E-13	1.04E-12	1.09E-12	1.15E-12	1.20E-12	1.26E-12	1.31E-12	1.37E-12
np240	1.01E-06	1.05E-15	1.11E-15	1.18E-15	1.25E-15	1.31E-15	1.38E-15	1.44E-15	1.51E-15	1.57E-15	1.64E-15
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	5.00E-05	4.53E-07	4.12E-07	4.09E-07	4.07E-07	4.04E-07	4.02E-07	3.99E-07	3.97E-07	3.95E-07	3.92E-07
pu237	6.29E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu238	2.89E+00	2.28E+00	1.08E-03	4.88E-07	8.28E-10	5.06E-12	3.67E-14	2.69E-16	1.97E-18	1.44E-20	1.06E-22
pu239	1.04E+02	1.04E+02	1.01E+02	9.89E+01	9.56E+01	9.29E+01	9.02E+01	8.77E+01	8.52E+01	8.28E+01	8.05E+01
pu240	2.94E+01	2.93E+01	2.65E+01	2.39E+01	2.14E+01	1.99E+01	1.73E+01	1.56E+01	1.40E+01	1.26E+01	1.14E+01
pu241	3.24E+00	7.63E-01	1.94E-03	1.79E-03	1.66E-03	1.52E-03	1.40E-03	1.29E-03	1.19E-03	1.10E-03	1.01E-03
pu242	2.71E-01	2.71E-01	2.71E-01	2.70E-01	2.70E-01	2.69E-01	2.69E-01	2.68E-01	2.68E-01	2.67E-01	2.67E-01
pu243	3.71E-01	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09
pu244	8.72E-13	8.74E-13	9.28E-13	9.83E-13	1.04E-12	1.09E-12	1.15E-12	1.20E-12	1.26E-12	1.31E-12	1.37E-12
pu245	7.69E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu246	3.24E-17	3.23E-17	3.11E-17	2.99E-17	2.87E-17	2.76E-17	2.65E-17	2.55E-17	2.45E-17	2.36E-17	2.26E-17
am239	2.10E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am240	2.10E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am241	2.59E+00	2.55E+00	5.45E-01	1.11E-01	2.37E-02	6.02E-03	2.30E-03	1.52E-03	1.27E-03	1.15E-03	1.05E-03
am242m	1.99E-03	1.72E-03	1.46E-05	1.07E-07	7.83E-10	5.74E-12	4.20E-14	3.08E-16	2.26E-18	1.65E-20	1.21E-22
am242	1.36E-02	1.71E-03	1.45E-05	1.06E-07	7.75E-10	5.71E-12	4.18E-14	3.07E-16	2.25E-18	1.65E-20	1.21E-22
am243	4.79E-01	4.78E-01	4.36E-01	3.97E-01	3.61E-01	3.29E-01	2.99E-01	2.72E-01	2.48E-01	2.26E-01	2.05E-01
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	1.70E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am245	7.97E-13	1.41E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am246	3.24E-17	3.23E-17	3.11E-17	2.99E-17	2.87E-17	2.76E-17	2.65E-17	2.55E-17	2.45E-17	2.36E-17	2.26E-17
cm241	2.31E-19	.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 D 1000 year criticality at 2.182 kw/package actinides page 147
decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+01mwd, flux= 2.86E+08/cm**2-sec

0

nuclide radioactivity, curies
basis =88W 15x15, 3.00w%, 20gud/mtu /per assem

	initial	16000.0	yr17000.0	yr18000.0	yr19000.0	yr20000.0	yr21000.0	yr22000.0	yr23000.0	yr24000.0	yr25000.0	yr
cr22	1.13E-02	1.41E-03	1.20E-05	8.79E-08	6.44E-10	4.72E-12	3.46E-14	2.54E-16	1.86E-18	1.36E-20	9.99E-23	
cr23	4.32E-09	2.08E-09	1.18E-19	3.24E-30	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cr24	1.70E-02	5.37E-03	3.99E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cr25	2.10E-03	2.10E-03	1.94E-03	1.79E-03	1.65E-03	1.52E-03	1.40E-03	1.29E-03	1.19E-03	1.09E-03	1.01E-03	
cr26	9.66E-05	9.61E-05	8.34E-05	7.20E-05	6.22E-05	5.37E-05	4.64E-05	4.01E-05	3.46E-05	2.99E-05	2.58E-05	
cr27	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	2.93E-09	
cr28	7.00E-09	7.00E-09	6.99E-09	6.97E-09	6.96E-09	6.95E-09	6.92E-09	6.92E-09	6.90E-09	6.89E-09	6.87E-09	
cr29	1.97E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cr50	1.29E-16	1.29E-16	1.24E-16	1.20E-16	1.15E-16	1.10E-16	1.06E-16	1.02E-16	9.80E-17	9.41E-17	9.05E-17	
cr51	3.10E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
bk249	1.97E-09	9.70E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
bk250	2.74E-14	1.81E-17	1.74E-17	1.67E-17	1.61E-17	1.55E-17	1.49E-17	1.43E-17	1.37E-17	1.32E-17	1.27E-17	
bk251	3.10E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cf249	1.66E-09	1.57E-09	2.31E-10	3.20E-11	4.42E-12	6.12E-13	8.46E-14	1.17E-14	1.62E-15	2.24E-16	3.10E-17	
cf250	1.84E-12	3.79E-13	1.74E-17	1.67E-17	1.61E-17	1.55E-17	1.49E-17	1.43E-17	1.37E-17	1.32E-17	1.27E-17	
cf251	6.15E-15	6.01E-15	2.84E-15	1.31E-15	6.07E-16	2.80E-16	1.30E-16	5.99E-17	2.77E-17	1.28E-17	5.91E-18	
cf252	1.50E-16	5.79E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cf253	1.37E-22	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cf254	5.70E-31	.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	1.37E-22	.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	1.82E-29	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
es255	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
s250	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
total	2.84E+02	1.43E+02	1.32E+02	1.28E+02	1.21E+02	1.16E+02	1.12E+02	1.08E+02	1.03E+02	9.97E+01	9.61E+01	

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Part D 1000 year criticality at 2.182 kw/package
 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+01mwd, flu= 2.86E+08n/cm^2-sec
 nuclide radioactivity, curies

	initial	16000.0	yr17000.0	yr18000.0	yr19000.0	yr20000.0	yr21000.0	yr22000.0	yr23000.0	yr24000.0	yr25000.0	yr
h 3	1.06E-02	1.95E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
li 6	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
li 7	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
be 9	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
be 10	8.23E-07	8.23E-07	8.23E-07	8.23E-07	8.22E-07	8.22E-07	8.22E-07	8.21E-07	8.21E-07	8.21E-07	8.20E-07	
c 14	4.93E-06	4.91E-06	4.37E-06	3.87E-06	3.43E-06	3.04E-06	2.69E-06	2.39E-06	2.11E-06	1.87E-06	1.66E-06	
ni 66	6.18E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cu 66	6.21E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
zn 66	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cu 67	7.90E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
zn 67	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
zn 68	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
zn 69	2.71E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
zn 69m	2.20E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ga 69	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
zn 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ga 70	1.01E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ge 70	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
zn 71	1.25E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
zn 71m	5.51E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ge 71	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ge 71	1.46E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ge 71m	7.28E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
co 72	2.01E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
ni 72	1.16E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
cu 72	3.20E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	

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kr 85m	8.27E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 85	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gs 86	9.69E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 86	6.12E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 86	8.36E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86	1.02E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tr 86m	1.85E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 86	3.92E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tr 86m	3.12E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 86	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gs 87	1.02E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 87	3.83E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 87	4.96E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 87	1.33E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 87	1.67E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 87	6.23E-06	6.23E-06	6.23E-06	6.23E-06	6.23E-06	6.23E-06	6.23E-06	6.23E-06	6.23E-06	6.23E-06	6.23E-06	6.23E-06
sr 87	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 87m	1.15E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gs 88	1.64E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 88	1.76E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 88	2.60E-01	.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 D 1000 year criticality at 2.182 kw/package
decay, following reactor irradiation identified by: power=1.099E-04mw, burnup=3.7952E+01mwd, flux=2.86E+08n/cm^2-sec
0
nuclide radioactivity, curies
basis =88W 15x15, 3.00wt%, 20gd/mtu /per assem
initial16030.0 yr17000.0 yr18000.0 yr19000.0 yr20000.0 yr21000.0 yr22000.0 yr23000.0 yr24000.0 yr25000.0 yr

br 88	1.31E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 88	2.34E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 88	2.40E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 89	2.52E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 89	9.23E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 89	8.99E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 89	2.96E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 89	3.16E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 89	3.18E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89m	2.97E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 90	2.34E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 90	2.00E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 90	4.77E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 90	3.19E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90	2.92E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90m	8.91E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 90	3.84E+00	1.83E+00	7.74E-11	1.56E-21	2.28E-32	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90	3.84E+00	1.83E+00	7.74E-11	1.56E-21	2.28E-32	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90m	7.00E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 91	1.92E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 91	1.66E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 91	2.19E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	3.78E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 91	4.02E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91	4.02E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91m	2.33E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	7.72E-11	7.49E-11	2.79E-11	1.01E-11	3.63E-12	1.31E-12	4.72E-13	1.70E-13	6.19E-14	2.22E-14	8.00E-15	

1 Part D 1000 year criticality at 2.182 kw/package fission products page 179
 decay, following reactor irradiation identified by: power=1.039E-04mw, burnup=3.7952E+01md, flu=2.86E+08/vcm*2-sec
 nuclide radioactivity, curies
 basis =B84 15x15, 3.00wt%, 20gwd/mtu /per assem

	initial	16030.0 yr	17000.0 yr	18000.0 yr	19000.0 yr	20000.0 yr	21000.0 yr	22000.0 yr	23000.0 yr	24000.0 yr	25000.0 yr
sm148	8.87E-12	8.87E-12	8.87E-12	8.87E-12	8.87E-12	8.87E-12	8.87E-12	8.87E-12	8.87E-12	8.87E-12	8.87E-12
cs149	5.21E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba149	2.42E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la149	6.49E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce149	6.41E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr149	9.63E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd149	1.02E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm149	1.02E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm149	2.83E-13	2.83E-13	2.83E-13	2.83E-13	2.83E-13	2.83E-13	2.83E-13	2.83E-13	2.83E-13	2.83E-13	2.83E-13
eu149	1.65E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs150	6.66E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba150	2.19E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la150	1.04E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce150	2.72E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr150	5.73E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm150	3.29E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu150	2.04E-06	1.14E-06	7.96E-15	3.12E-23	1.14E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba151	2.22E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la151	1.76E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce151	7.44E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr151	2.88E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd151	4.83E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm151	4.89E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm151	7.92E-01	6.29E-01	3.58E-04	1.62E-07	7.30E-11	3.30E-14	1.49E-17	6.72E-21	3.09E-24	1.37E-27	6.16E-31
eu151	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba152	4.72E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la152	1.44E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce152	7.00E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr152	8.58E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd152	3.11E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152	3.22E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152m	1.10E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm152	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu152	6.61E-01	1.39E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu152m	3.59E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	3.53E-12	3.56E-12	3.56E-12	3.56E-12	3.56E-12	3.56E-12	3.56E-12	3.56E-12	3.56E-12	3.56E-12	3.56E-12
la153	1.45E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce153	3.48E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr153	3.74E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd153	1.73E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm153	2.09E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm153	9.44E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu153	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd153	4.73E-04	1.04E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la154	3.77E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce154	3.51E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr154	6.47E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd154	7.82E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154	9.93E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154m	2.11E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+01mwd, flu= 2.86E+08hv/cm^2-sec
nuclide radioactivity, curies

0

basis =88W 15x15, 3.00w/c, 20guc/mtu /per assem

	initial	16000.0 yr	17000.0 yr	18000.0 yr	19000.0 yr	20000.0 yr	21000.0 yr	22000.0 yr	23000.0 yr	24000.0 yr	25000.0 yr
sm154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu154	4.64E-01	4.12E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd154	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la155	1.91E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce155	3.10E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr155	1.43E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd155	2.54E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm155	5.97E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm155	7.38E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu155	7.40E-02	8.70E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce156	2.42E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr156	1.92E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd156	8.00E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm156	2.71E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm156	4.32E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu156	4.37E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd156	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce157	1.17E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr157	3.06E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd157	1.85E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm157	1.06E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm157	2.48E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu157	2.60E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd157	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr158	1.64E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd158	3.12E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm158	2.49E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm158	1.19E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu158	1.37E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd158	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr159	7.06E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd159	2.86E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm159	4.93E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm159	4.32E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu159	6.49E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd159	8.25E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb159	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd160	1.88E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm160	5.44E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm160	1.22E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu160	2.64E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb160	1.78E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy160	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd161	7.81E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm161	6.55E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm161	2.32E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu161	9.68E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd161	1.46E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb161	1.47E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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	basis =88W 15x15, 3.00wt%, 20g/d/mtu /per assem										
	initial16000.0	yr17000.0	yr18000.0	yr19000.0	yr20000.0	yr21000.0	yr22000.0	yr23000.0	yr24000.0	yr25000.0	yr
cl161	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
prl162	4.41E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm162	3.80E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu162	2.57E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd162	6.66E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162	6.80E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	1.41E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cl162	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm163	2.92E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu163	4.81E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd163	2.34E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163	2.74E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cl163	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm164	2.16E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu164	5.48E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd164	6.94E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	1.01E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cl164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm165	1.13E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu165	5.93E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	1.48E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	3.49E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cl165	4.18E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cl165m	3.16E-04	.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
cl166	6.35E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166	5.97E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	4.00E-07	3.92E-07	2.25E-07	1.28E-07	7.07E-08	3.97E-08	2.23E-08	1.25E-08	7.02E-09	3.94E-09	2.21E-09
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	2.09E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er169	1.09E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm170	6.89E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm170m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er171	1.48E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	1.51E-08	3.00E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb171	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er172	8.74E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm172	9.20E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb172	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
total	5.29E+02	1.49E+01	5.08E+00	5.08E+00	5.08E+00	5.08E+00	5.08E+00	5.01E+00	5.00E+00	4.98E+00	4.95E+00

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Part D 1000 year criticality at 2.182 kw/package actinides page 185
decay, following reactor irradiation identified by: power=1.089E-04mw, burnup=3.7952E+01mwd, flux=2.86E+08n/cm**2-sec
nuclide radioactivity, curies

	basis =88W 15x15, 3.00wt%, 20g/d/mtu /per assem										
	initial 35000.0	yr 45000.0	yr 55000.0	yr 65000.0	yr 75000.0	yr 85000.0	yr 95000.0	yr 105000.0	yr 115000.0	yr 125000.0	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	1.67E-07	2.28E-07	2.82E-07	3.30E-07	3.72E-07	4.09E-07	4.42E-07	4.70E-07	4.94E-07	5.15E-07	5.32E-07
tl207	6.85E-03	8.74E-03	1.04E-02	1.18E-02	1.30E-02	1.40E-02	1.49E-02	1.56E-02	1.63E-02	1.68E-02	1.72E-02

pa233	3.81E-01	3.80E-01	3.79E-01	3.77E-01	3.76E-01	3.75E-01	3.74E-01	3.72E-01	3.71E-01	3.70E-01	3.69E-01
pa234m	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01
pa234	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04
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	3.92E-07	3.69E-07	3.48E-07	3.27E-07	3.08E-07	2.90E-07	2.73E-07	2.57E-07	2.42E-07	2.28E-07	2.15E-07
u233	3.85E-02	5.31E-02	6.70E-02	8.03E-02	9.29E-02	1.05E-01	1.16E-01	1.27E-01	1.38E-01	1.48E-01	1.57E-01
u234	6.59E-01	6.45E-01	6.31E-01	6.18E-01	6.05E-01	5.92E-01	5.80E-01	5.68E-01	5.56E-01	5.45E-01	5.34E-01
u235	1.64E-02	1.71E-02	1.78E-02	1.80E-02	1.83E-02	1.85E-02	1.87E-02	1.88E-02	1.89E-02	1.90E-02	1.90E-02
u236	1.32E-01	1.34E-01	1.34E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.34E-01	1.34E-01
u237	2.42E-08	1.07E-08	4.73E-09	2.09E-09	9.25E-10	4.09E-10	1.81E-10	8.01E-11	3.54E-11	1.57E-11	6.93E-12
u238	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01
u239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	1.37E-12	1.91E-12	2.44E-12	2.95E-12	3.46E-12	3.96E-12	4.45E-12	4.93E-12	5.39E-12	5.85E-12	6.30E-12
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	4.41E-06	4.15E-06	3.91E-06	3.68E-06	3.46E-06	3.26E-06	3.07E-06	2.89E-06	2.72E-06	2.56E-06	2.41E-06
np237	3.81E-01	3.80E-01	3.79E-01	3.77E-01	3.76E-01	3.75E-01	3.74E-01	3.72E-01	3.71E-01	3.70E-01	3.69E-01
np238	5.46E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np239	2.05E-01	8.02E-02	3.13E-02	1.22E-02	4.78E-03	1.86E-03	7.28E-04	2.84E-04	1.11E-04	4.33E-05	1.69E-05
np240m	1.37E-12	1.91E-12	2.44E-12	2.95E-12	3.46E-12	3.96E-12	4.45E-12	4.93E-12	5.39E-12	5.85E-12	6.30E-12
np240	1.64E-15	2.25E-15	2.92E-15	3.55E-15	4.16E-15	4.75E-15	5.34E-15	5.91E-15	6.47E-15	7.02E-15	7.56E-15
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
p236	3.92E-07	3.69E-07	3.48E-07	3.27E-07	3.08E-07	2.90E-07	2.73E-07	2.57E-07	2.42E-07	2.28E-07	2.15E-07
p237	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
p238	1.05E-22	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
p239	8.05E+01	6.04E+01	4.53E+01	3.40E+01	2.55E+01	1.91E+01	1.43E+01	1.08E+01	8.07E+00	6.06E+00	4.54E+00
p240	1.14E+01	3.95E+00	1.37E+00	4.78E-01	1.66E-01	5.78E-02	2.01E-02	6.99E-03	2.43E-03	8.45E-04	2.94E-04
p241	1.01E-03	4.47E-04	1.98E-04	8.75E-05	3.87E-05	1.71E-05	7.57E-06	3.35E-06	1.48E-06	6.55E-07	2.90E-07
p242	2.67E-01	2.62E-01	2.57E-01	2.53E-01	2.48E-01	2.43E-01	2.39E-01	2.34E-01	2.30E-01	2.26E-01	2.22E-01
p243	2.93E-09	2.92E-09	2.92E-09	2.92E-09	2.92E-09	2.92E-09	2.92E-09	2.92E-09	2.92E-09	2.91E-09	2.91E-09
p244	1.37E-12	1.91E-12	2.44E-12	2.96E-12	3.47E-12	3.96E-12	4.45E-12	4.93E-12	5.40E-12	5.85E-12	6.31E-12
p245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
p246	2.26E-17	1.52E-17	1.02E-17	6.84E-18	4.60E-18	3.09E-18	2.07E-18	1.39E-18	9.34E-19	6.27E-19	4.21E-19
an239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
an240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
an241	1.05E-03	4.47E-04	1.98E-04	8.75E-05	3.87E-05	1.71E-05	7.57E-06	3.35E-06	1.48E-06	6.55E-07	2.90E-07
an242m	1.21E-22	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
an242	1.21E-22	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
an243	2.05E-01	8.02E-02	3.13E-02	1.22E-02	4.78E-03	1.86E-03	7.28E-04	2.84E-04	1.11E-04	4.33E-05	1.69E-05
an244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
an244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
an245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
an246	2.26E-17	1.52E-17	1.02E-17	6.84E-18	4.60E-18	3.09E-18	2.07E-18	1.39E-18	9.34E-19	6.27E-19	4.21E-19
an241	.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 D 1000 year criticality at 2.182 kw/package actinides page 187
decay, following reactor irradiation identified by: power=1.059E-04mw, burnup=3.7952E+01mwd, flu=2.86E+08n/cm**2-sec
nuclide radioactivity, curies
basis =88W 15x15, 3.00wt%, 20gud/mtu /per assem

	initial	35000. yr	45000. yr	55000. yr	65000. yr	75000. yr	85000. yr	95000. yr	105000. yr	115000. yr	125000. yr
cn242	9.99E-23	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cn243	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cn244	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cn245	1.01E-03	4.46E-04	1.97E-04	8.73E-05	3.86E-05	1.71E-05	7.56E-06	3.34E-06	1.48E-06	6.54E-07	2.89E-07
cn246	2.58E-05	5.96E-06	1.38E-06	3.18E-07	7.35E-08	1.70E-08	3.92E-09	9.07E-10	2.09E-10	4.84E-11	1.12E-11
cn247	2.93E-09	2.92E-09	2.92E-09	2.92E-09	2.92E-09	2.92E-09	2.92E-09	2.92E-09	2.92E-09	2.91E-09	2.91E-09
cn248	6.87E-09	6.74E-09	6.60E-09	6.47E-09	6.34E-09	6.21E-09	6.08E-09	5.96E-09	5.84E-09	5.72E-09	5.61E-09

Table with 12 columns representing different nuclides (rb 92, se 93, br 93, kr 93, rb 93, sr 93, y 93, zr 93, rb 93, rb 93m, br 94, kr 94, rb 94) and 12 corresponding values in scientific notation.

1 Part D 1000 year criticality at 2.182 kw/package fission products page 209
0 decay, following reactor irradiation identified by: power=1.035E-04mw, burnup=3.7952E+01mwd, flux=2.82E+08n/cm**2-sec
nuclide radioactivity, curies
basis =88W 15x15, 3.00w/c, 20gwd/mtu /per assem

Table with 12 columns for nuclides (sr 94, y 94, zr 94, rb 94, rb 94m, br 95, kr 95, rb 95, sr 95, y 95, zr 95, rb 95, rb 95m, mo 95, br 96, kr 96, rb 96, sr 96, y 96, zr 96, rb 96, mo 96, kr 97, rb 97, sr 97, y 97, zr 97, rb 97, rb 97m, mo 97, kr 98, rb 98, sr 98, y 98, zr 98, rb 98, rb 98m, mo 98, tc 98, rb 99, sr 99) and 12 corresponding values in scientific notation.

sn126 1.17E-01 1.09E-01 1.02E-01 9.52E-02 8.88E-02 8.29E-02 7.73E-02 7.22E-02 6.73E-02 6.28E-02 5.86E-02

1 Part D 1000 year criticality at 2.182 kw/package fission products page 215
 decay, following reactor irradiation identified by: power=1.039E-04mw, burnup=3.7952E+01md, flux=2.86E+08n/cm^2-sec
 0 nuclide radioactivity, curies
 basis =88W 15x15, 3.00wt%, 20gwd/mtu /per assem

	initial	35000. yr	45000. yr	55000. yr	65000. yr	75000. yr	85000. yr	95000. yr	105000. yr	115000. yr	125000. yr
sb126	1.64E-02	1.53E-02	1.43E-02	1.33E-02	1.24E-02	1.16E-02	1.08E-02	1.01E-02	9.43E-03	8.79E-03	8.21E-03
sb126m	1.17E-01	1.09E-01	1.02E-01	9.52E-02	8.88E-02	8.29E-02	7.73E-02	7.22E-02	6.73E-02	6.28E-02	5.86E-02
te126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i129	8.85E-03	8.84E-03	8.84E-03	8.84E-03	8.83E-03	8.83E-03	8.82E-03	8.82E-03	8.82E-03	8.81E-03	8.81E-03
xe129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe129m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

Part D 1000 year criticality at 2.182 kw/package fission products page 216
decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+01mwd, flu= 2.86E+08/cm²-sec
nuclide radioactivity, curies

	initial	35000. yr	45000. yr	55000. yr	65000. yr	75000. yr	85000. yr	95000. yr	105000. yr	115000. yr	125000. yr
cd132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba132	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba133	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs135	2.04E-01	2.04E-01	2.03E-01	2.02E-01	2.02E-01	2.01E-01	2.01E-01	2.00E-01	1.99E-01	1.99E-01	1.98E-01
cs135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba135m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba136m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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	nuclide radioactivity, curies											
	initial	35000. yr	45000. yr	55000. yr	65000. yr	75000. yr	85000. yr	95000. yr	105000. yr	115000. yr	125000. yr	
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
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
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
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
cs137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba137	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba137m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs138m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba138	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
La138	5.41E-11	5.41E-11	5.41E-11	5.41E-11	5.41E-11	5.41E-11	5.41E-11	5.41E-11	5.41E-11	5.41E-11	5.41E-11	5.41E-11
sb139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
La139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr139	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
La140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr140	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
La141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd141	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
La142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce142	7.79E-06	7.79E-06	7.79E-06	7.79E-06	7.79E-06	7.79E-06	7.79E-06	7.79E-06	7.79E-06	7.79E-06	7.79E-06	7.79E-06
pr142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr142m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd142	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i143	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part D 1000 year criticality at 2.182 kw/package fission products page 218
 decay, following reactor irradiation identified by: power= 1.09E-04mw, burnup=3.7952E+01mwd, flu= 2.86E+08y/cm**2-sec

0

nuclide radioactivity, curies
 basis =88W 15x15, 3.00w%, 20guc/mtu /per assem

pb209	1.63E-02	1.63E-02	1.76E-02	1.89E-02	2.02E-02	2.15E-02	2.28E-02
pb210	1.00E-01	1.00E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
pb211	8.85E-03	8.85E-03	8.99E-03	9.14E-03	9.28E-03	9.43E-03	9.57E-03
pb212	1.13E-03	8.67E-04	6.58E-07	6.05E-07	6.08E-07	6.12E-07	6.16E-07
pb214	1.00E-01	1.01E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
bi208	.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
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	1.00E-01	1.01E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
bi211	8.85E-03	8.85E-03	8.99E-03	9.14E-03	9.28E-03	9.43E-03	9.57E-03
bi212	1.13E-03	8.67E-04	6.58E-07	6.05E-07	6.08E-07	6.12E-07	6.16E-07
bi213	1.63E-02	1.63E-02	1.76E-02	1.89E-02	2.02E-02	2.15E-02	2.28E-02
bi214	1.00E-01	1.01E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
po210	1.00E-01	1.01E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	2.43E-05	2.44E-05	2.47E-05	2.51E-05	2.55E-05	2.59E-05	2.63E-05
po212	7.26E-04	5.59E-04	4.22E-07	3.87E-07	3.90E-07	3.92E-07	3.95E-07
po213	1.60E-02	1.60E-02	1.72E-02	1.85E-02	1.97E-02	2.10E-02	2.23E-02
po214	1.00E-01	1.01E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
po215	8.85E-03	8.85E-03	8.99E-03	9.14E-03	9.28E-03	9.43E-03	9.57E-03
po216	1.13E-03	8.67E-04	6.58E-07	6.05E-07	6.08E-07	6.12E-07	6.16E-07
po218	1.00E-01	1.01E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
at217	1.63E-02	1.63E-02	1.76E-02	1.89E-02	2.02E-02	2.15E-02	2.28E-02
m218	9.09E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
m219	8.85E-03	8.85E-03	8.99E-03	9.14E-03	9.28E-03	9.43E-03	9.57E-03
m220	1.13E-03	8.67E-04	6.58E-07	6.05E-07	6.08E-07	6.12E-07	6.16E-07
m222	1.00E-01	1.01E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
fr221	1.63E-02	1.63E-02	1.76E-02	1.89E-02	2.02E-02	2.15E-02	2.28E-02
fr223	1.22E-04	1.22E-04	1.24E-04	1.26E-04	1.28E-04	1.30E-04	1.32E-04
ra222	9.09E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ra223	8.85E-03	8.85E-03	8.99E-03	9.14E-03	9.28E-03	9.43E-03	9.57E-03
ra224	1.13E-03	8.67E-04	6.58E-07	6.05E-07	6.08E-07	6.12E-07	6.16E-07
ra225	1.63E-02	1.63E-02	1.76E-02	1.89E-02	2.02E-02	2.15E-02	2.28E-02
ra226	1.00E-01	1.01E-01	1.06E-01	1.11E-01	1.16E-01	1.21E-01	1.26E-01
ra228	1.15E-07	1.15E-07	1.21E-07	1.28E-07	1.34E-07	1.41E-07	1.48E-07
ac225	1.63E-02	1.63E-02	1.76E-02	1.89E-02	2.02E-02	2.15E-02	2.28E-02
ac227	8.85E-03	8.85E-03	8.99E-03	9.14E-03	9.28E-03	9.43E-03	9.57E-03
ac228	1.15E-07	1.15E-07	1.21E-07	1.28E-07	1.34E-07	1.41E-07	1.48E-07
th226	9.09E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th227	8.73E-03	8.73E-03	8.87E-03	9.01E-03	9.16E-03	9.30E-03	9.44E-03
th228	1.13E-03	8.67E-04	6.58E-07	6.05E-07	6.08E-07	6.12E-07	6.16E-07
th229	1.63E-02	1.63E-02	1.76E-02	1.89E-02	2.02E-02	2.15E-02	2.28E-02
th230	1.12E-01	1.12E-01	1.17E-01	1.23E-01	1.28E-01	1.33E-01	1.38E-01
th231	5.80E-02	1.58E-02	1.59E-02	1.60E-02	1.60E-02	1.61E-02	1.62E-02

1 Part E 5000 year criticality at 2.182 kw/package actinides page 146
 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=1.8976E+02mwd, flu= 2.90E+08y/cm*2-sec
 0 nuclide radioactivity, curies
 basis =88W 15x15, 3.00wCk, 20gud/mtu /per assem

th232	1.15E-07	1.15E-07	1.21E-07	1.28E-07	1.34E-07	1.41E-07	1.48E-07
th233	5.33E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th234	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01
pa231	8.84E-03	8.85E-03	8.99E-03	9.13E-03	9.28E-03	9.42E-03	9.56E-03
pa232	1.08E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pa233	3.85E-01	3.85E-01	3.85E-01	3.85E-01	3.85E-01	3.85E-01	3.85E-01
pa234m	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01
pa234	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04	1.93E-04
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	9.09E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

u231	1.62E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u232	1.13E-03	8.43E-04	5.35E-07	4.77E-07	4.74E-07	4.71E-07	4.68E-07
u233	3.05E-02	3.06E-02	3.21E-02	3.36E-02	3.51E-02	3.66E-02	3.81E-02
u234	6.95E-01	6.95E-01	6.94E-01	6.92E-01	6.91E-01	6.89E-01	6.88E-01
u235	1.58E-02	1.58E-02	1.59E-02	1.60E-02	1.60E-02	1.61E-02	1.62E-02
u236	1.31E-01	1.31E-01	1.31E-01	1.32E-01	1.33E-01	1.33E-01	1.33E-01
u237	3.01E+00	1.48E-05	3.15E-08	2.90E-08	2.67E-08	2.44E-08	2.27E-08
u238	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01	1.49E-01
u239	6.70E+01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	1.11E-12	1.11E-12	1.17E-12	1.24E-12	1.30E-12	1.36E-12	1.42E-12
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	5.50E-07	2.60E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236m	1.06E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	5.42E-06	5.42E-06	5.39E-06	5.36E-06	5.33E-06	5.29E-06	5.26E-06
np237	3.85E-01	3.85E-01	3.85E-01	3.85E-01	3.85E-01	3.85E-01	3.85E-01
np238	2.97E+00	9.29E-06	7.85E-08	5.79E-10	4.22E-12	3.09E-14	2.27E-16
np239	6.74E+01	4.39E-01	4.01E-01	3.65E-01	3.32E-01	3.02E-01	2.75E-01
np240m	1.11E-12	1.11E-12	1.17E-12	1.24E-12	1.30E-12	1.36E-12	1.42E-12
np240	1.06E-06	1.33E-15	1.41E-15	1.48E-15	1.56E-15	1.63E-15	1.71E-15
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
p236	5.16E-05	5.22E-07	4.80E-07	4.77E-07	4.74E-07	4.71E-07	4.68E-07
p237	5.91E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
p238	2.98E+00	2.35E+00	1.12E-03	5.19E-07	9.68E-10	6.05E-12	4.39E-14
p239	9.56E+01	9.56E+01	9.29E+01	9.03E+01	8.78E+01	8.53E+01	8.29E+01
p240	2.33E+01	2.32E+01	2.10E+01	1.89E+01	1.70E+01	1.53E+01	1.37E+01
p241	2.63E+00	6.18E-01	1.32E-03	1.21E-03	1.12E-03	1.03E-03	9.50E-04
p242	2.67E-01	2.67E-01	2.66E-01	2.66E-01	2.65E-01	2.65E-01	2.64E-01
p243	3.73E-01	2.90E-09	2.90E-09	2.90E-09	2.90E-09	2.90E-09	2.90E-09
p244	1.11E-12	1.11E-12	1.17E-12	1.24E-12	1.30E-12	1.36E-12	1.42E-12
p245	1.00E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
p246	2.76E-17	2.76E-17	2.65E-17	2.55E-17	2.45E-17	2.35E-17	2.26E-17
am239	2.21E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am240	2.21E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am241	2.67E+00	2.61E+00	5.56E-01	1.13E-01	2.37E-02	5.60E-03	1.90E-03
am242m	2.38E-03	2.05E-03	1.75E-05	1.25E-07	9.37E-10	6.87E-12	5.04E-14
am242	1.46E-02	2.05E-03	1.74E-05	1.27E-07	9.33E-10	6.84E-12	5.01E-14
am243	4.41E-01	4.39E-01	4.01E-01	3.65E-01	3.32E-01	3.02E-01	2.75E-01
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am244	1.59E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am245	1.03E-12	1.64E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am246	2.76E-17	2.76E-17	2.65E-17	2.55E-17	2.45E-17	2.35E-17	2.26E-17
cm241	2.59E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 Part E 5000 year criticality at 2.182 kw/package actinides page 147
 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=1.8978E+02mwd, flux= 2.90E+08n/cm**2-sec

0 nuclide radioactivity, curies
 basis =88W 15x15, 3.00w%₂, 20gwd/mtu /per assem

	initial	20030.0 yr	21000.0 yr	22000.0 yr	23000.0 yr	24000.0 yr	25000.0 yr
cm242	1.21E-02	1.69E-03	1.44E-05	1.05E-07	7.72E-10	5.66E-12	4.15E-14
cm243	4.74E-09	2.28E-09	1.30E-19	3.54E-30	.00E+00	.00E+00	.00E+00
cm244	1.59E-02	5.05E-03	3.71E-19	.00E+00	.00E+00	.00E+00	.00E+00
cm245	1.43E-03	1.42E-03	1.31E-03	1.21E-03	1.12E-03	1.03E-03	9.48E-04
cm246	7.45E-05	7.42E-05	6.44E-05	5.56E-05	4.80E-05	4.15E-05	3.58E-05
cm247	2.90E-09	2.90E-09	2.90E-09	2.90E-09	2.90E-09	2.90E-09	2.90E-09
cm248	7.99E-09	7.99E-09	7.98E-09	7.96E-09	7.94E-09	7.93E-09	7.91E-09
cm249	2.30E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cm250	1.10E-16	1.10E-16	1.06E-16	1.02E-16	9.80E-17	9.41E-17	9.05E-17
cm251	2.70E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk249	2.30E-09	1.13E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bk250	3.26E-14	1.54E-17	1.49E-17	1.43E-17	1.37E-17	1.32E-17	1.27E-17

1 Part E 5000 year criticality at 2.182 kw/package fission products page 173
 decay, following reactor irradiation identified by: power= 1.089E-04mw, burnup=1.8976E+02md, flux= 2.90E+08/vcm**2-sec
 0 nuclide radioactivity, curies
 basis =88W 15x15, 3.00wt%, 20gwd/mtu /per assem

	initial	20030.0 yr	21000.0 yr	22000.0 yr	23000.0 yr	24000.0 yr	25000.0 yr
sn15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc16	3.43E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru16	1.97E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh16	2.60E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd16	1.92E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag16	2.18E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag16m	2.54E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in16	3.56E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in16m	1.34E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc17	4.24E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru17	2.99E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh17	9.97E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd17	1.25E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag17	1.06E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag17m	1.06E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd17	1.86E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd17m	4.19E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in17	1.38E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in17m	1.70E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn17m	1.11E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc18	1.26E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru18	4.88E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh18	2.40E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd18	6.09E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag18	1.04E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag18m	7.35E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd18	1.79E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in18	1.79E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in18m	2.08E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru19	6.46E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh19	9.35E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd19	3.66E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag19	1.27E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd19	1.30E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd19m	5.89E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in19	7.58E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in19m	1.17E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn19m	1.48E-04	8.19E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru120	8.07E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh120	2.02E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd120	1.89E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag120	8.18E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd120	1.78E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120	1.80E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in120m	2.90E-04	.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
rh121	5.66E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

decay, following reactor irradiation identified by: power=1.039E-04mw, burnup=1.8776E+02mwd, flux=2.90E+08n/cm**2-sec

	nuclide radioactivity, curies						
	basis =88W 15x15, 3.00w0%, 20gwd/mtu /per assem						
	initial	2000.0 yr	21000.0 yr	22000.0 yr	23000.0 yr	24000.0 yr	25000.0 yr
pd121	8.05E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag121	6.00E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd121	1.80E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121	1.60E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in121m	1.83E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn121	1.97E-02	1.10E-04	5.40E-10	1.82E-15	6.13E-21	2.06E-26	6.85E-32
sn121m	2.07E-04	1.42E-04	6.98E-10	2.34E-15	7.90E-21	2.66E-26	9.13E-32
sb121	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh122	6.26E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd122	2.67E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag122	3.11E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd122	1.94E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122	2.14E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in122m	2.04E-03	.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
sb122	1.98E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb122m	1.98E-04	.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
rh123	5.34E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd123	4.67E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag123	1.25E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd123	1.24E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123	1.55E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in123m	4.24E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123	1.81E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn123m	2.07E-02	.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
te123	9.02E-14	9.02E-14	9.02E-14	9.02E-14	9.02E-14	9.02E-14	9.02E-14
te123m	1.26E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd124	2.56E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag124	9.91E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd124	1.99E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in124	3.58E-02	.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
sb124	1.56E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb124m	3.20E-05	.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
pd125	6.28E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag125	4.79E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd125	1.25E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125	2.04E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in125m	1.52E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125	1.17E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn125m	3.60E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb125	4.78E-02	2.36E-05	.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
te125m	1.10E-02	5.76E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd126	1.39E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag126	1.93E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd126	1.44E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in126	4.54E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn126	1.24E-01	1.24E-01	1.23E-01	1.22E-01	1.21E-01	1.20E-01	1.20E-01

basis =88W 15x15, 3.00wt%, 20gnd/mtu /per assem

	initial20030.0	yr21000.0	yr22000.0	yr23000.0	yr24000.0	yr25000.0	yr
sb126	1.79E-02	1.73E-02	1.72E-02	1.71E-02	1.70E-02	1.69E-02	1.67E-02
sb126m	1.25E-01	1.24E-01	1.23E-01	1.22E-01	1.21E-01	1.20E-01	1.20E-01
te126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe126	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag127	1.06E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd127	1.08E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127	4.19E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in127m	4.19E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127	7.98E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn127m	1.09E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb127	2.00E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127	1.99E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te127m	3.50E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i127	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe127	6.90E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag128	5.40E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd128	1.13E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in128	8.69E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn128	3.70E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128	3.62E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb128m	3.88E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i128	1.78E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe128	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd129	5.57E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in129	9.99E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129	3.22E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn129m	3.43E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb129	8.40E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129	7.98E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te129m	1.60E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i129	8.99E-03	8.99E-03	8.99E-03	8.99E-03	8.99E-03	8.99E-03	8.99E-03
xe129	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe129m	3.99E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd130	2.11E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in130	7.99E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn130	9.59E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130	2.77E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb130m	1.27E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130	4.29E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130m	2.29E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe130	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd131	3.21E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in131	3.28E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn131	8.08E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb131	2.23E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131	2.39E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131m	4.94E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i131	2.74E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131m	3.01E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 Part E 5000 year criticality at 2.182 kw/package fission products page 176
 decay, following reactor irradiation identified by: power= 1.099E-04mw, burnup=1.8976E+02mwd, flu= 2.50E+08y/cm**2-sec
 0 nuclide radioactivity, curies
 basis =88W 15x15, 3.00wt%, 20gnd/mtu /per assem
 initial20030.0 yr21000.0 yr22000.0 yr23000.0 yr24000.0 yr25000.0 yr

cd132	3.93E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in132	8.90E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn132	6.44E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132	1.26E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132m	1.32E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te132	3.97E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i132	4.03E+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
cs132	9.28E-05	.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
in133	2.67E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn133	1.82E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb133	1.91E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133	3.20E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133m	2.63E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133	5.80E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133m	4.13E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133	5.82E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133m	1.79E-01	.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
ba133	4.94E-10	6.84E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in134	4.45E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn134	2.98E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134	3.60E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134m	2.44E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te134	5.38E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134	6.52E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134m	4.84E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134m	1.01E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134	1.10E+00	4.60E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134m	8.38E-02	.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
sn135	2.55E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb135	1.54E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te135	2.77E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i135	5.47E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135	5.90E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135m	1.14E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs135	2.12E-01	2.12E-01	2.12E-01	2.11E-01	2.11E-01	2.11E-01	2.11E-01
cs135m	1.85E-06	.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
ba135m	1.34E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn136	2.26E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb136	2.40E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te136	1.29E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136	2.61E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i136m	1.24E+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
cs136	1.47E-01	.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
ba136m	1.64E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 Part E 5000 year criticality at 2.182 kw/package fission products page 177
 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=1.8776E+02mwd, flux= 2.90E+08/yr*2-sec
 0 nuclide radioactivity, curies
 basis =68W 15x15, 3.00wt%, 20gwd/mtu /per assem
 initial20030.0 yr21000.0 yr22000.0 yr23000.0 yr24000.0 yr25000.0 yr
 sb137 3.11E-02 .00E+00 .00E+00 .00E+00 .00E+00 .00E+00 .00E+00
 te137 4.31E-01 .00E+00 .00E+00 .00E+00 .00E+00 .00E+00 .00E+00

1 Part E 5000 year criticality at 2.182 kw/package fission products page 210
decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=1.8976E+02mwd, flux= 2.90E+08n/cm^2-sec
nuclide radioactivity, curies
basis =88W 15x15, 3.00w0%, 20gcl/mtu/per assem

	initial	35000. yr	45000. yr	55000. yr	65000. yr	75000. yr	85000. yr	95000. yr	105000. yr	115000. yr	125000. yr
zr100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb100m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

decay, following reactor irradiation identified by: power=1.039E-04mw, burnup=1.8976E+02mwd, flux=2.90E+08n/cm**2-sec
 0 nuclide radioactivity, curies

basis =68W 15x15, 3.00wt%, 20gwd/mtu /per assem

	initial	3500. yr	4500. yr	5500. yr	6500. yr	7500. yr	8500. yr	9500. yr	10500. yr	11500. yr	12500. 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
rb106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag106	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb107	.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	2.68E-02	2.68E-02	2.67E-02	2.67E-02	2.67E-02	2.67E-02	2.66E-02	2.66E-02	2.66E-02	2.65E-02	2.65E-02
pd107m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag107	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag108	2.82E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag108m	3.24E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd108	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag109m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd109	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh110m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag110m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

basis =88W 15x15, 3.00wt%, 20gwd/mbu /per assem

	initial	35000. yr	45000. yr	55000. yr	65000. yr	75000. yr	85000. yr	95000. yr	105000. yr	115000. yr	125000. yr
cd110	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb111	.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
rb112	.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	1.08E-14	1.08E-14	1.08E-14	1.08E-14	1.08E-14	1.08E-14	1.08E-14	1.08E-14	1.08E-14	1.08E-14	1.08E-14
cd113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in113	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in113m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in114m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn114	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cd115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in115	3.25E-12	3.25E-12	3.25E-12	3.25E-12	3.25E-12	3.25E-12	3.25E-12	3.25E-12	3.25E-12	3.25E-12	3.25E-12
in115m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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 Part E 5000 year criticality at 2.182 kw/package fission products page 213
 decay, following reactor irradiation identified by: power= 1.039E+04mw, burnup=1.8976E+02mwd, flux= 2.90E+08n/cm**2-sec
 nuclide radioactivity, curies
 basis =88W 15x15, 3.00wt%, 20gwd/mbu /per assem
 initial 35000. yr 45000. yr 55000. yr 65000. yr 75000. yr 85000. yr 95000. yr 105000. yr 115000. yr 125000. yr

gd164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm165	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.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	4.96E-08	1.54E-10	4.78E-13	1.48E-15	4.58E-18	1.42E-20	4.39E-23	1.36E-25	4.22E-28	1.30E-30	.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
trf169	.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
trf170	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
trf170m	.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
trf171	.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
trf172	.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	5.03E+00	4.87E+00	4.71E+00	4.57E+00	4.43E+00	4.30E+00	4.17E+00	4.05E+00	3.94E+00	3.83E+00	3.72E+00	

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Part C 10000 year criticality at 2.182 kw/package actinides page 145
 decay, following reactor irradiation identified by: power= 1.059E-04mw, burnup=3.7552E+02mwd, flux= 2.93E+08v/cm**2-sec

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nuclide radioactivity, curies
 basis =88W 15x15, 3.00w/c, 20g-c/mtu /per assem

	initial	2500. yr	2600. yr	3500. yr	4500. yr	5500. yr	6500. yr	8500. yr	9500. yr	10500. yr	11500. yr	12500. 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	.00E+00
tl206	1.66E-07	1.66E-07	1.72E-07	2.33E-07	2.94E-07	4.11E-07	4.89E-07	5.05E-07	5.33E-07	5.56E-07	5.76E-07	5.76E-07
tl207	1.42E-02	1.42E-02	1.42E-02	1.46E-02	1.50E-02	1.59E-02	1.67E-02	1.70E-02	1.73E-02	1.75E-02	1.77E-02	1.77E-02
tl208	6.57E-04	5.02E-04	2.92E-07	2.70E-07	2.83E-07	3.12E-07	3.44E-07	3.60E-07	3.77E-07	3.95E-07	4.13E-07	4.13E-07
tl209	4.76E-04	4.77E-04	5.03E-04	7.62E-04	1.06E-03	1.64E-03	2.17E-03	2.42E-03	2.66E-03	2.88E-03	3.10E-03	3.10E-03
pb206	.00E+00	.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	.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	.00E+00
pb209	2.27E-02	2.27E-02	2.40E-02	3.63E-02	5.05E-02	7.80E-02	1.03E-01	1.15E-01	1.27E-01	1.37E-01	1.48E-01	1.48E-01
pb210	1.25E-01	1.25E-01	1.30E-01	1.76E-01	2.23E-01	3.12E-01	3.70E-01	3.83E-01	4.03E-01	4.21E-01	4.36E-01	4.36E-01
pb211	1.42E-02	1.42E-02	1.42E-02	1.46E-02	1.50E-02	1.59E-02	1.67E-02	1.70E-02	1.73E-02	1.75E-02	1.77E-02	1.77E-02
pb212	1.83E-03	1.40E-03	8.11E-07	7.51E-07	7.88E-07	8.69E-07	9.57E-07	1.00E-06	1.05E-06	1.10E-06	1.15E-06	1.15E-06
pb214	1.25E-01	1.26E-01	1.30E-01	1.76E-01	2.23E-01	3.12E-01	3.70E-01	3.83E-01	4.04E-01	4.21E-01	4.36E-01	4.36E-01
bi208	.00E+00	.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	.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	.00E+00
bi210	1.25E-01	1.25E-01	1.30E-01	1.76E-01	2.23E-01	3.12E-01	3.70E-01	3.83E-01	4.03E-01	4.21E-01	4.36E-01	4.36E-01

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 Part C 10000 year criticality at 2.182 kw/package fission products page 168
 decay, following reactor irradiation identified by: power= 1.059E-04mw, burnup=3.7952E+02mwd, flux= 2.92E+08y/cm**2-sec
 0 nuclide radioactivity, curies
 basis =88W 15x15, 3.00wt%, 20gwd/mtu /per assem

	initial	2500. yr	2600. yr	3500. yr	4500. yr	4500. yr	6500. yr	8500. yr	9500. yr	10500. yr	11500. yr	12500. yr
br 88	1.37E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 88	2.42E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 88	2.48E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 88	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 89	2.65E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 89	9.71E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 89	9.36E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 89	3.07E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 89	3.27E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 89	3.29E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89m	3.07E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 90	2.45E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 90	2.10E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tr 90	4.94E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 90	3.32E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90	3.05E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90m	9.11E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 90	3.97E+00	1.90E+00	8.00E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90	3.98E+00	1.90E+00	8.01E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 90m	7.58E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 91	2.02E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tr 91	1.74E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 91	2.29E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	3.91E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 91	4.15E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91	4.15E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91m	2.40E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 91	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	1.90E-10	1.85E-10	6.86E-11	7.12E-15	2.66E-19	3.72E-28	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 92	1.61E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 92	2.86E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 92	1.21E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 92	3.41E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 92	4.28E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 92	4.31E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 92	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 92	6.03E-11	6.03E-11	6.03E-11	6.02E-11	6.02E-11	6.02E-11	6.02E-11	6.02E-11	6.02E-11	6.02E-11	6.01E-11	6.01E-11
se 93	1.14E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tr 93	5.40E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 93	4.10E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 93	2.71E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 93	4.68E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 93	3.17E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 93	3.59E-01	3.59E-01	3.59E-01	3.57E-01	3.56E-01	3.52E-01	3.49E-01	3.48E-01	3.48E-01	3.45E-01	3.43E-01	3.43E-01
rb 93m	.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 94	3.54E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 94	1.83E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 94	1.38E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

decay, following reactor irradiation identified by: power= 1.03E-04mw, burnup=3.7952E+02mwd, flu= 2.93E+08/cm^2-sec
 0 nuclide radioactivity, curies

basis =88W 15x15, 3.00w%, 20gud/mtu /per assem

	initial	2500. yr	2600. yr	3500. yr	4500. yr	5000. yr	6500. yr	8500. yr	9500. yr	10500. yr	11500. yr	12500. yr
sr 94	4.58E+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	4.92E+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	.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	7.39E-05	7.39E-05	7.14E-05	5.25E-05	3.73E-05	1.88E-05	9.52E-06	6.77E-06	4.81E-06	3.42E-06	2.43E-06	
rb 94m	2.77E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 95	3.91E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 95	1.48E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 95	6.60E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 95	4.10E+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	5.03E+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	5.10E+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	5.09E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 95m	5.66E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mb 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
br 96	8.77E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 96	2.67E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 96	1.68E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 96	3.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 96	4.79E+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	.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	1.17E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mb 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 97	3.46E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 97	5.07E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 97	1.54E+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	3.90E+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	4.71E+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	4.73E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 97m	4.47E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mb 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
kr 98	1.23E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 98	4.15E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 98	6.14E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 98	2.90E+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	4.92E+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	4.95E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 98m	3.14E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mb 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
tc 98	1.28E-06	1.28E-06	1.28E-06	1.28E-06	1.28E-06	1.27E-06	1.27E-06	1.27E-06	1.26E-06	1.26E-06	1.26E-06	1.26E-06
rb 99	1.23E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 99	2.66E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 99	1.86E+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	4.79E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 99	3.10E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 99m	2.11E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mb 99	5.27E+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	3.78E+00	3.78E+00	3.77E+00	3.66E+00	3.54E+00	3.31E+00	3.10E+00	3.00E+00	2.91E+00	2.81E+00	2.72E+00	
tc 99m	4.64E+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	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb100	3.70E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr100	2.86E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y100	5.37E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

basis =88W 15x15, 3.00wt%, 20gwd/mtu /per assem

	initial	2500. yr	2600. yr	3500. yr	4500. yr	6500. yr	8500. yr	9500. yr	10500. yr	11500. yr	12500. yr
zr100	4.82E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb100	5.15E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb100m	3.26E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc100	8.44E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru100	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb101	3.05E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr101	4.63E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y101	3.13E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr101	2.69E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb101	4.44E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo101	4.64E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc101	4.68E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru101	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr102	8.61E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y102	1.66E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr102	1.95E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb102	3.68E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo102	4.19E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102	4.19E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc102m	3.66E-03	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh102	1.44E-05	1.10E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd102	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr103	5.92E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y103	5.08E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr103	6.67E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb103	2.50E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo103	3.69E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc103	3.77E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru103	3.79E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103m	3.78E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr104	1.86E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y104	9.79E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr104	1.81E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb104	1.02E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo104	2.64E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc104	2.77E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104	2.20E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104m	1.61E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd104	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y105	1.24E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr105	6.83E-02	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb105	3.92E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo105	1.78E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc105	2.08E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru105	2.11E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105	2.11E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105m	6.00E-01	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd105	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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 Part C 10000 year criticality at 2.182 kw/package fission products page 171
 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+02mwd, flux= 2.93E+08v/cm**2-sec
 nuclide radioactivity, curies
 basis =88W 15x15, 3.00wt%, 20gwd/mtu /per assem
 initial 2500. yr 2600. yr 3500. yr 4500. yr 6500. yr 8500. yr 9500. yr 10500. yr 11500. yr 12500. yr

eu165	5.56E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	1.32E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	3.08E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165	4.49E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	3.40E-04	.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	5.55E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166	6.77E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	1.00E-06	9.87E-07	5.64E-07	3.11E-09	9.65E-12	9.27E-17	8.90E-22	2.78E-24	8.55E-27	2.65E-29	9.13E-32	.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	1.83E-10	.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
ybl68	.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	9.55E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tml69	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ybl69	.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
tml70	6.01E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tml70m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ybl70	.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	1.30E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tml71	1.32E-08	2.62E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ybl71	.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	7.67E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tml72	8.08E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ybl72	.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	5.33E+02	1.51E+01	5.12E+00	4.97E+00	4.81E+00	4.52E+00	4.26E+00	4.14E+00	4.02E+00	3.91E+00	3.80E+00	.00E+00

Part B B&W 15x15, 3.00wt%, 20gwd/mtu decay													actinides	page 81
	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	15000.0 yr	basis =per B&W assembly, 0.409 mthm for grams		
he 4	4.81E+00	5.62E+00	8.60E+00	1.20E+01	1.64E+01	2.01E+01	2.33E+01	2.62E+01	2.89E+01	3.13E+01	3.24E+01			
tl206	9.52E-19	1.54E-18	6.83E-18	2.46E-17	7.84E-17	1.44E-16	2.13E-16	2.82E-16	3.51E-16	4.19E-16	4.52E-16			
tl207	6.23E-13	7.73E-13	1.57E-12	3.06E-12	5.99E-12	8.86E-12	1.17E-11	1.44E-11	1.71E-11	1.97E-11	2.10E-11			
tl208	2.85E-13	1.06E-13	1.26E-15	5.33E-16	5.39E-16	5.46E-16	5.53E-16	5.61E-16	5.70E-16	5.79E-16	5.83E-16			
tl209	2.31E-16	3.81E-16	1.90E-15	9.43E-15	4.29E-14	9.80E-14	1.71E-13	2.59E-13	3.59E-13	4.70E-13	5.28E-13			
pb206	7.74E-06	1.59E-05	1.44E-04	1.12E-03	7.68E-03	2.22E-02	4.57E-02	7.83E-02	1.20E-01	1.71E-01	2.00E-01			
pb207	9.84E-06	1.52E-05	6.00E-05	2.35E-04	9.26E-04	2.06E-03	3.63E-03	5.63E-03	8.04E-03	1.09E-02	1.24E-02			
pb208	4.69E-04	4.75E-04	4.79E-04	4.79E-04	4.80E-04	4.80E-04	4.80E-04	4.81E-04	4.81E-04	4.81E-04	4.82E-04			
pb209	9.74E-13	1.61E-12	8.02E-12	3.98E-11	1.81E-10	4.14E-10	7.23E-10	1.09E-09	1.52E-09	1.98E-09	2.23E-09			
pb210	2.05E-06	3.32E-06	1.47E-05	5.30E-05	1.69E-04	3.10E-04	4.58E-04	6.08E-04	7.57E-04	9.03E-04	9.75E-04			
pb211	4.82E-12	5.98E-12	1.21E-11	2.36E-11	4.63E-11	6.85E-11	9.03E-11	1.12E-10	1.32E-10	1.53E-10	1.63E-10			
pb212	1.69E-10	6.29E-11	7.49E-13	3.16E-13	3.19E-13	3.24E-13	3.28E-13	3.33E-13	3.38E-13	3.43E-13	3.46E-13			
pb214	5.62E-12	8.80E-12	3.43E-11	1.23E-10	3.94E-10	7.21E-10	1.07E-09	1.42E-09	1.76E-09	2.10E-09	2.27E-09			
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00			
bi209	2.33E-07	4.71E-07	4.52E-06	4.51E-05	4.27E-04	1.51E-03	3.61E-03	6.99E-03	1.19E-02	1.84E-02	2.23E-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	1.26E-09	2.04E-09	9.06E-09	3.26E-08	1.04E-07	1.91E-07	2.82E-07	3.74E-07	4.66E-07	5.56E-07	6.00E-07			
bi211	2.86E-13	3.55E-13	7.20E-13	1.40E-12	2.74E-12	4.06E-12	5.35E-12	6.61E-12	7.84E-12	9.05E-12	9.64E-12			
bi212	1.61E-11	5.97E-12	7.10E-14	3.00E-14	3.03E-14	3.07E-14	3.11E-14	3.16E-14	3.20E-14	3.25E-14	3.28E-14			
bi213	2.32E-13	3.83E-13	1.91E-12	9.48E-12	4.31E-11	9.85E-11	1.72E-10	2.61E-10	3.61E-10	4.72E-10	5.31E-10			
bi214	4.17E-12	6.53E-12	2.55E-11	9.16E-11	2.92E-10	5.35E-10	7.93E-10	1.05E-09	1.31E-09	1.56E-09	1.69E-09			
po210	3.49E-08	5.65E-08	2.50E-07	9.01E-07	2.87E-06	5.26E-06	7.79E-06	1.03E-05	1.29E-05	1.54E-05	1.66E-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	3.16E-18	3.92E-18	7.95E-18	1.55E-17	3.03E-17	4.49E-17	5.91E-17	7.31E-17	8.67E-17	1.00E-16	1.07E-16			
po212	8.44E-22	3.14E-22	3.73E-24	1.57E-24	1.59E-24	1.61E-24	1.63E-24	1.66E-24	1.68E-24	1.71E-24	1.72E-24			
po213	3.49E-22	5.76E-22	2.87E-21	1.43E-20	6.48E-20	1.48E-19	2.59E-19	3.92E-19	5.43E-19	7.10E-19	7.98E-19			
po214	5.74E-19	8.99E-19	3.50E-18	1.26E-17	4.02E-17	7.37E-17	1.09E-16	1.45E-16	1.80E-16	2.15E-16	2.32E-16			
po215	4.04E-18	5.01E-18	1.02E-17	1.98E-17	3.88E-17	5.74E-17	7.56E-17	9.34E-17	1.11E-16	1.28E-16	1.36E-16			
po216	6.53E-16	2.43E-16	2.89E-18	1.22E-18	1.23E-18	1.25E-18	1.27E-18	1.28E-18	1.30E-18	1.32E-18	1.33E-18			
po218	6.62E-13	1.04E-12	4.04E-12	1.45E-11	4.64E-11	8.50E-11	1.26E-10	1.67E-10	2.08E-10	2.48E-10	2.68E-10			
at217	2.79E-18	4.61E-18	2.30E-17	1.14E-16	5.19E-16	1.19E-15	2.07E-15	3.14E-15	4.35E-15	5.68E-15	6.39E-15			
rn218	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00			
rn219	9.14E-15	1.13E-14	2.30E-14	4.49E-14	8.79E-14	1.30E-13	1.71E-13	2.12E-13	2.51E-13	2.90E-13	3.09E-13			
rn220	2.55E-13	9.48E-14	1.13E-15	4.76E-16	4.81E-16	4.87E-16	4.94E-16	5.01E-16	5.09E-16	5.17E-16	5.21E-16			
rn222	1.20E-09	1.88E-09	7.31E-09	2.63E-08	8.39E-08	1.54E-07	2.28E-07	3.02E-07	3.76E-07	4.49E-07	4.84E-07			
fr221	2.59E-14	4.27E-14	2.13E-13	1.06E-12	4.81E-12	1.10E-11	1.92E-11	2.91E-11	4.03E-11	5.27E-11	5.92E-11			
fr223	4.24E-14	5.27E-14	1.07E-13	2.08E-13	4.08E-13	6.03E-13	7.95E-13	9.82E-13	1.17E-12	1.34E-12	1.43E-12			
ra222	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00			
ra223	2.32E-09	2.88E-09	5.85E-09	1.14E-08	2.23E-08	3.30E-08	4.35E-08	5.38E-08	6.38E-08	7.36E-08	7.84E-08			
ra224	1.48E-09	5.49E-10	6.53E-12	2.76E-12	2.79E-12	2.82E-12	2.86E-12	2.90E-12	2.95E-12	2.99E-12	3.02E-12			
ra225	1.15E-10	1.89E-10	9.43E-10	4.68E-09	2.13E-08	4.87E-08	8.50E-08	1.29E-07	1.79E-07	2.33E-07	2.62E-07			
ra226	1.86E-04	2.92E-04	1.14E-03	4.09E-03	1.31E-02	2.39E-02	3.54E-02	4.70E-02	5.85E-02	6.98E-02	7.53E-02			
ra228	6.71E-12	8.40E-12	1.70E-11	3.46E-11	7.19E-11	1.11E-10	1.52E-10	1.95E-10	2.39E-10	2.83E-10	3.06E-10			
ac225	7.74E-11	1.28E-10	6.37E-10	3.16E-09	1.44E-08	3.29E-08	5.74E-08	8.70E-08	1.21E-07	1.58E-07	1.77E-07			
ac227	1.64E-06	2.04E-06	4.14E-06	8.07E-06	1.58E-05	2.34E-05	3.08E-05	3.81E-05	4.52E-05	5.21E-05	5.55E-05			
ac228	8.19E-16	1.03E-15	2.07E-15	4.23E-15	8.77E-15	1.36E-14	1.86E-14	2.38E-14	2.91E-14	3.46E-14	3.73E-14			
th226	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00			
th227	3.82E-09	4.74E-09	9.61E-09	1.87E-08	3.67E-08	5.43E-08	7.15E-08	8.83E-08	1.05E-07	1.21E-07	1.29E-07			
th228	2.87E-07	1.07E-07	1.27E-09	5.35E-10	5.42E-10	5.48E-10	5.56E-10	5.64E-10	5.73E-10	5.82E-10	5.86E-10			
th229	2.27E-05	3.75E-05	1.87E-04	9.27E-04	4.21E-03	9.63E-03	1.68E-02	2.55E-02	3.53E-02	4.62E-02	5.19E-02			
th230	1.13E-01	1.43E-01	2.95E-01	5.98E-01	1.19E+00	1.77E+00	2.34E+00	2.89E+00	3.44E+00	3.96E+00	4.22E+00			
th231	2.57E-08	2.58E-08	2.59E-08	2.62E-08	2.68E-08	2.73E-08	2.78E-08	2.82E-08	2.87E-08	2.91E-08	2.93E-08			

Part B B&W 15x15, 3.00wt%, 20gwd/mtu decay													actinides	page 82
	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	15000.0 yr	basis =per B&W assembly, 0.409 mthm for 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	15000.0 yr
th232	1.67E-02	2.09E-02	4.22E-02	8.61E-02	1.79E-01	2.77E-01	3.79E-01	4.85E-01	5.94E-01	7.04E-01	7.61E-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	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06
pa231	2.71E-03	3.32E-03	6.34E-03	1.23E-02	2.42E-02	3.58E-02	4.71E-02	5.83E-02	6.91E-02	7.97E-02	8.49E-02
pa232	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pa233	1.08E-05	1.19E-05	1.55E-05	1.78E-05	1.84E-05	1.84E-05	1.84E-05	1.84E-05	1.84E-05	1.84E-05	1.84E-05
pa234m	2.17E-10	2.17E-10	2.17E-10	2.17E-10	2.17E-10	2.17E-10	2.17E-10	2.17E-10	2.17E-10	2.17E-10	2.17E-10
pa234	9.67E-11	9.67E-11	9.67E-11	9.67E-11	9.67E-11	9.67E-11	9.67E-11	9.67E-11	9.67E-11	9.67E-11	9.67E-11
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u230	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u231	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u232	1.04E-05	3.85E-06	4.62E-08	1.95E-08	1.92E-08	1.90E-08	1.88E-08	1.85E-08	1.83E-08	1.81E-08	1.80E-08
u233	2.99E-02	4.06E-02	1.06E-01	2.64E-01	6.03E-01	9.41E-01	1.28E+00	1.61E+00	1.94E+00	2.26E+00	2.43E+00
u234	1.09E+02	1.10E+02	1.11E+02	1.10E+02	1.10E+02	1.09E+02	1.09E+02	1.08E+02	1.08E+02	1.07E+02	1.07E+02
u235	6.33E+03	6.34E+03	6.37E+03	6.44E+03	6.58E+03	6.71E+03	6.83E+03	6.95E+03	7.06E+03	7.16E+03	7.21E+03
u236	1.44E+03	1.45E+03	1.48E+03	1.54E+03	1.64E+03	1.72E+03	1.79E+03	1.84E+03	1.89E+03	1.92E+03	1.94E+03
u237	2.28E-12	2.22E-12	2.13E-12	1.96E-12	1.67E-12	1.41E-12	1.20E-12	1.02E-12	8.67E-13	7.37E-13	6.79E-13
u238	4.42E+05	4.42E+05	4.42E+05	4.42E+05	4.42E+05	4.42E+05	4.42E+05	4.42E+05	4.42E+05	4.42E+05	4.42E+05
u239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
u240	2.39E-20	2.98E-20	5.96E-20	1.19E-19	2.38E-19	3.56E-19	4.74E-19	5.91E-19	7.07E-19	8.24E-19	8.82E-19
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
np236	3.70E-04	3.70E-04	3.68E-04	3.66E-04	3.62E-04	3.58E-04	3.53E-04	3.49E-04	3.45E-04	3.41E-04	3.39E-04
np237	3.17E+02	3.51E+02	4.57E+02	5.25E+02	5.42E+02	5.42E+02	5.42E+02	5.41E+02	5.41E+02	5.41E+02	5.41E+02
np238	1.10E-08	6.72E-09	5.76E-10	4.22E-12	2.27E-16	1.22E-20	6.54E-25	3.51E-29	1.89E-33	8.80E-38	.00E+00
np239	8.36E-06	8.28E-06	7.90E-06	7.19E-06	5.96E-06	4.94E-06	4.09E-06	3.39E-06	2.81E-06	2.33E-06	2.12E-06
np240m	2.04E-22	2.55E-22	5.09E-22	1.02E-21	2.03E-21	3.04E-21	4.04E-21	5.04E-21	6.04E-21	7.03E-21	7.52E-21
np240	2.10E-24	2.62E-24	5.24E-24	1.05E-23	2.09E-23	3.12E-23	4.16E-23	5.19E-23	6.21E-23	7.23E-23	7.74E-23
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu236	8.30E-10	8.30E-10	8.27E-10	8.22E-10	8.12E-10	8.02E-10	7.93E-10	7.83E-10	7.74E-10	7.65E-10	7.60E-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	1.35E+00	6.23E-01	1.53E-02	1.74E-05	1.67E-09	8.99E-14	4.83E-18	2.60E-22	1.39E-26	7.49E-31	2.94E-33
pu239	2.60E+03	2.59E+03	2.56E+03	2.49E+03	2.35E+03	2.22E+03	2.10E+03	1.98E+03	1.87E+03	1.77E+03	1.72E+03
pu240	6.46E+02	6.39E+02	6.06E+02	5.45E+02	4.41E+02	3.57E+02	2.89E+02	2.34E+02	1.90E+02	1.53E+02	1.38E+02
pu241	7.54E-05	7.32E-05	7.03E-05	6.48E-05	5.50E-05	4.67E-05	3.97E-05	3.37E-05	2.86E-05	2.43E-05	2.24E-05
pu242	7.08E+01	7.08E+01	7.07E+01	7.06E+01	7.03E+01	7.01E+01	6.98E+01	6.96E+01	6.93E+01	6.91E+01	6.89E+01
pu243	1.13E-15	1.13E-15	1.13E-15	1.13E-15	1.13E-15	1.13E-15	1.13E-15	1.13E-15	1.13E-15	1.13E-15	1.13E-15
pu244	1.21E-09	1.51E-09	3.02E-09	6.03E-09	1.20E-08	1.80E-08	2.40E-08	2.99E-08	3.58E-08	4.17E-08	4.46E-08
pu245	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pu246	1.23E-21	1.23E-21	1.20E-21	1.15E-21	1.07E-21	9.84E-22	9.09E-22	8.39E-22	7.75E-22	7.16E-22	6.88E-22
am239	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am240	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
am241	2.30E+02	1.96E+02	8.77E+01	1.77E+01	7.18E-01	3.05E-02	2.43E-03	1.11E-03	9.03E-04	7.66E-04	7.04E-04
am242m	6.04E-02	3.70E-02	3.16E-03	2.32E-05	1.25E-09	6.69E-14	3.59E-18	1.93E-22	1.04E-26	5.57E-31	4.08E-33
am242	7.80E-07	4.77E-07	4.08E-08	2.99E-10	1.61E-14	8.63E-19	4.64E-23	2.49E-27	1.34E-31	7.19E-36	5.64E-38
am243	9.71E+00	9.62E+00	9.18E+00	8.36E+00	6.92E+00	5.74E+00	4.75E+00	3.94E+00	3.26E+00	2.70E+00	2.46E+00
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	3.07E-24	3.06E-24	3.00E-24	2.88E-24	2.66E-24	2.46E-24	2.27E-24	2.10E-24	1.94E-24	1.79E-24	1.72E-24
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 B&W 15x15, 3.00wt%, 20gwd/mtu decay actinides page 83

	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	15000.0 yr
cm242	1.57E-04	9.63E-05	8.24E-06	6.04E-08	3.26E-12	1.75E-16	9.39E-21	5.05E-25	2.71E-29	1.46E-33	1.38E-35
cm243	3.59E-06	3.15E-07	1.65E-12	4.50E-23	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

nuclide concentrations, grams
basis = per B&W assembly, 0.409 mthm for grams

tb164	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy164	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02	1.00E-02
sm165	.00E+00	.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	9.50E-03	9.50E-03	9.50E-03	9.50E-03	9.50E-03	9.50E-03	9.50E-03	9.50E-03	9.50E-03	9.50E-03	9.50E-03	9.50E-03
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	1.89E-05	1.78E-05	1.34E-05	7.50E-06	2.36E-06	7.44E-07	2.34E-07	7.38E-08	2.32E-08	7.32E-09	4.11E-09	
er166	1.55E-03	1.56E-03	1.56E-03	1.57E-03	1.57E-03	1.57E-03	1.57E-03	1.57E-03	1.57E-03	1.57E-03	1.57E-03	1.57E-03
er167	2.44E-05	2.44E-05	2.44E-05	2.44E-05	2.44E-05	2.44E-05	2.44E-05	2.44E-05	2.44E-05	2.44E-05	2.44E-05	2.44E-05
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	2.01E-05	2.01E-05	2.01E-05	2.01E-05	2.01E-05	2.01E-05	2.01E-05	2.01E-05	2.01E-05	2.01E-05	2.01E-05	2.01E-05
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	7.41E-07	7.41E-07	7.41E-07	7.41E-07	7.41E-07	7.41E-07	7.41E-07	7.41E-07	7.41E-07	7.41E-07	7.41E-07	7.41E-07
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	7.89E-07	7.89E-07	7.89E-07	7.89E-07	7.89E-07	7.89E-07	7.89E-07	7.89E-07	7.89E-07	7.89E-07	7.89E-07	7.89E-07
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	4.62E-09	4.62E-09	4.62E-09	4.62E-09	4.62E-09	4.62E-09	4.62E-09	4.62E-09	4.62E-09	4.62E-09	4.62E-09	4.62E-09
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	1.05E-06	1.05E-06	1.05E-06	1.05E-06	1.05E-06	1.05E-06	1.05E-06	1.05E-06	1.05E-06	1.05E-06	1.05E-06	1.05E-06
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	6.73E-07	6.73E-07	6.73E-07	6.73E-07	6.73E-07	6.73E-07	6.73E-07	6.73E-07	6.73E-07	6.73E-07	6.73E-07	6.73E-07
total	9.58E+03	9.58E+03	9.58E+03	9.58E+03	9.58E+03	9.58E+03	9.58E+03	9.58E+03	9.58E+03	9.58E+03	9.58E+03	9.58E+03

Part D 1000 year criticality at 2.182 kw/package decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+01mwd, flux= 2.86E+08n/cm**2-sec actinides page 142

nuclide concentrations, grams
basis =B&W 15x15, 3.00wt%, 20gwd/mtu /per assem

	initial	16030.0 yr	17000.0 yr	18000.0 yr	19000.0 yr	20000.0 yr	21000.0 yr	22000.0 yr	23000.0 yr	24000.0 yr	25000.0 yr
he 4	3.35E+01	3.35E+01	3.45E+01	3.55E+01	3.65E+01	3.74E+01	3.83E+01	3.91E+01	3.99E+01	4.07E+01	4.14E+01
tl206	4.85E-16	4.85E-16	5.17E-16	5.49E-16	5.81E-16	6.13E-16	6.44E-16	6.75E-16	7.06E-16	7.37E-16	7.67E-16
tl207	2.59E-11	2.59E-11	2.70E-11	2.82E-11	2.94E-11	3.05E-11	3.16E-11	3.27E-11	3.38E-11	3.49E-11	3.60E-11
tl208	7.78E-13	5.96E-13	6.55E-13	6.21E-13	6.25E-13	6.30E-13	6.35E-13	6.40E-13	6.45E-13	6.50E-13	6.55E-13
tl209	5.88E-13	5.89E-13	6.49E-13	7.12E-13	7.76E-13	8.41E-13	9.08E-13	9.75E-13	1.04E-12	1.11E-12	1.18E-12
pb206	2.31E-01	2.32E-01	2.64E-01	2.99E-01	3.37E-01	3.76E-01	4.18E-01	4.61E-01	5.07E-01	5.55E-01	6.04E-01
pb207	1.42E-02	1.43E-02	1.62E-02	1.84E-02	2.06E-02	2.28E-02	2.52E-02	2.77E-02	3.02E-02	3.29E-02	3.56E-02
pb208	6.93E-04	7.00E-04	7.20E-04	7.21E-04	7.21E-04	7.21E-04	7.21E-04	7.22E-04	7.22E-04	7.22E-04	7.22E-04
pb209	2.48E-09	2.49E-09	2.74E-09	3.01E-09	3.28E-09	3.55E-09	3.83E-09	4.12E-09	4.41E-09	4.70E-09	4.99E-09
pb210	1.05E-03	1.05E-03	1.12E-03	1.18E-03	1.25E-03	1.32E-03	1.39E-03	1.46E-03	1.52E-03	1.59E-03	1.65E-03
pb211	2.00E-10	2.00E-10	2.09E-10	2.18E-10	2.27E-10	2.36E-10	2.45E-10	2.53E-10	2.62E-10	2.70E-10	2.78E-10
pb212	4.61E-10	3.53E-10	3.88E-13	3.68E-13	3.71E-13	3.74E-13	3.76E-13	3.79E-13	3.82E-13	3.85E-13	3.88E-13
pb214	2.44E-09	2.44E-09	2.60E-09	2.76E-09	2.92E-09	3.08E-09	3.24E-09	3.39E-09	3.55E-09	3.70E-09	3.85E-09
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	2.67E-02	2.69E-02	3.16E-02	3.70E-02	4.28E-02	4.92E-02	5.61E-02	6.35E-02	7.15E-02	8.00E-02	8.91E-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	6.44E-07	6.44E-07	6.86E-07	7.29E-07	7.71E-07	8.14E-07	8.55E-07	8.97E-07	9.37E-07	9.78E-07	1.02E-06
bi211	1.19E-11	1.19E-11	1.24E-11	1.29E-11	1.35E-11	1.40E-11	1.45E-11	1.50E-11	1.55E-11	1.60E-11	1.65E-11
bi212	4.38E-11	3.35E-11	3.68E-14	3.49E-14	3.52E-14	3.54E-14	3.57E-14	3.60E-14	3.63E-14	3.65E-14	3.68E-14
bi213	5.91E-10	5.93E-10	6.52E-10	7.16E-10	7.80E-10	8.46E-10	9.13E-10	9.81E-10	1.05E-09	1.12E-09	1.19E-09
bi214	1.81E-09	1.81E-09	1.93E-09	2.05E-09	2.17E-09	2.29E-09	2.40E-09	2.52E-09	2.63E-09	2.75E-09	2.86E-09
po210	1.78E-05	1.78E-05	1.90E-05	2.01E-05	2.13E-05	2.25E-05	2.36E-05	2.48E-05	2.59E-05	2.70E-05	2.81E-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	1.31E-16	1.31E-16	1.37E-16	1.43E-16	1.49E-16	1.55E-16	1.60E-16	1.66E-16	1.71E-16	1.77E-16	1.82E-16
po212	2.30E-21	1.76E-21	1.94E-24	1.83E-24	1.85E-24	1.86E-24	1.88E-24	1.89E-24	1.91E-24	1.92E-24	1.93E-24
po213	8.88E-19	8.91E-19	9.81E-19	1.08E-18	1.17E-18	1.27E-18	1.37E-18	1.47E-18	1.58E-18	1.68E-18	1.79E-18
po214	2.49E-16	2.49E-16	2.65E-16	2.82E-16	2.98E-16	3.15E-16	3.31E-16	3.47E-16	3.62E-16	3.78E-16	3.93E-16
po215	1.67E-16	1.68E-16	1.75E-16	1.83E-16	1.90E-16	1.97E-16	2.05E-16	2.12E-16	2.19E-16	2.26E-16	2.33E-16
po216	1.78E-15	1.36E-15	1.50E-18	1.42E-18	1.43E-18	1.44E-18	1.45E-18	1.46E-18	1.47E-18	1.49E-18	1.50E-18
po218	2.87E-10	2.88E-10	3.06E-10	3.25E-10	3.44E-10	3.63E-10	3.81E-10	4.00E-10	4.18E-10	4.36E-10	4.54E-10
at217	7.11E-15	7.13E-15	7.85E-15	8.61E-15	9.39E-15	1.02E-14	1.10E-14	1.18E-14	1.26E-14	1.35E-14	1.43E-14
rn218	3.40E-26	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rn219	3.80E-13	3.80E-13	3.97E-13	4.14E-13	4.31E-13	4.48E-13	4.64E-13	4.80E-13	4.96E-13	5.12E-13	5.28E-13
rn220	6.95E-13	5.32E-13	5.85E-16	5.54E-16	5.59E-16	5.63E-16	5.67E-16	5.71E-16	5.76E-16	5.80E-16	5.85E-16
rn222	5.19E-07	5.20E-07	5.54E-07	5.88E-07	6.22E-07	6.56E-07	6.90E-07	7.23E-07	7.56E-07	7.89E-07	8.21E-07
fr221	6.59E-11	6.61E-11	7.28E-11	7.98E-11	8.70E-11	9.44E-11	1.02E-10	1.09E-10	1.17E-10	1.25E-10	1.33E-10
fr223	1.76E-12	1.76E-12	1.84E-12	1.92E-12	2.00E-12	2.08E-12	2.15E-12	2.23E-12	2.30E-12	2.38E-12	2.45E-12
ra222	3.76E-23	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ra223	9.64E-08	9.65E-08	1.01E-07	1.05E-07	1.09E-07	1.14E-07	1.18E-07	1.22E-07	1.26E-07	1.30E-07	1.34E-07
ra224	4.02E-09	3.08E-09	3.39E-12	3.21E-12	3.23E-12	3.26E-12	3.28E-12	3.31E-12	3.33E-12	3.36E-12	3.39E-12
ra225	2.92E-07	2.93E-07	3.22E-07	3.54E-07	3.85E-07	4.18E-07	4.51E-07	4.84E-07	5.18E-07	5.53E-07	5.87E-07
ra226	8.08E-02	8.09E-02	8.61E-02	9.15E-02	9.68E-02	1.02E-01	1.07E-01	1.13E-01	1.18E-01	1.23E-01	1.28E-01
ra228	3.29E-10	3.29E-10	3.52E-10	3.75E-10	3.98E-10	4.21E-10	4.45E-10	4.68E-10	4.92E-10	5.16E-10	5.39E-10
ac225	1.97E-07	1.98E-07	2.18E-07	2.39E-07	2.60E-07	2.82E-07	3.05E-07	3.27E-07	3.50E-07	3.73E-07	3.97E-07
ac227	6.83E-05	6.83E-05	7.14E-05	7.44E-05	7.75E-05	8.05E-05	8.34E-05	8.64E-05	8.93E-05	9.21E-05	9.49E-05
ac228	4.01E-14	4.02E-14	4.29E-14	4.57E-14	4.86E-14	5.14E-14	5.43E-14	5.71E-14	6.00E-14	6.29E-14	6.58E-14
th226	1.87E-21	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th227	1.58E-07	1.59E-07	1.66E-07	1.73E-07	1.80E-07	1.87E-07	1.94E-07	2.00E-07	2.07E-07	2.14E-07	2.20E-07
th228	7.82E-07	5.99E-07	6.58E-10	6.24E-10	6.28E-10	6.33E-10	6.38E-10	6.43E-10	6.48E-10	6.53E-10	6.58E-10
th229	5.78E-02	5.79E-02	6.38E-02	7.00E-02	7.63E-02	8.27E-02	8.92E-02	9.59E-02	1.03E-01	1.09E-01	1.16E-01
th230	4.47E+00	4.48E+00	4.73E+00	4.98E+00	5.23E+00	5.48E+00	5.72E+00	5.97E+00	6.21E+00	6.44E+00	6.68E+00
th231	9.32E-08	2.94E-08	2.96E-08	2.98E-08	2.99E-08	3.01E-08	3.03E-08	3.05E-08	3.06E-08	3.08E-08	3.09E-08

Part D 1000 year criticality at 2.182 kw/package decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+01mwd, flux= 2.86E+08n/cm**2-sec actinides page 143

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	nuclide concentrations, grams											
	initial	16030.0 yr	17000.0 yr	18000.0 yr	19000.0 yr	20000.0 yr	21000.0 yr	22000.0 yr	23000.0 yr	24000.0 yr	25000.0 yr	
th232	8.17E-01	8.19E-01	8.74E-01	9.32E-01	9.90E-01	1.05E+00	1.11E+00	1.16E+00	1.22E+00	1.28E+00	1.34E+00	
th233	1.12E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
th234	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	
pa231	1.04E-01	1.05E-01	1.09E-01	1.14E-01	1.19E-01	1.23E-01	1.28E-01	1.32E-01	1.37E-01	1.41E-01	1.45E-01	
pa232	1.37E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pa233	1.84E-05	1.84E-05	1.84E-05	1.84E-05	1.84E-05	1.84E-05	1.84E-05	1.84E-05	1.84E-05	1.84E-05	1.84E-05	
pa234m	2.17E-10	2.17E-10	2.17E-10	2.17E-10	2.17E-10	2.17E-10	2.17E-10	2.17E-10	2.17E-10	2.17E-10	2.17E-10	
pa234	9.68E-11	9.67E-11	9.67E-11	9.67E-11	9.67E-11	9.67E-11	9.67E-11	9.67E-11	9.67E-11	9.67E-11	9.67E-11	
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
u230	1.84E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
u231	9.58E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
u232	2.90E-05	2.16E-05	2.01E-08	1.85E-08	1.84E-08	1.83E-08	1.82E-08	1.81E-08	1.80E-08	1.79E-08	1.78E-08	
u233	2.58E+00	2.58E+00	2.74E+00	2.90E+00	3.06E+00	3.22E+00	3.37E+00	3.53E+00	3.69E+00	3.84E+00	4.00E+00	
u234	1.08E+02	1.08E+02	1.08E+02	1.08E+02	1.07E+02	1.07E+02	1.07E+02	1.07E+02	1.06E+02	1.06E+02	1.06E+02	
u235	7.23E+03	7.23E+03	7.27E+03	7.32E+03	7.36E+03	7.41E+03	7.45E+03	7.49E+03	7.53E+03	7.57E+03	7.60E+03	
u236	1.96E+03	1.96E+03	1.97E+03	1.98E+03	1.99E+03	2.00E+03	2.01E+03	2.02E+03	2.02E+03	2.03E+03	2.03E+03	
u237	3.51E-05	2.24E-10	5.68E-13	5.24E-13	4.83E-13	4.45E-13	4.10E-13	3.78E-13	3.48E-13	3.21E-13	2.96E-13	
u238	4.42E+05	4.42E+05	4.42E+05	4.42E+05	4.42E+05	4.42E+05	4.42E+05	4.42E+05	4.42E+05	4.42E+05	4.42E+05	
u239	1.95E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
u240	9.41E-19	9.42E-19	1.00E-18	1.06E-18	1.12E-18	1.18E-18	1.24E-18	1.30E-18	1.36E-18	1.42E-18	1.48E-18	
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
np235	3.81E-10	1.80E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
np236m	1.75E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
np236	3.53E-04	3.53E-04	3.51E-04	3.49E-04	3.47E-04	3.45E-04	3.43E-04	3.41E-04	3.39E-04	3.37E-04	3.34E-04	
np237	5.41E+02	5.41E+02	5.42E+02	5.41E+02	5.41E+02	5.41E+02	5.41E+02	5.41E+02	5.41E+02	5.40E+02	5.40E+02	
np238	1.11E-05	2.98E-11	2.53E-13	1.85E-15	1.36E-17	9.96E-20	7.30E-22	5.35E-24	3.92E-26	2.87E-28	2.11E-30	
np239	2.85E-04	2.06E-06	1.88E-06	1.71E-06	1.56E-06	1.42E-06	1.29E-06	1.17E-06	1.07E-06	9.73E-07	8.86E-07	
np240m	8.03E-21	8.04E-21	8.54E-21	9.05E-21	9.56E-21	1.01E-20	1.06E-20	1.11E-20	1.16E-20	1.21E-20	1.26E-20	
np240	7.99E-14	8.27E-23	8.78E-23	9.31E-23	9.83E-23	1.04E-22	1.09E-22	1.14E-22	1.19E-22	1.24E-22	1.30E-22	
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pu236	9.57E-08	8.66E-10	7.88E-10	7.83E-10	7.78E-10	7.74E-10	7.69E-10	7.64E-10	7.60E-10	7.55E-10	7.51E-10	
pu237	5.15E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pu238	1.69E-01	1.33E-01	6.31E-05	2.85E-08	4.84E-11	2.95E-13	2.14E-15	1.57E-17	1.15E-19	8.42E-22	6.17E-24	
pu239	1.68E+03	1.68E+03	1.63E+03	1.58E+03	1.54E+03	1.50E+03	1.45E+03	1.41E+03	1.37E+03	1.33E+03	1.30E+03	
pu240	1.30E+02	1.29E+02	1.17E+02	1.05E+02	9.43E+01	8.49E+01	7.64E+01	6.87E+01	6.18E+01	5.56E+01	5.01E+01	
pu241	3.14E-02	7.38E-03	1.88E-05	1.73E-05	1.59E-05	1.47E-05	1.35E-05	1.25E-05	1.15E-05	1.06E-05	9.77E-06	
pu242	6.86E+01	6.86E+01	6.85E+01	6.84E+01	6.82E+01	6.81E+01	6.80E+01	6.79E+01	6.77E+01	6.76E+01	6.75E+01	
pu243	1.43E-07	1.12E-15	1.12E-15	1.12E-15	1.12E-15	1.12E-15	1.12E-15	1.12E-15	1.12E-15	1.12E-15	1.12E-15	
pu244	4.76E-08	4.77E-08	5.07E-08	5.37E-08	5.67E-08	5.97E-08	6.27E-08	6.57E-08	6.87E-08	7.17E-08	7.47E-08	
pu245	6.31E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pu246	6.61E-22	6.60E-22	6.35E-22	6.10E-22	5.86E-22	5.63E-22	5.41E-22	5.20E-22	5.00E-22	4.80E-22	4.62E-22	
am239	1.90E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
am240	8.18E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
am241	7.54E-01	7.42E-01	1.59E-01	3.24E-02	6.92E-03	1.75E-03	6.85E-04	4.44E-04	3.71E-04	3.35E-04	3.07E-04	
am242m	1.90E-04	1.64E-04	1.39E-06	1.02E-08	7.47E-11	5.47E-13	4.01E-15	2.94E-17	2.15E-19	1.58E-21	1.16E-23	
am242	1.68E-08	2.11E-09	1.79E-11	1.31E-13	9.63E-16	7.06E-18	5.17E-20	3.79E-22	2.78E-24	2.04E-26	1.49E-28	
am243	2.40E+00	2.39E+00	2.18E+00	1.99E+00	1.81E+00	1.65E+00	1.50E+00	1.36E+00	1.24E+00	1.13E+00	1.03E+00	
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
am244	1.33E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
am245	1.28E-19	2.25E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
am246	1.65E-24	1.65E-24	1.59E-24	1.52E-24	1.46E-24	1.41E-24	1.35E-24	1.30E-24	1.25E-24	1.20E-24	1.15E-24	
cm241	1.40E-23	.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 D 1000 year criticality at 2.182 kw/package actinides page 144
 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+01mwd, flux= 2.86E+08n/cm**2-sec
 nuclide concentrations, grams
 basis =B&W 15x15, 3.00wt%, 20gwd/mtu /per assem

0

mo103	2.35E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc103	1.92E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru103	1.21E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh103	1.44E+02	1.44E+02	1.44E+02	1.44E+02	1.44E+02	1.44E+02	1.44E+02	1.44E+02	1.44E+02	1.44E+02	1.44E+02	1.44E+02
rh103m	1.20E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr104	2.67E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y104	1.11E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr104	4.17E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb104	4.59E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo104	1.53E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc104	2.93E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru104	1.39E+02	1.39E+02	1.39E+02	1.39E+02	1.39E+02	1.39E+02	1.39E+02	1.39E+02	1.39E+02	1.39E+02	1.39E+02	1.39E+02
rh104	8.02E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh104m	3.61E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd104	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01	4.14E+01
y105	1.62E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr105	2.98E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb105	1.10E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo105	6.24E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc105	9.43E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru105	3.35E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105	2.67E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh105m	2.68E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd105	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02

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Part D 1000 year criticality at 2.182 kw/package
 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+01mwd, fission products page 154
 nuclide concentrations, grams
 basis =B&W 15x15, 3.00wt%, 20gwd/mtu /per assem
 flux= 2.86E+08n/cm**2-sec

	initial	16030.0	yr17000.0	yr18000.0	yr19000.0	yr20000.0	yr21000.0	yr22000.0	yr23000.0	yr24000.0	yr25000.0	yr
y106	1.78E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr106	1.76E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb106	5.50E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo106	7.15E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc106	4.71E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru106	4.67E-04	6.20E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106	4.33E-10	5.76E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh106m	5.08E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd106	7.98E+01	7.98E+01	7.98E+01	7.98E+01	7.98E+01	7.98E+01	7.98E+01	7.98E+01	7.98E+01	7.98E+01	7.98E+01	7.98E+01
ag106	2.31E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y107	1.69E-21	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr107	4.66E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb107	6.80E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo107	1.07E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc107	1.74E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru107	2.29E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh107	1.33E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd107	5.13E+01	5.13E+01	5.13E+01	5.13E+01	5.13E+01	5.13E+01	5.13E+01	5.13E+01	5.13E+01	5.13E+01	5.13E+01	5.13E+01
pd107m	1.60E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ag107	8.73E-02	8.74E-02	9.27E-02	9.82E-02	1.04E-01	1.09E-01	1.15E-01	1.20E-01	1.26E-01	1.31E-01	1.36E-01	1.36E-01
zr108	3.02E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nb108	6.23E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
mo108	5.26E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tc108	1.26E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ru108	1.67E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108	1.05E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rh108m	4.36E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pd108	3.27E+01	3.27E+01	3.27E+01	3.27E+01	3.27E+01	3.27E+01	3.27E+01	3.27E+01	3.27E+01	3.27E+01	3.27E+01	3.27E+01
ag108	2.51E-13	2.23E-16	1.12E-18	4.77E-21	2.03E-23	8.66E-26	3.69E-28	1.57E-30	6.71E-33	2.86E-35	1.22E-37	1.22E-37
ag108m	8.51E-08	7.22E-08	3.63E-10	1.55E-12	6.59E-15	2.81E-17	1.20E-19	5.10E-22	2.17E-24	9.26E-27	3.95E-29	3.95E-29

sb130m	5.53E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te130	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02	1.02E+02
i130	2.10E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i130m	1.35E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe130	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00	1.17E+00
cd131	3.87E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in131	1.01E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn131	3.61E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb131	3.56E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131	4.10E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te131m	6.34E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i131	2.22E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe131	1.38E+02	1.38E+02	1.38E+02	1.38E+02	1.38E+02	1.38E+02	1.38E+02	1.38E+02	1.38E+02	1.38E+02	1.38E+02	1.38E+02
xe131m	3.60E-07	.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 D 1000 year criticality at 2.182 kw/package fission products page 159
 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+01mwd, flux= 2.86E+08n/cm**2-sec
 0 nuclide concentrations, grams
 basis =B&W 15x15, 3.00wt%, 20gwd/mtu /per assem

	initial	16030.0 yr	17000.0 yr	18000.0 yr	19000.0 yr	20000.0 yr	21000.0 yr	22000.0 yr	23000.0 yr	24000.0 yr	25000.0 yr
cd132	6.10E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in132	1.89E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn132	2.98E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132	3.74E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb132m	2.56E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te132	1.31E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i132	3.89E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe132	2.86E+02	2.86E+02	2.86E+02	2.86E+02	2.86E+02	2.86E+02	2.86E+02	2.86E+02	2.86E+02	2.86E+02	2.86E+02
cs132	5.86E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba132	4.94E-05	4.94E-05	4.94E-05	4.94E-05	4.94E-05	4.94E-05	4.94E-05	4.94E-05	4.94E-05	4.94E-05	4.94E-05
in133	3.43E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn133	3.02E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb133	3.33E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133	2.81E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te133m	1.03E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133	5.11E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i133m	4.43E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133	3.11E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe133m	4.00E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs133	3.42E+02	3.42E+02	3.42E+02	3.42E+02	3.42E+02	3.42E+02	3.42E+02	3.42E+02	3.42E+02	3.42E+02	3.42E+02
ba133	2.05E-12	2.84E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
in134	4.16E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sn134	3.60E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134	3.56E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb134m	2.97E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te134	1.59E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134	2.44E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i134m	1.31E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe134	4.29E+02	4.29E+02	4.29E+02	4.29E+02	4.29E+02	4.29E+02	4.29E+02	4.29E+02	4.29E+02	4.29E+02	4.29E+02
xe134m	3.58E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134	8.22E-04	3.43E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs134m	1.01E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba134	3.00E+01	3.00E+01	3.00E+01	3.00E+01	3.00E+01	3.00E+01	3.00E+01	3.00E+01	3.00E+01	3.00E+01	3.00E+01
sn135	1.25E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sb135	3.10E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
te135	6.24E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
i135	1.55E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135	2.33E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe135m	1.26E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs135	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.78E+02	1.77E+02	1.77E+02	1.77E+02

sm161	1.58E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu161	5.81E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd161	4.56E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb161	1.25E-08	.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 D 1000 year criticality at 2.182 kw/package fission products page 164
 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+01mwd, flux= 2.86E+08n/cm**2-sec
 nuclide concentrations, grams

	initial	16030.0	yr17000.0	yr18000.0	yr19000.0	yr20000.0	yr21000.0	yr22000.0	yr23000.0	yr24000.0	yr25000.0	yr
	basis =B&W 15x15, 3.00wt%, 20gwd/mtu /per assem											
dy161	8.28E-02	8.28E-02	8.28E-02	8.28E-02	8.28E-02	8.28E-02	8.28E-02	8.28E-02	8.28E-02	8.28E-02	8.28E-02	8.28E-02
pm162	2.05E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm162	2.87E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu162	5.99E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd162	4.82E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162	4.54E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	1.63E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy162	5.65E-02	5.65E-02	5.65E-02	5.65E-02	5.65E-02	5.65E-02	5.65E-02	5.65E-02	5.65E-02	5.65E-02	5.65E-02	5.65E-02
sm163	5.34E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu163	5.28E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd163	3.14E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163	4.64E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy163	3.68E-02	3.68E-02	3.68E-02	3.68E-02	3.68E-02	3.68E-02	3.68E-02	3.68E-02	3.68E-02	3.68E-02	3.68E-02	3.68E-02
sm164	4.34E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu164	1.22E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd164	1.31E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	2.63E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy164	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02
sm165	7.48E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu165	1.17E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	9.17E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	6.47E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165	5.13E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	3.49E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho165	9.61E-03	9.61E-03	9.61E-03	9.61E-03	9.61E-03	9.61E-03	9.61E-03	9.61E-03	9.61E-03	9.61E-03	9.61E-03	9.61E-03
dy166	2.74E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166	8.47E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	2.23E-07	2.19E-07	1.25E-07	7.02E-08	3.94E-08	2.21E-08	1.24E-08	6.96E-09	3.91E-09	2.19E-09	1.23E-09	
er166	1.59E-03	1.59E-03	1.59E-03	1.59E-03	1.59E-03	1.59E-03	1.59E-03	1.59E-03	1.59E-03	1.59E-03	1.59E-03	1.59E-03
er167	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05	2.48E-05
er167m	7.05E-21	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	2.05E-05	2.05E-05	2.05E-05	2.05E-05	2.05E-05	2.05E-05	2.05E-05	2.05E-05	2.05E-05	2.05E-05	2.05E-05	2.05E-05
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	1.33E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm169	7.45E-07	7.45E-07	7.45E-07	7.45E-07	7.45E-07	7.45E-07	7.45E-07	7.45E-07	7.45E-07	7.45E-07	7.45E-07	7.45E-07
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	7.93E-07	7.93E-07	7.93E-07	7.93E-07	7.93E-07	7.93E-07	7.93E-07	7.93E-07	7.93E-07	7.93E-07	7.93E-07	7.93E-07
tm170	1.15E-14	.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	4.64E-09	4.64E-09	4.64E-09	4.64E-09	4.64E-09	4.64E-09	4.64E-09	4.64E-09	4.64E-09	4.64E-09	4.64E-09	4.64E-09
er171	6.07E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	1.39E-11	2.75E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb171	1.06E-06	1.06E-06	1.06E-06	1.06E-06	1.06E-06	1.06E-06	1.06E-06	1.06E-06	1.06E-06	1.06E-06	1.06E-06	1.06E-06
er172	2.36E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm172	3.21E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb172	6.76E-07	6.76E-07	6.76E-07	6.76E-07	6.76E-07	6.76E-07	6.76E-07	6.76E-07	6.76E-07	6.76E-07	6.76E-07	6.76E-07
total	9.62E+03	9.62E+03	9.62E+03	9.62E+03	9.62E+03	9.62E+03	9.62E+03	9.62E+03	9.62E+03	9.62E+03	9.62E+03	9.62E+03

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Part E 5000 year criticality at 2.182 kw/package decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=1.8976E+02mwd, flux= 2.90E+08n/cm**2-sec actinides page 142

nuclide concentrations, grams
basis =B&W 15x15, 3.00wt%, 20gwd/mtu /per assem

	initial	20030.0 yr	21000.0 yr	22000.0 yr	23000.0 yr	24000.0 yr	25000.0 yr
he 4	3.77E+01	3.77E+01	3.86E+01	3.95E+01	4.03E+01	4.12E+01	4.19E+01
tl206	6.10E-16	6.10E-16	6.41E-16	6.72E-16	7.04E-16	7.35E-16	7.67E-16
tl207	4.63E-11	4.64E-11	4.71E-11	4.78E-11	4.86E-11	4.93E-11	5.01E-11
tl208	1.37E-12	1.05E-12	7.98E-16	7.34E-16	7.38E-16	7.43E-16	7.47E-16
tl209	8.37E-13	8.39E-13	9.02E-13	9.68E-13	1.03E-12	1.10E-12	1.17E-12
pb206	3.76E-01	3.77E-01	4.17E-01	4.60E-01	5.06E-01	5.54E-01	6.03E-01
pb207	2.52E-02	2.53E-02	2.88E-02	3.24E-02	3.61E-02	3.99E-02	4.37E-02
pb208	2.11E-03	2.12E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03	2.16E-03
pb209	3.54E-09	3.54E-09	3.81E-09	4.09E-09	4.37E-09	4.66E-09	4.95E-09
pb210	1.32E-03	1.32E-03	1.38E-03	1.45E-03	1.52E-03	1.59E-03	1.65E-03
pb211	3.58E-10	3.59E-10	3.64E-10	3.70E-10	3.76E-10	3.82E-10	3.87E-10
pb212	8.15E-10	6.23E-10	4.73E-10	4.35E-10	4.38E-10	4.40E-10	4.43E-10
pb214	3.06E-09	3.07E-09	3.22E-09	3.38E-09	3.53E-09	3.69E-09	3.85E-09
bi208	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi209	4.92E-02	4.94E-02	5.60E-02	6.34E-02	7.13E-02	7.97E-02	8.87E-02
bi210m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
bi210	8.09E-07	8.10E-07	8.51E-07	8.92E-07	9.34E-07	9.76E-07	1.02E-06
bi211	2.12E-11	2.13E-11	2.16E-11	2.19E-11	2.23E-11	2.26E-11	2.30E-11
bi212	7.73E-11	5.91E-11	4.49E-14	4.13E-14	4.15E-14	4.18E-14	4.20E-14
bi213	8.42E-10	8.44E-10	9.07E-10	9.73E-10	1.04E-09	1.11E-09	1.18E-09
bi214	2.27E-09	2.28E-09	2.39E-09	2.51E-09	2.62E-09	2.74E-09	2.86E-09
po210	2.24E-05	2.24E-05	2.35E-05	2.46E-05	2.58E-05	2.69E-05	2.81E-05
po211m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
po211	2.35E-16	2.35E-16	2.39E-16	2.42E-16	2.46E-16	2.50E-16	2.54E-16
po212	4.06E-21	3.11E-21	2.36E-24	2.17E-24	2.18E-24	2.20E-24	2.21E-24
po213	1.27E-18	1.27E-18	1.36E-18	1.46E-18	1.56E-18	1.67E-18	1.77E-18
po214	3.13E-16	3.13E-16	3.29E-16	3.45E-16	3.61E-16	3.77E-16	3.93E-16
po215	3.00E-16	3.00E-16	3.05E-16	3.10E-16	3.15E-16	3.20E-16	3.24E-16
po216	3.14E-15	2.40E-15	1.83E-18	1.68E-18	1.69E-18	1.70E-18	1.71E-18
po218	3.61E-10	3.62E-10	3.79E-10	3.98E-10	4.17E-10	4.35E-10	4.54E-10
at217	1.01E-14	1.02E-14	1.09E-14	1.17E-14	1.25E-14	1.33E-14	1.42E-14
rn218	6.15E-26	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rn219	6.80E-13	6.80E-13	6.91E-13	7.02E-13	7.13E-13	7.24E-13	7.35E-13
rn220	1.23E-12	9.39E-13	7.13E-16	6.55E-16	6.59E-16	6.63E-16	6.68E-16
rn222	6.53E-07	6.54E-07	6.86E-07	7.20E-07	7.54E-07	7.87E-07	8.21E-07
fr221	9.39E-11	9.41E-11	1.01E-10	1.09E-10	1.16E-10	1.24E-10	1.31E-10
fr223	3.16E-12	3.16E-12	3.21E-12	3.26E-12	3.31E-12	3.36E-12	3.41E-12
ra222	6.80E-23	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ra223	1.73E-07	1.73E-07	1.76E-07	1.78E-07	1.81E-07	1.84E-07	1.87E-07
ra224	7.11E-09	5.44E-09	4.13E-12	3.80E-12	3.82E-12	3.84E-12	3.87E-12
ra225	4.16E-07	4.17E-07	4.48E-07	4.81E-07	5.14E-07	5.48E-07	5.82E-07
ra226	1.02E-01	1.02E-01	1.07E-01	1.12E-01	1.17E-01	1.22E-01	1.28E-01
ra228	4.21E-10	4.22E-10	4.45E-10	4.69E-10	4.93E-10	5.17E-10	5.41E-10
ac225	2.81E-07	2.82E-07	3.03E-07	3.25E-07	3.47E-07	3.70E-07	3.93E-07
ac227	1.22E-04	1.22E-04	1.24E-04	1.26E-04	1.28E-04	1.30E-04	1.32E-04
ac228	5.14E-14	5.15E-14	5.43E-14	5.72E-14	6.01E-14	6.31E-14	6.60E-14
th226	3.38E-21	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th227	2.84E-07	2.84E-07	2.88E-07	2.93E-07	2.98E-07	3.02E-07	3.07E-07
th228	1.38E-06	1.06E-06	8.02E-10	7.38E-10	7.42E-10	7.47E-10	7.51E-10
th229	8.23E-02	8.25E-02	8.87E-02	9.51E-02	1.02E-01	1.08E-01	1.15E-01
th230	5.44E+00	5.44E+00	5.69E+00	5.95E+00	6.20E+00	6.45E+00	6.70E+00
th231	1.09E-07	2.97E-08	2.98E-08	3.00E-08	3.02E-08	3.03E-08	3.05E-08

decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=1.8976E+02mwd, flux= 2.90E+08n/cm**2-sec
 0 nuclide concentrations, grams

basis =B&W 15x15, 3.00wt%, 20gwd/mtu /per assem

	initial	20030.0	yr21000.0	yr22000.0	yr23000.0	yr24000.0	yr25000.0	yr
th232	1.05E+00	1.05E+00	1.11E+00	1.17E+00	1.23E+00	1.29E+00	1.35E+00	
th233	1.47E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
th234	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	
pa231	1.87E-01	1.87E-01	1.90E-01	1.93E-01	1.96E-01	1.99E-01	2.02E-01	
pa232	2.51E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pa233	1.86E-05	1.85E-05	1.85E-05	1.85E-05	1.85E-05	1.85E-05	1.85E-05	
pa234m	2.16E-10	2.16E-10	2.16E-10	2.16E-10	2.16E-10	2.16E-10	2.16E-10	
pa234	9.67E-11	9.67E-11	9.67E-11	9.67E-11	9.67E-11	9.67E-11	9.67E-11	
pa235	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
u230	3.33E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
u231	1.20E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
u232	5.13E-05	3.82E-05	2.42E-08	2.16E-08	2.15E-08	2.13E-08	2.12E-08	
u233	3.16E+00	3.17E+00	3.32E+00	3.48E+00	3.64E+00	3.80E+00	3.96E+00	
u234	1.12E+02	1.12E+02	1.12E+02	1.11E+02	1.11E+02	1.11E+02	1.11E+02	
u235	7.29E+03	7.29E+03	7.34E+03	7.38E+03	7.42E+03	7.46E+03	7.50E+03	
u236	2.02E+03	2.02E+03	2.03E+03	2.04E+03	2.05E+03	2.06E+03	2.06E+03	
u237	3.68E-05	1.81E-10	3.85E-13	3.55E-13	3.27E-13	3.02E-13	2.78E-13	
u238	4.42E+05	4.42E+05	4.42E+05	4.42E+05	4.42E+05	4.42E+05	4.42E+05	
u239	2.00E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
u240	1.20E-18	1.20E-18	1.27E-18	1.33E-18	1.40E-18	1.47E-18	1.54E-18	
u241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
np235	3.92E-10	1.85E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
np236m	1.80E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
np236	4.11E-04	4.11E-04	4.09E-04	4.07E-04	4.04E-04	4.02E-04	3.99E-04	
np237	5.46E+02	5.46E+02	5.46E+02	5.46E+02	5.46E+02	5.46E+02	5.46E+02	
np238	1.15E-05	3.57E-11	3.03E-13	2.22E-15	1.63E-17	1.19E-19	8.74E-22	
np239	2.91E-04	1.89E-06	1.73E-06	1.57E-06	1.43E-06	1.30E-06	1.19E-06	
np240m	1.02E-20	1.02E-20	1.08E-20	1.14E-20	1.20E-20	1.25E-20	1.31E-20	
np240	8.33E-14	1.05E-22	1.11E-22	1.17E-22	1.23E-22	1.29E-22	1.35E-22	
np241	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pu236	9.87E-08	9.99E-10	9.18E-10	9.12E-10	9.07E-10	9.02E-10	8.96E-10	
pu237	4.84E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pu238	1.74E-01	1.37E-01	6.52E-05	3.03E-08	5.65E-11	3.53E-13	2.56E-15	
pu239	1.54E+03	1.54E+03	1.50E+03	1.46E+03	1.41E+03	1.37E+03	1.34E+03	
pu240	1.03E+02	1.02E+02	9.24E+01	8.31E+01	7.48E+01	6.73E+01	6.05E+01	
pu241	2.54E-02	5.97E-03	1.27E-05	1.17E-05	1.08E-05	9.97E-06	9.18E-06	
pu242	6.74E+01	6.74E+01	6.73E+01	6.72E+01	6.70E+01	6.69E+01	6.68E+01	
pu243	1.43E-07	1.11E-15	1.11E-15	1.11E-15	1.11E-15	1.11E-15	1.11E-15	
pu244	6.06E-08	6.07E-08	6.41E-08	6.76E-08	7.10E-08	7.44E-08	7.79E-08	
pu245	8.21E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
pu246	5.63E-22	5.63E-22	5.41E-22	5.20E-22	5.00E-22	4.80E-22	4.62E-22	
am239	2.00E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
am240	8.61E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
am241	7.77E-01	7.59E-01	1.62E-01	3.29E-02	6.89E-03	1.63E-03	5.54E-04	
am242m	2.27E-04	1.96E-04	1.67E-06	1.22E-08	8.94E-11	6.56E-13	4.80E-15	
am242	1.81E-08	2.53E-09	2.15E-11	1.57E-13	1.15E-15	8.46E-18	6.20E-20	
am243	2.21E+00	2.20E+00	2.01E+00	1.83E+00	1.66E+00	1.51E+00	1.38E+00	
am244m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
am244	1.25E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
am245	1.66E-19	2.63E-31	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	
am246	1.41E-24	1.41E-24	1.35E-24	1.30E-24	1.25E-24	1.20E-24	1.15E-24	
cm241	1.57E-23	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	

br 79	4.82E-01	4.82E-01	5.01E-01	5.21E-01	5.40E-01	5.58E-01	5.76E-01
br 79m	3.45E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 79	2.23E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cu 80	4.30E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 80	1.88E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 80	1.14E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 80	1.89E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 80	1.11E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 80	4.01E+00	4.01E+00	4.01E+00	4.01E+00	4.01E+00	4.01E+00	4.01E+00
br 80	8.70E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 80m	3.24E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 80	7.43E-04	7.43E-04	7.43E-04	7.43E-04	7.43E-04	7.43E-04	7.43E-04
cu 81	3.60E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 81	9.70E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 81	5.55E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 81	5.25E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 81	3.53E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81	1.23E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 81m	2.65E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 81	5.97E+00	5.97E+00	5.97E+00	5.97E+00	5.97E+00	5.97E+00	5.97E+00
kr 81	1.08E-06	1.08E-06	1.08E-06	1.07E-06	1.07E-06	1.07E-06	1.06E-06
kr 81m	4.97E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zn 82	2.44E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 82	1.98E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

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Part E 5000 year criticality at 2.182 kw/package decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=1.8976E+02mwd, fission products page 150
 nuclide concentrations, grams basis =B&W 15x15, 3.00wt%, 20gwd/mtu /per assem
 flux= 2.90E+08n/cm**2-sec

0

	initial	20030.0 yr	21000.0 yr	22000.0 yr	23000.0 yr	24000.0 yr	25000.0 yr
ge 82	3.19E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82	2.13E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 82m	5.75E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 82	9.73E+00	9.73E+00	9.73E+00	9.73E+00	9.73E+00	9.73E+00	9.73E+00
br 82	5.56E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 82m	1.37E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 82	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01
zn 83	7.47E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 83	1.04E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 83	5.78E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 83	2.44E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83	1.77E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 83m	1.02E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 83	2.48E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 83	1.37E+01	1.37E+01	1.37E+01	1.37E+01	1.37E+01	1.37E+01	1.37E+01
kr 83m	1.89E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ga 84	3.62E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 84	2.45E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 84	7.43E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 84	1.03E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84	1.05E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 84m	5.05E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 84	3.35E+01	3.35E+01	3.35E+01	3.35E+01	3.35E+01	3.35E+01	3.35E+01
ga 85	4.71E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 85	8.81E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 85	1.66E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85	8.33E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 85m	4.40E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 85	1.09E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 85	4.66E-04	6.70E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

kr 85m	1.02E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 85	3.53E+01	3.53E+01	3.53E+01	3.53E+01	3.53E+01	3.53E+01	3.53E+01	3.53E+01
ge 86	1.87E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 86	4.30E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 86	9.94E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86	4.36E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 86m	7.84E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 86	5.67E+01	5.67E+01	5.67E+01	5.67E+01	5.67E+01	5.67E+01	5.67E+01	5.67E+01
rb 86	5.00E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 86m	1.51E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 86	6.79E-02	6.79E-02	6.79E-02	6.79E-02	6.79E-02	6.79E-02	6.79E-02	6.79E-02
ge 87	1.08E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 87	9.13E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 87	2.19E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 87	5.80E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 87	6.00E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 87	7.39E+01	7.39E+01	7.39E+01	7.39E+01	7.39E+01	7.39E+01	7.39E+01	7.39E+01
sr 87	3.40E-04	3.40E-04	3.41E-04	3.42E-04	3.43E-04	3.44E-04	3.46E-04	3.46E-04
sr 87m	9.46E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ge 88	1.70E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 88	1.91E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 88	3.12E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 Part E 5000 year criticality at 2.182 kw/package fission products page 151
 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=1.8976E+02mwd, flux= 2.90E+08n/cm**2-sec
 0 nuclide concentrations, grams
 basis =B&W 15x15, 3.00wt%, 20gwd/mtu /per assem

	initial	20030.0	yr21000.0	yr22000.0	yr23000.0	yr24000.0	yr25000.0	yr
br 88	1.72E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 88	1.90E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 88	2.03E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 88	1.06E+02	1.06E+02	1.06E+02	1.06E+02	1.06E+02	1.06E+02	1.06E+02	1.06E+02
as 89	2.47E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 89	3.06E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 89	3.16E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 89	4.52E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 89	2.31E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 89	1.11E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 89	1.42E+02	1.42E+02	1.42E+02	1.42E+02	1.42E+02	1.42E+02	1.42E+02	1.42E+02
y 89m	3.83E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
as 90	1.74E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 90	6.97E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 90	7.43E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 90	8.38E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90	3.65E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 90m	1.85E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 90	2.76E-02	1.32E-02	5.57E-13	1.12E-23	2.27E-34	.00E+00	.00E+00	.00E+00
y 90	7.19E-06	3.43E-06	1.45E-16	2.92E-27	4.20E-38	.00E+00	.00E+00	.00E+00
y 90m	6.65E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 90	1.74E+02	1.74E+02	1.74E+02	1.74E+02	1.74E+02	1.74E+02	1.74E+02	1.74E+02
zr 90m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
se 91	4.29E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
br 91	8.18E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
kr 91	1.55E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rb 91	1.81E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sr 91	1.13E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91	1.66E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
y 91m	5.70E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
zr 91	1.83E+02	1.83E+02	1.83E+02	1.83E+02	1.83E+02	1.83E+02	1.83E+02	1.83E+02
nb 91	2.56E-11	2.48E-11	9.22E-12	3.33E-12	1.20E-12	4.33E-13	1.56E-13	1.56E-13

1 Part E 5000 year criticality at 2.182 kw/package fission products page 162
 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=1.8976E+02mwd, flux= 2.90E+08n/cm**2-sec
 0 nuclide concentrations, grams
 basis =B&W 15x15, 3.00wt%, 20gwd/mtu /per assem

	initial	20030.0 yr	21000.0 yr	22000.0 yr	23000.0 yr	24000.0 yr	25000.0 yr
sm148	2.98E+01	2.98E+01	2.98E+01	2.98E+01	2.98E+01	2.98E+01	2.98E+01
cs149	1.72E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba149	2.27E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la149	2.10E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce149	4.44E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr149	1.72E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd149	8.38E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm149	2.58E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm149	7.88E-01	7.88E-01	7.88E-01	7.88E-01	7.88E-01	7.88E-01	7.88E-01
eu149	1.72E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs150	1.12E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba150	2.86E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la150	8.55E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce150	1.46E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr150	4.71E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd150	4.94E+01	4.94E+01	4.94E+01	4.94E+01	4.94E+01	4.94E+01	4.94E+01
pm150	3.98E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	8.21E+01	8.21E+01	8.21E+01	8.21E+01	8.21E+01	8.21E+01	8.21E+01
eu150	3.00E-08	1.68E-08	1.17E-16	4.58E-25	1.79E-33	6.94E-42	.00E+00
ba151	1.01E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la151	1.73E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce151	1.03E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr151	7.27E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd151	4.78E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm151	6.63E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm151	3.04E-02	2.41E-02	1.37E-05	6.20E-09	2.80E-12	1.26E-15	5.71E-19
eu151	5.87E+00	5.87E+00	5.90E+00	5.90E+00	5.90E+00	5.90E+00	5.90E+00
ba152	2.75E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la152	5.64E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce152	7.31E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr152	7.80E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd152	2.83E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152	1.05E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152m	6.47E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm152	3.77E+01	3.77E+01	3.77E+01	3.77E+01	3.77E+01	3.77E+01	3.77E+01
eu152	3.67E-03	7.70E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu152m	1.59E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	6.80E-01	6.80E-01	6.81E-01	6.81E-01	6.81E-01	6.81E-01	6.81E-01
la153	6.53E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce153	7.06E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr153	2.29E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd153	1.57E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm153	9.07E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm153	2.17E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu153	2.77E+01	2.77E+01	2.77E+01	2.77E+01	2.77E+01	2.77E+01	2.77E+01
gd153	5.73E-07	1.26E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la154	7.85E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce154	9.84E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr154	9.44E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd154	4.21E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154	1.37E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154m	4.44E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

0 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=1.8976E+02mwd, flux= 2.90E+08n/cm**2-sec
 nuclide concentrations, grams

basis =B&W 15x15, 3.00wt%, 20gwd/mtu /per assem

	initial	20030.0 yr	21000.0 yr	22000.0 yr	23000.0 yr	24000.0 yr	25000.0 yr
sm154	9.26E+00	9.26E+00	9.26E+00	9.26E+00	9.26E+00	9.26E+00	9.26E+00
eu154	1.79E-03	1.59E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd154	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00	8.60E+00
la155	4.14E-21	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce155	2.29E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr155	2.24E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd155	6.29E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm155	3.84E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm155	1.32E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu155	1.46E-04	1.72E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155	1.51E+00	1.51E+00	1.51E+00	1.51E+00	1.51E+00	1.51E+00	1.51E+00
ce156	2.04E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr156	1.02E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd156	2.16E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm156	4.76E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm156	1.94E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu156	7.62E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd156	1.12E+01	1.12E+01	1.12E+01	1.12E+01	1.12E+01	1.12E+01	1.12E+01
ce157	3.56E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr157	1.65E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd157	6.40E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm157	8.80E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm157	1.60E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu157	1.89E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd157	1.63E-02	1.63E-02	1.63E-02	1.63E-02	1.63E-02	1.63E-02	1.63E-02
pr158	3.95E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd158	1.19E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm158	1.29E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm158	5.28E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu158	5.06E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd158	3.34E+00	3.34E+00	3.34E+00	3.34E+00	3.34E+00	3.34E+00	3.34E+00
pr159	1.83E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd159	2.63E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm159	2.05E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm159	9.46E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu159	9.46E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd159	7.53E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb159	5.13E-01	5.13E-01	5.13E-01	5.13E-01	5.13E-01	5.13E-01	5.13E-01
nd160	2.15E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm160	5.58E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm160	1.21E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu160	1.56E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd160	2.29E-01	2.29E-01	2.29E-01	2.29E-01	2.29E-01	2.29E-01	2.29E-01
tb160	1.63E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy160	4.13E-02	4.13E-02	4.13E-02	4.13E-02	4.13E-02	4.13E-02	4.13E-02
nd161	3.54E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm161	7.43E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm161	1.53E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu161	5.52E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd161	4.32E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb161	1.18E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 Part E 5000 year criticality at 2.182 kw/package fission products page 164
 0 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=1.8976E+02mwd, flux= 2.90E+08n/cm**2-sec
 nuclide concentrations, grams

	basis =B&W 15x15, 3.00wt%, 20gwd/mtu /per assem							
	initial	20030.0 yr	21000.0 yr	22000.0 yr	23000.0 yr	24000.0 yr	25000.0 yr	
dy161	8.35E-02	8.35E-02	8.35E-02	8.35E-02	8.35E-02	8.35E-02	8.35E-02	8.35E-02
pm162	2.08E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm162	2.82E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu162	5.70E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd162	4.55E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162	4.29E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb162m	1.53E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy162	5.77E-02	5.77E-02	5.77E-02	5.77E-02	5.77E-02	5.77E-02	5.77E-02	5.77E-02
sm163	5.30E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu163	5.02E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd163	2.96E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163	4.37E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb163m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy163	3.79E-02	3.79E-02	3.79E-02	3.79E-02	3.79E-02	3.79E-02	3.79E-02	3.79E-02
sm164	4.37E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu164	1.17E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd164	1.24E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb164	2.48E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy164	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02	1.03E-02
sm165	7.58E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu165	1.14E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd165	8.68E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb165	6.10E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165	5.31E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy165m	3.60E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho165	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02
dy166	2.58E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166	8.97E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ho166m	4.96E-07	4.88E-07	2.78E-07	1.56E-07	8.77E-08	4.92E-08	2.76E-08	
er166	1.67E-03	1.67E-03	1.67E-03	1.67E-03	1.67E-03	1.67E-03	1.67E-03	1.67E-03
er167	2.63E-05	2.63E-05	2.63E-05	2.63E-05	2.63E-05	2.63E-05	2.63E-05	2.63E-05
er167m	6.62E-21	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er168	2.21E-05	2.21E-05	2.21E-05	2.21E-05	2.21E-05	2.21E-05	2.21E-05	2.21E-05
yb168	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er169	1.25E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm169	7.59E-07	7.59E-07	7.59E-07	7.59E-07	7.59E-07	7.59E-07	7.59E-07	7.59E-07
yb169	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
er170	8.07E-07	8.07E-07	8.07E-07	8.07E-07	8.07E-07	8.07E-07	8.07E-07	8.07E-07
tm170	1.08E-14	.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
yb170	4.73E-09	4.73E-09	4.73E-09	4.73E-09	4.73E-09	4.73E-09	4.73E-09	4.73E-09
er171	5.71E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm171	1.30E-11	2.59E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb171	1.08E-06	1.08E-06	1.08E-06	1.08E-06	1.08E-06	1.08E-06	1.08E-06	1.08E-06
er172	2.22E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tm172	3.02E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
yb172	6.88E-07	6.88E-07	6.88E-07	6.88E-07	6.88E-07	6.88E-07	6.88E-07	6.88E-07
total	9.78E+03	9.78E+03	9.78E+03	9.78E+03	9.78E+03	9.78E+03	9.78E+03	9.78E+03

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Part C 10000 year criticality at 2.182 kw/package decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+02mwd, flux= 2.93E+08n/cm**2-sec actinides page 142

	nuclide concentrations, grams										
	basis =B&W 15x15, 3.00wt%, 20gwd/mtu /per assem										
	initial	25030. yr	26000. yr	35000. yr	45000. yr	65000. yr	85000. yr	95000. yr	105000. yr	115000. yr	125000. yr
he 4	4.23E+01	4.24E+01	4.32E+01	4.93E+01	5.43E+01	6.08E+01	6.47E+01	6.61E+01	6.73E+01	6.82E+01	6.91E+01
tl206	7.61E-16	7.62E-16	7.92E-16	1.07E-15	1.35E-15	1.89E-15	2.25E-15	2.32E-15	2.45E-15	2.56E-15	2.65E-15

tl207	7.43E-11	7.43E-11	7.45E-11	7.64E-11	7.87E-11	8.34E-11	8.75E-11	8.92E-11	9.07E-11	9.20E-11	9.31E-11
tl208	2.22E-12	1.70E-12	9.85E-16	9.11E-16	9.57E-16	1.05E-15	1.16E-15	1.22E-15	1.27E-15	1.33E-15	1.39E-15
tl209	1.16E-12	1.17E-12	1.23E-12	1.86E-12	2.59E-12	4.00E-12	5.31E-12	5.92E-12	6.50E-12	7.05E-12	7.58E-12
pb206	6.02E-01	6.04E-01	6.54E-01	1.21E+00	2.01E+00	4.15E+00	6.84E+00	8.34E+00	9.91E+00	1.16E+01	1.33E+01
pb207	4.82E-02	4.84E-02	5.39E-02	1.06E-01	1.65E-01	2.90E-01	4.21E-01	4.88E-01	5.57E-01	6.27E-01	6.98E-01
pb208	5.07E-03	5.09E-03	5.15E-03	5.15E-03	5.16E-03	5.16E-03	5.17E-03	5.17E-03	5.18E-03	5.18E-03	5.19E-03
pb209	4.91E-09	4.92E-09	5.20E-09	7.87E-09	1.09E-08	1.69E-08	2.24E-08	2.50E-08	2.74E-08	2.98E-08	3.20E-08
pb210	1.64E-03	1.64E-03	1.71E-03	2.31E-03	2.92E-03	4.08E-03	4.85E-03	5.01E-03	5.28E-03	5.51E-03	5.71E-03
pb211	5.75E-10	5.75E-10	5.76E-10	5.91E-10	6.09E-10	6.45E-10	6.77E-10	6.90E-10	7.01E-10	7.11E-10	7.20E-10
pb212	1.31E-09	1.01E-09	5.84E-13	5.40E-13	5.67E-13	6.25E-13	6.88E-13	7.21E-13	7.56E-13	7.90E-13	8.26E-13
pb214	3.82E-09	3.83E-09	3.98E-09	5.38E-09	6.79E-09	9.51E-09	1.13E-08	1.17E-08	1.23E-08	1.28E-08	1.33E-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	8.86E-02	8.89E-02	9.80E-02	2.08E-01	3.83E-01	9.05E-01	1.64E+00	2.08E+00	2.57E+00	3.11E+00	3.69E+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	1.01E-06	1.01E-06	1.05E-06	1.42E-06	1.79E-06	2.51E-06	2.98E-06	3.09E-06	3.25E-06	3.39E-06	3.51E-06
bi211	3.41E-11	3.41E-11	3.42E-11	3.50E-11	3.61E-11	3.82E-11	4.01E-11	4.09E-11	4.16E-11	4.22E-11	4.27E-11
bi212	1.25E-10	9.53E-11	5.54E-14	5.12E-14	5.38E-14	5.93E-14	6.53E-14	6.84E-14	7.17E-14	7.50E-14	7.84E-14
bi213	1.17E-09	1.17E-09	1.24E-09	1.87E-09	2.60E-09	4.03E-09	5.34E-09	5.95E-09	6.53E-09	7.09E-09	7.62E-09
bi214	2.84E-09	2.84E-09	2.95E-09	3.99E-09	5.04E-09	7.06E-09	8.39E-09	8.67E-09	9.14E-09	9.54E-09	9.88E-09
po210	2.79E-05	2.79E-05	2.90E-05	3.92E-05	4.96E-05	6.94E-05	8.24E-05	8.52E-05	8.98E-05	9.37E-05	9.71E-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	3.76E-16	3.77E-16	3.77E-16	3.87E-16	3.99E-16	4.23E-16	4.43E-16	4.52E-16	4.60E-16	4.66E-16	4.72E-16
po212	6.55E-21	5.01E-21	2.91E-24	2.69E-24	2.83E-24	3.12E-24	3.43E-24	3.60E-24	3.77E-24	3.94E-24	4.12E-24
po213	1.76E-18	1.76E-18	1.86E-18	2.82E-18	3.92E-18	6.05E-18	8.02E-18	8.94E-18	9.82E-18	1.07E-17	1.15E-17
po214	3.91E-16	3.91E-16	4.06E-16	5.49E-16	6.94E-16	9.71E-16	1.15E-15	1.19E-15	1.26E-15	1.31E-15	1.36E-15
po215	4.81E-16	4.81E-16	4.82E-16	4.95E-16	5.10E-16	5.40E-16	5.67E-16	5.78E-16	5.87E-16	5.96E-16	6.03E-16
po216	5.07E-15	3.88E-15	2.25E-18	2.08E-18	2.19E-18	2.41E-18	2.66E-18	2.78E-18	2.91E-18	3.05E-18	3.19E-18
po218	4.51E-10	4.51E-10	4.69E-10	6.34E-10	8.01E-10	1.12E-09	1.33E-09	1.38E-09	1.45E-09	1.51E-09	1.57E-09
at217	1.41E-14	1.41E-14	1.49E-14	2.25E-14	3.13E-14	4.84E-14	6.42E-14	7.16E-14	7.86E-14	8.53E-14	9.17E-14
rn218	1.02E-25	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
rn219	1.09E-12	1.09E-12	1.09E-12	1.12E-12	1.16E-12	1.22E-12	1.28E-12	1.31E-12	1.33E-12	1.35E-12	1.37E-12
rn220	1.98E-12	1.51E-12	8.79E-16	8.14E-16	8.54E-16	9.42E-16	1.04E-15	1.09E-15	1.14E-15	1.19E-15	1.24E-15
rn222	8.15E-07	8.16E-07	8.48E-07	1.15E-06	1.45E-06	2.03E-06	2.41E-06	2.49E-06	2.62E-06	2.74E-06	2.84E-06
fr221	1.30E-10	1.31E-10	1.38E-10	2.09E-10	2.91E-10	4.49E-10	5.95E-10	6.64E-10	7.29E-10	7.91E-10	8.50E-10
fr223	5.06E-12	5.06E-12	5.07E-12	5.20E-12	5.36E-12	5.68E-12	5.96E-12	6.08E-12	6.18E-12	6.27E-12	6.34E-12
ra222	1.12E-22	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ra223	2.77E-07	2.77E-07	2.78E-07	2.85E-07	2.94E-07	3.11E-07	3.26E-07	3.33E-07	3.38E-07	3.43E-07	3.47E-07
ra224	1.15E-08	8.77E-09	5.09E-12	4.71E-12	4.95E-12	5.46E-12	6.01E-12	6.29E-12	6.59E-12	6.90E-12	7.21E-12
ra225	5.78E-07	5.79E-07	6.11E-07	9.26E-07	1.29E-06	1.99E-06	2.64E-06	2.94E-06	3.23E-06	3.50E-06	3.76E-06
ra226	1.27E-01	1.27E-01	1.32E-01	1.78E-01	2.25E-01	3.15E-01	3.75E-01	3.87E-01	4.08E-01	4.26E-01	4.41E-01
ra228	5.41E-10	5.42E-10	5.66E-10	7.89E-10	1.04E-09	1.55E-09	2.05E-09	2.31E-09	2.56E-09	2.81E-09	3.07E-09
ac225	3.90E-07	3.91E-07	4.13E-07	6.25E-07	8.69E-07	1.34E-06	1.78E-06	1.99E-06	2.18E-06	2.37E-06	2.54E-06
ac227	1.96E-04	1.96E-04	1.97E-04	2.02E-04	2.08E-04	2.20E-04	2.31E-04	2.35E-04	2.39E-04	2.43E-04	2.46E-04
ac228	6.60E-14	6.61E-14	6.90E-14	9.63E-14	1.27E-13	1.89E-13	2.51E-13	2.82E-13	3.13E-13	3.44E-13	3.74E-13
th226	5.57E-21	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th227	4.55E-07	4.55E-07	4.56E-07	4.68E-07	4.82E-07	5.11E-07	5.36E-07	5.46E-07	5.56E-07	5.64E-07	5.70E-07
th228	2.23E-06	1.70E-06	9.90E-10	9.16E-10	9.61E-10	1.06E-09	1.17E-09	1.22E-09	1.28E-09	1.34E-09	1.40E-09
th229	1.14E-01	1.15E-01	1.21E-01	1.83E-01	2.55E-01	3.94E-01	5.22E-01	5.82E-01	6.39E-01	6.93E-01	7.45E-01
th230	6.63E+00	6.64E+00	6.90E+00	9.10E+00	1.13E+01	1.49E+01	1.77E+01	1.88E+01	1.98E+01	2.06E+01	2.13E+01
th231	1.29E-07	2.99E-08	3.00E-08	3.13E-08	3.23E-08	3.37E-08	3.45E-08	3.47E-08	3.49E-08	3.51E-08	3.52E-08

1 Part C 10000 year criticality at 2.182 kw/package actinides page 143
 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+02mwd, flux= 2.93E+08n/cm**2-sec
 0 nuclide concentrations, grams

	initial	25030. yr	26000. yr	35000. yr	45000. yr	65000. yr	85000. yr	95000. yr	105000. yr	115000. yr	125000. yr
th232	1.35E+00	1.35E+00	1.41E+00	1.96E+00	2.59E+00	3.85E+00	5.11E+00	5.74E+00	6.37E+00	7.00E+00	7.63E+00
th233	1.93E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
th234	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06	6.42E-06
pa231	3.00E-01	3.00E-01	3.01E-01	3.09E-01	3.18E-01	3.37E-01	3.53E-01	3.60E-01	3.66E-01	3.72E-01	3.76E-01

1 Part C 10000 year criticality at 2.182 kw/package fission products page 161
 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+02mwd, flux= 2.93E+08n/cm**2-sec
 0 nuclide concentrations, grams
 basis =B&W 15x15, 3.00wt%, 20gwd/mtu /per assem

	initial	25030. yr	26000. yr	35000. yr	45000. yr	65000. yr	85000. yr	95000. yr	105000. yr	115000. yr	125000. yr
xe143	7.48E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs143	2.51E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba143	7.44E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la143	4.96E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce143	7.00E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr143	6.90E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd143	2.77E+02	2.77E+02	2.77E+02	2.77E+02	2.77E+02	2.77E+02	2.77E+02	2.77E+02	2.77E+02	2.77E+02	2.77E+02
i144	5.59E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe144	1.83E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs144	4.06E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba144	4.74E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la144	2.16E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce144	1.33E-03	3.51E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144	5.58E-08	1.48E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr144m	3.26E-10	8.63E-22	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd144	3.59E+02	3.59E+02	3.59E+02	3.59E+02	3.59E+02	3.59E+02	3.59E+02	3.59E+02	3.59E+02	3.59E+02	3.59E+02
i145	2.35E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe145	1.46E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs145	5.60E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba145	7.91E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la145	9.02E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce145	7.26E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr145	8.67E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd145	2.11E+02	2.11E+02	2.11E+02	2.11E+02	2.11E+02	2.11E+02	2.11E+02	2.11E+02	2.11E+02	2.11E+02	2.11E+02
pm145	1.53E-07	4.97E-08	1.58E-24	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm145	7.89E-09	1.57E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
xe146	8.47E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs146	7.92E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba146	2.21E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la146	1.52E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce146	2.57E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr146	4.62E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd146	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
pm146	9.66E-10	2.25E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm146	3.21E-03	3.21E-03	3.21E-03	3.21E-03	3.21E-03	3.21E-03	3.21E-03	3.21E-03	3.21E-03	3.21E-03	3.21E-03
xe147	9.53E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs147	2.56E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba147	1.07E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la147	4.45E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce147	1.34E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr147	2.02E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd147	2.37E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm147	2.07E-03	7.55E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm147	9.34E+01	9.34E+01	9.34E+01	9.34E+01	9.34E+01	9.34E+01	9.34E+01	9.34E+01	9.34E+01	9.34E+01	9.34E+01
cs148	1.77E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba148	1.82E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la148	3.31E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce148	9.38E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr148	2.58E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd148	1.07E+02	1.07E+02	1.07E+02	1.07E+02	1.07E+02	1.07E+02	1.07E+02	1.07E+02	1.07E+02	1.07E+02	1.07E+02
pm148	1.33E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm148m	1.03E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 Part C 10000 year criticality at 2.182 kw/package fission products page 162

decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+02mwd, flux= 2.93E+08n/cm**2-sec
 0 nuclide concentrations, grams

	initial	25030. yr	26000. yr	35000. yr	45000. yr	65000. yr	85000. yr	95000. yr	105000. yr	115000. yr	125000. yr
sm148	3.06E+01	3.06E+01	3.06E+01	3.06E+01	3.06E+01	3.06E+01	3.06E+01	3.06E+01	3.06E+01	3.06E+01	3.06E+01
cs149	1.76E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba149	2.32E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la149	2.14E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce149	4.48E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr149	1.72E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd149	8.37E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm149	2.58E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm149	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01	6.96E-01
eu149	1.68E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
cs150	1.15E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba150	2.92E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la150	8.72E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce150	1.48E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr150	4.70E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd150	5.04E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01	5.04E+01
pm150	3.73E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm150	8.32E+01	8.32E+01	8.32E+01	8.32E+01	8.32E+01	8.32E+01	8.32E+01	8.32E+01	8.32E+01	8.32E+01	8.32E+01
eu150	2.92E-08	1.64E-08	1.14E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ba151	1.03E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la151	1.77E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce151	1.05E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr151	7.26E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd151	4.73E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm151	6.56E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm151	3.06E-02	2.43E-02	1.38E-05	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu151	5.60E+00	5.60E+00	5.63E+00	5.63E+00	5.63E+00	5.63E+00	5.63E+00	5.63E+00	5.63E+00	5.63E+00	5.63E+00
ba152	2.82E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la152	5.76E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce152	7.40E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr152	7.76E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd152	2.79E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152	1.04E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm152m	6.24E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm152	3.79E+01	3.79E+01	3.79E+01	3.79E+01	3.79E+01	3.79E+01	3.79E+01	3.79E+01	3.79E+01	3.79E+01	3.79E+01
eu152	3.58E-03	7.52E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu152m	1.55E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd152	1.31E+00	1.31E+00	1.31E+00	1.31E+00	1.31E+00	1.31E+00	1.31E+00	1.31E+00	1.31E+00	1.31E+00	1.31E+00
la153	6.68E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce153	7.22E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr153	2.31E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd153	1.56E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm153	8.94E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm153	2.21E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu153	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01	2.84E+01
gd153	1.13E-06	2.49E-20	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
la154	8.03E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce154	1.01E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr154	9.51E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd154	4.15E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154	1.34E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm154m	4.24E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 Part c 10000 year criticality at 2.182 kw/package fission products page 163
 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+02mwd, flux= 2.93E+08n/cm**2-sec
 0 nuclide concentrations, grams

	basis =B&W 15x15, 3.00wt%, 20gwd/mtu /per assem											
	initial	25030. yr	26000. yr	35000. yr	45000. yr	65000. yr	85000. yr	95000. yr	105000. yr	115000. yr	125000. yr	
sm154	9.44E+00	9.44E+00	9.44E+00	9.44E+00	9.44E+00	9.44E+00	9.44E+00	9.44E+00	9.44E+00	9.44E+00	9.44E+00	9.44E+00
eu154	1.88E-03	1.67E-04	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd154	9.29E+00	9.30E+00	9.30E+00	9.30E+00	9.30E+00	9.30E+00	9.30E+00	9.30E+00	9.30E+00	9.30E+00	9.30E+00	9.30E+00
la155	4.23E-21	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
ce155	2.35E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr155	2.27E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd155	6.24E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm155	3.73E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm155	1.28E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu155	1.42E-04	1.67E-06	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155m	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd155	7.60E-01	7.60E-01	7.60E-01	7.60E-01	7.60E-01	7.60E-01	7.60E-01	7.60E-01	7.60E-01	7.60E-01	7.60E-01	7.60E-01
ce156	2.08E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr156	1.04E-15	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd156	2.14E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm156	4.60E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm156	1.86E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu156	7.30E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd156	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	1.21E+01	1.21E+01
ce157	3.64E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pr157	1.68E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd157	6.43E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm157	8.53E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm157	1.53E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu157	1.81E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd157	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02	1.55E-02
pr158	4.04E-18	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd158	1.21E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm158	1.26E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm158	5.03E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu158	4.81E-10	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd158	3.41E+00	3.41E+00	3.41E+00	3.41E+00	3.41E+00	3.41E+00	3.41E+00	3.41E+00	3.41E+00	3.41E+00	3.41E+00	3.41E+00
pr159	1.88E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
nd159	2.67E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm159	2.02E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm159	9.01E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu159	8.96E-11	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd159	7.28E-09	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb159	5.22E-01	5.22E-01	5.22E-01	5.22E-01	5.22E-01	5.22E-01	5.22E-01	5.22E-01	5.22E-01	5.22E-01	5.22E-01	5.22E-01
nd160	2.19E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm160	5.54E-16	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm160	1.16E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu160	1.48E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd160	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01	2.34E-01
tb160	1.70E-07	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
dy160	4.34E-02	4.34E-02	4.34E-02	4.34E-02	4.34E-02	4.34E-02	4.34E-02	4.34E-02	4.34E-02	4.34E-02	4.34E-02	4.34E-02
nd161	3.62E-19	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
pm161	7.48E-17	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
sm161	1.48E-14	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
eu161	5.20E-13	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
gd161	4.07E-12	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00
tb161	1.11E-08	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00	.00E+00

1 Part C 10000 year criticality at 2.182 kw/package fission products page 164
 decay, following reactor irradiation identified by: power= 1.039E-04mw, burnup=3.7952E+02mwd, flux= 2.93E+08n/cm**2-sec
 nuclide concentrations, grams

initial 25030. yr 26000. yr 35000. yr 45000. yr 65000. yr 85000. yr 95000. yr 105000. yr 115000. yr 125000. yr