Results of Calculations of External Gamma Radiation Exposure Rates from Local Fallout and the Related Radionuclide Compositions of Two Hypothetical 1-MT Nuclear Bursts

Harry Hicks

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Prepared for the Federal Emergency Management Agency
Washington, DC 20472
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Final Report, December 1984

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Results of Calculations of External Gamma Radiation Exposure Rates from Local Fallout and the Related Radionuclide Compositions of Two Hypothetical 1-MT Nuclear Bursts

Abstract

This report presents data on calculated gamma radiation exposure rates and local surface deposition of related radionuclides resulting from two hypothetical 1-MT nuclear bursts.

Introduction

In the past, we have calculated the normalized external gamma radiation exposure rates that resulted from local fallout from the Nevada Test Site (NTS)¹ and from Pacific tests.² These calculations have been used in the reconstruction of radiation doses downwind. More recently we were asked to make similar calculations to assist in the

development of criteria for the acceptance of food crops following a nuclear war. We have calculated the debris from two types of bombs, one containing ²³⁵U as a fissionable material (designated oralloy), the other containing ²³⁸U (designated tuballoy).

Results

Results of the calculations of relative external gamma radiation exposure rate and related radionuclide ground deposition are given in the Appendices. Activation products created by neutron interaction with the earth and other environmental materials present on the earth's surface are unimportant in the context of food and water contamination and are therefore not included. These calculations are described in detail in Ref. 3. The output of the calculation has 30 decay times: 10 from 1 to 21 hours, 10 from 1 to 300 days, and 10 from 1 to 50 years. For each of these times and for zero time, there are values of the external gamma radiation exposure rate normalized to 1 mR/h, 1 meter above the surface, 12 hours after the event; the associated values of $\mu\text{Ci}/\text{m}^2$ for each radionuclide; and the total $\mu\text{Ci}/\text{m}^2$.

Surface roughness effects are simulated by using Beck's values⁴ of $(\text{mR}/\text{h})/(\mu\text{Ci}/\text{m}^2)$ for a relaxation length of $0.16 \text{ g}/\text{cm}^2$. According to Beck, the concentration of fallout varies exponentially with soil depth, Z , according to the relation $C = C_0 e^{-\alpha Z}$. He defines relaxation length as $1/\alpha$.

Fractionation effects were simulated by the removal of a fraction of the refractory nuclides from

the calculation. Calculations for each event were performed for unfractionated debris and for debris with 0.5 and 0.1 of the refractory elements present.

Each Appendix contains three sets of 11 pages of calculated results relating to each event. Each set of 11 pages is marked Page 2 through Page 12. Page 2 of each set gives the external gamma-ray exposure rates and associated values of total microcuries per square meter at 30 decay intervals and at zero time. Calculated values for each radionuclide at various decay intervals are given in the remaining pages—from 1 to 21 hours on pp. 3-7, from 1 to 300 days on pp. 8-11, and from 1 to 50 years on p. 12. The value for each activation product at zero time is estimated from measurements performed on debris samples taken by aircraft from events of about 1-MT yield. When no estimate can be made, the value appears as zero. Fission products were calculated from typical fissioning nuclides and neutron energy spectra.³ Note that the totals at zero time include *only* the nuclides listed on pp. 3-12, not all nuclides present at zero time.

This work was funded by the Federal Emergency Management Agency.

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Appendix A

Detailed Results for a 1-MT Burst with ^{235}U as the Principal Fissioning Species

ORALLOY
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 CM/SQCM

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.02E+02	8.79E+03
1.00E+00	3.19E+01	2.01E+03
2.00E+00	1.29E+01	8.35E+02
3.00E+00	7.11E+00	5.33E+02
4.00E+00	4.55E+00	3.99E+02
6.00E+00	2.43E+00	2.71E+02
9.00E+00	1.41E+00	1.85E+02
1.20E+01	1.00E+00	1.39E+02
1.50E+01	7.72E-01	1.10E+02
1.80E+01	6.24E-01	8.95E+01
2.10E+01	5.20E-01	7.50E+01
1.00E+00 DAYS	4.35E-01	6.32E+01
2.00E+00	1.85E-01	2.68E+01
5.00E+00	6.62E-02	9.31E+00
1.00E+01	3.28E-02	4.46E+00
2.00E+01	1.44E-02	2.01E+00
3.00E+01	8.63E-03	1.27E+00
5.00E+01	4.25E-03	7.14E-01
1.00E+02	1.70E-03	3.23E-01
2.00E+02	6.31E-04	1.22E-01
3.00E+02	2.42E-04	6.03E-02
1.00E+00 YEARS	1.35E-04	4.31E-02
1.50E+00	3.48E-05	2.35E-02
2.00E+00	1.78E-05	1.61E-02
3.50E+00	1.01E-05	7.51E-03
5.00E+00	8.03E-06	4.77E-03
7.00E+00	6.91E-06	3.50E-03
1.00E+01	6.12E-06	2.80E-03
2.00E+01	4.66E-06	1.94E-03
3.50E+01	3.29E-06	1.32E-03
5.00E+01	2.32E-06	9.20E-04

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 3

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO	TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
BE 7	2.68E-04	2.68E-04	2.68E-04	2.68E-04	2.68E-04	2.68E-04	2.67E-04	2.67E-04	2.66E-04	2.66E-04	2.65E-04	2.65E-04
NA 24	1.76E-02	1.69E-02	1.61E-02	1.54E-02	1.47E-02	1.34E-02	1.16E-02	1.02E-02	8.84E-03	7.70E-03	6.67E-03	6.67E-03
MN 54	6.86E-05	6.86E-05	6.86E-05	6.86E-05	6.86E-05	6.86E-05	6.86E-05	6.86E-05	6.86E-05	6.80E-05	6.80E-05	6.80E-05
FE 55	1.66E-04	1.66E-04	1.66E-04	1.66E-04	1.66E-04	1.66E-04	1.66E-04	1.66E-04	1.66E-04	1.66E-04	1.66E-04	1.66E-04
FE 59	5.90E-05	5.89E-05	5.89E-05	5.89E-05	5.89E-05	5.88E-05	5.87E-05	5.87E-05	5.85E-05	5.84E-05	5.83E-05	5.83E-05
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CU 64	4.51E-02	4.26E-02	4.04E-02	3.83E-02	3.62E-02	3.25E-02	2.76E-02	2.35E-02	2.00E-02	1.70E-02	1.45E-02	1.45E-02
CU 67	5.46E-05	5.42E-05	5.32E-05	5.28E-05	5.23E-05	5.09E-05	4.90E-05	4.76E-05	4.61E-05	4.44E-05	4.31E-05	4.31E-05
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W187	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PB203	1.94E-04	1.91E-04	1.88E-04	1.86E-04	1.83E-04	1.79E-04	1.72E-04	1.65E-04	1.58E-04	1.52E-04	1.46E-04	1.46E-04
U237	3.01E-01	3.00E-01	2.99E-01	2.98E-01	2.96E-01	2.94E-01	2.90E-01	2.86E-01	2.82E-01	2.79E-01	2.75E-01	2.75E-01
U239	1.42E+02	2.42E+01	4.13E+00	7.04E-01	1.20E-01	3.48E-03	1.73E-05	8.52E-08	4.21E-10	2.08E-12	1.03E-14	1.03E-14
U240	7.41E-01	7.06E-01	6.73E-01	6.40E-01	6.10E-01	5.52E-01	4.76E-01	4.11E-01	3.55E-01	3.05E-01	2.63E-01	2.63E-01
NP239	4.23E-04	7.13E-01	8.24E-01	8.37E-01	8.30E-01	8.11E-01	7.78E-01	7.52E-01	7.26E-01	7.00E-01	6.74E-01	6.74E-01
NP240M	1.17E-03	7.09E-01	6.78E-01	6.46E-01	6.15E-01	5.56E-01	4.81E-01	4.15E-01	3.57E-01	3.08E-01	2.66E-01	2.66E-01
NP240	2.97E-11	1.53E-11	7.93E-12	4.09E-12	2.12E-12	5.66E-13	7.80E-14	1.08E-14	1.49E-15	2.05E-16	2.83E-17	2.83E-17
AM241	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10
CM242	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.60E-09	4.57E-09	4.57E-09	4.57E-09	4.57E-09	4.57E-09	4.57E-09
GE75	1.19E-05	5.35E-02	3.23E-02	1.94E-02	1.17E-02	4.24E-03	9.25E-04	2.03E-04	4.42E-05	9.64E-06	2.11E-06	2.11E-06
GE77	4.90E-03	1.26E-02	1.19E-02	1.12E-02	1.05E-02	9.29E-03	7.73E-03	6.42E-03	5.35E-03	4.45E-03	3.70E-03	3.70E-03
AS77	5.06E-05	8.00E-03	8.09E-03	8.15E-03	8.20E-03	8.26E-03	8.26E-03	8.20E-03	8.07E-03	7.91E-03	7.71E-03	7.71E-03
SE77M	2.00E-09	2.39E-05	2.43E-05	2.45E-05	2.45E-05	2.47E-05	2.49E-05	2.47E-05	2.43E-05	2.38E-05	2.30E-05	2.30E-05
GE78	6.58E-01	4.11E-01	2.56E-01	1.60E-01	9.98E-02	3.88E-02	9.43E-03	2.28E-03	5.57E-04	1.35E-04	3.29E-05	3.29E-05
AS78	1.18E-02	1.96E-01	2.42E-01	2.27E-01	1.90E-01	1.12E-01	4.16E-02	1.38E-02	4.27E-03	1.28E-03	3.70E-04	3.70E-04
AS79	1.27E+01	1.26E-01	1.24E-03	1.22E-05	1.20E-07	1.16E-11	1.11E-17	1.06E-23	1.01E-29	9.62E-36	9.19E-42	9.19E-42
SE79M	1.89E-02	2.22E-01	2.19E-03	2.15E-05	2.12E-07	2.05E-11	1.95E-17	1.87E-23	1.78E-29	1.70E-35	1.62E-41	1.62E-41
BR80	8.05E-02	7.60E-03	7.14E-04	6.71E-05	6.32E-06	5.61E-08	4.69E-11	3.91E-14	3.26E-17	2.72E-20	2.27E-23	2.27E-23
SE81M	6.64E-02	3.10E+00	1.50E+00	7.19E-01	3.46E-01	8.08E-02	9.04E-03	1.01E-03	1.14E-04	1.27E-05	1.43E-06	1.43E-06
SE81	8.11E-01	3.66E+00	2.12E+00	1.06E+00	5.13E-01	1.20E-01	1.34E-02	1.50E-03	1.68E-04	1.89E-05	2.12E-06	2.12E-06
BR82	4.10E-04	4.02E-04	3.95E-04	3.87E-04	3.79E-04	3.65E-04	3.44E-04	3.24E-04	3.06E-04	2.88E-04	2.72E-04	2.72E-04
SE83	3.89E+01	7.38E+00	1.40E+00	2.65E-01	5.01E-02	1.80E-03	1.22E-05	8.33E-08	5.69E-10	3.86E-12	2.45E-14	2.45E-14
BR83	3.23E-01	4.83E+00	4.47E+00	3.51E+00	2.67E+00	1.51E+00	6.37E-01	2.68E-01	1.13E-01	4.78E-02	2.02E-02	2.02E-02
KR 83M	1.67E-05	1.09E+00	2.23E+00	2.77E+00	2.86E+00	2.39E+00	1.41E+00	7.24E-01	3.49E-01	1.61E-01	7.24E-02	7.24E-02

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 4

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
BR 84	8.36E-02	1.44E+01	3.90E+00	1.06E+00	2.85E-01	2.09E-02	4.12E-04	8.14E-06	1.61E-07	3.19E-09	6.29E-11
KR 85M	4.20E-03	9.01E+00	7.67E+00	6.55E+00	5.60E+00	4.08E+00	2.55E+00	1.59E+00	9.90E-01	6.15E-01	3.84E-01
KR 87	6.87E+01	3.97E+01	2.30E+01	1.33E+01	7.66E+00	2.57E+00	4.98E-01	9.65E-02	1.87E-02	3.62E-03	6.99E-04
KR 88	3.98E+01	3.11E+01	2.43E+01	1.89E+01	1.48E+01	8.98E+00	4.29E+00	2.04E+00	9.70E-01	4.62E-01	2.20E-01
RB 88	1.01E+01	3.14E+01	2.68E+01	2.11E+01	1.65E+01	1.01E+01	4.80E+00	2.29E+00	1.09E+00	5.18E-01	2.46E-01
RB 89	4.74E+01	4.45E+01	2.99E+00	2.01E-01	1.35E-02	6.10E-05	1.85E-03	5.57E-12	1.70E-15	5.14E-19	1.56E-22
SR 89	3.63E-06	1.27E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.36E-01	1.35E-01	1.35E-01	1.35E-01	1.35E-01
SR 90	7.18E-06	7.37E-04	7.37E-04	7.37E-04	7.37E-04	7.37E-04	7.37E-04	7.37E-04	7.37E-04	7.37E-04	7.37E-04
SR 91	9.56E-01	1.78E+01	1.66E+01	1.54E+01	1.44E+01	1.24E+01	1.00E+01	8.12E+00	6.55E+00	5.26E+00	4.24E+00
Y 91M	6.43E-05	6.13E+00	8.36E+00	8.96E+00	8.84E+00	7.94E+00	6.49E+00	5.22E+00	4.21E+00	3.40E+00	2.74E+00
Y 91	2.63E-08	5.45E-03	1.26E-02	2.01E-02	2.74E-02	4.11E-02	5.83E-02	7.21E-02	8.36E-02	9.26E-02	9.98E-02
SR 92	1.21E+01	5.41E+01	4.19E+01	3.24E+01	2.25E+01	2.15E+01	1.64E+01	1.12E+01	7.21E+00	4.44E+00	2.68E+00
Y 92	5.58E-01	1.14E+01	1.79E+01	2.12E+01	2.25E+01	2.15E+01	1.64E+01	1.12E+01	7.21E+00	4.44E+00	2.68E+00
SR 93	4.75E+02	8.18E+00	4.52E-02	2.50E-04	1.38E-06	4.21E-11	7.10E-18	1.12E-24	2.02E-31	3.41E-38	5.74E-45
Y 93	5.80E-01	1.87E+01	1.76E+01	1.65E+01	1.54E+01	1.34E+01	1.09E+01	8.94E+00	7.26E+00	5.96E+00	4.84E+00
Y 94	6.86E+01	9.37E+01	1.21E+01	1.55E+00	2.01E-01	3.33E-03	7.15E-06	1.53E-08	3.28E-11	7.15E-14	3.96E-15
Y 95	2.92E+02	2.75E+01	6.05E-01	1.34E-02	2.94E-04	1.43E-07	1.53E-12	1.63E-17	1.74E-22	1.86E-27	1.99E-32
ZR 95	1.10E-03	1.43E-01	1.46E-01	1.46E-01	1.46E-01	1.46E-01	1.46E-01	1.46E-01	1.46E-01	1.46E-01	1.46E-01
NB 95	1.22E-10	8.84E-05	2.06E-04	3.24E-04	4.42E-04	6.77E-04	1.03E-03	1.38E-03	1.73E-03	2.08E-03	2.43E-03
ZR 97	2.59E+00	1.13E+01	1.08E+01	1.04E+01	9.94E+00	9.18E+00	8.11E+00	7.18E+00	6.37E+00	5.62E+00	4.99E+00
NB 97M	1.33E-02	1.08E+01	1.04E+01	9.98E+00	9.58E+00	8.82E+00	7.80E+00	6.91E+00	6.11E+00	5.39E+00	4.77E+00
NB 97	1.30E+00	5.66E+00	7.98E+00	9.09E+00	9.54E+00	9.49E+00	8.65E+00	7.71E+00	6.82E+00	6.02E+00	5.35E+00
NB 98	1.45E+01	6.41E+00	2.83E+00	1.25E+00	5.55E-01	1.09E-01	9.39E-03	8.11E-04	7.07E-05	6.12E-06	5.27E-07
MO 99	7.51E-03	3.10E+00	3.07E+00	3.04E+00	3.01E+00	2.94E+00	2.86E+00	2.77E+00	2.69E+00	2.60E+00	2.52E+00
TC 99M	6.99E-08	2.96E-01	5.55E-01	7.85E-01	9.86E-01	1.32E+00	1.67E+00	1.90E+00	2.03E+00	2.11E+00	2.14E+00
MO101	1.02E+02	4.62E+01	2.68E+00	1.55E-01	9.02E-03	3.02E-05	5.87E-09	1.14E-12	2.22E-16	4.32E-20	8.42E-24
TC101	4.32E+00	1.30E+02	1.42E+01	1.16E+00	8.46E-02	3.82E-04	9.54E-08	2.14E-11	4.53E-15	9.33E-19	1.89E-22
MO102	8.09E+02	1.84E+01	4.20E-01	9.59E-03	2.19E-04	1.14E-07	1.35E-12	1.60E-17	1.90E-22	2.25E-27	2.68E-32
TC102M	5.20E-01	1.56E+01	3.57E-01	8.16E-03	1.86E-04	9.63E-08	1.14E-12	1.36E-17	1.61E-22	1.91E-27	2.26E-32
TC102	2.43E+03	9.28E+00	2.12E-01	4.81E-03	1.10E-04	5.74E-08	6.82E-13	8.09E-18	9.59E-23	1.14E-27	1.35E-32
RU103	5.34E-05	1.24E-01	1.24E-01	1.24E-01	1.24E-01	1.23E-01	1.23E-01	1.23E-01	1.23E-01	1.22E-01	1.22E-01
RH103M	3.56E-09	6.40E-02	9.48E-02	1.10E-01	1.17E-01	1.22E-01	1.23E-01	1.23E-01	1.23E-01	1.22E-01	1.22E-01
TC104	4.25E+01	3.05E+01	3.05E+00	3.02E-01	2.99E-02	2.94E-04	2.87E-07	2.81E-10	2.74E-13	2.68E-16	2.62E-19
RU105	3.02E-01	1.04E+01	8.92E+00	7.64E+00	6.54E+00	4.78E+00	3.00E+00	1.87E+00	1.17E+00	7.33E-01	4.60E-01
RH105M	1.98E-03	1.05E+01	8.94E+00	7.66E+00	6.54E+00	4.80E+00	3.00E+00	1.88E+00	1.18E+00	7.36E-01	4.60E-01
RH105	3.26E-09	2.12E-01	3.94E-01	5.44E-01	6.70E-01	8.57E-01	1.02E+00	1.10E+00	1.12E+00	1.11E+00	1.08E+00
RU106	2.41E-04	4.56E-03	4.56E-03	4.56E-03	4.56E-03	4.56E-03	4.56E-03	4.56E-03	4.56E-03	4.56E-03	4.56E-03
RH106	2.61E-06	4.56E-03	4.56E-03	4.56E-03	4.56E-03	4.56E-03	4.56E-03	4.56E-03	4.56E-03	4.56E-03	4.56E-03
RH107	4.91E-02	6.67E+00	1.01E+00	1.52E-01	2.30E-02	5.24E-04	1.80E-06	6.22E-09	2.14E-11	7.32E-14	7.29E-18
PD107M	1.02E-04	1.36E+00	2.05E-01	3.10E-02	4.67E-03	1.07E-04	3.67E-07	1.27E-09	4.35E-12	1.50E-14	5.13E-17

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO	TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
PD109	5.83E-03	4.84E-01	4.60E-01	4.36E-01	4.14E-01	3.74E-01	3.21E-01	2.75E-01	2.36E-01	2.02E-01	1.74E-01	
AG109M	3.36E-05	4.84E-01	4.60E-01	4.37E-01	4.15E-01	3.75E-01	3.21E-01	2.75E-01	2.36E-01	2.02E-01	1.74E-01	
PD111M	8.86E-01	7.80E-01	6.88E-01	6.08E-01	5.36E-01	4.17E-01	2.85E-01	1.95E-01	1.34E-01	9.16E-02	6.28E-02	
PD111	3.15E-01	5.69E-01	5.46E-01	4.86E-01	4.30E-01	3.34E-01	2.29E-01	1.57E-01	1.07E-01	7.37E-02	5.06E-02	
AG111M	2.51E-03	7.67E-01	7.21E-01	6.45E-01	5.69E-01	4.40E-01	3.01E-01	2.06E-01	1.41E-01	9.69E-02	6.61E-02	
AG111	8.93E-10	2.65E-03	5.55E-03	8.17E-03	1.05E-02	1.43E-02	1.84E-02	2.10E-02	2.28E-02	2.39E-02	2.45E-02	
PD112	2.55E-01	2.47E-01	2.38E-01	2.31E-01	2.24E-01	2.09E-01	1.89E-01	1.72E-01	1.55E-01	1.41E-01	1.27E-01	
AG112	7.67E-06	4.88E-02	8.62E-02	1.16E-01	1.37E-01	1.65E-01	1.81E-01	1.80E-01	1.72E-01	1.60E-01	1.48E-01	
AG113	3.31E-03	7.09E-01	6.21E-01	5.46E-01	4.78E-01	3.68E-01	2.49E-01	1.68E-01	1.14E-01	7.67E-02	5.18E-02	
AG115	1.36E+00	1.46E+00	1.81E-01	2.27E-02	2.84E-03	4.44E-05	8.67E-08	1.70E-10	3.28E-13	3.26E-16	3.02E-16	
CD115M	1.11E-08	2.96E-04	3.33E-04	3.37E-04	3.37E-04	3.37E-04	3.36E-04	3.36E-04	3.35E-04	3.34E-04	3.34E-04	
CD115	4.30E-06	8.10E-02	8.71E-02	8.69E-02	8.58E-02	8.37E-02	8.05E-02	7.74E-02	7.45E-02	7.17E-02	6.89E-02	
IN115M	5.36E-11	8.94E-03	1.99E-02	2.95E-02	3.76E-02	5.01E-02	6.19E-02	6.81E-02	7.10E-02	7.17E-02	7.12E-02	
CD117	9.58E-02	1.60E+00	1.20E+00	8.98E-01	6.73E-01	3.77E-01	1.58E-01	6.67E-02	2.81E-02	1.18E-02	4.97E-03	
IN117M	4.61E-06	5.55E-01	8.03E-01	8.72E-01	8.43E-01	6.64E-01	3.80E-01	1.94E-01	9.34E-02	4.32E-02	1.95E-02	
IN117	1.85E-10	1.01E-01	2.45E-01	3.40E-01	3.80E-01	3.49E-01	2.22E-01	1.19E-01	5.92E-02	2.79E-02	1.28E-02	
CD118	6.39E+00	2.74E+00	1.17E+00	5.01E-01	2.14E-01	3.92E-02	3.08E-03	2.41E-04	1.89E-05	1.48E-06	1.16E-07	
IN118	4.23E-01	2.74E+00	1.17E+00	5.02E-01	2.14E-01	3.93E-02	3.08E-03	2.42E-04	1.89E-05	1.48E-06	1.16E-07	
CD119	1.60E+01	2.49E-01	3.89E-03	6.08E-05	9.50E-07	2.32E-10	8.86E-16	3.39E-21	1.29E-26	4.92E-32	1.88E-37	
IN119M	2.41E-02	2.69E+00	2.93E-01	2.96E-02	2.94E-03	2.90E-05	2.82E-08	2.77E-11	2.69E-14	2.63E-17	2.57E-20	
IN119	1.19E+00	1.42E-01	1.64E-02	1.67E-03	1.67E-04	1.63E-06	1.60E-09	1.56E-12	1.53E-15	1.49E-18	1.45E-21	
SN121	1.98E-03	2.04E-01	1.98E-01	1.94E-01	1.89E-01	1.80E-01	1.66E-01	1.54E-01	1.42E-01	1.32E-01	1.22E-01	
SN123M	9.86E-01	1.84E+00	6.53E-01	2.31E-01	8.16E-02	1.02E-02	4.51E-04	2.00E-05	8.84E-07	3.90E-08	1.72E-09	
SN123	9.26E-06	9.69E-04	9.69E-04	9.69E-04	9.69E-04	9.69E-04	9.69E-04	9.69E-04	9.69E-04	9.69E-04	9.69E-04	
SN125	2.14E-02	2.14E-02	2.13E-02	2.13E-02	2.11E-02	2.10E-02	2.09E-02	2.06E-02	2.05E-02	2.02E-02	2.01E-02	
SB125	1.29E-04	1.29E-04	1.30E-04	1.30E-04	1.31E-04	1.32E-04	1.34E-04	1.36E-04	1.38E-04	1.39E-04	1.41E-04	
SB126	2.98E-03	2.97E-03	2.96E-03	2.96E-03	2.95E-03	2.94E-03	2.92E-03	2.90E-03	2.87E-03	2.86E-03	2.84E-03	
SN127	3.48E+00	2.50E+00	1.80E+00	1.29E+00	9.32E-01	4.81E-01	1.79E-01	6.64E-02	2.46E-02	9.15E-03	3.40E-03	
SB127	4.06E-02	1.40E-01	1.55E-01	1.65E-01	1.72E-01	1.80E-01	1.82E-01	1.81E-01	1.78E-01	1.74E-01	1.71E-01	
TE127	2.29E-02	2.86E-02	3.47E-02	4.12E-02	4.76E-02	5.97E-02	7.65E-02	8.93E-02	9.93E-02	1.07E-01	1.12E-01	
SN128	2.24E+01	1.10E+01	5.47E+00	2.70E+00	1.34E+00	3.26E-01	3.94E-02	4.75E-03	5.73E-04	6.95E-05	8.37E-06	
SB128M	1.14E-02	1.26E+01	6.53E+00	3.22E+00	1.59E+00	3.90E-01	4.69E-02	5.66E-03	6.83E-04	8.25E-05	9.98E-06	
SB128	9.44E-01	9.09E-01	8.55E-01	8.02E-01	7.48E-01	6.41E-01	5.12E-01	4.06E-01	3.22E-01	2.56E-01	2.03E-01	
SN129M	1.32E+01	6.58E+00	3.30E+00	1.65E+00	8.26E-01	2.06E-01	2.58E-02	3.23E-03	4.03E-04	5.04E-05	6.30E-06	
SN129	8.82E+01	8.65E-01	8.54E-03	8.42E-05	8.26E-07	8.03E-11	7.64E-17	7.31E-23	6.97E-29	6.64E-35	6.36E-41	
SB129	4.96E+00	8.31E+00	7.81E+00	6.97E+00	6.14E+00	4.56E+00	2.84E+00	1.76E+00	1.08E+00	6.69E-01	4.12E-01	
TE129M	9.37E-08	1.04E-03	2.14E-03	3.14E-03	4.03E-03	5.47E-03	6.92E-03	7.81E-03	8.37E-03	8.70E-03	8.93E-03	
TE129	3.57E+00	4.91E+00	5.75E+00	5.97E+00	5.75E+00	4.76E+00	3.17E+00	2.00E+00	1.24E+00	7.70E-01	4.78E-01	
SB130M	4.45E-01	8.40E-01	2.21E-03	5.79E-06	1.53E-08	1.05E-13	1.92E-21	3.49E-29	6.32E-37	1.15E-44	2.09E-52	
SB130	7.63E+01	2.31E+01	6.57E+00	1.86E+00	5.26E-01	4.23E-02	9.66E-04	2.20E-05	5.02E-07	1.14E-08	2.61E-10	

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
I130	2.12E-02	2.01E-02	1.90E-02	1.80E-02	1.70E-02	1.52E-02	1.28E-02	1.09E-02	9.17E-03	7.77E-03	6.57E-03
SB131	1.64E+02	4.28E+01	6.99E+00	1.15E+00	1.88E-01	5.07E-03	2.23E-05	9.87E-08	4.34E-10	1.92E-12	9.55E-15
TE131M	7.88E-05	4.12E-01	4.70E-01	4.71E-01	4.62E-01	4.42E-01	4.12E-01	3.84E-01	3.59E-01	3.35E-01	3.12E-01
TE131	7.26E+01	7.88E+01	2.57E+01	6.68E+00	1.62E+00	1.52E-01	7.57E-02	6.99E-02	6.52E-02	6.11E-02	5.69E-02
I131	1.05E-02	3.65E-01	5.38E-01	5.90E-01	6.00E-01	6.05E-01	6.05E-01	6.00E-01	6.00E-01	5.95E-01	5.95E-01
TE132	8.36E-01	2.03E+00	2.01E+00	2.00E+00	1.98E+00	1.94E+00	1.89E+00	1.84E+00	1.79E+00	1.74E+00	1.70E+00
I132	2.05E+00	2.05E+00	2.04E+00	2.03E+00	2.02E+00	1.99E+00	1.95E+00	1.89E+00	1.84E+00	1.80E+00	1.75E+00
TE133M	1.03E-01	3.55E+01	1.55E+01	6.74E+00	2.93E+00	5.56E-01	4.58E-02	3.78E-03	3.11E-04	2.57E-05	2.12E-06
TE133	5.76E+02	3.27E+01	3.63E+00	1.20E+00	5.08E-01	9.62E-02	7.96E-03	6.54E-04	5.42E-05	4.46E-06	3.68E-07
I133	8.93E-01	9.62E+00	1.04E+01	1.04E+01	1.02E+01	9.67E+00	8.79E+00	7.96E+00	7.18E+00	6.54E+00	5.91E+00
XE133M	3.80E-08	2.16E-03	5.22E-03	8.35E-03	1.14E-02	1.71E-02	2.47E-02	3.14E-02	3.70E-02	4.18E-02	4.58E-02
XE133	6.64E-07	3.78E-02	9.18E-02	1.46E-01	2.01E-01	3.05E-01	4.47E-01	5.71E-01	6.83E-01	7.81E-01	8.69E-01
TE134	1.77E+02	8.19E+01	3.05E+01	1.13E+01	4.20E+00	5.83E-01	2.98E-02	1.53E-03	7.82E-05	4.01E-06	2.06E-07
I134	8.09E+01	1.08E+02	7.59E+01	4.44E+01	2.39E+01	6.06E+00	6.66E-01	6.80E-02	6.66E-03	6.38E-04	6.06E-05
I135	1.49E+01	2.63E+01	2.37E+01	2.14E+01	1.93E+01	1.57E+01	1.15E+01	8.41E+00	6.18E+00	4.55E+00	3.32E+00
XE135M	1.65E-03	7.60E+00	7.38E+00	6.70E+00	6.01E+00	4.89E+00	3.59E+00	2.63E+00	1.93E+00	1.42E+00	1.04E+00
XE135	1.72E+00	3.40E+00	4.98E+00	6.27E+00	7.30E+00	8.76E+00	9.70E+00	9.74E+00	9.27E+00	8.46E+00	7.55E+00
CS136	4.39E-03	4.37E-03	4.36E-03	4.36E-03	4.34E-03	4.32E-03	4.29E-03	4.27E-03	4.24E-03	4.21E-03	4.18E-03
CS137	7.37E-05	7.95E-04	7.95E-04	7.95E-04	7.95E-04	7.95E-04	7.95E-04	7.95E-04	7.95E-04	7.95E-04	7.95E-04
BA137M	1.55E-07	7.42E-04	7.42E-04	7.42E-04	7.42E-04	7.42E-04	7.42E-04	7.42E-04	7.42E-04	7.42E-04	7.42E-04
XE138	5.98E+02	5.14E+01	4.47E+00	3.87E-01	3.35E-02	2.52E-04	1.64E-07	1.06E-10	6.90E-14	4.48E-17	2.91E-20
CS138	8.90E+01	1.50E+02	5.19E+01	1.52E+01	4.27E+00	3.25E-01	6.76E-03	1.40E-04	2.91E-06	6.07E-08	1.26E-09
CS139	5.26E+02	1.68E+01	2.10E-01	2.64E-03	3.32E-05	5.21E-09	1.04E-14	2.05E-20	4.06E-26	8.04E-32	1.59E-37
BA139	9.71E+00	1.08E+02	6.67E+01	4.06E+01	2.45E+01	9.00E+00	2.00E+00	4.43E-01	9.86E-02	2.18E-02	4.85E-03
BA140	1.07E-01	6.66E-01	6.66E-01	6.61E-01	6.61E-01	6.56E-01	6.56E-01	6.51E-01	6.46E-01	6.41E-01	6.35E-01
LA140	2.54E-07	1.14E-02	2.26E-02	3.35E-02	4.42E-02	6.51E-02	9.51E-02	1.23E-01	1.49E-01	1.74E-01	1.98E-01
BA141	2.04E+02	6.18E+01	6.13E+00	6.09E-01	6.04E-02	5.99E-04	5.84E-07	5.70E-10	5.55E-13	5.45E-16	5.31E-19
LA141	1.89E+00	4.00E+01	3.73E+01	3.16E+01	2.65E+01	1.86E+01	1.09E+01	6.38E+00	3.75E+00	2.20E+00	1.29E+00
CE141	2.34E-07	2.60E-02	6.09E-02	9.15E-02	1.17E-01	1.57E-01	1.95E-01	2.17E-01	2.30E-01	2.37E-01	2.41E-01
BA142	5.36E+02	2.13E+01	4.86E-01	1.11E-02	2.53E-04	1.31E-07	1.56E-12	1.85E-17	2.19E-22	2.60E-27	3.09E-32
LA142	1.23E+01	8.54E+01	5.64E+01	3.59E+01	2.28E+01	9.23E+00	2.38E+00	6.14E-01	1.58E-01	4.07E-02	1.05E-02
LA143	2.07E+02	4.05E+01	2.07E+00	1.07E-01	5.48E-03	1.43E-05	1.93E-09	2.61E-13	3.51E-17	4.74E-21	6.40E-25
CE143	8.29E-02	5.28E+00	5.48E+00	5.33E+00	5.23E+00	5.04E+00	4.72E+00	4.43E+00	4.16E+00	3.91E+00	3.67E+00
PR143	2.42E-08	8.09E-03	1.95E-02	3.09E-02	4.20E-02	6.35E-02	9.35E-02	1.22E-01	1.48E-01	1.73E-01	1.96E-01
CE144	3.36E-03	2.41E-02	2.41E-02	2.41E-02	2.41E-02	2.41E-02	2.41E-02	2.40E-02	2.40E-02	2.40E-02	2.40E-02
PR144	9.22E-07	2.19E-02	2.39E-02	2.40E-02	2.41E-02	2.41E-02	2.41E-02	2.41E-02	2.40E-02	2.40E-02	2.40E-02
PR145	1.32E-01	1.94E+01	1.73E+01	1.54E+01	1.37E+01	1.09E+01	7.65E+00	5.40E+00	3.83E+00	2.70E+00	1.91E+00
CE146	3.74E+02	1.92E+01	9.84E-01	5.03E-02	2.59E-03	6.82E-06	9.18E-10	1.24E-13	1.67E-17	2.25E-21	3.03E-25
PR146	7.74E+00	6.73E+01	1.53E+01	2.87E+00	5.16E-01	1.62E-02	8.96E-05	4.94E-07	2.74E-09	1.51E-11	8.26E-14
PR147	4.39E+01	1.27E+01	3.96E-01	1.24E-02	3.87E-04	3.78E-07	1.15E-11	3.53E-16	1.08E-20	3.29E-25	1.00E-29

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
ND147	1.57E-05	2.95E-01	3.03E-01	3.03E-01	3.02E-01	3.00E-01	2.98E-01	2.96E-01	2.93E-01	2.91E-01	2.89E-01
ND149	2.05E+01	1.40E+01	9.50E+00	6.47E+00	4.38E+00	2.04E+00	6.40E-01	2.02E-01	6.36E-02	2.00E-02	6.32E-03
PM149	2.86E-03	2.23E-01	3.71E-01	4.69E-01	5.31E-01	5.97E-01	6.20E-01	6.09E-01	5.93E-01	5.70E-01	5.51E-01
PM150	2.32E-01	1.80E-01	1.39E-01	1.07E-01	8.29E-02	4.98E-02	2.30E-02	1.07E-02	4.94E-03	2.29E-03	1.06E-03
ND151	7.21E+01	2.25E+00	7.05E-02	2.20E-03	6.89E-05	6.73E-08	2.05E-12	6.28E-17	1.91E-21	5.83E-26	1.78E-30
PM151	4.57E-02	5.35E-01	5.38E-01	5.25E-01	5.12E-01	4.86E-01	4.51E-01	4.19E-01	3.90E-01	3.61E-01	3.35E-01
PM152	1.13E+02	1.11E-01	1.08E-04	1.05E-07	1.03E-10	9.83E-17	9.15E-26	8.54E-35	7.95E-44	7.43E-53	6.90E-62
SM153	1.49E-01	1.47E-01	1.45E-01	1.43E-01	1.41E-01	1.37E-01	1.31E-01	1.25E-01	1.20E-01	1.15E-01	1.10E-01
SM155	1.31E+01	2.16E+00	3.53E-01	5.78E-02	9.48E-03	2.55E-04	1.13E-06	4.95E-09	2.19E-11	9.74E-14	2.39E-16
EU155	9.65E-06	2.75E-04	3.19E-04	3.26E-04	3.27E-04	3.27E-04	3.27E-04	3.27E-04	3.27E-04	3.27E-04	3.27E-04
SM156	9.45E-02	8.77E-02	8.15E-02	7.57E-02	7.03E-02	6.07E-02	4.86E-02	3.90E-02	3.13E-02	2.50E-02	2.00E-02
EU156	2.76E-04	4.51E-04	6.12E-04	7.62E-04	9.02E-04	1.15E-03	1.46E-03	1.69E-03	1.90E-03	2.04E-03	2.15E-03
EU157	1.51E-02	5.02E-02	4.79E-02	4.58E-02	4.36E-02	3.99E-02	3.48E-02	3.04E-02	2.65E-02	2.30E-02	2.01E-02
EU158	3.60E-01	1.46E-01	5.90E-02	2.39E-02	9.68E-03	1.58E-03	1.06E-04	7.00E-06	4.65E-07	3.09E-08	2.05E-09
EU159	4.71E-01	4.68E-02	4.64E-03	4.61E-04	4.57E-05	4.50E-07	4.40E-10	4.29E-13	4.19E-16	4.10E-19	4.00E-22
GD159	2.02E-03	8.84E-03	9.19E-03	8.91E-03	8.58E-03	7.94E-03	7.08E-03	6.31E-03	5.62E-03	5.00E-03	4.46E-03
TB161	3.04E-05	2.19E-04	2.17E-04	2.17E-04	2.16E-04	2.14E-04	2.12E-04	2.09E-04	2.06E-04	2.04E-04	2.01E-04
TOTAL	8.79E+03	2.01E+03	8.35E+02	5.33E+02	3.99E+02	2.71E+02	1.85E+02	1.39E+02	1.10E+02	8.95E+01	7.50E+01

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 8

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
BE 7	2.68E-04	2.65E-04	2.61E-04	2.52E-04	2.36E-04	2.07E-04	1.82E-04	1.40E-04	7.31E-05	1.99E-05	5.40E-06
NA 24	1.76E-02	5.82E-03	1.92E-03	6.89E-05	2.69E-07	4.12E-12	6.28E-17	1.46E-26	0.	0.	0.
MN 54	6.86E-05	6.80E-05	6.80E-05	6.68E-05	6.62E-05	6.50E-05	6.38E-05	6.07E-05	5.42E-05	4.31E-05	3.44E-05
FE 55	1.66E-04	1.66E-04	1.66E-04	1.65E-04	1.65E-04	1.64E-04	1.63E-04	1.60E-04	1.54E-04	1.44E-04	1.33E-04
FE 59	5.90E-05	5.81E-05	5.72E-05	5.47E-05	5.06E-05	4.34E-05	3.72E-05	2.73E-05	1.27E-05	2.71E-06	5.81E-07
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CU 64	4.51E-02	1.23E-02	3.35E-03	6.80E-05	1.02E-07	2.32E-13	5.25E-19	2.70E-30	0.	0.	0.
CU 67	5.46E-05	4.17E-05	3.18E-05	1.42E-05	3.69E-06	2.48E-07	1.68E-08	7.61E-11	1.06E-16	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W187	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PB203	1.94E-04	1.41E-04	1.02E-04	3.91E-05	7.94E-06	3.26E-07	1.34E-08	2.25E-11	2.63E-18	0.	0.
U237	3.01E-01	2.72E-01	2.45E-01	1.80E-01	1.08E-01	3.86E-02	1.39E-02	1.77E-03	1.05E-05	1.12E-09	7.59E-10
U240	7.41E-01	2.28E-01	7.01E-02	2.03E-03	5.58E-06	4.19E-11	3.15E-16	1.78E-26	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP239	4.25E-04	6.49E-01	4.83E-01	1.99E-01	4.56E-02	2.39E-03	1.25E-04	3.43E-07	1.35E-13	3.22E-23	3.22E-23
NP240M	1.17E-03	2.30E-01	7.06E-02	2.05E-03	5.62E-06	4.23E-11	3.18E-16	1.79E-26	0.	0.	0.
AM241	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10
CM242	4.60E-09	4.57E-09	4.55E-09	4.50E-09	4.41E-09	4.22E-09	4.05E-09	3.72E-09	3.03E-09	1.97E-09	1.29E-09
GE 77	4.90E-03	3.08E-03	7.06E-04	8.53E-06	5.43E-09	2.20E-15	8.85E-22	1.45E-34	0.	0.	0.
AS 77	5.06E-05	7.48E-03	5.41E-03	1.56E-03	1.83E-04	2.49E-06	3.37E-08	6.22E-12	2.88E-21	6.19E-40	1.33E-58
SE 77M	2.00E-09	2.25E-05	1.62E-05	4.70E-06	5.48E-07	7.46E-09	1.01E-10	1.87E-14	8.65E-24	1.85E-42	3.99E-61
AS 78	1.18E-02	1.05E-04	3.08E-09	2.60E-23	0.	0.	0.	0.	0.	0.	0.
BR 82	4.10E-04	2.56E-04	1.60E-04	3.89E-05	3.68E-06	3.31E-08	2.97E-10	2.40E-14	1.40E-24	4.81E-45	1.64E-65
BR 83	3.23E-01	8.51E-03	8.56E-06	8.70E-15	8.88E-30	0.	0.	0.	0.	0.	0.
KR 83M	1.67E-05	3.72E-02	4.23E-05	3.80E-14	3.90E-29	0.	0.	0.	0.	0.	0.
KR 85M	4.20E-03	2.40E-01	5.47E-03	6.49E-08	4.00E-16	1.52E-32	5.76E-49	0.	0.	0.	0.
KR 85	4.35E-06	1.14E-04	1.16E-04	1.16E-04	1.16E-04	1.16E-04	1.16E-04	1.16E-04	1.15E-04	1.12E-04	1.11E-04
KR 87	6.87E+01	1.36E-04	2.68E-10	2.08E-27	0.	0.	0.	0.	0.	0.	0.
KR 88	3.98E+01	1.05E-01	2.75E-04	4.99E-12	6.29E-25	0.	0.	0.	0.	0.	0.
RB 88	1.01E+01	1.17E-01	3.08E-04	5.59E-12	7.01E-25	0.	0.	0.	0.	0.	0.
SR 89	3.63E-06	1.09E-01	1.07E-01	1.03E-01	9.65E-02	8.43E-02	7.37E-02	5.67E-02	2.90E-02	7.64E-03	2.02E-03
SR 90	7.18E-06	7.37E-04	7.37E-04	7.37E-04	7.37E-04	7.37E-04	7.37E-04	7.37E-04	7.31E-04	7.31E-04	7.24E-04
Y 90	1.06E-11	1.69E-04	2.99E-04	5.37E-04	6.85E-04	7.31E-04	7.37E-04	7.37E-04	7.31E-04	7.31E-04	7.24E-04
SR 91	9.56E-01	3.42E+00	6.13E-01	3.52E-03	6.43E-07	2.18E-14	7.39E-22	8.42E-37	0.	0.	0.

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO	TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
Y 91M	6.43E-05	2.21E+00	3.96E-01	2.27E-03	4.17E-07	1.41E-14	4.76E-22	5.43E-37	0.	0.	0.	0.
Y 91	2.63E-08	1.05E-01	1.24E-01	1.24E-01	1.17E-01	1.04E-01	9.26E-02	7.33E-02	4.06E-02	1.25E-02	3.84E-03	0.
SR 92	1.21E+01	1.51E-01	3.26E-04	3.27E-12	1.53E-25	0.	0.	0.	0.	0.	0.	0.
Y 92	5.58E-01	1.53E+00	1.76E-02	1.35E-08	7.88E-19	2.70E-39	9.24E-60	0.	0.	0.	0.	0.
Y 93	5.80E-01	3.92E+00	7.64E-01	5.74E-03	1.65E-06	1.36E-13	1.13E-20	7.69E-35	0.	0.	0.	0.
ZR 95	1.10E-03	1.37E-01	1.35E-01	1.31E-01	1.24E-01	1.11E-01	1.00E-01	8.12E-02	4.76E-02	1.64E-02	5.62E-03	0.
NB 95M	2.33E-11	4.64E-04	8.45E-04	1.61E-03	2.18E-03	2.30E-03	2.12E-03	1.72E-03	1.01E-03	3.47E-04	1.20E-04	0.
NB 95	1.22E-10	2.65E-03	5.24E-03	1.25E-02	2.33E-02	4.02E-02	5.19E-02	6.44E-02	6.20E-02	2.98E-02	1.14E-02	0.
ZR 97	2.59E+00	4.41E+00	1.66E+00	8.78E-02	6.60E-04	3.71E-08	2.09E-12	6.60E-21	3.72E-42	0.	0.	0.
NB 97M	1.33E-02	4.23E+00	1.59E+00	8.47E-02	6.33E-04	3.57E-08	2.01E-12	6.33E-21	3.58E-42	0.	0.	0.
NB 97	1.30E+00	4.43E+00	1.66E+00	8.82E-02	6.64E-04	4.00E-08	2.25E-12	7.13E-21	4.01E-42	0.	0.	0.
MO 99	7.51E-03	2.45E+00	1.91E+00	9.05E-01	2.62E-01	2.19E-02	1.82E-03	1.27E-05	5.17E-11	8.52E-22	1.40E-32	0.
TC 99M	6.99E-08	2.15E+00	1.81E+00	8.66E-01	2.50E-01	2.09E-02	1.74E-03	1.22E-05	4.93E-11	8.14E-22	1.34E-32	0.
RU103	5.34E-05	1.22E-01	1.19E-01	1.13E-01	1.04E-01	8.73E-02	7.33E-02	5.17E-02	2.15E-02	3.73E-03	6.50E-04	0.
RH103M	3.56E-09	1.22E-01	1.20E-01	1.14E-01	1.04E-01	8.73E-02	7.33E-02	5.17E-02	2.15E-02	3.73E-03	6.50E-04	0.
RU105	3.02E-01	2.89E-01	6.78E-03	8.92E-08	6.52E-16	3.48E-32	1.87E-48	0.	0.	0.	0.	0.
RH105M	1.98E-03	2.89E-01	6.81E-03	8.94E-08	6.54E-16	3.50E-32	1.87E-48	0.	0.	0.	0.	0.
RH105	3.26E-09	1.04E+00	6.81E-01	1.70E-01	1.67E-02	1.63E-04	1.58E-06	1.49E-10	1.29E-20	9.71E-41	7.29E-61	0.
RU106	2.41E-04	4.56E-03	4.54E-03	4.52E-03	4.48E-03	4.40E-03	4.31E-03	4.15E-03	3.77E-03	3.12E-03	2.59E-03	0.
RH106	2.61E-06	4.56E-03	4.54E-03	4.52E-03	4.48E-03	4.40E-03	4.31E-03	4.15E-03	3.77E-03	3.12E-03	2.59E-03	0.
PD109	5.83E-03	1.49E-01	4.32E-02	1.07E-03	2.26E-06	1.01E-11	4.49E-17	8.88E-28	0.	0.	0.	0.
AG109M	3.36E-05	1.49E-01	4.34E-02	1.07E-03	2.27E-06	1.01E-11	4.49E-17	8.89E-28	0.	0.	0.	0.
PD111M	8.86E-01	4.30E-02	2.09E-03	2.40E-07	6.48E-14	4.73E-27	3.47E-40	0.	0.	0.	0.	0.
PD111	3.15E-01	3.47E-02	1.68E-03	1.93E-07	5.22E-14	3.80E-27	2.79E-40	0.	0.	0.	0.	0.
AG111M	2.51E-03	4.53E-02	2.21E-03	2.54E-07	6.84E-14	5.03E-27	3.67E-40	0.	0.	0.	0.	0.
AG111	8.93E-10	2.46E-02	2.37E-02	1.80E-02	1.13E-02	4.50E-03	1.79E-03	2.81E-04	2.77E-06	2.68E-10	2.60E-14	0.
PD112	2.55E-01	1.16E-01	5.23E-02	4.86E-03	9.24E-05	3.35E-08	1.22E-11	1.60E-18	1.01E-35	0.	0.	0.
AG112	7.67E-06	1.34E-01	6.17E-02	5.73E-03	1.09E-04	3.96E-08	1.44E-11	1.89E-18	1.19E-35	0.	0.	0.
AG113	3.31E-03	3.50E-02	1.51E-03	1.23E-07	1.88E-14	4.41E-28	1.03E-41	0.	0.	0.	0.	0.
CD115M	1.11E-08	3.22E-04	3.16E-04	3.01E-04	2.79E-04	2.36E-04	2.02E-04	1.46E-04	6.52E-05	1.30E-05	2.59E-06	0.
CD115	4.30E-06	6.47E-02	4.74E-02	1.87E-02	3.94E-03	1.76E-04	7.85E-06	1.57E-08	2.76E-15	8.66E-29	2.71E-42	0.
IN115M	5.36E-11	6.82E-02	5.17E-02	2.04E-02	4.30E-03	1.92E-04	8.56E-06	1.71E-08	3.02E-15	9.46E-29	2.96E-42	0.
CD117	9.58E-02	2.09E-03	2.03E-06	1.90E-15	1.69E-30	0.	0.	0.	0.	0.	0.	0.
IN117M	4.61E-06	8.67E-03	1.00E-05	9.68E-15	8.60E-30	0.	0.	0.	0.	0.	0.	0.
IN117	1.85E-10	5.72E-03	6.77E-06	6.56E-15	5.82E-30	0.	0.	0.	0.	0.	0.	0.
SN121	1.98E-03	1.13E-01	6.10E-02	9.61E-03	4.41E-04	9.31E-07	1.96E-09	8.74E-15	3.65E-28	0.	0.	0.
SN123	9.26E-06	9.69E-04	9.60E-04	9.43E-04	9.18E-04	8.67E-04	8.22E-04	7.36E-04	5.57E-04	3.20E-04	1.84E-04	0.
SN125	2.14E-02	1.99E-02	1.85E-02	1.48E-02	1.02E-02	4.91E-03	2.34E-03	5.36E-04	1.34E-05	8.45E-09	5.29E-12	0.
SB125	1.29E-04	1.43E-04	1.56E-04	1.91E-04	2.34E-04	2.83E-04	3.05E-04	3.18E-04	3.12E-04	2.91E-04	2.71E-04	0.
SB126	2.98E-03	2.82E-03	2.67E-03	2.26E-03	1.71E-03	9.80E-04	5.65E-04	1.86E-04	1.16E-05	5.65E-08	1.14E-08	0.

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 10

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO	TIME	1 00E+00	2 00E+00	5 00E+00	1 00E+01	2 00E+01	3 00E+01	5 00E+01	1 00E+02	2 00E+02	3 00E+02
SN127	3.48E+00	1.26E-03	4.58E-07	2.19E-17	1.37E-34	0.	0.	0.	0.	0.	0.	0.
SB127	4.06E-02	1.67E-01	1.40E-01	8.15E-02	3.34E-02	5.58E-03	9.32E-04	2.61E-05	3.40E-09	5.80E-17	9.88E-25	0.
TE127M	3.29E-10	2.54E-04	4.66E-04	9.04E-04	1.25E-03	1.38E-03	1.33E-03	1.18E-03	8.59E-04	4.54E-04	2.40E-04	0.
TE127	2.29E-02	1.19E-01	1.17E-01	7.14E-02	3.02E-02	6.19E-03	2.12E-03	1.19E-03	8.48E-04	4.49E-04	2.37E-04	0.
SB128	9.44E-01	1.61E-01	2.54E-02	9.92E-05	9.62E-09	9.03E-17	8.49E-25	7.48E-41	0.	0.	0.	0.
SB129	4.96E+00	2.54E-01	5.30E-03	4.83E-08	1.92E-16	3.03E-33	4.78E-50	0.	0.	0.	0.	0.
TE129M	9.37E-08	9.88E-03	9.88E-03	9.32E-03	8.42E-03	6.86E-03	5.58E-03	3.72E-03	1.34E-03	1.75E-04	2.27E-05	0.
TE129	3.57E+00	2.97E-01	1.24E-02	5.97E-03	5.38E-03	4.39E-03	3.58E-03	2.38E-03	8.59E-04	1.12E-04	1.46E-05	0.
I130	2.12E-02	5.55E-03	1.45E-03	2.60E-05	3.17E-08	4.73E-14	7.05E-20	1.57E-31	0.	0.	0.	0.
TE131M	7.88E-05	2.76E-01	1.58E-01	3.00E-02	1.87E-03	7.31E-06	2.86E-08	4.36E-13	3.97E-25	0.	0.	0.
TE131	7.26E+01	5.03E-02	2.89E-02	5.48E-03	3.42E-04	1.34E-06	5.21E-09	7.99E-14	7.26E-26	0.	0.	0.
I131	1.05E-02	5.69E-01	5.38E-01	4.32E-01	2.84E-01	1.20E-01	5.08E-02	9.08E-03	1.23E-04	2.23E-08	4.07E-12	0.
XE131M	2.86E-11	2.64E-04	5.01E-04	1.04E-03	1.49E-03	1.48E-03	1.10E-03	4.53E-04	3.02E-05	9.03E-08	2.55E-10	0.
TE132	8.36E-01	1.66E+00	1.34E+00	7.04E-01	2.43E-01	2.88E-02	3.41E-03	4.79E-05	1.12E-09	6.13E-19	3.34E-28	0.
I132	2.05E+00	1.71E+00	1.38E+00	7.25E-01	2.50E-01	2.96E-02	3.51E-03	4.94E-05	1.16E-09	6.28E-19	3.45E-28	0.
I133	8.93E-01	4.98E+00	2.25E+00	2.08E-01	3.97E-03	1.44E-06	5.22E-10	6.88E-17	4.33E-34	0.	0.	0.
XE133M	3.80E-08	4.70E-02	5.56E-02	3.27E-02	7.66E-03	3.60E-04	1.67E-05	3.63E-08	7.96E-15	3.80E-28	1.82E-41	0.
XE133	6.64E-07	9.03E-01	1.21E+00	1.08E+00	5.91E-01	1.60E-01	4.29E-02	3.09E-03	4.31E-06	8.35E-12	1.62E-17	0.
I135	1.49E+01	2.44E+00	2.03E-01	1.18E-04	4.81E-10	7.94E-21	1.30E-31	3.55E-53	0.	0.	0.	0.
XE135M	1.65E-03	7.60E-01	6.35E-02	3.70E-05	1.50E-10	2.47E-21	4.07E-32	1.11E-53	0.	0.	0.	0.
XE135	1.72E+00	6.57E+00	1.61E+00	9.19E-03	1.12E-06	1.58E-14	2.21E-22	4.38E-38	0.	0.	0.	0.
CS136	4.39E-03	4.16E-03	3.94E-03	3.36E-03	2.57E-03	1.51E-03	8.88E-04	3.05E-04	2.12E-05	1.02E-07	4.95E-10	0.
CS137	7.37E-05	7.95E-04	7.95E-04	7.95E-04	7.95E-04	7.95E-04	7.95E-04	7.95E-04	7.90E-04	7.86E-04	7.81E-04	0.
BA137M	1.55E-07	7.42E-04	7.42E-04	7.42E-04	7.42E-04	7.42E-04	7.42E-04	7.42E-04	7.37E-04	7.33E-04	7.28E-04	0.
BA139	9.71E+00	1.04E-03	6.12E-09	1.26E-24	0.	0.	0.	0.	0.	0.	0.	0.
BA140	1.07E-01	6.30E-01	6.09E-01	5.08E-01	3.88E-01	2.26E-01	1.31E-01	4.45E-02	2.97E-03	1.32E-05	5.85E-08	0.
LA140	2.54E-07	2.20E-01	3.53E-01	4.89E-01	4.34E-01	2.60E-01	1.51E-01	5.13E-02	3.41E-03	1.52E-05	6.76E-08	0.
LA141	1.89E+00	7.50E-01	1.05E-02	2.91E-03	1.59E-17	4.75E-26	1.42E-54	0.	0.	0.	0.	0.
CE141	2.34E-07	2.59E-01	2.57E-01	2.41E-01	2.17E-01	1.75E-01	1.41E-01	9.20E-02	3.16E-02	3.72E-03	4.38E-04	0.
LA142	1.23E+01	2.70E-03	5.23E-03	3.84E-22	0.	0.	0.	0.	0.	0.	0.	0.
CE143	8.29E-02	3.41E+00	2.06E+00	4.54E-01	3.65E-02	2.36E-04	1.53E-06	6.40E-11	7.22E-22	0.	0.	0.
PR143	2.42E-08	2.18E-01	3.39E-01	4.38E-01	3.76E-01	2.29E-01	1.38E-01	4.99E-02	3.99E-03	2.53E-05	1.61E-07	0.
CE144	3.35E-03	2.49E-02	2.36E-02	2.38E-02	2.35E-02	2.29E-02	2.24E-02	2.13E-02	1.88E-02	1.48E-02	1.16E-02	0.
PR144	9.92E-07	2.40E-02	2.36E-02	2.38E-02	2.35E-02	2.29E-02	2.24E-02	2.13E-02	1.88E-02	1.48E-02	1.16E-02	0.
PR145	1.32E-01	1.35E+00	8.35E-02	1.98E-05	1.81E-11	1.50E-23	1.24E-35	0.	0.	0.	0.	0.
ND147	1.57E-05	2.63E-01	2.48E-01	2.05E-01	1.50E-01	8.06E-02	4.31E-02	1.24E-02	5.42E-04	1.06E-06	2.05E-09	0.
PM147	4.35E-14	1.97E-04	3.81E-04	8.71E-04	1.51E-03	2.50E-03	2.72E-03	3.03E-03	3.05E-03	2.85E-03	2.65E-03	0.
ND149	2.65E+01	1.98E-03	1.92E-07	1.75E-19	1.59E-39	0.	0.	0.	0.	0.	0.	0.
PM149	2.86E-03	5.27E-01	3.86E-01	1.51E-01	3.19E-02	1.37E-03	5.97E-05	1.14E-07	1.79E-14	4.42E-28	1.10E-41	0.
PM150	2.32E-01	4.90E-04	1.03E-06	9.70E-15	4.96E-28	0.	0.	0.	0.	0.	0.	0.

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO	TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
PM151	4.57E-02	3.12E-01	1.72E-01	2.90E-02	1.48E-03	3.90E-06	1.03E-08	7.09E-14	8.89E-27	0.	0.	0.
SM153	1.49E-01	1.05E-01	7.38E-02	2.55E-02	4.33E-03	1.26E-04	3.66E-06	3.07E-09	6.34E-17	2.70E-32	1.15E-47	0.
SM156	9.45E-02	1.61E-02	2.73E-03	1.33E-05	1.95E-09	4.01E-17	8.27E-25	3.52E-40	0.	0.	0.	0.
EU155	9.65E-06	3.27E-04	3.26E-04	3.26E-04	3.26E-04	3.24E-04	3.23E-04	3.20E-04	3.14E-04	3.02E-04	2.90E-04	2.76E-04
EU156	2.76E-04	2.25E-03	2.49E-03	2.23E-03	1.77E-03	1.11E-03	7.03E-04	2.79E-04	2.76E-05	2.72E-07	2.68E-09	0.
EU157	1.51E-02	1.75E-02	5.88E-03	2.21E-04	9.27E-07	1.63E-11	2.89E-16	9.01E-26	0.	0.	0.	0.
GD159	2.02E-03	3.97E-03	1.58E-03	9.86E-05	9.70E-07	9.40E-11	9.11E-15	8.55E-23	7.30E-43	0.	0.	0.
TB161	3.04E-05	1.99E-04	1.79E-04	1.33E-04	8.04E-05	2.94E-05	1.08E-05	1.44E-06	9.55E-09	4.13E-13	1.79E-17	0.
TOTAL	2.91E+02	6.32E+01	2.68E+01	9.31E+00	4.46E+00	2.01E+00	1.27E+00	7.14E-01	3.23E-01	1.22E-01	6.03E-02	0.

GRALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

DEBRIS DECAY FROM 1 TO 50 YEARS

	ZERO	TIME	1.00E+00	1.50E+00	2.00E+00	3.50E+00	5.00E+00	7.00E+00	1.00E+01	2.00E+01	3.50E+01	5.00E+01
BE 7	2.68E-04	2.32E-06	2.15E-07	2.00E-08	1.61E-11	1.29E-14	9.63E-19	6.18E-25	0.	0.	0.	0.
MN 54	6.86E-05	2.96E-05	1.95E-05	1.28E-05	3.66E-06	1.04E-06	1.97E-07	1.61E-08	3.78E-12	0.	0.	0.
FE 59	5.90E-05	2.13E-07	1.28E-08	7.69E-10	1.67E-13	3.60E-17	4.69E-22	2.20E-29	0.	0.	0.	0.
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	3.01E-01	7.52E-10	7.32E-10	7.13E-10	6.67E-10	6.19E-10	5.63E-10	4.88E-10	3.04E-10	1.49E-10	7.32E-11	0.
AM241	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10	2.28E-10
CM242	4.60E-09	9.74E-10	4.48E-10	2.06E-10	2.01E-11	1.96E-12	8.77E-14	8.29E-16	2.38E-20	2.22E-20	2.07E-20	2.07E-20
KR 85	4.35E-06	1.08E-04	1.05E-04	1.01E-04	9.23E-05	8.34E-05	7.33E-05	6.04E-05	3.19E-05	1.22E-05	4.66E-06	0.
SR 89	3.63E-06	8.48E-04	7.42E-05	6.52E-06	4.39E-09	2.96E-12	1.75E-16	7.95E-23	5.78E-44	0.	0.	0.
SR 90	7.18E-06	7.18E-04	7.11E-04	7.05E-04	6.79E-04	6.53E-04	6.21E-04	5.77E-04	4.51E-04	3.11E-04	2.15E-04	2.15E-04
Y 90	1.06E-11	7.18E-04	7.11E-04	7.05E-04	6.79E-04	6.53E-04	6.21E-04	5.77E-04	4.51E-04	3.11E-04	2.15E-04	2.15E-04
Y 91	2.63E-08	1.78E-03	2.07E-04	2.40E-05	3.77E-08	5.92E-11	1.08E-14	2.66E-20	5.37E-39	0.	0.	0.
ZR 95	1.10E-03	2.81E-03	4.02E-04	5.72E-05	1.67E-07	4.85E-10	2.01E-13	1.70E-18	2.08E-35	0.	0.	0.
NB 95M	2.33E-11	5.96E-05	8.50E-06	1.22E-06	3.53E-09	1.03E-11	4.26E-15	3.59E-20	4.40E-37	0.	0.	0.
NB 95	1.22E-10	6.05E-03	8.69E-04	1.24E-04	3.59E-07	1.04E-09	4.35E-13	3.67E-18	4.50E-35	0.	0.	0.
RU103	5.34E-05	2.07E-04	8.49E-06	3.49E-07	2.38E-11	1.63E-15	4.59E-21	2.16E-29	0.	0.	0.	0.
RH103M	3.56E-09	2.08E-04	8.49E-06	3.49E-07	2.38E-11	1.63E-15	4.59E-21	2.16E-29	0.	0.	0.	0.
RU106	2.41E-04	2.29E-03	1.62E-03	1.15E-03	4.09E-04	1.45E-04	3.65E-05	4.62E-06	4.66E-09	1.50E-13	4.82E-18	4.82E-18
RH106	2.61E-06	2.29E-03	1.62E-03	1.15E-03	4.09E-04	1.45E-04	3.65E-05	4.62E-06	4.66E-09	1.50E-13	4.82E-18	4.82E-18
SN123	9.26E-06	1.28E-04	4.66E-05	1.69E-05	8.11E-07	3.89E-08	6.78E-10	1.56E-12	2.51E-21	1.61E-34	1.04E-47	0.
SB125	1.29E-04	2.59E-04	2.28E-04	2.00E-04	1.36E-04	9.29E-05	5.55E-05	2.57E-05	1.97E-06	4.20E-08	8.95E-10	8.95E-10
TE125M	3.46E-12	1.06E-04	9.40E-05	8.28E-05	5.65E-05	3.84E-05	2.30E-05	1.06E-05	8.17E-07	1.74E-08	3.70E-10	3.70E-10
TE127M	3.29E-10	1.57E-04	4.92E-05	1.54E-05	4.74E-07	1.46E-08	1.40E-10	1.32E-13	1.08E-23	8.09E-39	6.03E-54	6.03E-54
TE127	2.29E-02	1.56E-04	4.87E-05	1.52E-05	4.68E-07	1.44E-08	1.38E-10	1.31E-13	1.07E-23	7.98E-39	5.97E-54	5.97E-54
CS137	7.37E-05	7.77E-04	7.68E-04	7.59E-04	7.33E-04	7.06E-04	6.75E-04	6.31E-04	4.99E-04	3.55E-04	2.50E-04	2.50E-04
BA137M	1.55E-07	7.28E-04	7.20E-04	7.11E-04	6.84E-04	6.62E-04	6.31E-04	5.92E-04	4.68E-04	3.31E-04	2.34E-04	2.34E-04
CE141	2.34E-07	1.01E-04	2.03E-06	4.07E-08	3.32E-13	2.70E-18	4.43E-25	2.94E-35	0.	0.	0.	0.
CE144	3.36E-03	9.87E-03	6.35E-03	4.05E-03	1.06E-03	2.80E-04	4.70E-05	3.24E-06	4.37E-10	6.85E-16	1.07E-21	1.07E-21
PR144	9.22E-07	9.87E-03	6.35E-03	4.05E-03	1.06E-03	2.80E-04	4.70E-05	3.24E-06	4.37E-10	6.85E-16	1.07E-21	1.07E-21
PM147	4.35E-14	2.53E-03	2.21E-03	1.94E-03	1.30E-03	8.76E-04	5.14E-04	2.34E-04	1.66E-05	3.14E-07	5.93E-09	5.93E-09
EU155	9.65E-06	2.83E-04	2.63E-04	2.44E-04	1.96E-04	1.58E-04	1.18E-04	7.61E-05	1.78E-05	2.00E-06	2.25E-07	2.25E-07
TOTAL	3.30E-01	4.31E-02	2.35E-02	1.61E-02	7.51E-03	4.77E-03	3.50E-03	2.80E-03	1.94E-03	1.32E-03	9.20E-04	9.20E-04

ORALLOY
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.04E+02	9.43E+03
1.00E+00	3.45E+01	2.12E+03
2.00E+00	1.38E+01	8.73E+02
3.00E+00	7.36E+00	5.39E+02
4.00E+00	4.57E+00	3.93E+02
6.00E+00	2.38E+00	2.58E+02
9.00E+00	1.39E+00	1.73E+02
1.20E+01	1.00E+00	1.29E+02
1.50E+01	7.77E-01	1.02E+02
1.80E+01	6.29E-01	8.28E+01
2.10E+01	5.22E-01	6.93E+01
1.00E+00 DAYS	4.36E-01	5.83E+01
2.00E+00	1.86E-01	2.45E+01
5.00E+00	7.24E-02	8.91E+00
1.00E+01	3.57E-02	4.41E+00
2.00E+01	1.49E-02	1.97E+00
3.00E+01	8.50E-03	1.22E+00
5.00E+01	3.80E-03	6.66E-01
1.00E+02	1.25E-03	2.86E-01
2.00E+02	4.28E-04	9.96E-02
3.00E+02	1.66E-04	4.76E-02
1.00E+00 YEARS	9.62E-05	3.40E-02
1.50E+00	3.08E-05	1.91E-02
2.00E+00	1.89E-05	1.36E-02
3.50E+00	1.21E-05	7.15E-03
5.00E+00	9.86E-06	4.99E-03
7.00E+00	8.59E-06	3.94E-03
1.00E+01	7.64E-06	3.31E-03
2.00E+01	5.84E-06	2.41E-03
3.50E+01	4.13E-06	1.66E-03
5.00E+01	2.92E-06	1.15E-03

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 CM/SQCM

PAGE 3

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
BE 7	1.68E-04	1.68E-04	1.68E-04	1.68E-04	1.68E-04	1.68E-04	1.68E-04	1.67E-04	1.67E-04	1.66E-04	1.66E-04
NA 24	1.11E-02	1.06E-02	1.01E-02	9.64E-03	9.20E-03	8.40E-03	7.31E-03	6.37E-03	5.55E-03	4.83E-03	4.19E-03
MN 54	4.31E-05	4.31E-05	4.31E-05	4.31E-05	4.31E-05	4.31E-05	4.31E-05	4.27E-05	4.27E-05	4.27E-05	4.27E-05
FE 55	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.04E-04
FE 59	3.70E-05	3.70E-05	3.70E-05	3.70E-05	3.70E-05	3.69E-05	3.69E-05	3.68E-05	3.67E-05	3.66E-05	3.66E-05
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CU 64	2.83E-02	2.67E-02	2.53E-02	2.40E-02	2.27E-02	2.04E-02	1.73E-02	1.47E-02	1.25E-02	1.07E-02	9.07E-03
CU 67	3.43E-05	3.40E-05	3.34E-05	3.31E-05	3.28E-05	3.19E-05	3.08E-05	2.99E-05	2.90E-05	2.78E-05	2.71E-05
WI 81	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
WI 85	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
WI 87	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
WI 88	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU 98	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU 99	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PB 203	2.43E-04	2.40E-04	2.36E-04	2.33E-04	2.29E-04	2.24E-04	2.16E-04	2.07E-04	1.99E-04	1.90E-04	1.84E-04
U 237	1.89E-01	1.88E-01	1.88E-01	1.87E-01	1.86E-01	1.84E-01	1.82E-01	1.80E-01	1.77E-01	1.75E-01	1.73E-01
U 239	8.91E+01	1.52E+01	2.59E+00	4.42E-01	7.50E-02	2.19E-03	1.08E-05	5.35E-08	2.64E-10	1.31E-12	6.47E-15
U 240	4.65E-01	4.43E-01	4.22E-01	4.02E-01	3.82E-01	3.46E-01	2.99E-01	2.58E-01	2.22E-01	1.92E-01	1.65E-01
NP 239	2.67E-04	4.47E-01	5.17E-01	5.25E-01	5.21E-01	5.09E-01	4.88E-01	4.72E-01	4.55E-01	4.39E-01	4.23E-01
NP 240M	7.36E-04	4.45E-01	4.26E-01	4.05E-01	3.86E-01	3.49E-01	3.02E-01	2.60E-01	2.24E-01	1.93E-01	1.67E-01
NP 240	1.86E-11	9.58E-12	4.98E-12	2.57E-12	1.33E-12	3.55E-13	4.90E-14	6.76E-15	9.32E-16	1.28E-16	1.78E-17
AM 241	1.43E-10	1.43E-10	1.43E-10	1.43E-10	1.43E-10	1.43E-10	1.43E-10	1.43E-10	1.43E-10	1.43E-10	1.43E-10
CM 242	2.88E-09	2.88E-09	2.88E-09	2.88E-09	2.88E-09	2.88E-09	2.87E-09	2.87E-09	2.87E-09	2.87E-09	2.87E-09
GE 75	1.39E-05	6.72E-02	4.05E-02	2.44E-02	1.47E-02	5.32E-03	1.16E-03	2.54E-04	5.55E-05	1.21E-05	2.65E-06
GE 77	6.15E-03	1.58E-02	1.49E-02	1.40E-02	1.32E-02	1.17E-02	9.70E-03	8.06E-03	6.72E-03	5.58E-03	4.65E-03
AS 77	6.35E-05	1.00E-02	1.02E-02	1.02E-02	1.03E-02	1.04E-02	1.04E-02	1.03E-02	1.01E-02	9.93E-03	9.68E-03
SE 77M	2.50E-09	3.01E-05	3.05E-05	3.07E-05	3.07E-05	3.10E-05	3.12E-05	3.10E-05	3.05E-05	2.98E-05	2.89E-05
GE 78	8.25E-01	5.16E-01	3.21E-01	2.01E-01	1.25E-01	4.87E-02	1.18E-02	2.87E-03	6.99E-04	1.70E-04	4.13E-05
AS 78	1.48E-02	2.46E-01	3.04E-01	2.85E-01	2.38E-01	1.40E-01	5.21E-02	1.73E-02	5.36E-03	1.60E-03	4.64E-04
AS 79	1.60E+01	1.58E-01	1.55E-03	1.53E-05	1.50E-07	1.46E-11	1.39E-17	1.33E-23	1.27E-29	1.21E-35	1.15E-41
SE 79M	2.37E-02	2.78E-01	2.74E-03	2.70E-05	2.66E-07	2.57E-11	2.45E-17	2.34E-23	2.23E-29	2.13E-35	2.03E-41
BR 80	1.01E-01	2.53E-03	8.96E-04	8.43E-05	7.94E-06	7.04E-08	5.89E-11	4.91E-14	4.09E-17	3.42E-20	2.85E-23
SE 81M	8.33E-02	3.89E+00	1.88E+00	9.02E-01	4.34E-01	1.01E-01	1.13E-02	1.27E-03	1.43E-04	1.60E-05	1.79E-06
SE 81	1.02E+00	4.60E+00	2.66E+00	1.33E+00	6.44E-01	1.50E-01	1.68E-02	1.89E-03	2.11E-04	2.37E-05	2.65E-06
BR 82	5.15E-04	5.05E-04	4.95E-04	4.86E-04	4.76E-04	4.58E-04	4.32E-04	4.07E-04	3.84E-04	3.61E-04	3.41E-04
SE 83	4.88E+01	9.26E+00	1.75E+00	3.33E-01	6.28E-02	2.26E-03	1.54E-05	1.05E-07	7.14E-10	4.84E-12	3.07E-14
BR 83	4.06E-01	6.06E+00	5.60E+00	4.41E+00	3.35E+00	1.89E+00	8.00E-01	3.37E-01	1.42E-01	6.00E-02	2.53E-02
KR 83M	2.10E-05	1.37E+00	2.80E+00	3.48E+00	3.59E+00	2.99E+00	1.77E+00	9.08E-01	4.38E-01	2.02E-01	9.08E-02

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
BR 84	1.05E-01	1.81E+01	4.89E+00	1.33E+00	3.58E-01	2.62E-02	5.17E-04	1.02E-05	2.02E-07	4.00E-09	7.90E-11
KR 85M	5.27E-03	1.13E+01	9.62E+00	8.22E+00	7.02E+00	5.13E+00	3.19E+00	1.99E+00	1.24E+00	7.72E-01	4.82E-01
KR 87	8.63E+01	4.98E+01	2.88E+01	1.66E+01	9.61E+00	3.22E+00	6.25E-01	1.21E-01	2.35E-02	4.54E-03	8.78E-04
KR 88	5.00E+01	3.90E+01	3.04E+01	2.38E+01	1.86E+01	1.13E+01	5.38E+00	2.56E+00	1.22E+00	5.80E-01	2.76E-01
RB 88	1.27E+01	3.95E+01	3.37E+01	2.65E+01	2.07E+01	1.26E+01	6.03E+00	2.87E+00	1.37E+00	6.50E-01	3.09E-01
RB 89	5.94E+01	5.58E+01	3.75E+00	2.52E-01	1.69E-02	7.65E-05	2.32E-08	6.99E-12	2.13E-15	6.45E-19	1.96E-22
SR 89	4.55E-06	1.60E-01	1.70E-01	1.70E-01	1.70E-01	1.70E-01	1.70E-01	1.70E-01	1.70E-01	1.69E-01	1.69E-01
SR 90	9.01E-06	9.25E-04	9.25E-04	9.25E-04	9.25E-04	9.25E-04	9.25E-04	9.25E-04	9.25E-04	9.25E-04	9.25E-04
SR 91	1.05E+00	1.95E+01	1.82E+01	1.70E+01	1.58E+01	1.37E+01	1.10E+01	8.91E+00	7.20E+00	5.78E+00	4.66E+00
Y 91M	7.06E-05	6.73E+00	9.18E+00	9.84E+00	9.70E+00	8.71E+00	7.13E+00	5.74E+00	4.63E+00	3.73E+00	3.01E+00
SR 92	2.89E-08	5.99E-03	1.38E-02	2.20E-02	3.01E-02	4.51E-02	6.40E-02	7.92E-02	9.18E-02	1.02E-01	1.10E-01
Y 92	7.60E+00	3.39E+01	2.63E+01	2.04E+01	1.58E+01	9.44E+00	4.38E+00	2.04E+00	9.44E-01	4.38E-01	2.04E-01
SR 93	3.50E-01	7.14E+00	1.12E+01	1.33E+01	1.41E+01	1.35E+01	1.03E+01	7.03E+00	4.52E+00	2.78E+00	1.68E+00
Y 93	2.98E+02	5.13E+00	2.83E-02	1.57E-04	8.63E-07	2.64E-11	4.45E-18	7.51E-25	1.27E-31	2.14E-38	3.60E-45
Y 94	3.64E-01	1.18E+01	1.10E+01	1.03E+01	9.65E+00	8.43E+00	6.87E+00	5.61E+00	4.55E+00	3.74E+00	3.04E+00
Y 95	4.30E+01	5.38E+01	7.57E+00	9.76E-01	1.26E-01	2.09E-03	4.48E-06	9.61E-09	2.06E-11	4.48E-14	2.49E-15
ZR 95	1.83E+02	1.72E+01	3.80E-01	8.38E-03	1.84E-04	8.95E-08	9.59E-13	1.02E-17	1.09E-22	1.17E-27	1.25E-32
NB 95	6.87E-04	8.98E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02	9.16E-02
NB 97	7.66E-11	5.55E-05	1.29E-04	2.03E-04	2.77E-04	4.25E-04	6.45E-04	8.68E-04	1.09E-03	1.31E-03	1.52E-03
NB 97M	1.62E+00	7.08E+00	6.77E+00	6.52E+00	6.24E+00	5.76E+00	5.09E+00	4.50E+00	4.00E+00	3.52E+00	3.13E+00
NB 97	8.36E-03	6.80E+00	6.52E+00	6.26E+00	6.01E+00	5.54E+00	4.89E+00	4.33E+00	3.83E+00	3.38E+00	2.99E+00
NB 98	8.14E-01	3.55E+00	5.01E+00	5.71E+00	5.98E+00	5.96E+00	5.43E+00	4.84E+00	4.28E+00	3.78E+00	3.36E+00
MO 99	9.08E+00	4.02E+00	1.78E+00	7.86E-01	3.48E-01	6.82E-02	5.89E-03	5.09E-04	4.44E-05	3.84E-06	3.30E-07
TC 99M	4.72E-03	1.95E+00	1.93E+00	1.91E+00	1.89E+00	1.85E+00	1.79E+00	1.74E+00	1.68E+00	1.63E+00	1.58E+00
MO101	4.39E-08	1.86E-01	3.48E-01	4.93E-01	6.19E-01	8.26E-01	1.05E+00	1.19E+00	1.28E+00	1.32E+00	1.35E+00
TC101	1.28E+02	5.80E+01	3.36E+00	1.95E-01	1.13E-02	3.79E-05	7.37E-09	1.44E-12	2.79E-16	5.42E-20	1.06E-23
MO102	5.42E+00	1.63E+02	1.78E+01	1.46E+00	1.06E-01	4.79E-04	1.20E-07	2.68E-11	5.69E-15	1.17E-18	2.37E-22
TC102M	1.01E+03	2.31E+01	5.27E-01	1.20E-02	2.74E-04	1.43E-07	1.70E-12	2.01E-17	2.38E-22	2.83E-27	3.36E-32
TC102	6.52E-01	1.96E+01	4.48E-01	1.02E-02	2.33E-04	1.21E-07	1.44E-12	1.70E-17	2.02E-22	2.39E-27	2.84E-32
RU103	3.05E+03	1.16E+01	2.66E-01	6.04E-03	1.38E-04	7.20E-08	8.55E-13	1.01E-17	1.20E-22	1.43E-27	1.69E-32
RH103M	6.70E-05	1.56E-01	1.55E-01	1.55E-01	1.55E-01	1.55E-01	1.54E-01	1.54E-01	1.54E-01	1.53E-01	1.53E-01
TC104	4.47E-09	8.03E-02	1.19E-01	1.38E-01	1.47E-01	1.53E-01	1.54E-01	1.54E-01	1.54E-01	1.53E-01	1.53E-01
RU105	5.33E+01	3.83E+01	3.83E+00	3.79E-01	3.75E-02	3.69E-04	3.61E-07	3.52E-10	3.44E-13	3.36E-16	3.28E-19
RH105M	3.79E-01	1.31E+01	1.12E+01	9.59E+00	8.21E+00	6.00E+00	3.76E+00	2.35E+00	1.47E+00	9.20E-01	5.78E-01
RU106	2.49E-03	1.31E+01	1.12E+01	9.62E+00	8.21E+00	6.03E+00	3.76E+00	2.36E+00	1.48E+00	9.23E-01	5.78E-01
RH106	4.09E-09	2.66E-01	4.95E-01	6.83E-01	8.40E-01	1.08E+00	1.29E+00	1.38E+00	1.41E+00	1.40E+00	1.36E+00
RH107	3.02E-04	5.73E-03	5.73E-03	5.73E-03	5.73E-03	5.73E-03	5.73E-03	5.73E-03	5.73E-03	5.73E-03	5.73E-03
PD107M	3.27E-06	5.73E-03	5.73E-03	5.73E-03	5.73E-03	5.73E-03	5.73E-03	5.73E-03	5.73E-03	5.73E-03	5.73E-03
	6.16E-02	8.37E+00	1.27E+00	1.91E-01	2.88E-02	6.57E-04	2.26E-06	7.81E-09	2.69E-11	9.19E-14	9.14E-18
	1.28E-04	1.70E+00	2.57E-01	3.89E-02	5.86E-03	1.34E-04	4.61E-07	1.59E-09	5.46E-12	1.89E-14	6.44E-17

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
PD109	7.32E-03	6.07E-01	5.77E-01	5.47E-01	5.19E-01	4.69E-01	4.03E-01	3.45E-01	2.96E-01	2.54E-01	2.18E-01
AG109M	4.22E-05	6.07E-01	5.77E-01	5.48E-01	5.21E-01	4.70E-01	4.03E-01	3.45E-01	2.96E-01	2.54E-01	2.18E-01
PD111M	1.11E+00	9.79E-01	8.63E-01	7.64E-01	6.72E-01	5.23E-01	3.58E-01	2.45E-01	1.68E-01	1.15E-01	7.88E-02
PD111	3.96E-01	7.14E-01	6.85E-01	6.10E-01	5.39E-01	4.19E-01	2.88E-01	1.97E-01	1.35E-01	9.25E-02	6.35E-02
AG111M	3.15E-03	9.63E-01	9.05E-01	8.09E-01	7.14E-01	5.52E-01	3.77E-01	2.59E-01	1.77E-01	1.22E-01	8.30E-02
AG111	1.12E-09	3.32E-03	6.97E-03	1.02E-02	1.32E-02	1.79E-02	2.30E-02	2.64E-02	2.86E-02	3.00E-02	3.08E-02
PD112	3.20E-01	3.10E-01	2.99E-01	2.89E-01	2.81E-01	2.62E-01	2.38E-01	2.15E-01	1.95E-01	1.76E-01	1.60E-01
AG112	9.63E-06	6.13E-02	1.08E-01	1.45E-01	1.72E-01	2.07E-01	2.27E-01	2.26E-01	2.15E-01	2.01E-01	1.85E-01
AG113	4.16E-03	8.89E-01	7.80E-01	6.85E-01	6.00E-01	4.62E-01	3.13E-01	2.11E-01	1.43E-01	9.62E-02	6.51E-02
AG115	1.71E+00	1.83E+00	2.28E-01	2.85E-02	3.56E-03	5.57E-05	1.09E-07	2.13E-10	4.12E-13	4.09E-16	3.79E-16
CD115M	1.40E-08	3.71E-04	4.17E-04	4.23E-04	4.23E-04	4.23E-04	4.21E-04	4.21E-04	4.20E-04	4.19E-04	4.19E-04
CD115	5.39E-06	1.02E-01	1.09E-01	1.09E-01	1.08E-01	1.05E-01	1.01E-01	9.72E-02	9.35E-02	9.00E-02	8.65E-02
IN115M	6.72E-11	1.12E-02	2.49E-02	3.70E-02	4.72E-02	6.29E-02	7.76E-02	8.55E-02	8.92E-02	9.00E-02	8.93E-02
CD117	1.20E-01	2.00E+00	1.51E+00	1.13E+00	8.44E-01	4.74E-01	1.99E-01	8.37E-02	3.52E-02	1.48E-02	6.23E-03
IN117M	5.78E-06	6.96E-01	1.01E+00	1.09E+00	1.06E+00	4.33E-01	4.77E-01	2.44E-01	1.17E-01	5.43E-02	2.45E-02
IN117	2.33E-10	1.27E-01	3.07E-01	4.27E-01	4.77E-01	4.38E-01	4.79E-01	1.49E-01	7.43E-02	3.50E-02	1.61E-02
CD118	8.01E+00	3.43E+00	1.47E+00	6.28E-01	2.69E-01	4.92E-02	3.86E-03	3.02E-04	2.38E-05	1.86E-06	1.46E-07
IN118	5.31E+01	3.43E+00	1.47E+00	6.30E-01	2.69E-01	4.94E-02	3.86E-03	3.03E-04	2.38E-05	1.86E-06	1.46E-07
CD119	2.00E+01	3.13E-01	4.88E-03	7.63E-05	1.19E-06	2.92E-10	1.11E-15	4.25E-21	1.62E-26	6.18E-32	2.36E-37
IN119M	3.02E-02	3.38E+00	3.68E-01	3.71E-02	3.69E-03	3.64E-05	3.55E-08	3.47E-11	3.38E-14	3.31E-17	3.23E-20
IN119	1.49E+00	1.78E-01	2.06E-02	2.09E-03	2.09E-04	2.05E-06	2.00E-09	1.96E-12	1.91E-15	1.87E-18	1.82E-21
SN121	2.49E-03	2.56E-01	2.49E-01	2.43E-01	2.37E-01	2.25E-01	2.08E-01	1.93E-01	1.79E-01	1.65E-01	1.54E-01
SN123M	1.24E+00	2.31E+00	8.20E-01	2.90E-01	1.02E-01	1.28E-02	5.66E-04	2.51E-05	1.11E-06	4.89E-08	2.16E-09
SN123	1.16E-05	1.22E-03	1.22E-03	1.22E-03	1.22E-03	1.22E-03	1.22E-03	1.22E-03	1.22E-03	1.22E-03	1.22E-03
SN125	2.69E-02	2.68E-02	2.67E-02	2.67E-02	2.65E-02	2.64E-02	2.62E-02	2.59E-02	2.57E-02	2.54E-02	2.52E-02
SB125	1.61E-04	1.62E-04	1.63E-04	1.64E-04	1.64E-04	1.66E-04	1.68E-04	1.71E-04	1.73E-04	1.75E-04	1.77E-04
SB126	3.74E-03	3.73E-03	3.72E-03	3.71E-03	3.70E-03	3.68E-03	3.66E-03	3.64E-03	3.61E-03	3.58E-03	3.56E-03
SN127	4.37E+00	3.14E+00	2.26E+00	1.62E+00	1.17E+00	6.03E-01	2.24E-01	8.33E-02	3.09E-02	1.15E-02	4.27E-03
SB127	5.10E-02	1.76E-01	1.95E-01	2.07E-01	2.16E-01	2.26E-01	2.29E-01	2.27E-01	2.23E-01	2.19E-01	2.14E-01
TE127	2.88E-02	3.59E-02	4.36E-02	5.17E-02	5.97E-02	7.49E-02	9.60E-02	1.12E-01	1.25E-01	1.34E-01	1.41E-01
SN128	2.81E+01	1.39E+01	6.86E+00	3.39E+00	1.68E+00	4.09E-01	4.94E-02	5.96E-03	7.19E-04	8.72E-05	1.05E-05
SB128M	1.43E-02	1.58E+01	8.20E+00	4.05E+00	2.00E+00	4.89E-01	5.89E-02	7.11E-03	8.57E-04	1.04E-04	1.25E-05
SB128	1.18E+00	1.14E+00	1.07E+00	1.01E+00	9.39E-01	8.05E-01	6.42E-01	5.10E-01	4.05E-01	3.21E-01	2.55E-01
SN129M	1.66E+01	8.26E+00	4.15E+00	2.07E+00	1.04E+00	2.59E-01	3.24E-02	4.05E-03	5.06E-04	6.33E-05	7.91E-06
SN129	1.11E+02	1.09E+00	1.07E-02	1.06E-04	1.04E-06	1.01E-10	9.59E-17	9.17E-23	8.75E-29	8.33E-35	7.98E-41
SB129	6.22E+00	1.04E+01	9.80E+00	8.75E+00	7.70E+00	5.72E+00	3.56E+00	2.21E+00	1.36E+00	8.40E-01	5.17E-01
TE129M	1.18E-07	1.30E-03	2.68E-03	3.94E-03	5.06E-03	6.86E-03	8.68E-03	9.80E-03	1.05E-02	1.09E-02	1.12E-02
TE129	4.48E+00	6.16E+00	7.21E+00	7.49E+00	7.21E+00	5.97E+00	3.98E+00	2.51E+00	1.56E+00	9.66E-01	5.99E-01
SB130M	5.59E-01	1.05E+00	2.77E-03	7.27E-06	1.91E-08	1.32E-13	2.41E-21	4.37E-29	7.94E-37	1.44E-44	2.62E-52
SB130	9.57E+01	2.90E+01	8.24E+00	2.33E+00	6.60E-01	5.31E-02	1.21E-03	2.76E-05	6.30E-07	1.44E-08	3.28E-10

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
I130	2.67E-02	2.52E-02	2.39E-02	2.25E-02	2.13E-02	1.91E-02	1.61E-02	1.36E-02	1.15E-02	9.75E-03	8.24E-03
SB131	2.06E+02	5.37E+01	8.78E+00	1.44E+00	2.36E-01	6.37E-03	2.80E-05	1.24E-07	5.45E-10	2.40E-12	1.20E-14
TE131M	9.89E-05	5.18E-01	5.90E-01	5.91E-01	5.80E-01	5.54E-01	5.17E-01	4.82E-01	4.50E-01	4.20E-01	3.92E-01
TE131	9.11E+01	9.89E+01	3.22E+01	8.38E+00	2.04E+00	1.91E-01	9.50E-02	8.78E-02	8.19E-02	7.66E-02	7.14E-02
I131	1.32E-02	4.59E-01	6.75E-01	7.40E-01	7.53E-01	7.60E-01	7.60E-01	7.53E-01	7.53E-01	7.47E-01	7.47E-01
TE132	1.05E+00	2.55E+00	2.52E+00	2.51E+00	2.48E+00	2.44E+00	2.37E+00	2.31E+00	2.25E+00	2.19E+00	2.13E+00
I132	2.58E+00	2.57E+00	2.56E+00	2.55E+00	2.53E+00	2.50E+00	2.44E+00	2.38E+00	2.31E+00	2.26E+00	2.20E+00
TE133M	1.29E-01	4.46E+01	1.94E+01	8.45E+00	3.68E+00	6.98E-01	5.75E-02	4.74E-03	3.91E-04	3.22E-05	2.66E-06
TE133	7.23E+02	4.10E+01	4.56E+00	1.51E+00	6.37E-01	1.21E-01	9.99E-03	8.21E-04	6.80E-05	5.59E-06	4.61E-07
I133	1.12E+00	1.21E+01	1.30E+01	1.30E+01	1.28E+01	1.21E+01	1.10E+01	9.99E+00	9.01E+00	8.21E+00	7.41E+00
XE133M	4.77E-08	2.71E-03	6.56E-03	1.05E-02	1.43E-02	2.14E-02	3.11E-02	3.94E-02	4.64E-02	5.25E-02	5.75E-02
XE133	8.33E-07	4.74E-02	1.15E-01	1.84E-01	2.52E-01	3.82E-01	5.61E-01	7.17E-01	8.58E-01	9.80E-01	1.09E+00
TE134	2.22E+02	1.03E+02	3.83E+01	1.42E+01	5.28E+00	7.31E-01	3.74E-02	1.92E-03	9.81E-05	5.04E-06	2.58E-07
I134	1.02E+02	1.36E+02	9.52E+01	5.58E+01	3.00E+01	7.60E+00	8.36E-01	8.53E-02	8.36E-03	8.01E-04	7.60E-05
I135	1.87E+01	3.30E+01	2.98E+01	2.68E+01	2.42E+01	1.97E+01	1.44E+01	1.06E+01	7.76E+00	5.71E+00	4.17E+00
XE135M	2.07E-03	9.53E+00	9.27E+00	8.40E+00	7.54E+00	6.14E+00	4.51E+00	3.30E+00	2.42E+00	1.78E+00	1.30E+00
XE135	2.16E+00	4.27E+00	6.25E+00	7.87E+00	9.16E+00	1.10E+01	1.22E+01	1.22E+01	1.16E+01	1.06E+01	9.48E+00
CS136	5.50E-03	5.49E-03	5.48E-03	5.47E-03	5.45E-03	5.43E-03	5.39E-03	5.35E-03	5.32E-03	5.28E-03	5.25E-03
CS137	9.29E-05	9.97E-04	9.97E-04	9.97E-04	9.97E-04	9.97E-04	9.97E-04	9.97E-04	9.97E-04	9.97E-04	9.97E-04
BA137M	1.95E-07	9.31E-04	9.31E-04	9.31E-04	9.31E-04	9.31E-04	9.31E-04	9.31E-04	9.31E-04	9.31E-04	9.31E-04
XE138	7.50E+02	6.45E+01	5.61E+00	4.86E-01	4.21E-02	3.16E-04	2.05E-07	1.33E-10	8.66E-14	5.63E-17	3.66E-20
CS138	1.12E+02	1.88E+02	6.51E+01	1.91E+01	5.36E+00	4.08E-01	8.49E-03	1.76E-04	3.66E-06	7.62E-08	1.58E-09
CS139	6.60E+02	2.11E+01	2.64E-01	3.32E-03	4.16E-05	6.54E-09	1.30E-14	2.57E-20	5.09E-26	1.01E-31	1.99E-37
BA139	1.22E+01	1.36E+02	8.38E+01	5.09E+01	3.08E+01	1.13E+01	2.51E+00	5.56E-01	1.24E-01	2.74E-02	6.09E-03
BA140	1.14E-01	7.10E-01	7.10E-01	7.05E-01	7.05E-01	7.00E-01	7.00E-01	6.94E-01	6.89E-01	6.83E-01	6.78E-01
LA140	2.71E-07	1.21E-02	2.41E-02	3.57E-02	4.72E-02	6.94E-02	1.01E-01	1.31E-01	1.59E-01	1.86E-01	2.11E-01
BA141	1.71E+02	5.16E+01	5.12E+00	5.08E-01	5.04E-02	5.00E-04	4.88E-07	4.75E-10	4.63E-13	4.55E-16	4.43E-19
LA141	1.58E+00	3.34E+01	3.12E+01	2.64E+01	2.21E+01	1.55E+01	9.10E+00	5.32E+00	3.13E+00	1.84E+00	1.08E+00
CE141	1.95E-07	2.17E-02	5.08E-02	7.64E-02	9.79E-02	1.31E-01	1.63E-01	1.81E-01	1.92E-01	1.98E-01	2.01E-01
BA142	3.36E+02	1.34E+01	3.05E-01	6.96E-03	1.59E-04	8.24E-08	9.78E-13	1.16E-17	1.38E-22	1.63E-27	1.94E-32
LA142	7.73E+00	5.36E+01	3.54E+01	2.25E+01	1.43E+01	5.79E+00	1.49E+00	3.85E-01	9.92E-02	2.56E-02	6.59E-03
LA143	1.30E+02	2.54E+01	1.30E+00	6.69E-02	3.44E-03	9.00E-06	1.21E-09	1.64E-13	2.20E-17	2.97E-21	4.01E-25
CE143	5.20E-02	3.31E+00	3.44E+00	3.35E+00	3.28E+00	3.16E+00	2.96E+00	2.78E+00	2.61E+00	2.45E+00	2.30E+00
PR143	1.52E-08	5.08E-03	1.23E-02	1.94E-02	2.63E-02	3.98E-02	5.87E-02	7.66E-02	9.31E-02	1.09E-01	1.23E-01
CE144	2.11E-03	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02
PR144	5.78E-07	1.37E-02	1.50E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02
PR145	8.29E-02	1.22E+01	1.08E+01	9.64E+00	8.60E+00	6.81E+00	4.80E+00	3.39E+00	2.40E+00	1.69E+00	1.20E+00
CE146	2.35E+02	1.20E+01	6.17E-01	3.15E-02	1.62E-03	4.28E-06	5.76E-10	7.76E-14	1.05E-17	1.41E-21	1.90E-25
PR146	4.86E+00	4.22E+01	9.57E+00	1.80E+00	3.24E-01	1.02E-02	5.62E-05	3.10E-07	1.72E-09	9.49E-12	5.18E-14
PR147	2.75E+01	7.97E+00	2.49E-01	7.77E-03	2.43E-04	2.37E-07	7.24E-12	2.21E-16	6.75E-21	2.06E-25	6.28E-30

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO	TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
ND147	9.83E-06	1.85E-01	1.90E-01	1.90E-01	1.89E-01	1.88E-01	1.87E-01	1.86E-01	1.84E-01	1.83E-01	1.81E-01	
ND149	1.29E+01	8.76E+00	5.96E+00	4.06E+00	2.75E+00	1.28E+00	4.01E-01	1.27E-01	3.99E-02	1.26E-02	3.97E-03	
PM149	1.79E-03	1.40E-01	2.33E-01	2.94E-01	3.33E-01	3.75E-01	3.89E-01	3.82E-01	3.72E-01	3.58E-01	3.45E-01	
PM150	1.46E-01	1.13E-01	8.72E-02	6.73E-02	5.20E-02	3.12E-02	1.45E-02	6.69E-03	3.10E-03	1.43E-03	6.64E-04	
ND151	4.53E+01	1.41E+00	4.43E-02	1.38E-03	4.32E-05	4.22E-08	1.29E-12	3.94E-17	1.20E-21	3.66E-26	1.12E-30	
PM151	2.87E-02	3.35E-01	3.37E-01	3.29E-01	3.21E-01	3.05E-01	2.83E-01	2.63E-01	2.45E-01	2.26E-01	2.10E-01	
PM152	7.10E+01	6.94E-02	6.77E-05	6.61E-08	6.46E-11	6.17E-17	5.74E-26	5.36E-35	4.99E-44	4.66E-53	4.33E-62	
SM153	9.38E-02	9.24E-02	9.12E-02	8.98E-02	8.85E-02	8.59E-02	8.22E-02	7.85E-02	7.52E-02	7.21E-02	6.89E-02	
SM155	8.24E+00	1.35E+00	2.22E-01	3.63E-02	5.95E-03	1.60E-04	7.06E-07	3.11E-09	1.37E-11	6.11E-14	1.50E-16	
EU155	6.05E-06	1.73E-04	2.00E-04	2.04E-04	2.05E-04	2.05E-04	2.05E-04	2.05E-04	2.05E-04	2.05E-04	2.05E-04	
SM156	5.93E-02	5.51E-02	5.11E-02	4.75E-02	4.41E-02	3.81E-02	3.05E-02	2.45E-02	1.96E-02	1.57E-02	1.26E-02	
EU156	1.73E-04	2.83E-04	3.84E-04	4.78E-04	5.66E-04	7.21E-04	9.18E-04	1.06E-03	1.19E-03	1.28E-03	1.35E-03	
EU157	9.50E-03	3.15E-02	3.01E-02	2.87E-02	2.74E-02	2.50E-02	2.18E-02	1.91E-02	1.66E-02	1.45E-02	1.26E-02	
EU158	2.26E-01	9.16E-02	3.70E-02	1.50E-02	6.08E-03	9.94E-04	6.63E-05	4.39E-06	2.92E-07	1.94E-08	1.29E-09	
EU159	2.96E-01	2.94E-02	2.91E-03	2.89E-04	2.86E-05	2.83E-07	2.76E-10	2.69E-13	2.63E-16	2.57E-19	2.51E-22	
GD159	1.27E-03	5.55E-03	5.77E-03	5.59E-03	5.38E-03	4.99E-03	4.44E-03	3.96E-03	3.52E-03	3.14E-03	2.80E-03	
TB161	1.91E-05	1.37E-04	1.36E-04	1.36E-04	1.36E-04	1.34E-04	1.33E-04	1.31E-04	1.29E-04	1.28E-04	1.26E-04	
TOTAL	9.43E+03	2.12E+03	8.73E+02	5.39E+02	3.93E+02	2.58E+02	1.73E+02	1.29E+02	1.02E+02	8.28E+01	6.93E+01	

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
BE 7	1.68E-04	1.66E-04	1.64E-04	1.58E-04	1.48E-04	1.30E-04	1.14E-04	8.77E-05	4.59E-05	1.25E-05	3.39E-06
NA 24	1.11E-02	3.65E-03	1.21E-03	4.32E-05	1.69E-07	2.58E-12	3.94E-17	9.18E-27	0.	0.	0.
MN 54	4.31E-05	4.27E-05	4.27E-05	4.19E-05	4.15E-05	4.08E-05	4.00E-05	3.81E-05	3.40E-05	2.71E-05	2.16E-05
FE 55	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.04E-04	1.03E-04	1.02E-04	1.01E-04	9.68E-05	9.03E-05	8.37E-05
FE 59	3.70E-05	3.65E-05	3.59E-05	3.43E-05	3.17E-05	2.72E-05	2.33E-05	1.72E-05	7.96E-06	1.70E-06	3.65E-07
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CU 64	2.83E-02	7.70E-03	2.10E-03	4.27E-05	6.40E-08	1.46E-13	3.30E-19	1.70E-30	0.	0.	0.
CU 67	3.43E-05	2.61E-05	2.00E-05	8.88E-06	2.31E-06	1.56E-07	1.05E-08	4.78E-11	6.68E-17	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W187	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PB203	2.43E-04	1.77E-04	1.28E-04	4.91E-05	9.96E-06	4.10E-07	1.68E-08	2.82E-11	3.30E-18	0.	0.
U237	1.89E-01	1.71E-01	1.54E-01	1.13E-01	6.77E-02	2.42E-02	8.70E-03	1.11E-03	6.56E-06	7.06E-10	4.76E-10
U240	4.65E-01	1.43E-01	4.40E-02	1.27E-03	3.50E-06	2.63E-11	1.98E-16	1.12E-26	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP239	2.67E-04	4.07E-01	3.03E-01	1.25E-01	2.86E-02	1.50E-03	7.84E-05	2.15E-07	8.45E-14	2.02E-23	2.02E-23
NP240M	7.36E-04	1.44E-01	4.43E-02	1.28E-03	3.53E-06	2.66E-11	2.00E-16	1.13E-26	0.	0.	0.
AM241	1.43E-10	1.43E-10	1.43E-10	1.43E-10	1.43E-10	1.43E-10	1.43E-10	1.43E-10	1.43E-10	1.43E-10	1.43E-10
CM242	2.88E-09	2.87E-09	2.85E-09	2.82E-09	2.77E-09	2.65E-09	2.54E-09	2.33E-09	1.90E-09	1.23E-09	8.07E-10
GE 77	6.15E-03	3.87E-03	8.86E-04	1.07E-05	6.81E-09	2.76E-15	1.11E-21	1.81E-34	0.	0.	0.
AS 77	6.35E-05	9.38E-03	6.79E-03	1.96E-03	2.30E-04	3.12E-06	4.24E-08	7.81E-12	3.62E-21	7.76E-40	1.67E-58
SE 77M	2.50E-09	2.82E-05	2.03E-05	5.90E-06	6.88E-07	9.36E-09	1.27E-10	2.35E-14	1.09E-23	2.32E-42	5.01E-61
AS 78	1.48E-02	1.32E-04	3.87E-09	3.27E-23	0.	0.	0.	0.	0.	0.	0.
BR 82	5.15E-04	3.21E-04	2.01E-04	4.88E-05	4.62E-06	4.16E-08	3.73E-10	3.01E-14	1.76E-24	6.03E-45	2.05E-65
BR 83	4.06E-01	1.07E-02	1.07E-05	1.09E-14	1.11E-29	0.	0.	0.	0.	0.	0.
KR 83M	2.10E-05	4.67E-02	5.31E-05	4.77E-14	4.90E-29	0.	0.	0.	0.	0.	0.
KR 85M	5.27E-03	3.01E-01	6.86E-03	8.15E-08	5.02E-16	1.91E-32	7.23E-49	0.	0.	0.	0.
KR 85	5.46E-06	1.43E-04	1.46E-04	1.46E-04	1.46E-04	1.46E-04	1.46E-04	1.45E-04	1.44E-04	1.41E-04	1.39E-04
KR 87	8.63E+01	1.70E-04	3.37E-10	2.61E-27	0.	0.	0.	0.	0.	0.	0.
KR 88	5.00E+01	1.32E-01	3.45E-04	6.27E-12	7.89E-25	0.	0.	0.	0.	0.	0.
RB 88	1.27E+01	1.47E-01	3.86E-04	7.01E-12	8.79E-25	0.	0.	0.	0.	0.	0.
SR 89	4.55E-06	1.36E-01	1.34E-01	1.29E-01	1.21E-01	1.06E-01	9.25E-02	7.12E-02	3.64E-02	9.58E-03	2.53E-03
SR 90	9.01E-06	9.25E-04	9.25E-04	9.25E-04	9.25E-04	9.25E-04	9.25E-04	9.25E-04	9.17E-04	9.17E-04	9.09E-04
Y 90	1.33E-11	2.12E-04	3.75E-04	6.74E-04	8.60E-04	9.17E-04	9.25E-04	9.25E-04	9.17E-04	9.17E-04	9.09E-04
SR 91	1.05E+00	3.76E+00	6.73E-01	3.86E-03	7.06E-07	2.40E-14	8.12E-22	9.24E-37	0.	0.	0.

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 9

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO	TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
Y 91M	7.06E-05	2.43E+00	4.34E-01	2.50E-03	4.58E-07	1.54E-14	5.23E-22	5.97E-37	0.	0.	0.	0.
Y 91	2.89E-08	1.16E-01	1.37E-01	1.37E-01	1.29E-01	1.14E-01	1.02E-01	8.05E-02	4.46E-02	1.37E-02	4.22E-03	0.
SR 92	7.60E+00	9.47E-02	2.04E-04	2.05E-12	9.61E-26	0.	0.	0.	0.	0.	0.	0.
Y 92	3.50E-01	9.93E-01	1.10E-02	8.48E-09	4.95E-19	1.69E-39	5.80E-60	0.	0.	0.	0.	0.
Y 93	3.64E-01	2.46E+00	4.79E-01	3.60E-03	1.04E-06	8.56E-14	7.07E-21	4.83E-35	0.	0.	0.	0.
ZR 95	6.87E-04	8.59E-02	8.50E-02	8.23E-02	7.81E-02	6.99E-02	6.30E-02	5.09E-02	2.98E-02	1.03E-02	3.53E-03	0.
NB 95M	1.46E-11	2.91E-04	5.31E-04	1.01E-03	1.37E-03	1.44E-03	1.33E-03	1.08E-03	6.33E-04	2.18E-04	7.51E-05	0.
NB 95	7.66E-11	1.66E-03	3.29E-03	7.87E-03	1.46E-02	2.52E-02	3.26E-02	4.04E-02	3.89E-02	1.87E-02	7.17E-03	0.
ZR 97	1.62E+00	2.77E+00	1.04E+00	5.51E-02	4.14E-04	2.33E-08	1.31E-12	4.14E-21	2.34E-42	0.	0.	0.
NB 97M	8.36E-03	2.66E+00	9.98E-01	5.31E-02	3.97E-04	2.24E-08	1.26E-12	3.97E-21	2.25E-42	0.	0.	0.
NB 97	8.14E-01	2.78E+00	1.04E+00	5.54E-02	4.17E-04	2.51E-08	1.41E-12	4.47E-21	2.52E-42	0.	0.	0.
MO 99	4.72E-03	1.53E+00	1.20E+00	5.68E-01	1.64E-01	1.37E-02	1.14E-03	7.99E-06	3.24E-11	5.35E-22	8.80E-33	0.
TC 99M	4.39E-08	1.35E+00	1.14E+00	5.44E-01	1.57E-01	1.31E-02	1.09E-03	7.63E-06	3.09E-11	5.11E-22	8.41E-33	0.
RU103	6.70E-05	1.53E-01	1.50E-01	1.42E-01	1.31E-01	1.10E-01	9.19E-02	6.49E-02	2.70E-02	4.68E-03	8.16E-04	0.
RH103M	4.47E-09	1.53E-01	1.50E-01	1.43E-01	1.31E-01	1.10E-01	9.19E-02	6.49E-02	2.70E-02	4.68E-03	8.16E-04	0.
RU105	3.79E-01	3.62E-01	8.51E-03	1.12E-07	8.18E-16	4.37E-32	2.34E-48	0.	0.	0.	0.	0.
RH105M	2.49E-03	3.62E-01	8.54E-03	1.12E-07	8.21E-16	4.40E-32	2.35E-48	0.	0.	0.	0.	0.
RU105	4.09E-09	1.31E+00	8.54E-01	2.13E-01	2.10E-02	2.04E-04	1.98E-06	1.87E-10	1.62E-20	1.22E-40	9.15E-61	0.
RH106	3.02E-04	5.73E-03	5.70E-03	5.68E-03	5.63E-03	5.53E-03	5.40E-03	5.20E-03	4.73E-03	3.92E-03	3.25E-03	0.
PD109	3.27E-06	5.73E-03	5.70E-03	5.68E-03	5.63E-03	5.53E-03	5.40E-03	5.20E-03	4.73E-03	3.92E-03	3.25E-03	0.
AG109M	7.32E-03	1.86E-01	5.43E-02	1.35E-03	2.84E-06	1.27E-11	5.63E-17	1.11E-27	0.	0.	0.	0.
PD111M	4.22E-05	1.86E-01	5.44E-02	1.35E-03	2.85E-06	1.27E-11	5.63E-17	1.12E-27	0.	0.	0.	0.
PD111	1.11E+00	5.39E-02	2.62E-03	3.01E-07	8.13E-14	5.93E-27	4.36E-40	0.	0.	0.	0.	0.
AG111M	3.96E-01	4.36E-02	2.11E-03	2.42E-07	6.56E-14	4.77E-27	3.50E-40	0.	0.	0.	0.	0.
AG111	3.15E-03	5.68E-02	2.77E-03	3.18E-07	8.59E-14	6.31E-27	4.61E-40	0.	0.	0.	0.	0.
PD112	1.12E-09	3.09E-02	2.97E-02	2.26E-02	1.42E-02	5.64E-03	2.24E-03	3.53E-04	3.47E-06	3.37E-10	3.26E-14	0.
AG112	3.20E-01	1.45E-01	6.57E-02	6.10E-03	1.16E-04	4.21E-08	1.53E-11	2.01E-18	1.27E-35	0.	0.	0.
AG113	9.63E-06	1.69E-01	7.75E-02	7.19E-03	1.37E-04	4.97E-08	1.80E-11	2.38E-18	1.49E-35	0.	0.	0.
CD115M	4.16E-03	4.39E-02	1.90E-03	1.54E-07	2.36E-14	5.53E-28	1.29E-41	0.	0.	0.	0.	0.
CD115	1.40E-08	4.04E-04	3.97E-04	3.78E-04	3.50E-04	2.97E-04	2.53E-04	1.83E-04	8.18E-05	1.63E-05	3.25E-06	0.
IN115M	5.39E-06	8.12E-02	5.95E-02	2.34E-02	4.95E-03	2.21E-04	9.85E-06	1.96E-08	3.47E-15	1.09E-28	3.40E-42	0.
CD117	6.72E-11	8.56E-02	6.49E-02	2.56E-02	5.39E-03	2.41E-04	1.07E-05	2.14E-08	3.79E-15	1.19E-28	3.71E-42	0.
IN117M	1.20E-01	2.62E-03	2.55E-06	2.38E-15	2.11E-30	0.	0.	0.	0.	0.	0.	0.
IN117	5.78E-06	1.09E-02	1.26E-05	1.22E-14	1.08E-29	0.	0.	0.	0.	0.	0.	0.
SN121	2.33E-10	7.18E-03	8.50E-06	8.23E-15	7.30E-30	0.	0.	0.	0.	0.	0.	0.
SN123	2.49E-03	1.42E-01	7.66E-02	1.21E-02	5.53E-04	1.17E-06	2.46E-09	1.10E-14	4.58E-28	0.	0.	0.
SN125	1.16E-05	1.22E-03	1.20E-03	1.18E-03	1.15E-03	1.09E-03	1.03E-03	9.23E-04	6.99E-04	4.02E-04	2.31E-04	0.
SB125	2.69E-02	2.50E-02	2.32E-02	1.86E-02	1.28E-02	6.16E-03	2.94E-03	6.73E-04	1.68E-05	1.06E-08	6.64E-12	0.
SB126	1.61E-04	1.79E-04	1.96E-04	2.39E-04	2.93E-04	3.55E-04	3.83E-04	3.99E-04	3.91E-04	3.65E-04	3.40E-04	0.
SB126	3.74E-03	3.54E-03	3.35E-03	2.83E-03	2.15E-03	1.23E-03	7.10E-04	2.34E-04	1.46E-05	7.10E-08	1.43E-08	0.

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 10

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO	TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
SN127	4.37E+00	1.58E-03	5.75E-07	2.75E-17	1.72E-34	0.	0.	0.	0.	0.	0.	0.
SB127	5.10E-02	2.09E-01	1.75E-01	1.02E-01	4.19E-02	7.00E-03	1.17E-03	3.27E-05	4.27E-09	7.28E-17	1.24E-24	0.
TE127M	4.13E-10	3.19E-04	5.85E-04	1.13E-03	1.57E-03	1.73E-03	1.67E-03	1.48E-03	1.08E-03	5.69E-04	3.01E-04	0.
TE127	2.88E-02	1.50E-01	1.47E-01	8.97E-02	3.79E-02	7.77E-03	2.66E-03	1.49E-03	1.06E-03	5.63E-04	2.98E-04	0.
SB128	1.18E+00	2.02E-01	3.19E-02	1.24E-04	1.21E-08	1.13E-16	1.07E-24	9.39E-41	0.	0.	0.	0.
SB129	6.22E+00	3.19E-01	6.65E-03	6.06E-08	2.41E-16	3.80E-33	6.00E-50	0.	0.	0.	0.	0.
TE129M	1.18E-07	1.24E-02	1.24E-02	1.17E-02	1.06E-02	8.61E-03	7.00E-03	4.66E-03	1.68E-03	2.19E-04	2.85E-05	0.
TE129	4.48E+00	3.73E-01	1.55E-02	7.49E-03	6.76E-03	5.51E-03	4.50E-03	2.99E-03	1.08E-03	1.41E-04	1.83E-05	0.
II30	2.67E-02	6.97E-03	1.82E-03	3.26E-05	3.98E-08	5.93E-14	8.85E-20	1.97E-31	0.	0.	0.	0.
TE131M	9.89E-05	3.46E-01	1.98E-01	3.76E-02	2.35E-03	9.17E-06	3.59E-08	5.48E-13	4.98E-25	0.	0.	0.
TE131	9.11E+01	6.31E-02	3.62E-02	6.88E-03	4.29E-04	1.68E-06	6.54E-09	1.00E-13	9.11E-26	0.	0.	0.
II31	1.32E-02	7.14E-01	6.75E-01	5.42E-01	3.57E-01	1.51E-01	6.38E-02	1.14E-02	1.54E-04	2.80E-08	5.11E-12	0.
XET131M	3.59E-11	3.31E-04	6.28E-04	1.31E-03	1.87E-03	1.85E-03	1.38E-03	5.68E-04	3.79E-05	1.13E-07	3.20E-10	0.
TE132	1.05E+00	2.08E+00	1.68E+00	8.84E-01	3.05E-01	3.61E-02	4.28E-03	6.01E-05	1.41E-09	7.69E-19	4.20E-28	0.
II32	2.58E+00	2.14E+00	1.73E+00	9.09E-01	3.14E-01	3.72E-02	4.41E-03	6.19E-05	1.45E-09	7.88E-19	4.32E-28	0.
II33	1.12E+00	6.25E+00	2.82E+00	2.62E-01	4.99E-03	1.81E-06	6.56E-10	8.64E-17	5.43E-34	0.	0.	0.
XET133M	4.77E-08	5.90E-02	6.98E-02	4.10E-02	9.62E-03	4.52E-04	2.10E-05	4.56E-08	9.99E-15	4.77E-28	2.29E-41	0.
XET133	8.33E-07	1.13E+00	1.52E+00	1.36E+00	7.41E-01	2.00E-01	5.38E-02	3.88E-03	5.40E-06	1.05E-11	2.03E-17	0.
II35	1.87E+01	3.06E+00	2.55E-01	1.49E-04	6.03E-10	9.97E-21	1.64E-31	4.45E-53	0.	0.	0.	0.
XET135M	2.07E-03	9.53E-01	7.97E-02	4.64E-05	1.89E-10	3.10E-21	5.11E-32	1.39E-53	0.	0.	0.	0.
XET135	2.16E+00	8.24E+00	2.01E+00	1.15E-02	1.41E-06	1.98E-14	2.78E-22	5.49E-38	0.	0.	0.	0.
CS136	5.50E-03	5.21E-03	4.94E-03	4.21E-03	3.23E-03	1.90E-03	1.11E-03	3.83E-04	2.66E-05	1.28E-07	6.22E-10	0.
CS137	9.25E-05	9.97E-04	9.97E-04	9.97E-04	9.97E-04	9.97E-04	9.97E-04	9.97E-04	9.92E-04	9.86E-04	9.81E-04	0.
BA137M	1.95E-07	9.31E-04	9.31E-04	9.31E-04	9.31E-04	9.31E-04	9.31E-04	9.31E-04	9.25E-04	9.20E-04	9.14E-04	0.
BA139	1.22E+01	1.30E-03	7.68E-09	1.58E-24	0.	0.	0.	0.	0.	0.	0.	0.
BA140	1.14E-01	6.72E-01	6.40E-01	5.42E-01	4.14E-01	2.41E-01	1.40E-01	4.74E-02	3.17E-03	1.41E-05	6.24E-08	0.
LA140	2.71E-07	2.34E-01	3.77E-01	5.21E-01	4.63E-01	2.77E-01	1.61E-01	5.48E-02	3.64E-03	1.62E-05	7.21E-08	0.
LA141	1.58E+00	6.26E-01	8.78E-03	2.43E-08	1.33E-17	3.97E-36	1.18E-54	0.	0.	0.	0.	0.
CE141	1.95E-07	2.16E-01	2.15E-01	2.02E-01	1.81E-01	1.46E-01	1.18E-01	7.68E-02	2.64E-02	3.10E-03	3.66E-04	0.
LA142	7.73E+00	1.69E-03	3.28E-08	2.41E-22	0.	0.	0.	0.	0.	0.	0.	0.
CE143	5.20E-02	2.14E+00	1.29E+00	2.85E-01	2.29E-02	1.48E-04	9.58E-07	4.01E-11	4.53E-22	0.	0.	0.
PR143	1.52E-08	1.37E-01	2.13E-01	2.75E-01	2.36E-01	1.44E-01	8.67E-02	3.13E-02	2.51E-03	1.59E-05	1.01E-07	0.
CE144	2.11E-03	1.51E-02	1.50E-02	1.49E-02	1.47E-02	1.44E-02	1.40E-02	1.34E-02	1.18E-02	9.26E-03	7.27E-03	0.
PR144	5.78E-07	1.51E-02	1.50E-02	1.49E-02	1.47E-02	1.44E-02	1.40E-02	1.34E-02	1.18E-02	9.26E-03	7.27E-03	0.
PR145	8.29E-02	8.47E-01	5.24E-02	1.24E-05	1.13E-11	9.38E-24	7.78E-36	0.	0.	0.	0.	0.
ND147	9.83E-06	1.65E-01	1.55E-01	1.29E-01	9.42E-02	5.06E-02	2.70E-02	7.77E-03	3.40E-04	6.63E-07	1.29E-09	0.
PM147	2.73E-14	1.24E-04	2.39E-04	5.47E-04	9.45E-04	1.44E-03	1.70E-03	1.90E-03	1.92E-03	1.79E-03	1.66E-03	0.
ND149	1.29E+01	1.25E-03	1.21E-07	1.10E-19	9.39E-40	0.	0.	0.	0.	0.	0.	0.
PM149	1.79E-03	3.31E-01	2.42E-01	9.46E-02	1.98E-02	8.61E-04	3.75E-05	7.13E-08	1.12E-14	2.77E-28	6.91E-42	0.
PM150	1.46E-01	3.08E-04	6.48E-07	6.08E-15	2.54E-28	0.	0.	0.	0.	0.	0.	0.

GRALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 11

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO	TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
PM151	2.87E-02	1.96E-01	1.08E-01	1.82E-02	9.32E-04	2.45E-06	6.45E-09	4.45E-14	5.58E-27	0.	0.	0.
SM153	9.38E-02	6.59E-02	4.63E-02	1.60E-02	2.72E-03	7.91E-05	2.30E-06	1.93E-09	3.98E-17	1.70E-32	7.21E-48	0.
SM156	5.93E-02	1.01E-02	1.72E-03	8.50E-06	1.22E-09	2.51E-17	5.19E-25	2.21E-40	0.	0.	0.	0.
EU155	6.05E-06	2.05E-04	2.05E-04	2.05E-04	2.04E-04	2.03E-04	2.03E-04	2.01E-04	1.97E-04	1.89E-04	1.82E-04	1.82E-04
EU156	1.73E-04	1.41E-03	1.56E-03	1.40E-03	1.11E-03	6.99E-04	4.41E-04	1.75E-04	1.73E-05	1.71E-07	1.68E-09	0.
EU157	9.50E-03	1.10E-02	3.69E-03	1.38E-04	5.82E-07	1.03E-11	1.82E-16	5.65E-26	0.	0.	0.	0.
GD159	1.27E-03	2.49E-03	9.92E-04	6.19E-05	6.09E-07	5.90E-11	5.72E-15	5.36E-23	4.58E-43	0.	0.	0.
TB161	1.91E-05	1.25E-04	1.13E-04	8.33E-05	5.04E-05	1.85E-05	6.76E-06	9.05E-07	5.99E-09	2.59E-13	1.13E-17	0.
TOTAL	3.32E+02	5.83E+01	2.45E+01	8.91E+00	4.41E+00	1.97E+00	1.22E+00	6.66E-01	2.86E-01	9.96E-02	4.76E-02	0.

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 50 YEARS

	ZERO	TIME	1.00E+00	1.50E+00	2.00E+00	3.50E+00	5.00E+00	7.00E+00	1.00E+01	2.00E+01	3.50E+01	5.00E+01
BE 7	1.68E-04	1.45E-06	1.35E-07	1.25E-08	1.01E-11	8.08E-15	6.04E-19	3.88E-25	0.	0.	0.	0.
MN 54	4.31E-05	1.86E-05	1.22E-05	8.04E-06	2.30E-06	6.55E-07	1.23E-07	1.01E-08	2.37E-12	8.57E-18	3.10E-23	0.
FE 59	3.70E-05	1.34E-07	8.02E-09	4.82E-10	1.05E-13	2.26E-17	2.95E-22	1.38E-29	0.	0.	0.	0.
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	1.89E-01	4.72E-10	4.60E-10	4.47E-10	4.19E-10	3.89E-10	3.53E-10	3.06E-10	1.91E-10	9.36E-11	4.60E-11	0.
AM241	1.43E-10	1.43E-10	1.43E-10	1.43E-10	1.44E-10	1.44E-10	1.44E-10	1.45E-10	1.46E-10	1.44E-10	1.42E-10	0.
CM242	2.88E-09	6.11E-10	2.81E-10	1.29E-10	1.26E-11	1.23E-12	5.50E-14	5.20E-16	1.49E-20	1.39E-20	1.30E-20	0.
KR 85	5.46E-06	1.36E-04	1.31E-04	1.27E-04	1.16E-04	1.05E-04	9.20E-05	7.58E-05	4.01E-05	1.53E-05	5.85E-06	0.
SR 89	4.55E-06	1.06E-03	9.32E-05	8.19E-06	5.51E-09	3.72E-12	2.20E-16	9.98E-23	7.25E-44	0.	0.	0.
SR 90	9.01E-06	9.01E-04	8.93E-04	8.84E-04	8.52E-04	8.19E-04	7.80E-04	7.24E-04	5.66E-04	3.91E-04	2.70E-04	0.
Y 90	1.33E-11	9.01E-04	8.93E-04	8.84E-04	8.52E-04	8.19E-04	7.80E-04	7.24E-04	5.66E-04	3.91E-04	2.70E-04	0.
Y 91	2.89E-08	1.95E-03	2.27E-04	2.64E-05	4.14E-08	6.50E-11	1.19E-14	2.92E-20	5.89E-39	0.	0.	0.
ZR 95	6.87E-04	1.77E-03	2.52E-04	3.59E-05	1.05E-07	3.04E-10	1.26E-13	1.06E-18	1.30E-35	0.	0.	0.
NB 95M	1.46E-11	3.74E-05	5.34E-06	7.63E-07	2.22E-09	6.45E-12	2.67E-15	2.25E-20	2.76E-37	0.	0.	0.
NB 95	7.66E-11	3.80E-03	5.46E-04	7.78E-05	2.25E-07	6.54E-10	2.73E-13	2.31E-18	2.82E-35	0.	0.	0.
RU103	6.70E-05	2.60E-04	1.07E-05	4.38E-07	2.99E-11	2.05E-15	5.76E-21	2.71E-29	0.	0.	0.	0.
RH103M	4.47E-09	2.61E-04	1.07E-05	4.38E-07	2.99E-11	2.05E-15	5.76E-21	2.71E-29	0.	0.	0.	0.
RU106	3.02E-04	2.88E-03	2.03E-03	1.44E-03	5.13E-04	1.82E-04	4.59E-05	5.80E-06	5.85E-09	1.88E-13	6.05E-18	0.
RH106	3.27E-06	2.88E-03	2.03E-03	1.44E-03	5.13E-04	1.82E-04	4.59E-05	5.80E-06	5.85E-09	1.88E-13	6.05E-18	0.
SN123	1.16E-05	1.61E-04	5.84E-05	2.12E-05	1.02E-06	4.88E-08	8.51E-10	1.96E-12	3.15E-21	2.03E-34	1.30E-47	0.
SB125	1.61E-04	3.25E-04	2.86E-04	2.51E-04	1.71E-04	1.17E-04	6.96E-05	3.22E-05	2.48E-06	5.27E-08	1.12E-09	0.
TE125M	4.35E-12	1.33E-04	1.18E-04	1.04E-04	7.09E-05	4.82E-05	2.89E-05	1.33E-05	1.02E-06	2.18E-08	4.65E-10	0.
TE127M	4.13E-10	1.98E-04	6.18E-05	1.93E-05	5.95E-07	1.83E-08	1.76E-10	1.65E-13	1.36E-23	1.02E-38	7.56E-54	0.
TE127	2.88E-02	1.95E-04	6.11E-05	1.91E-05	5.88E-07	1.81E-08	1.74E-10	1.64E-13	1.34E-23	1.00E-38	7.49E-54	0.
CS137	9.25E-05	9.75E-04	9.64E-04	9.53E-04	9.20E-04	8.86E-04	8.48E-04	7.92E-04	6.26E-04	4.45E-04	3.14E-04	0.
BA137M	1.95E-07	9.14E-04	9.03E-04	8.92E-04	8.59E-04	8.31E-04	7.92E-04	7.42E-04	5.87E-04	4.16E-04	2.94E-04	0.
CE141	1.95E-07	8.41E-05	1.69E-06	3.40E-08	2.77E-13	2.25E-18	3.69E-25	2.45E-35	0.	0.	0.	0.
CE144	2.11E-03	6.19E-03	3.98E-03	2.54E-03	6.67E-04	1.75E-04	2.95E-05	2.04E-06	2.74E-10	4.30E-16	6.70E-22	0.
PR144	5.78E-07	6.19E-03	3.98E-03	2.54E-03	6.67E-04	1.75E-04	2.95E-05	2.04E-06	2.74E-10	4.30E-16	6.70E-22	0.
PM147	2.73E-14	1.59E-03	1.39E-03	1.22E-03	8.17E-04	5.50E-04	3.23E-04	1.47E-04	1.04E-05	1.97E-07	3.72E-09	0.
EU155	6.05E-06	1.77E-04	1.65E-04	1.53E-04	1.23E-04	9.90E-05	7.39E-05	4.77E-05	1.12E-05	1.25E-06	1.41E-07	0.
TOTAL	2.22E-01	3.40E-02	1.91E-02	1.36E-02	7.15E-03	4.99E-03	3.94E-03	3.31E-03	2.41E-03	1.66E-03	1.15E-03	0.

ORALLOY
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.07E+02	1.02E+04
1.00E+00	3.78E+01	2.26E+03
2.00E+00	1.49E+01	9.21E+02
3.00E+00	7.67E+00	5.48E+02
4.00E+00	4.60E+00	3.85E+02
6.00E+00	2.31E+00	2.41E+02
9.00E+00	1.36E+00	1.57E+02
1.20E+01	1.00E+00	1.16E+02
1.50E+01	7.83E-01	9.14E+01
1.80E+01	6.34E-01	7.45E+01
2.10E+01	5.25E-01	6.22E+01
1.00E+00 DAYS	4.37E-01	5.21E+01
2.00E+00	1.89E-01	2.16E+01
5.00E+00	8.03E-02	8.41E+00
1.00E+01	3.94E-02	4.34E+00
2.00E+01	1.55E-02	1.91E+00
3.00E+01	8.33E-03	1.15E+00
5.00E+01	3.24E-03	6.06E-01
1.00E+02	6.80E-04	2.40E-01
2.00E+02	1.72E-04	7.15E-02
3.00E+02	7.09E-05	3.16E-02
1.00E+00 YEARS	4.74E-05	2.25E-02
1.50E+00	2.57E-05	1.36E-02
2.00E+00	2.03E-05	1.05E-02
3.50E+00	1.45E-05	6.69E-03
5.00E+00	1.22E-05	5.26E-03
7.00E+00	1.07E-05	4.49E-03
1.00E+01	9.55E-06	3.96E-03
2.00E+01	7.32E-06	3.01E-03
3.50E+01	5.19E-06	2.08E-03
5.00E+01	3.66E-06	1.45E-03

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 3

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
BE 7	4.23E-05	4.22E-05	4.22E-05	4.22E-05	4.22E-05	4.22E-05	4.21E-05	4.20E-05	4.19E-05	4.18E-05	4.18E-05
NA 24	2.78E-03	2.66E-03	2.54E-03	2.42E-03	2.31E-03	2.11E-03	1.84E-03	1.60E-03	1.39E-03	1.21E-03	1.05E-03
MN 54	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.07E-05	1.07E-05	1.07E-05	1.07E-05
FE 55	2.62E-05	2.62E-05	2.62E-05	2.62E-05	2.62E-05	2.62E-05	2.62E-05	2.62E-05	2.62E-05	2.62E-05	2.62E-05
FE 59	9.30E-06	9.29E-06	9.29E-06	9.29E-06	9.29E-06	9.28E-06	9.26E-06	9.25E-06	9.22E-06	9.21E-06	9.19E-06
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CU 64	7.10E-03	6.72E-03	6.37E-03	6.04E-03	5.71E-03	5.13E-03	4.36E-03	3.70E-03	3.15E-03	2.68E-03	2.28E-03
CU 67	8.62E-06	8.54E-06	8.39E-06	8.32E-06	8.25E-06	8.03E-06	7.73E-06	7.51E-06	7.28E-06	7.00E-06	6.80E-06
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W187	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PB203	3.05E-04	3.01E-04	2.97E-04	2.93E-04	2.88E-04	2.82E-04	2.71E-04	2.61E-04	2.50E-04	2.39E-04	2.31E-04
U237	4.75E-02	4.73E-02	4.71E-02	4.69E-02	4.67E-02	4.63E-02	4.57E-02	4.52E-02	4.45E-02	4.39E-02	4.34E-02
U239	2.24E+01	3.82E+00	6.52E-01	1.11E-01	1.89E-02	5.49E-04	2.72E-06	1.34E-08	6.64E-11	3.29E-13	1.63E-15
U240	1.17E-01	1.11E-01	1.06E-01	1.01E-01	9.61E-02	8.70E-02	7.51E-02	6.47E-02	5.59E-02	4.82E-02	4.15E-02
NP239	6.70E-05	1.12E-01	1.30E-01	1.32E-01	1.31E-01	1.28E-01	1.23E-01	1.19E-01	1.14E-01	1.10E-01	1.06E-01
NP240M	1.85E-04	1.12E-01	1.07E-01	1.02E-01	9.70E-02	8.77E-02	7.58E-02	6.54E-02	5.63E-02	4.86E-02	4.20E-02
NP240	4.68E-12	2.41E-12	1.25E-12	6.45E-13	3.34E-13	8.92E-14	1.23E-14	1.70E-15	2.34E-16	3.23E-17	4.46E-18
AM241	3.59E-11	3.59E-11	3.59E-11	3.59E-11	3.59E-11	3.59E-11	3.59E-11	3.59E-11	3.59E-11	3.59E-11	3.59E-11
CM242	7.25E-10	7.25E-10	7.25E-10	7.25E-10	7.25E-10	7.25E-10	7.21E-10	7.21E-10	7.21E-10	7.21E-10	7.21E-10
GE 75	1.74E-05	8.44E-02	5.09E-02	3.06E-02	1.84E-02	6.68E-03	1.46E-03	3.20E-04	6.98E-05	1.52E-05	3.33E-06
GE 77	7.72E-03	1.99E-02	1.87E-02	1.76E-02	1.66E-02	1.46E-02	1.22E-02	1.01E-02	8.44E-03	7.01E-03	5.84E-03
AS 77	7.98E-05	1.26E-02	1.28E-02	1.28E-02	1.29E-02	1.30E-02	1.30E-02	1.29E-02	1.27E-02	1.25E-02	1.22E-02
SE 77M	3.15E-09	3.78E-05	3.83E-05	3.86E-05	3.86E-05	3.89E-05	3.92E-05	3.89E-05	3.83E-05	3.75E-05	3.63E-05
GE 78	1.04E+00	6.48E-01	4.03E-01	2.52E-01	1.57E-01	6.12E-02	1.49E-02	3.60E-03	8.78E-04	2.13E-04	5.18E-05
AS 78	1.86E-02	3.10E-01	3.82E-01	3.57E-01	2.99E-01	1.76E-01	6.55E-02	2.17E-02	6.73E-03	2.01E-03	5.83E-04
AS 79	2.01E+01	1.98E-01	1.95E-03	1.92E-05	1.89E-07	1.83E-11	1.75E-17	1.67E-23	1.59E-29	1.52E-35	1.45E-41
SE 79M	2.98E-02	3.49E-01	3.49E-03	3.40E-05	3.34E-07	3.23E-11	3.08E-17	2.94E-23	2.81E-29	2.68E-35	2.56E-41
BR 80	1.27E-01	1.20E-02	1.13E-03	1.06E-04	9.97E-06	8.84E-08	7.40E-11	6.17E-14	5.14E-17	4.29E-20	3.58E-23
SE 81M	1.05E-01	4.88E+00	2.36E+00	1.13E+00	5.45E-01	1.27E-01	1.42E-02	1.60E-03	1.79E-04	2.01E-05	2.25E-06
SE 81	1.28E+00	5.77E+00	3.34E+00	1.67E+00	8.09E-01	1.89E-01	2.12E-02	2.37E-03	2.65E-04	2.98E-05	3.33E-06
BR 82	6.47E-04	6.34E-04	6.22E-04	6.10E-04	5.98E-04	5.75E-04	5.42E-04	5.11E-04	4.82E-04	4.54E-04	4.29E-04
SE 83	6.14E+01	1.16E+01	2.20E+00	4.18E-01	7.90E-02	2.84E-03	1.93E-05	1.31E-07	8.97E-10	6.08E-12	3.86E-14
BR 83	5.10E-01	7.61E+00	7.04E+00	5.54E+00	4.21E+00	2.38E+00	1.00E+00	4.23E-01	1.79E-01	7.54E-02	3.18E-02
KR 83M	2.63E-05	1.72E+00	3.52E+00	4.37E+00	4.51E+00	3.76E+00	2.22E+00	1.14E+00	5.50E-01	2.54E-01	1.14E-01

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 CM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO	TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
BR 84	1.32E-01	2.27E+01	6.15E+00	1.66E+00	4.49E-01	3.29E-02	6.50E-04	1.28E-05	2.54E-07	5.02E-09	9.92E-11	
KR 85M	6.62E-03	1.42E+01	1.21E+01	1.03E+01	8.82E+00	6.44E+00	4.01E+00	2.51E+00	1.56E+00	9.70E-01	6.06E-01	
KR 87	1.08E+02	6.26E+01	3.62E+01	2.09E+01	1.21E+01	4.05E+00	7.85E-01	1.52E-01	2.95E-02	5.70E-03	1.10E-03	
KR 88	6.28E+01	4.90E+01	3.82E+01	2.98E+01	2.33E+01	1.42E+01	6.76E+00	3.22E+00	1.53E+00	7.29E-01	3.47E-01	
RB 88	1.60E+01	4.96E+01	4.23E+01	3.33E+01	2.61E+01	1.59E+01	7.57E+00	3.61E+00	1.72E+00	8.17E-01	3.88E-01	
RB 89	7.47E+01	7.01E+01	4.72E+00	3.17E-01	2.12E-02	9.61E-05	2.91E-08	8.78E-12	2.68E-15	8.10E-19	2.46E-22	
SR 89	5.72E-06	2.01E-01	2.14E-01	2.14E-01	2.14E-01	2.14E-01	2.14E-01	2.13E-01	2.13E-01	2.12E-01	2.12E-01	
SR 90	1.13E-05	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	
SR 91	1.17E+00	2.17E+01	2.03E+01	1.89E+01	1.76E+01	1.52E+01	1.23E+01	9.92E+00	8.01E+00	6.43E+00	5.19E+00	
Y 91M	7.86E-05	7.49E+00	1.02E+01	1.09E+01	1.08E+01	9.70E+00	7.93E+00	6.38E+00	5.15E+00	4.15E+00	3.35E+00	
Y 91	3.22E-08	6.66E-03	1.54E-02	2.45E-02	3.35E-02	5.02E-02	7.12E-02	8.81E-02	1.02E-01	1.13E-01	1.22E-01	
SR 92	1.91E+00	8.52E+00	6.61E+00	5.11E+00	3.96E+00	2.37E+00	1.10E+00	5.11E-01	2.37E-01	1.10E-01	5.12E-02	
Y 92	8.80E-02	1.79E+00	2.81E+00	3.35E+00	3.55E+00	3.38E+00	2.59E+00	1.77E+00	1.14E+00	7.00E-01	4.22E-01	
SR 93	7.49E+01	1.29E+00	7.12E-03	3.94E-05	2.17E-07	6.64E-12	1.12E-18	1.89E-25	3.19E-32	5.37E-39	9.05E-46	
Y 93	9.14E-02	2.95E+00	2.78E+00	2.60E+00	2.43E+00	2.12E+00	1.72E+00	1.41E+00	1.14E+00	9.37E-01	7.63E-01	
Y 94	1.08E+01	1.48E+01	1.90E+00	2.45E-01	3.16E-02	5.25E-04	1.13E-06	2.42E-09	5.16E-12	1.13E-14	6.25E-16	
Y 95	4.60E+01	4.33E+00	9.54E-02	2.11E-03	4.63E-05	2.25E-08	2.41E-13	2.57E-18	2.75E-23	2.94E-28	3.14E-33	
ZR 95	1.73E-04	2.26E-02	2.30E-02	2.30E-02	2.30E-02	2.30E-02	2.30E-02	2.29E-02	2.29E-02	2.29E-02	2.29E-02	
NB 95	1.92E-11	1.39E-05	3.25E-05	5.10E-05	6.97E-05	1.07E-04	1.62E-04	2.18E-04	2.73E-04	3.28E-04	3.82E-04	
ZR 97	4.08E-01	1.78E+00	1.70E+00	1.64E+00	1.57E+00	1.45E+00	1.28E+00	1.09E+00	9.63E-01	8.50E-01	7.52E-01	
NB 97M	2.10E-03	1.71E+00	1.64E+00	1.57E+00	1.51E+00	1.39E+00	1.23E+00	1.09E+00	9.63E-01	8.50E-01	7.52E-01	
NB 97	2.04E-01	8.92E-01	1.26E+00	1.43E+00	1.50E+00	1.50E+00	1.36E+00	1.22E+00	1.08E+00	9.49E-01	8.43E-01	
NB 98	2.28E+00	1.01E+00	4.47E-01	1.97E-01	8.75E-02	1.71E-02	1.48E-03	1.23E-04	1.11E-05	9.65E-07	8.30E-08	
MO 99	1.18E-03	4.89E-01	4.84E-01	4.79E-01	4.74E-01	4.64E-01	4.51E-01	4.36E-01	4.23E-01	4.11E-01	3.98E-01	
TC 99M	1.10E-08	4.66E-02	8.75E-02	1.24E-01	1.55E-01	2.08E-01	2.63E-01	3.29E-01	3.21E-01	3.33E-01	3.38E-01	
MO101	1.61E+02	7.28E+01	4.23E+00	2.45E-01	1.42E-02	4.76E-05	9.26E-09	1.80E-12	3.51E-16	6.81E-20	1.33E-23	
TC101	6.81E+00	2.04E+02	2.23E+01	1.83E+00	1.33E-01	6.02E-04	1.50E-07	3.37E-11	7.15E-15	1.47E-18	2.97E-22	
MO102	1.27E+03	2.91E+01	6.62E-01	1.51E-02	3.45E-04	1.79E-07	2.13E-12	2.53E-17	2.99E-22	3.55E-27	4.22E-32	
TC102M	8.20E-01	2.46E+01	5.63E-01	1.29E-02	2.93E-04	1.52E-07	1.80E-12	2.14E-17	2.53E-22	3.01E-27	3.57E-32	
TC102	3.84E+03	1.46E+01	3.34E-01	7.59E-03	1.74E-04	9.05E-08	1.07E-12	1.27E-17	1.51E-22	1.79E-27	2.12E-32	
RU103	8.42E-05	1.95E-01	1.95E-01	1.95E-01	1.95E-01	1.94E-01	1.94E-01	1.94E-01	1.93E-01	1.93E-01	1.92E-01	
RH103M	5.61E-09	1.01E-01	1.50E-01	1.73E-01	1.85E-01	1.92E-01	1.94E-01	1.94E-01	1.93E-01	1.93E-01	1.93E-01	
TC104	6.70E+01	4.81E+01	4.81E+00	4.76E-01	4.71E-02	4.64E-04	4.53E-07	4.43E-10	4.32E-13	4.22E-16	4.13E-19	
RU105	4.76E-01	1.65E+01	1.41E+01	1.20E+01	1.03E+01	7.54E+00	4.72E+00	2.95E+00	1.85E+00	1.16E+00	7.26E-01	
RH105M	3.13E-03	1.65E+01	1.41E+01	1.21E+01	1.03E+01	7.57E+00	4.72E+00	2.96E+00	1.85E+00	1.16E+00	7.26E-01	
RH105	5.14E-09	3.35E-01	6.22E-01	8.58E-01	1.06E+00	1.35E+00	1.61E+00	1.74E+00	1.77E+00	1.75E+00	1.71E+00	
RU106	3.80E-04	7.19E-03	7.19E-03	7.19E-03	7.19E-03	7.19E-03	7.19E-03	7.19E-03	7.19E-03	7.19E-03	7.19E-03	
RU106	4.11E-06	7.19E-03	7.19E-03	7.19E-03	7.19E-03	7.19E-03	7.19E-03	7.19E-03	7.19E-03	7.19E-03	7.19E-03	
RH107	7.74E-02	1.05E+01	1.59E+00	2.40E-01	3.62E-02	8.26E-04	2.84E-06	9.81E-09	3.37E-11	1.15E-14	1.15E-17	
PD107M	1.61E-04	2.14E+00	3.23E-01	4.88E-02	7.37E-03	1.68E-04	5.79E-07	2.00E-09	6.86E-12	2.37E-14	8.08E-17	

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
PD109	9.19E-03	7.63E-01	7.25E-01	6.87E-01	6.53E-01	5.89E-01	5.06E-01	4.34E-01	3.72E-01	3.19E-01	2.74E-01
AG109M	5.30E-05	7.63E-01	7.25E-01	6.89E-01	6.54E-01	5.91E-01	5.06E-01	4.34E-01	3.72E-01	3.19E-01	2.74E-01
PD111M	1.40E+00	1.23E+00	1.08E+00	9.59E-01	8.44E-01	6.57E-01	4.49E-01	3.08E-01	2.11E-01	1.44E-01	9.90E-02
PD111	4.97E-01	8.97E-01	8.60E-01	7.66E-01	6.78E-01	5.26E-01	3.61E-01	2.48E-01	1.69E-01	1.16E-01	7.98E-02
AG111M	3.95E-03	1.21E+00	1.14E+00	1.02E+00	8.97E-01	6.93E-01	4.74E-01	3.25E-01	2.23E-01	1.53E-01	1.04E-01
AG111	1.41E-09	4.17E-03	8.76E-03	1.29E-02	1.65E-02	2.25E-02	2.89E-02	3.32E-02	3.59E-02	3.76E-02	3.87E-02
PD112	4.02E-01	3.89E-01	3.76E-01	3.64E-01	3.53E-01	3.29E-01	2.99E-01	2.71E-01	2.45E-01	2.22E-01	2.01E-01
AG112	1.21E-05	7.70E-02	1.36E-01	1.82E-01	2.17E-01	2.60E-01	2.85E-01	2.84E-01	2.71E-01	2.52E-01	2.33E-01
AG113	5.22E-03	1.12E+00	9.80E-01	8.60E-01	7.54E-01	5.80E-01	3.93E-01	2.65E-01	1.79E-01	1.21E-01	8.17E-02
AG115	2.14E+00	2.30E+00	2.86E-01	3.57E-02	4.48E-03	7.00E-05	1.37E-07	2.67E-10	5.17E-13	5.14E-16	4.77E-16
CD115M	1.75E-08	4.66E-04	5.24E-04	5.31E-04	5.31E-04	5.29E-04	5.29E-04	5.29E-04	5.28E-04	5.26E-04	5.26E-04
CD115	6.78E-06	1.28E-01	1.37E-01	1.37E-01	1.35E-01	1.32E-01	1.27E-01	1.22E-01	1.17E-01	1.13E-01	1.09E-01
IN115M	8.44E-11	1.41E-02	3.13E-02	4.65E-02	5.92E-02	7.90E-02	9.75E-02	1.07E-01	1.12E-01	1.13E-01	1.12E-01
CD117	1.51E-01	2.51E+00	1.90E+00	1.42E+00	1.06E+00	5.95E-01	2.50E-01	1.05E-01	4.43E-02	1.86E-02	7.83E-03
IN117M	7.26E-06	8.75E-01	1.27E+00	1.37E+00	1.33E+00	1.05E+00	5.99E-01	3.06E-01	1.47E-01	6.82E-02	3.08E-02
IN117	2.92E-10	1.60E-01	3.86E-01	5.37E-01	5.99E-01	5.51E-01	3.51E-01	1.88E-01	9.33E-02	4.39E-02	2.02E-02
CD118	1.01E-01	4.31E+00	1.85E+00	7.89E-01	3.38E-01	6.18E-02	4.85E-03	3.79E-04	2.98E-05	2.34E-06	1.83E-07
IN118	6.67E-01	4.31E+00	1.85E+00	7.91E-01	3.38E-01	6.20E-02	4.85E-03	3.81E-04	2.98E-05	2.34E-06	1.83E-07
CD119	2.52E+01	3.93E-01	6.13E-03	9.58E-05	1.50E-06	3.66E-10	1.40E-15	5.34E-21	2.03E-26	7.76E-32	2.97E-37
IN119M	3.80E-02	4.25E+00	4.62E-01	4.66E-02	4.64E-03	4.57E-05	4.45E-08	4.36E-11	4.25E-14	4.15E-17	4.06E-20
IN119	1.87E+00	2.24E-01	2.59E-02	2.63E-03	2.63E-04	2.57E-06	2.52E-09	2.46E-12	2.41E-15	2.35E-18	2.29E-21
SN121	3.13E-03	3.22E-01	3.13E-01	3.05E-01	2.98E-01	2.83E-01	2.61E-01	2.43E-01	2.24E-01	2.08E-01	1.93E-01
SN123M	1.55E+00	2.91E+00	1.03E+00	3.64E-01	1.29E-01	1.61E-02	7.11E-04	3.15E-05	1.39E-06	6.15E-08	2.72E-09
SN123	1.46E-05	1.53E-03	1.53E-03	1.53E-03	1.53E-03	1.53E-03	1.53E-03	1.53E-03	1.53E-03	1.53E-03	1.53E-03
SN125	3.38E-02	3.37E-02	3.36E-02	3.35E-02	3.33E-02	3.32E-02	3.29E-02	3.25E-02	3.23E-02	3.19E-02	3.17E-02
SB125	2.03E-04	2.04E-04	2.05E-04	2.05E-04	2.06E-04	2.08E-04	2.12E-04	2.14E-04	2.17E-04	2.20E-04	2.22E-04
SB126	4.70E-03	4.68E-03	4.67E-03	4.67E-03	4.65E-03	4.63E-03	4.60E-03	4.57E-03	4.53E-03	4.50E-03	4.47E-03
SN127	5.49E+00	3.94E+00	2.83E+00	2.04E+00	1.47E+00	7.58E-01	2.82E-01	1.05E-01	3.88E-02	1.44E-02	5.36E-03
SB127	6.41E-02	2.21E-01	2.45E-01	2.60E-01	2.72E-01	2.83E-01	2.88E-01	2.85E-01	2.81E-01	2.75E-01	2.69E-01
TE127	3.62E-02	4.50E-02	5.47E-02	6.49E-02	7.51E-02	9.41E-02	1.21E-01	1.41E-01	1.57E-01	1.69E-01	1.77E-01
SN128	3.53E+01	1.74E+01	8.62E+00	4.26E+00	2.11E+00	5.14E-01	6.21E-02	7.49E-03	9.03E-04	1.10E-04	1.32E-05
SB128M	1.80E-02	1.98E+01	1.03E+01	5.08E+00	2.51E+00	6.14E-01	7.40E-02	8.93E-03	1.08E-03	1.30E-04	1.57E-05
SB128	1.49E+00	1.43E+00	1.35E+00	1.26E+00	1.18E+00	1.01E+00	8.07E-01	6.40E-01	5.08E-01	4.03E-01	3.20E-01
SN129M	2.08E+01	1.04E+01	5.21E+00	2.60E+00	1.30E+00	3.25E-01	4.07E-02	5.09E-03	6.36E-04	7.95E-05	9.94E-06
SN129	1.39E+02	1.36E+00	1.35E-02	1.33E-04	1.30E-06	1.27E-10	1.21E-16	1.15E-22	1.10E-28	1.05E-34	1.00E-40
SB129	7.82E+00	1.31E+01	1.23E+01	1.10E+01	9.68E+00	7.19E+00	4.48E+00	2.77E+00	1.71E+00	1.06E+00	6.49E-01
TE129M	1.48E-07	1.64E-03	3.37E-03	4.95E-03	6.36E-03	8.62E-03	1.09E-02	1.23E-02	1.32E-02	1.37E-02	1.41E-02
TE129	5.63E+00	7.74E+00	9.06E+00	9.41E+00	9.06E+00	7.50E+00	5.00E+00	3.15E+00	1.96E+00	1.21E+00	7.53E-01
SB130M	7.02E-01	1.32E+00	3.48E-03	9.13E-06	2.41E-08	1.66E-13	3.02E-21	5.50E-29	9.97E-37	1.81E-44	3.30E-52
SB130	1.20E+02	3.64E+01	1.04E+01	2.93E+00	8.30E-01	6.67E-02	1.52E-03	3.47E-05	7.92E-07	1.80E-08	4.12E-10

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
II130	3.35E-02	3.17E-02	3.00E-02	2.83E-02	2.68E-02	2.40E-02	2.02E-02	1.71E-02	1.45E-02	1.23E-02	1.04E-02
SB131	2.58E+02	6.75E+01	1.10E+01	1.81E+00	2.97E-01	8.00E-03	3.52E-05	1.56E-07	6.85E-10	3.02E-12	1.51E-14
TE131M	1.24E-04	6.50E-01	7.41E-01	7.42E-01	7.28E-01	6.96E-01	6.49E-01	6.06E-01	5.65E-01	5.28E-01	4.92E-01
TE131	1.14E+02	1.24E+02	4.05E+01	1.05E+01	2.56E+00	2.40E-01	1.19E-01	1.10E-01	1.03E-01	9.63E-02	8.97E-02
II131	1.66E-02	5.76E-01	8.48E-01	9.30E-01	9.46E-01	9.55E-01	9.55E-01	9.46E-01	9.46E-01	9.38E-01	9.38E-01
TE132	1.32E+00	3.20E+00	3.17E+00	3.15E+00	3.12E+00	3.06E+00	2.98E+00	2.90E+00	2.83E+00	2.75E+00	2.68E+00
II132	3.24E+00	3.23E+00	3.22E+00	3.20E+00	3.18E+00	3.14E+00	3.07E+00	2.99E+00	2.91E+00	2.84E+00	2.76E+00
TE133M	1.62E-01	5.60E+01	2.44E+01	1.06E+01	4.62E+00	8.77E-01	7.22E-02	5.96E-03	4.91E-04	4.05E-05	3.34E-06
TE133	9.08E+02	5.15E+01	5.73E+00	1.89E+00	8.00E-01	1.52E-01	1.25E-02	1.03E-03	8.54E-05	7.03E-06	5.80E-07
II133	1.41E+00	1.52E+01	1.64E+01	1.64E+01	1.61E+01	1.52E+01	1.39E+01	1.25E+01	1.13E+01	1.03E+01	9.31E+00
XE133M	6.00E-08	3.41E-03	8.23E-03	1.32E-02	1.79E-02	2.69E-02	3.90E-02	4.95E-02	5.83E-02	6.60E-02	7.23E-02
XE133	1.05E-06	5.96E-02	1.45E-01	2.31E-01	3.17E-01	4.80E-01	7.04E-01	9.00E-01	1.08E+00	1.23E+00	1.37E+00
TE134	2.79E+02	1.29E+02	4.81E+01	1.79E+01	6.63E+00	9.19E-01	4.70E-02	2.41E-03	1.23E-04	6.33E-06	3.24E-07
II134	1.28E+02	1.71E+02	1.20E+02	7.01E+01	3.76E+01	9.55E+00	1.05E+00	1.07E-01	1.05E-02	1.01E-03	9.55E-05
II135	2.36E+01	4.15E+01	3.74E+01	3.37E+01	3.05E+01	2.47E+01	1.81E+01	1.33E+01	9.75E+00	7.17E+00	5.24E+00
XE135M	2.61E-03	1.20E+01	1.16E+01	1.06E+01	9.47E+00	7.71E+00	5.66E+00	4.15E+00	3.05E+00	2.23E+00	1.64E+00
XE135	2.71E+00	5.37E+00	7.85E+00	9.88E+00	1.15E+01	1.38E+01	1.53E+01	1.54E+01	1.46E+01	1.33E+01	1.19E+01
CS136	6.91E-03	6.89E-03	6.88E-03	6.87E-03	6.85E-03	6.82E-03	6.77E-03	6.73E-03	6.68E-03	6.64E-03	6.59E-03
CS137	1.16E-04	1.25E-03	1.25E-03	1.25E-03	1.25E-03	1.25E-03	1.25E-03	1.25E-03	1.25E-03	1.25E-03	1.25E-03
BA137M	2.45E-07	1.17E-03	1.17E-03	1.17E-03	1.17E-03	1.17E-03	1.17E-03	1.17E-03	1.17E-03	1.17E-03	1.17E-03
XE138	9.42E+02	8.11E+01	7.05E+00	6.11E-01	5.29E-02	3.97E-04	2.58E-07	1.67E-10	1.09E-13	7.07E-17	4.59E-20
CS138	1.40E+02	2.36E+02	8.18E+01	2.40E+01	6.73E+00	5.13E-01	1.07E-02	2.21E-04	4.59E-06	9.57E-08	1.98E-09
CS139	8.29E+02	2.65E+01	3.32E-01	4.17E-03	5.23E-05	8.21E-09	1.63E-14	3.23E-20	6.39E-26	1.27E-31	2.50E-37
BA139	1.53E+01	1.71E+02	1.05E+02	6.39E+01	3.87E+01	1.42E+01	3.15E+00	6.99E-01	1.55E-01	3.44E-02	7.65E-03
LA140	1.23E-01	7.66E-01	7.66E-01	7.61E-01	7.61E-01	7.55E-01	7.55E-01	7.49E-01	7.43E-01	7.37E-01	7.31E-01
LA140	2.92E-07	1.31E-02	2.60E-02	3.86E-02	5.09E-02	7.49E-02	1.09E-01	1.42E-01	1.72E-01	2.01E-01	2.28E-01
BA141	1.28E+02	3.87E+01	3.84E+00	3.81E-01	3.78E-02	3.75E-04	3.66E-07	3.57E-10	3.47E-13	3.41E-16	3.32E-19
LA141	1.18E+00	2.50E+01	2.34E+01	1.98E+01	1.66E+01	1.16E+01	6.83E+00	3.99E+00	2.35E+00	1.38E+00	8.07E-01
CE141	1.46E-07	1.63E-02	3.81E-02	5.73E-02	7.34E-02	9.84E-02	1.22E-01	1.36E-01	1.44E-01	1.48E-01	1.51E-01
BA142	8.45E+01	3.36E+00	7.67E-02	1.75E-03	3.98E-05	2.07E-08	2.46E-13	2.92E-18	3.46E-23	4.11E-28	4.87E-33
LA142	1.94E+00	1.35E+01	8.88E+00	5.65E+00	3.60E+00	1.45E+00	3.75E-01	9.67E-02	2.49E-02	6.42E-03	1.66E-03
LA143	3.27E+01	6.38E+00	3.27E-01	1.68E-02	8.63E-04	2.26E-06	3.05E-10	4.11E-14	5.54E-18	7.47E-22	1.01E-25
CE143	1.31E-02	8.33E-01	8.63E-01	8.40E-01	8.25E-01	7.95E-01	7.44E-01	6.99E-01	6.56E-01	6.16E-01	5.78E-01
PR143	3.82E-09	1.28E-03	3.08E-03	4.87E-03	6.62E-03	1.00E-02	1.47E-02	1.93E-02	2.34E-02	2.73E-02	3.09E-02
CE144	5.30E-04	3.80E-03	3.80E-03	3.80E-03	3.80E-03	3.80E-03	3.79E-03	3.79E-03	3.79E-03	3.79E-03	3.79E-03
PR144	1.45E-07	3.45E-03	3.76E-03	3.79E-03	3.80E-03	3.80E-03	3.80E-03	3.80E-03	3.79E-03	3.79E-03	3.79E-03
PR145	2.08E-02	3.06E+00	2.72E+00	2.42E+00	2.16E+00	1.71E+00	1.21E+00	8.52E-01	6.03E-01	4.26E-01	3.01E-01
CE146	5.90E+01	3.03E+00	1.55E-01	7.93E-03	4.08E-04	1.08E-06	1.45E-10	1.95E-14	2.63E-18	3.54E-22	4.78E-26
PR146	1.22E+00	1.06E+01	2.41E+00	4.52E-01	8.13E-02	2.56E-03	1.41E-05	7.79E-08	4.31E-10	2.38E-12	1.30E-14
PR147	6.92E+00	2.00E+00	6.25E-02	1.95E-03	6.11E-05	5.96E-08	1.82E-12	5.56E-17	1.70E-21	5.18E-26	1.58E-30

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 CM/SQCM

PAGE 7

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
ND147	2.47E-06	4.65E-02	4.78E-02	4.77E-02	4.76E-02	4.74E-02	4.70E-02	4.66E-02	4.63E-02	4.59E-02	4.55E-02
ND149	3.23E+00	2.20E+00	1.50E+00	1.02E+00	6.91E-01	3.21E-01	1.01E-01	3.18E-02	1.00E-02	3.15E-03	9.96E-04
PM149	4.50E-04	3.52E-02	5.84E-02	7.40E-02	8.37E-02	9.41E-02	9.78E-02	9.60E-02	9.35E-02	8.98E-02	8.68E-02
PM150	3.66E-02	2.83E-02	2.19E-02	1.69E-02	1.31E-02	7.85E-03	3.63E-03	1.68E-03	7.79E-04	3.60E-04	1.67E-04
ND151	1.14E+01	3.55E-01	1.11E-02	3.47E-04	1.09E-05	1.06E-08	3.24E-13	9.90E-18	3.02E-22	9.19E-27	2.81E-31
PM151	7.21E-03	8.43E-02	8.48E-02	8.23E-02	8.07E-02	7.67E-02	7.11E-02	6.60E-02	6.14E-02	5.69E-02	5.28E-02
PM152	1.78E+01	1.74E-02	1.70E-05	1.66E-08	1.62E-11	1.55E-17	1.44E-26	1.35E-35	1.25E-44	1.17E-53	1.09E-62
SM153	2.36E-02	2.32E-02	2.29E-02	2.26E-02	2.22E-02	2.16E-02	2.07E-02	1.97E-02	1.89E-02	1.81E-02	1.73E-02
SM155	2.07E+00	3.40E-01	5.57E-02	9.11E-03	1.49E-03	4.02E-05	1.77E-07	7.81E-10	3.45E-12	1.53E-14	3.77E-17
EU155	1.52E-06	4.34E-05	5.02E-05	5.13E-05	5.15E-05	5.15E-05	5.15E-05	5.15E-05	5.15E-05	5.15E-05	5.15E-05
SM156	1.49E-02	1.38E-02	1.29E-02	1.19E-02	1.11E-02	9.56E-03	7.66E-03	6.15E-03	4.93E-03	3.95E-03	3.16E-03
EU156	4.35E-05	7.11E-05	9.65E-05	1.20E-04	1.42E-04	1.81E-04	2.31E-04	2.67E-04	2.99E-04	3.22E-04	3.39E-04
EU157	2.39E-03	7.91E-03	7.55E-03	7.22E-03	6.83E-03	6.29E-03	5.49E-03	4.79E-03	4.17E-03	3.63E-03	3.17E-03
EU158	5.68E-02	2.30E-02	9.31E-03	3.77E-03	1.53E-03	2.50E-04	1.67E-05	1.10E-06	7.33E-08	4.87E-09	3.23E-10
EU159	7.43E-02	7.38E-03	7.31E-04	7.26E-05	7.20E-06	7.10E-08	6.93E-11	6.77E-14	6.61E-17	6.46E-20	6.31E-23
GD159	3.18E-04	1.39E-03	1.45E-03	1.41E-03	1.35E-03	1.25E-03	1.12E-03	9.95E-04	8.85E-04	7.89E-04	7.03E-04
TB161	4.80E-06	3.45E-05	3.43E-05	3.42E-05	3.41E-05	3.37E-05	3.34E-05	3.29E-05	3.25E-05	3.21E-05	3.17E-05
TOTAL	1.02E+04	2.26E+03	9.21E+02	5.48E+02	3.85E+02	2.41E+02	1.57E+02	1.16E+02	9.14E+01	7.45E+01	6.22E+01

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 8

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
BE 7	4.23E-05	4.18E-05	4.12E-05	3.97E-05	3.72E-05	3.26E-05	2.86E-05	2.20E-05	1.15E-05	3.13E-06	8.52E-07
NA 24	2.78E-03	9.18E-04	3.03E-04	1.09E-05	4.25E-08	6.49E-13	9.91E-18	2.31E-27	0.	0.	0.
MN 54	1.08E-05	1.07E-05	1.07E-05	1.05E-05	1.04E-05	1.02E-05	1.01E-05	9.57E-06	8.55E-06	6.80E-06	5.42E-06
FE 55	2.62E-05	2.62E-05	2.62E-05	2.61E-05	2.60E-05	2.59E-05	2.56E-05	2.53E-05	2.43E-05	2.27E-05	2.10E-05
FE 59	9.30E-06	9.16E-06	9.02E-06	8.62E-06	7.97E-06	6.84E-06	5.86E-06	4.31E-06	2.00E-06	4.27E-07	9.16E-08
CU 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CU 64	7.10E-03	1.93E-03	5.27E-04	1.07E-05	1.61E-08	3.66E-14	8.28E-20	4.26E-31	0.	0.	0.
CU 67	8.62E-06	6.57E-06	5.01E-06	2.23E-06	5.81E-07	3.92E-08	2.64E-09	1.20E-11	1.68E-17	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W187	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PB203	3.05E-04	2.22E-04	1.61E-04	6.17E-05	1.25E-05	5.15E-07	2.11E-08	3.54E-11	4.14E-18	0.	0.
U237	4.75E-02	4.29E-02	3.87E-02	2.85E-02	1.70E-02	6.09E-03	2.19E-03	2.79E-04	1.65E-06	1.77E-10	1.20E-10
U240	1.17E-01	3.60E-02	1.10E-02	3.20E-04	8.79E-07	6.61E-12	4.97E-17	2.81E-27	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP239	6.70E-05	1.02E-01	7.62E-02	3.14E-02	7.20E-03	3.76E-04	1.97E-05	5.40E-08	2.12E-14	5.07E-24	5.07E-24
NP240M	1.85E-04	3.62E-02	1.11E-02	3.23E-04	8.86E-07	6.67E-12	5.01E-17	2.83E-27	0.	0.	0.
AM241	3.59E-11	3.59E-11	3.59E-11	3.59E-11	3.59E-11	3.59E-11	3.59E-11	3.59E-11	3.59E-11	3.59E-11	3.59E-11
CM242	7.25E-10	7.21E-10	7.17E-10	7.10E-10	6.95E-10	6.65E-10	6.38E-10	5.86E-10	4.77E-10	3.10E-10	2.03E-10
GE 77	7.72E-03	4.86E-03	1.11E-03	1.34E-05	8.55E-09	3.46E-15	1.40E-21	2.28E-34	0.	0.	0.
AS 77	7.98E-05	1.18E-02	8.52E-03	2.47E-03	2.89E-04	3.92E-06	5.32E-08	9.81E-12	4.55E-21	9.75E-40	2.09E-58
SE 77M	3.15E-09	3.55E-05	2.55E-05	7.41E-06	8.64E-07	1.18E-08	1.60E-10	2.95E-14	1.36E-23	2.92E-42	6.29E-61
AS 78	1.86E-02	1.66E-04	4.86E-09	4.10E-23	0.	0.	0.	0.	0.	0.	0.
BR 82	6.47E-04	4.04E-04	2.52E-04	6.13E-05	5.81E-06	5.22E-08	4.68E-10	3.78E-14	2.21E-24	7.58E-45	2.58E-65
BR 83	5.10E-01	1.34E-02	1.35E-05	1.37E-14	1.40E-29	0.	0.	0.	0.	0.	0.
KR 83M	2.63E-05	5.87E-02	6.67E-05	5.99E-14	6.15E-29	0.	0.	0.	0.	0.	0.
KR 85M	6.62E-03	3.78E-01	8.62E-03	1.02E-07	6.31E-16	2.40E-32	9.09E-49	0.	0.	0.	0.
KR 85	6.85E-06	1.80E-04	1.83E-04	1.83E-04	1.83E-04	1.83E-04	1.83E-04	1.83E-04	1.81E-04	1.77E-04	1.75E-04
KR 87	1.08E+02	2.14E-04	4.23E-10	3.28E-27	0.	0.	0.	0.	0.	0.	0.
KR 88	6.28E+01	1.65E-01	4.33E-04	7.87E-12	9.91E-25	0.	0.	0.	0.	0.	0.
RB 88	1.60E+01	1.84E-01	4.85E-04	8.81E-12	1.10E-24	0.	0.	0.	0.	0.	0.
SR 89	5.72E-06	1.71E-01	1.69E-01	1.62E-01	1.52E-01	1.33E-01	1.16E-01	8.95E-02	4.57E-02	1.20E-02	3.18E-03
SR 90	1.13E-05	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.16E-03	1.15E-03	1.15E-03	1.14E-03
Y 90	1.68E-11	2.66E-04	4.71E-04	8.47E-04	1.08E-03	1.15E-03	1.16E-03	1.16E-03	1.15E-03	1.15E-03	1.14E-03
SR 91	1.17E+00	4.18E+00	7.49E-01	4.30E-03	7.86E-07	2.67E-14	9.03E-22	1.03E-36	0.	0.	0.

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 9

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO TIME	1 00E+00	2 00E+00	5.00E+00	1.00E+01	2 00E+01	3 00E+01	5 00E+01	1 00E+02	2 00E+02	3 00E+02
Y 91M	7.86E-05	2.70E+00	4.83E-01	2.78E-03	5.10E-07	1.72E-14	5.82E-22	6.64E-37	0.	0.	0.
Y 91	3.22E-08	1.29E-01	1.52E-01	1.52E-01	1.43E-01	1.27E-01	1.13E-01	8.96E-02	4.96E-02	1.53E-02	4.69E-03
SR 92	1.91E+00	2.38E-02	5.13E-05	5.16E-13	2.42E-26	0.	0.	0.	0.	0.	0.
Y 92	8.80E-02	2.49E-01	2.77E-03	2.13E-09	1.24E-19	4.25E-40	1.46E-60	0.	0.	0.	0.
Y 93	9.14E-02	6.17E-01	1.20E-01	9.05E-04	2.60E-07	2.15E-14	1.78E-21	1.21E-35	0.	0.	0.
ZR 95	1.73E-04	2.16E-02	2.14E-02	2.07E-02	1.96E-02	1.76E-02	1.58E-02	1.28E-02	7.50E-03	2.58E-03	8.86E-04
NB 95M	3.67E-12	7.31E-05	1.33E-04	2.54E-04	3.43E-04	3.62E-04	3.34E-04	2.71E-04	1.59E-04	5.48E-05	1.89E-05
NB 95	1.92E-11	4.17E-04	8.25E-04	1.98E-03	3.67E-03	6.34E-03	8.18E-03	1.01E-02	9.77E-03	4.70E-03	1.80E-03
ZR 97	4.08E-01	6.95E-01	2.61E-01	1.38E-02	1.04E-04	5.85E-09	3.29E-13	1.04E-21	5.87E-43	0.	0.
NB 97M	2.10E-03	6.68E-01	2.51E-01	1.34E-02	9.93E-05	5.62E-09	3.16E-13	9.98E-22	5.64E-43	0.	0.
NB 97	2.04E-01	6.98E-01	2.62E-01	1.39E-02	1.05E-04	6.30E-09	3.54E-13	1.12E-21	6.32E-43	0.	0.
MO 99	1.18E-03	3.86E-01	3.01E-01	1.43E-01	4.13E-02	3.45E-03	2.88E-04	2.01E-06	8.15E-12	1.34E-22	2.21E-33
TC 99M	1.10E-08	3.39E-01	2.85E-01	1.37E-01	3.94E-02	3.29E-03	2.75E-04	1.92E-06	7.77E-12	1.28E-22	2.11E-33
RU103	8.42E-05	1.92E-01	1.88E-01	1.79E-01	1.64E-01	1.38E-01	1.15E-01	8.15E-02	3.39E-02	5.88E-03	1.03E-03
RH103M	5.61E-09	1.92E-01	1.88E-01	1.79E-01	1.64E-01	1.38E-01	1.15E-01	8.15E-02	3.39E-02	5.88E-03	1.03E-03
RU105	4.76E-01	4.55E-01	1.07E-02	1.41E-07	1.03E-15	5.49E-32	2.94E-48	0.	0.	0.	0.
RH105M	3.13E-03	4.55E-01	1.07E-02	1.41E-07	1.03E-15	5.52E-32	2.95E-48	0.	0.	0.	0.
RH105	5.14E-09	1.64E+00	1.07E+00	2.67E-01	2.64E-02	2.56E-04	2.49E-06	2.35E-10	2.04E-20	1.53E-40	1.15E-60
RU106	3.80E-04	7.19E-03	7.16E-03	7.13E-03	7.07E-03	6.94E-03	6.79E-03	6.54E-03	5.95E-03	4.92E-03	4.08E-03
RH106	4.11E-06	7.19E-03	7.16E-03	7.13E-03	7.07E-03	6.94E-03	6.79E-03	6.54E-03	5.95E-03	4.92E-03	4.08E-03
PD109	9.19E-03	2.34E-01	6.82E-02	1.69E-03	3.56E-06	1.59E-11	7.08E-17	1.40E-27	0.	0.	0.
AG109M	5.30E-05	2.34E-01	6.84E-02	1.69E-03	3.58E-06	1.59E-11	7.08E-17	1.40E-27	0.	0.	0.
PD111M	1.40E+00	6.78E-02	3.29E-03	3.78E-07	1.02E-13	7.45E-27	5.47E-40	0.	0.	0.	0.
PD111	4.97E-01	5.47E-02	2.65E-03	3.04E-07	8.24E-14	5.99E-27	4.39E-40	0.	0.	0.	0.
AG111M	3.95E-03	7.14E-02	3.48E-03	4.00E-07	1.08E-13	7.92E-27	5.79E-40	0.	0.	0.	0.
AG111	1.41E-09	3.88E-02	3.73E-02	2.84E-02	1.79E-02	7.09E-03	2.81E-03	4.44E-04	4.36E-06	4.23E-10	4.10E-14
PD112	4.02E-01	1.82E-01	8.25E-02	7.66E-03	1.46E-04	5.29E-08	1.92E-11	2.52E-18	1.59E-35	0.	0.
AG112	1.21E-05	2.12E-01	9.73E-02	9.04E-03	1.73E-04	6.24E-08	2.26E-11	2.99E-18	1.87E-35	0.	0.
AG113	5.22E-03	5.52E-02	2.39E-03	1.94E-07	2.97E-14	6.95E-28	1.62E-41	0.	0.	0.	0.
CD115M	1.75E-08	5.07E-04	4.99E-04	4.75E-04	4.39E-04	3.73E-04	3.18E-04	2.30E-04	1.03E-04	2.04E-05	4.09E-06
CD115	6.78E-06	1.02E-01	7.47E-02	2.94E-02	6.21E-03	2.77E-04	1.24E-05	2.47E-08	4.36E-15	1.37E-28	4.27E-42
IN115M	8.44E-11	1.08E-01	8.15E-02	3.22E-02	6.78E-03	3.03E-04	1.35E-05	2.69E-08	4.77E-15	1.49E-28	4.66E-42
CD117	1.51E-01	3.29E-03	3.21E-06	2.99E-15	2.66E-30	0.	0.	0.	0.	0.	0.
IN117M	7.26E-06	1.37E-02	1.58E-05	1.53E-14	1.36E-29	0.	0.	0.	0.	0.	0.
IN117	2.92E-10	9.01E-03	1.07E-05	1.03E-14	9.17E-30	0.	0.	0.	0.	0.	0.
SN121	3.13E-03	1.78E-01	9.62E-02	1.52E-02	6.95E-04	1.47E-06	3.09E-09	1.38E-14	5.76E-28	0.	0.
SN123	1.46E-05	1.53E-03	1.51E-03	1.49E-03	1.45E-03	1.37E-03	1.30E-03	1.16E-03	8.79E-04	5.05E-04	2.91E-04
SN125	3.38E-02	3.14E-02	2.92E-02	2.34E-02	1.61E-02	7.73E-03	3.69E-03	8.46E-04	2.12E-05	1.33E-08	8.34E-12
SB125	2.03E-04	2.25E-04	2.46E-04	3.01E-04	3.69E-04	4.46E-04	4.81E-04	5.01E-04	4.91E-04	4.59E-04	4.28E-04
SB126	4.70E-03	4.44E-03	4.20E-03	3.56E-03	2.70E-03	1.55E-03	8.91E-04	2.93E-04	1.83E-05	8.91E-08	1.79E-08

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
SN127	5.49E+00	1.99E-03	7.22E-07	3.45E-17	2.16E-34	0.	0.	0.	0.	0.	0.
SB127	6.41E-02	2.63E-01	2.20E-01	1.28E-01	5.26E-02	8.79E-03	1.47E-03	4.11E-05	5.36E-09	9.15E-17	1.56E-24
TE127M	5.18E-10	4.01E-04	7.35E-04	1.43E-03	1.97E-03	2.17E-03	2.09E-03	1.86E-03	1.36E-03	7.15E-04	3.78E-04
TE127	3.62E-02	1.83E-01	1.85E-01	1.13E-01	4.76E-02	9.77E-03	3.34E-03	1.87E-03	1.34E-03	7.07E-04	3.74E-04
SB128	1.49E+00	2.54E-01	4.01E-02	1.56E-04	1.52E-08	1.42E-16	1.34E-24	1.18E-40	0.	0.	0.
SB129	7.82E+00	4.00E-01	8.36E-03	7.61E-08	3.03E-16	4.78E-33	7.54E-50	0.	0.	0.	0.
TE129M	1.48E-07	1.56E-02	1.56E-02	1.47E-02	1.33E-02	1.08E-02	8.80E-03	5.86E-03	2.11E-03	2.75E-04	3.58E-05
TE129	5.63E+00	4.69E-01	1.95E-02	9.41E-03	8.49E-03	6.92E-03	5.65E-03	3.76E-03	1.35E-03	1.77E-04	2.30E-05
I130	3.35E-02	8.75E-03	2.29E-03	4.09E-05	5.00E-08	7.45E-14	1.11E-19	2.47E-31	0.	0.	0.
TE131M	1.24E-04	4.35E-01	2.49E-01	4.72E-02	2.95E-03	1.15E-05	4.51E-08	6.88E-13	6.25E-25	0.	0.
TE131	1.14E+02	7.92E-02	4.55E-02	8.64E-03	5.39E-04	2.11E-06	8.22E-09	1.26E-13	1.14E-25	0.	0.
I131	1.66E-02	8.97E-01	8.48E-01	6.81E-01	4.49E-01	1.89E-01	8.02E-02	1.43E-02	1.93E-04	3.52E-08	6.42E-12
XE131M	4.51E-11	4.16E-04	7.89E-04	1.65E-03	2.35E-03	2.33E-03	1.73E-03	7.13E-04	4.76E-05	1.42E-07	4.02E-10
TE132	1.32E+00	2.61E+00	2.11E+00	1.11E+00	3.83E-01	4.54E-02	5.38E-03	7.55E-05	1.77E-09	9.67E-19	5.27E-28
I132	3.24E+00	2.69E+00	2.17E+00	1.14E+00	3.95E-01	4.67E-02	5.54E-03	7.78E-05	1.82E-09	9.91E-19	5.43E-28
I133	1.41E+00	7.85E+00	3.54E+00	3.29E-01	6.26E-03	2.27E-06	8.23E-10	1.09E-16	6.82E-34	0.	0.
XE133M	6.00E-08	7.41E-02	8.77E-02	5.15E-02	1.21E-02	5.67E-04	2.64E-05	5.73E-08	1.25E-14	6.00E-28	2.87E-41
XE133	1.05E-06	1.42E+00	1.91E+00	1.71E+00	9.31E-01	2.52E-01	6.76E-02	4.87E-03	6.79E-06	1.32E-11	2.56E-17
I135	2.36E+01	3.84E+00	3.21E-01	1.87E-04	7.58E-10	1.25E-20	2.06E-31	5.59E-53	0.	0.	0.
XE135M	2.61E-03	1.20E+00	1.00E-01	5.83E-05	2.37E-10	3.90E-21	6.42E-32	1.75E-53	0.	0.	0.
XE135	2.71E+00	1.04E+01	2.53E+00	1.45E-02	1.77E-06	2.49E-14	3.49E-22	6.90E-38	0.	0.	0.
CS136	6.91E-03	6.55E-03	6.21E-03	5.29E-03	4.06E-03	2.38E-03	1.40E-03	4.81E-04	3.34E-05	1.61E-07	7.81E-10
CS137	1.16E-04	1.25E-03	1.25E-03	1.25E-03	1.25E-03	1.25E-03	1.25E-03	1.25E-03	1.25E-03	1.24E-03	1.23E-03
BA137M	2.45E-07	1.17E-03	1.17E-03	1.17E-03	1.17E-03	1.17E-03	1.17E-03	1.17E-03	1.16E-03	1.16E-03	1.15E-03
BA139	1.53E+01	1.63E-03	9.65E-09	1.98E-24	0.	0.	0.	0.	0.	0.	0.
BA140	1.23E-01	7.25E-01	6.90E-01	5.85E-01	4.46E-01	2.60E-01	1.51E-01	5.12E-02	3.42E-03	1.52E-05	6.73E-08
LA140	2.92E-07	2.53E-01	4.07E-01	5.62E-01	5.00E-01	2.99E-01	1.74E-01	5.91E-02	3.93E-03	1.75E-05	7.78E-08
LA141	1.18E+00	4.69E-01	6.58E-03	1.82E-08	9.96E-18	2.97E-36	8.87E-55	0.	0.	0.	0.
CE141	1.46E-07	1.62E-01	1.61E-01	1.51E-01	1.36E-01	1.10E-01	8.84E-02	5.76E-02	1.98E-02	2.33E-03	2.74E-04
LA142	1.94E+00	4.26E-04	8.24E-09	6.06E-23	0.	0.	0.	0.	0.	0.	0.
CE143	1.31E-02	5.37E-01	3.25E-01	7.15E-02	5.75E-03	3.72E-05	2.41E-07	1.01E-11	1.14E-22	0.	0.
PR143	3.82E-09	3.44E-02	5.35E-02	6.91E-02	5.92E-02	3.61E-02	2.18E-02	7.87E-03	6.30E-04	4.00E-06	2.54E-08
CE144	5.30E-04	3.79E-03	3.77E-03	3.75E-03	3.70E-03	3.61E-03	3.53E-03	3.36E-03	2.97E-03	2.33E-03	1.83E-03
PR144	1.45E-07	3.79E-03	3.77E-03	3.75E-03	3.70E-03	3.61E-03	3.53E-03	3.36E-03	2.97E-03	2.33E-03	1.83E-03
PR145	2.08E-02	2.13E-01	1.32E-02	3.12E-06	2.85E-12	2.36E-24	1.96E-36	0.	0.	0.	0.
ND147	2.47E-06	4.15E-02	3.90E-02	3.24E-02	2.37E-02	1.27E-02	6.79E-03	1.95E-03	8.55E-05	1.67E-07	3.23E-10
PM147	6.85E-15	3.11E-05	6.01E-05	1.37E-04	2.37E-04	3.62E-04	4.28E-04	4.77E-04	4.82E-04	4.49E-04	4.17E-04
ND149	3.23E+00	3.13E-04	3.03E-08	2.76E-20	2.36E-40	0.	0.	0.	0.	0.	0.
PM149	4.50E-04	8.31E-02	6.09E-02	2.38E-02	4.96E-03	2.16E-04	9.41E-06	1.79E-08	2.82E-15	6.97E-29	1.74E-42
PM150	3.66E-02	7.73E-05	1.63E-07	1.53E-15	6.39E-29	0.	0.	0.	0.	0.	0.

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 11

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO	TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
PM151	7.21E-03	4.92E-02	2.71E-02	4.56E-03	2.34E-04	6.14E-07	1.62E-09	1.12E-14	1.40E-27	0.	0.	0.
SM153	2.36E-02	1.66E-02	1.16E-02	4.02E-03	6.83E-04	1.99E-05	5.77E-07	4.85E-10	1.00E-17	4.26E-33	1.81E-48	0.
SM156	1.49E-02	2.54E-03	4.33E-04	2.13E-06	3.07E-10	6.32E-18	1.30E-25	5.55E-41	0.	0.	0.	0.
EU155	1.52E-06	5.15E-05	5.15E-05	5.15E-05	5.13E-05	5.11E-05	5.09E-05	5.05E-05	4.95E-05	4.76E-05	4.57E-05	4.57E-05
EU156	4.35E-05	3.54E-04	3.93E-04	3.52E-04	2.80E-04	1.76E-04	1.11E-04	4.40E-05	4.35E-06	4.29E-08	4.23E-10	0.
EU157	2.39E-03	2.76E-03	9.28E-04	3.48E-05	1.46E-07	2.58E-12	4.56E-17	1.42E-26	0.	0.	0.	0.
GD159	3.18E-04	6.26E-04	2.49E-04	1.55E-05	1.53E-07	1.48E-11	1.44E-15	1.35E-23	1.15E-43	0.	0.	0.
TB161	4.80E-06	3.13E-05	2.83E-05	2.09E-05	1.27E-05	4.64E-06	1.70E-06	2.27E-07	1.50E-09	6.51E-14	2.83E-18	0.
TOTAL	3.84E+02	5.21E+01	2.16E+01	8.41E+00	4.34E+00	1.91E+00	1.15E+00	6.06E-01	2.40E-01	7.15E-02	3.16E-02	0.

ORALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 12

DEBRIS DECAY FROM 1 TO 50 YEARS

	ZERO	TIME	1.00E+00	1.50E+00	2.00E+00	3.50E+00	5.00E+00	7.00E+00	1.00E+01	2.00E+01	3.50E+01	5.00E+01
BE 7	4.23E-05	3.65E-07	3.40E-08	3.15E-09	2.54E-12	2.03E-15	1.52E-19	9.74E-26	0.	0.	0.	0.
MN 54	1.03E-05	4.66E-06	3.07E-06	2.02E-06	5.77E-07	1.65E-07	3.10E-08	2.54E-09	5.95E-13	2.15E-18	7.79E-24	0.
FE 59	9.30E-06	3.36E-08	2.01E-09	1.21E-10	2.63E-14	5.68E-18	7.40E-23	3.47E-30	0.	0.	0.	0.
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	4.75E-02	1.19E-10	1.15E-10	1.12E-10	1.05E-10	9.76E-11	8.88E-11	7.70E-11	4.79E-11	2.35E-11	1.15E-11	0.
AM241	3.59E-11	3.59E-11	3.59E-11	3.59E-11	3.61E-11	3.62E-11	3.62E-11	3.64E-11	3.66E-11	3.62E-11	3.57E-11	0.
CM242	7.25E-10	1.54E-10	7.06E-11	3.25E-11	3.17E-12	3.08E-13	1.38E-14	1.31E-16	3.76E-21	3.50E-21	3.27E-21	0.
KR 85	6.85E-06	1.70E-04	1.65E-04	1.60E-04	1.46E-04	1.31E-04	1.16E-04	9.53E-05	5.04E-05	1.92E-05	7.35E-06	0.
SR 89	5.72E-06	1.34E-03	1.17E-04	1.03E-05	6.92E-09	4.67E-12	2.76E-16	1.25E-22	9.11E-44	0.	0.	0.
SR 90	1.13E-05	1.13E-03	1.12E-03	1.11E-03	1.07E-03	1.03E-03	9.79E-04	9.09E-04	7.11E-04	4.91E-04	3.39E-04	0.
Y 90	1.68E-11	1.13E-03	1.12E-03	1.11E-03	1.07E-03	1.03E-03	9.79E-04	9.09E-04	7.11E-04	4.91E-04	3.39E-04	0.
Y 91	3.22E-08	2.17E-03	2.53E-04	2.94E-05	4.61E-08	7.23E-11	1.32E-14	3.25E-20	6.56E-39	0.	0.	0.
ZR 95	1.73E-04	4.44E-04	6.33E-05	9.01E-06	2.63E-08	7.65E-11	3.17E-14	2.67E-19	3.27E-36	0.	0.	0.
NB 95M	3.67E-12	9.39E-06	1.34E-06	1.92E-07	5.57E-10	1.62E-12	6.71E-16	5.66E-21	6.94E-38	0.	0.	0.
NB 95	1.92E-11	9.54E-04	1.37E-04	1.95E-05	5.66E-08	1.64E-10	6.86E-14	5.79E-19	7.10E-36	0.	0.	0.
RU103	8.42E-05	3.27E-04	1.34E-05	5.51E-07	3.76E-11	2.57E-15	7.23E-21	3.40E-29	0.	0.	0.	0.
RH103M	5.61E-09	3.28E-04	1.34E-05	5.51E-07	3.76E-11	2.58E-15	7.23E-21	3.41E-29	0.	0.	0.	0.
RU106	3.80E-04	3.61E-03	2.56E-03	1.81E-03	6.45E-04	2.29E-04	5.76E-05	7.29E-06	7.35E-09	2.36E-13	7.60E-18	0.
RH106	4.11E-06	3.61E-03	2.56E-03	1.81E-03	6.45E-04	2.29E-04	5.76E-05	7.29E-06	7.35E-09	2.36E-13	7.60E-18	0.
SN123	1.46E-05	2.02E-04	7.34E-05	2.67E-05	1.28E-06	6.13E-08	1.07E-09	2.46E-12	3.95E-21	2.55E-34	1.63E-47	0.
SB125	2.03E-04	4.08E-04	3.59E-04	3.16E-04	2.15E-04	1.46E-04	8.75E-05	4.05E-05	3.11E-06	6.62E-08	1.41E-09	0.
TE125M	5.46E-12	1.67E-04	1.48E-04	1.31E-04	8.91E-05	6.06E-05	3.62E-05	1.68E-05	1.29E-06	2.74E-08	5.84E-10	0.
TE127M	5.18E-10	2.48E-04	7.76E-05	2.43E-05	7.47E-07	2.30E-08	2.21E-10	2.08E-13	1.71E-23	1.28E-38	9.50E-54	0.
TE127	3.62E-02	2.45E-04	7.67E-05	2.40E-05	7.38E-07	2.27E-08	2.18E-10	2.06E-13	1.69E-23	1.26E-38	9.41E-54	0.
CS137	1.16E-04	1.23E-03	1.21E-03	1.20E-03	1.16E-03	1.11E-03	1.06E-03	9.95E-04	7.87E-04	5.59E-04	3.95E-04	0.
BA137M	2.45E-07	1.15E-03	1.13E-03	1.12E-03	1.08E-03	1.04E-03	9.95E-04	9.33E-04	7.38E-04	5.22E-04	3.70E-04	0.
CE141	1.46E-07	6.31E-05	1.27E-06	2.55E-08	2.08E-13	1.69E-18	2.77E-25	1.84E-35	0.	0.	0.	0.
CE144	5.30E-04	1.56E-03	1.00E-03	6.38E-04	1.68E-04	4.41E-05	7.41E-06	5.11E-07	6.88E-11	1.08E-16	1.68E-22	0.
PR144	1.45E-07	1.56E-03	1.00E-03	6.38E-04	1.68E-04	4.41E-05	7.41E-06	5.11E-07	6.88E-11	1.08E-16	1.68E-22	0.
PM147	6.85E-15	3.98E-04	3.49E-04	3.05E-04	2.05E-04	1.38E-04	8.11E-05	3.68E-05	2.62E-06	4.95E-08	9.35E-10	0.
EU155	1.52E-06	4.45E-05	4.14E-05	3.85E-05	3.10E-05	2.49E-05	1.86E-05	1.20E-05	2.80E-06	3.15E-07	3.55E-08	0.
TOTAL	8.53E-02	2.25E-02	1.36E-02	1.05E-02	6.69E-03	5.26E-03	4.49E-03	3.96E-03	3.01E-03	2.08E-03	1.45E-03	0.

Appendix B

Detailed Results for a 1-MT Burst with ^{238}U as the Principal Fissioning Species

TUBALLOY
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.04E+02	1.20E+04
1.00E+00	3.04E+01	2.45E+03
2.00E+00	1.21E+01	9.00E+02
3.00E+00	6.62E+00	5.45E+02
4.00E+00	4.25E+00	4.08E+02
6.00E+00	2.31E+00	2.87E+02
9.00E+00	1.38E+00	2.06E+02
1.20E+01	1.00E+00	1.61E+02
1.50E+01	7.87E-01	1.32E+02
1.80E+01	6.46E-01	1.12E+02
2.10E+01	5.46E-01	9.65E+01
1.00E+00 DAYS	4.64E-01	8.41E+01
2.00E+00	2.14E-01	4.22E+01
5.00E+00	7.97E-02	1.60E+01
1.00E+01	3.62E-02	6.64E+00
2.00E+01	1.44E-02	2.41E+00
3.00E+01	8.27E-03	1.36E+00
5.00E+01	3.95E-03	6.88E-01
1.00E+02	1.55E-03	3.00E-01
2.00E+02	5.60E-04	1.14E-01
3.00E+02	2.18E-04	5.82E-02
1.00E+00 YEARS	1.25E-04	4.29E-02
1.50E+00	3.79E-05	2.45E-02
2.00E+00	2.16E-05	1.69E-02
3.50E+00	1.17E-05	7.66E-03
5.00E+00	8.55E-06	4.59E-03
7.00E+00	6.78E-06	3.13E-03
1.00E+01	5.64E-06	2.35E-03
2.00E+01	4.08E-06	1.54E-03
3.50E+01	2.86E-06	1.05E-03
5.00E+01	2.02E-06	7.29E-04

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
BE 7	6.80E-04	6.79E-04	6.79E-04	6.79E-04	6.79E-04	6.78E-04	6.77E-04	6.75E-04	6.74E-04	6.73E-04	6.72E-04
NA 24	1.09E-02	1.04E-02	9.97E-03	9.51E-03	9.07E-03	8.28E-03	7.20E-03	6.28E-03	5.47E-03	4.77E-03	4.13E-03
MN 54	2.18E-05	2.18E-05	2.18E-05	2.18E-05	2.18E-05	2.18E-05	2.18E-05	2.16E-05	2.16E-05	2.16E-05	2.16E-05
FE 55	4.12E-05	4.12E-05	4.12E-05	4.12E-05	4.12E-05	4.12E-05	4.12E-05	4.12E-05	4.12E-05	4.12E-05	4.12E-05
FE 59	1.79E-05	1.79E-05	1.79E-05	1.79E-05	1.79E-05	1.78E-05	1.78E-05	1.78E-05	1.77E-05	1.77E-05	1.77E-05
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CU 64	4.32E-02	4.09E-02	3.88E-02	3.68E-02	3.48E-02	3.12E-02	2.65E-02	2.26E-02	1.92E-02	1.63E-02	1.39E-02
CU 67	5.24E-05	5.20E-05	5.11E-05	5.07E-05	5.02E-05	4.89E-05	4.71E-05	4.57E-05	4.43E-05	4.26E-05	4.14E-05
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W187	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PB203	1.22E-04	1.20E-04	1.18E-04	1.17E-04	1.15E-04	1.12E-04	1.08E-04	1.04E-04	9.97E-05	9.54E-05	9.20E-05
U237	3.93E+00	3.91E+00	3.89E+00	3.88E+00	3.86E+00	3.82E+00	3.77E+00	3.73E+00	3.68E+00	3.63E+00	3.59E+00
U239	2.98E+03	5.08E+02	8.68E+01	1.48E+01	2.51E+00	7.31E-02	3.62E-04	1.79E-06	8.85E-09	4.38E-11	2.17E-13
U240	9.49E+00	9.04E+00	8.61E+00	8.19E+00	7.80E+00	7.06E+00	6.10E+00	5.25E+00	4.54E+00	3.91E+00	3.37E+00
NP239	1.02E-02	1.71E+01	1.98E+01	2.01E+01	1.99E+01	1.95E+01	1.87E+01	1.80E+01	1.74E+01	1.68E+01	1.62E+01
NP240M	1.50E-02	9.07E+00	8.68E+00	8.27E+00	7.87E+00	7.12E+00	6.15E+00	5.31E+00	4.57E+00	3.94E+00	3.41E+00
NP240	3.80E-10	1.95E-10	1.01E-10	5.24E-11	2.71E-11	7.24E-12	9.99E-13	1.38E-13	1.90E-14	2.62E-15	3.62E-16
AM241	2.19E-10	2.19E-10	2.19E-10	2.19E-10	2.19E-10	2.19E-10	2.19E-10	2.19E-10	2.19E-10	2.19E-10	2.19E-10
CM242	4.41E-09	4.41E-09	4.41E-09	4.41E-09	4.41E-09	4.41E-09	4.39E-09	4.39E-09	4.39E-09	4.39E-09	4.39E-09
GE 75	4.99E-05	2.42E-01	1.46E-01	8.78E-02	5.28E-02	1.92E-02	4.19E-03	9.16E-04	2.00E-04	4.36E-05	9.55E-06
GE 77	1.58E-02	4.06E-02	3.82E-02	3.59E-02	3.38E-02	2.99E-02	2.49E-02	2.07E-02	1.72E-02	1.43E-02	1.19E-02
AS 77	1.63E-04	2.58E-02	2.61E-02	2.62E-02	2.64E-02	2.66E-02	2.66E-02	2.64E-02	2.60E-02	2.55E-02	2.48E-02
SE 77M	6.43E-09	7.71E-05	7.83E-05	7.89E-05	7.89E-05	7.95E-05	8.01E-05	7.95E-05	7.83E-05	7.65E-05	7.42E-05
GE 78	1.68E+00	1.05E+00	6.53E-01	4.08E-01	2.55E-01	9.91E-02	2.41E-02	5.83E-03	1.42E-03	3.46E-04	8.39E-05
AS 78	3.02E-02	5.01E-01	6.18E-01	5.79E-01	4.84E-01	2.86E-01	1.06E-01	3.52E-02	1.09E-02	3.26E-03	9.44E-04
AS 79	2.60E+01	2.56E-01	2.52E-03	2.49E-05	2.45E-07	2.37E-11	2.26E-17	2.16E-23	2.06E-29	1.96E-35	1.88E-41
SE 79M	3.85E-02	4.52E-01	4.46E-03	4.40E-05	4.32E-07	4.18E-11	3.99E-17	3.81E-23	3.63E-29	3.47E-35	3.31E-41
BR 80	1.35E-01	1.28E-02	1.20E-03	1.13E-04	1.06E-05	9.41E-08	7.88E-11	6.57E-14	5.47E-17	4.57E-20	3.81E-23
SE 81M	9.91E-02	4.63E+00	2.23E+00	1.07E+00	5.16E-01	1.21E-01	1.35E-02	1.51E-03	1.70E-04	1.90E-05	2.13E-06
SE 81	1.21E+00	5.47E+00	3.16E+00	1.58E+00	7.67E-01	1.79E-01	2.00E-02	2.24E-03	2.51E-04	2.82E-05	3.16E-06
BR 82	5.12E-04	5.02E-04	4.93E-04	4.83E-04	4.73E-04	4.55E-04	4.29E-04	4.05E-04	3.82E-04	3.60E-04	3.39E-04
SE 83	4.51E+01	8.54E+00	1.62E+00	3.07E-01	5.80E-02	2.09E-03	1.42E-05	9.65E-08	6.59E-10	4.47E-12	2.84E-14
BR 83	3.74E-01	5.59E+00	5.17E+00	4.07E+00	3.09E+00	1.75E+00	7.38E-01	3.11E-01	1.31E-01	5.54E-02	2.34E-02
KR 83M	1.94E-05	1.27E+00	2.58E+00	3.21E+00	3.31E+00	2.76E+00	1.63E+00	8.39E-01	4.04E-01	1.87E-01	8.39E-02

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
BR 84	8.58E-02	1.48E+01	4.00E+00	1.08E+00	2.93E-01	2.14E-02	4.23E-04	8.36E-06	1.65E-07	3.27E-09	6.46E-11
KR 85M	3.62E-03	7.75E+00	6.60E+00	5.63E+00	4.82E+00	3.52E+00	2.19E+00	1.37E+00	8.52E-01	5.30E-01	3.31E-01
KR 87	5.01E+01	2.89E+01	1.68E+01	9.68E+00	5.59E+00	1.87E+00	3.63E-01	7.04E-02	1.36E-02	2.64E-03	5.10E-04
KR 88	2.86E+01	2.23E+01	1.74E+01	1.36E+01	1.06E+01	6.45E+00	3.08E+00	1.47E+00	6.97E-01	3.32E-01	1.58E-01
RB 88	7.27E+00	2.26E+01	1.93E+01	1.52E+01	1.19E+01	7.23E+00	3.45E+00	1.64E+00	7.83E-01	3.72E-01	1.77E-01
RB 89	3.50E+01	3.29E+01	2.21E+00	1.49E-01	9.96E-03	4.51E-05	1.37E-08	4.12E-12	1.26E-15	3.80E-19	1.15E-22
SR 89	2.68E-06	9.42E-02	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	1.00E-01	9.96E-02	9.96E-02
SR 90	5.05E-06	5.19E-04	5.19E-04	5.19E-04	5.19E-04	5.19E-04	5.19E-04	5.19E-04	5.19E-04	5.19E-04	5.19E-04
SR 91	6.93E-01	1.29E+01	1.20E+01	1.12E+01	1.04E+01	9.02E+00	7.28E+00	5.88E+00	4.75E+00	3.81E+00	3.08E+00
Y 91M	4.66E-05	4.44E+00	6.06E+00	6.49E+00	6.41E+00	5.75E+00	4.71E+00	3.79E+00	3.05E+00	2.46E+00	1.99E+00
Y 91	1.91E-08	3.95E-03	9.11E-03	1.46E-02	1.99E-02	2.98E-02	4.23E-02	5.23E-02	6.06E-02	6.71E-02	7.23E-02
SR 92	9.15E+00	4.09E+01	3.17E+01	2.45E+01	1.90E+01	1.14E+01	5.28E+00	2.45E+00	1.14E+00	5.28E-01	2.46E-01
Y 92	4.22E-01	8.60E+00	1.35E+01	1.60E+01	1.70E+01	1.62E+01	1.24E+01	8.47E+00	5.45E+00	3.35E+00	2.02E+00
SR 93	3.77E+02	6.50E+00	3.59E-02	1.98E-04	1.09E-06	3.34E-11	5.64E-18	8.47E-25	1.61E-31	3.71E-38	4.56E-45
Y 93	4.60E-01	1.49E+01	1.40E+01	1.31E+01	1.22E+01	1.07E+01	8.69E+00	7.10E+00	5.77E+00	4.73E+00	3.85E+00
Y 94	5.63E+01	7.69E+01	9.89E+00	1.28E+00	1.65E-01	2.73E-03	5.86E-06	1.26E-08	2.69E-11	5.86E-14	3.25E-15
Y 95	2.44E+02	2.30E+01	5.07E-01	1.12E-02	2.46E-04	1.20E-07	1.28E-12	1.37E-17	1.46E-22	1.56E-27	1.67E-32
ZR 95	9.18E-04	1.20E-01	1.22E-01	1.22E-01	1.22E-01	1.22E-01	1.22E-01	1.22E-01	1.22E-01	1.22E-01	1.22E-01
NB 95	1.02E-10	7.41E-05	1.73E-04	2.71E-04	3.71E-04	5.68E-04	8.62E-04	1.16E-03	1.45E-03	1.74E-03	2.03E-03
ZR 97	2.36E+00	1.03E+01	9.83E+00	9.47E+00	9.06E+00	8.37E+00	7.39E+00	6.54E+00	5.81E+00	5.12E+00	4.55E+00
NB 97M	1.21E-02	9.87E+00	9.47E+00	9.10E+00	8.73E+00	8.04E+00	7.11E+00	6.30E+00	5.57E+00	4.92E+00	4.35E+00
NB 97	1.18E+00	5.16E+00	7.27E+00	8.29E+00	8.69E+00	8.65E+00	7.88E+00	7.03E+00	6.22E+00	5.48E+00	4.87E+00
NB 98	1.35E+01	5.97E+00	2.64E+00	1.17E+00	5.18E-01	1.01E-01	8.76E-03	7.56E-04	6.59E-05	5.71E-06	4.91E-07
MO 99	7.20E-03	2.97E+00	2.94E+00	2.91E+00	2.88E+00	2.82E+00	2.74E+00	2.65E+00	2.57E+00	2.49E+00	2.42E+00
TC 99M	6.70E-08	2.83E-01	5.32E-01	7.52E-01	9.45E-01	1.26E+00	1.60E+00	1.82E+00	1.95E+00	2.02E+00	2.05E+00
MO101	1.11E+02	5.01E+01	2.91E+00	1.69E-01	9.79E-03	3.28E-05	6.37E-09	1.24E-12	2.41E-16	4.68E-20	9.13E-24
TC101	4.68E+00	1.41E+02	1.54E+01	1.26E+00	9.18E-02	4.14E-04	1.04E-07	2.32E-11	4.92E-15	1.01E-18	2.05E-22
MO102	9.91E+02	2.26E+01	5.15E-01	1.18E-02	2.68E-04	1.39E-07	1.66E-12	1.96E-17	2.33E-22	2.76E-27	3.28E-32
TC102M	6.37E-01	1.91E+01	4.38E-01	1.00E-02	2.28E-04	1.18E-07	1.40E-12	1.66E-17	1.97E-22	2.34E-27	2.78E-32
TC102	2.98E+03	1.14E+01	2.60E-01	5.90E-03	1.35E-04	7.03E-08	8.35E-13	9.91E-18	1.18E-22	1.39E-27	1.65E-32
RU103	7.44E-05	1.73E-01	1.72E-01	1.72E-01	1.72E-01	1.72E-01	1.71E-01	1.71E-01	1.71E-01	1.70E-01	1.70E-01
RH103M	4.96E-09	8.92E-02	1.32E-01	1.53E-01	1.63E-01	1.70E-01	1.71E-01	1.71E-01	1.71E-01	1.70E-01	1.70E-01
TC104	5.97E+01	4.29E+01	4.29E+00	4.25E-01	4.20E-02	4.14E-04	4.04E-07	3.95E-10	3.85E-13	3.77E-16	3.68E-19
RU105	4.95E-01	1.71E+01	1.46E+01	1.25E+01	1.07E+01	7.85E+00	4.92E+00	3.07E+00	1.92E+00	1.20E+00	7.56E-01
RH105M	3.26E-03	1.72E+01	1.47E+01	1.26E+01	1.07E+01	7.88E+00	4.92E+00	3.08E+00	1.93E+00	1.21E+00	7.56E-01
RH105	5.35E-09	3.49E-01	6.47E-01	8.93E-01	1.10E+00	1.41E+00	1.68E+00	1.81E+00	1.84E+00	1.83E+00	1.78E+00
RU106	4.57E-04	8.65E-03	8.65E-03	8.65E-03	8.65E-03	8.65E-03	8.65E-03	8.65E-03	8.65E-03	8.65E-03	8.65E-03
RH106	4.95E-06	8.65E-03	8.65E-03	8.65E-03	8.65E-03	8.65E-03	8.65E-03	8.65E-03	8.65E-03	8.65E-03	8.65E-03
RH107	1.49E-01	2.02E+01	3.06E+00	4.60E-01	6.95E-02	1.58E-03	5.46E-06	1.88E-08	6.48E-11	2.22E-14	2.20E-17
PD107M	3.09E-04	4.11E+00	6.20E-01	9.37E-02	1.41E-02	3.22E-04	1.11E-06	3.83E-09	1.32E-11	4.55E-14	1.55E-16

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 5

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
PD109	1.96E-02	1.62E+00	1.54E+00	1.46E+00	1.39E+00	1.25E+00	1.08E+00	9.23E-01	7.91E-01	6.78E-01	5.82E-01
AG109M	1.13E-04	1.62E+00	1.54E+00	1.47E+00	1.39E+00	1.26E+00	1.08E+00	9.23E-01	7.91E-01	6.78E-01	5.82E-01
PD111M	2.54E+00	2.24E+00	1.97E+00	1.74E+00	1.54E+00	1.19E+00	8.17E-01	5.60E-01	3.84E-01	2.63E-01	1.80E-01
PD111	9.04E-01	1.63E+00	1.56E+00	1.39E+00	1.23E+00	9.58E-01	6.57E-01	4.50E-01	3.08E-01	2.11E-01	1.45E-01
AG111M	7.19E-03	2.20E+00	2.07E+00	1.85E+00	1.63E+00	1.26E+00	8.62E-01	5.91E-01	4.05E-01	2.78E-01	1.90E-01
AG111	2.56E-09	7.58E-03	1.59E-02	2.34E-02	3.01E-02	4.10E-02	5.26E-02	6.03E-02	6.53E-02	6.85E-02	7.03E-02
PD112	7.60E-01	7.37E-01	7.12E-01	6.89E-01	6.68E-01	6.24E-01	5.66E-01	5.12E-01	4.64E-01	4.20E-01	3.80E-01
AG112	2.29E-05	1.46E-01	2.57E-01	3.45E-01	4.10E-01	4.91E-01	5.40E-01	5.38E-01	5.12E-01	4.78E-01	4.40E-01
AG113	9.45E-03	2.02E+00	1.77E+00	1.56E+00	1.36E+00	1.05E+00	7.11E-01	4.80E-01	3.24E-01	2.19E-01	1.48E-01
AG115	3.54E+00	3.80E+00	4.72E+00	5.90E+00	7.39E+00	1.16E+04	2.26E+07	4.41E+10	8.55E+13	8.49+162	7.87E+16
CD115M	2.90E-08	7.70E-04	8.66E-04	8.77E-04	8.77E-04	8.77E-04	8.74E-04	8.74E-04	8.72E-04	8.69E-04	8.69E-04
CD115	1.12E-05	2.11E-01	2.27E-01	2.26E-01	2.24E-01	2.18E-01	2.10E-01	2.02E-01	1.94E-01	1.87E-01	1.79E-01
IN115M	1.39E-10	2.33E-02	5.17E-02	7.68E-02	9.78E-02	1.30E-01	1.61E-01	1.77E-01	1.85E-01	1.87E-01	1.85E-01
CD117	2.54E-01	4.22E+00	3.18E+00	2.38E+00	1.78E+00	9.99E-01	4.19E-01	1.77E-01	7.44E-02	3.12E-02	1.31E-02
IN117M	1.22E-05	1.47E+00	2.13E+00	2.31E+00	2.23E+00	1.76E+00	1.01E+00	5.15E-01	2.47E-01	1.15E-01	5.18E-02
IN117	4.91E-10	2.68E-01	6.48E-01	9.01E-01	1.01E+00	9.25E-01	5.89E-01	3.15E-01	1.57E-01	7.38E-02	3.39E-02
CD118	1.68E+01	7.20E+00	3.09E+00	1.32E+00	5.64E-01	1.03E-01	8.10E-03	6.33E-04	4.98E-05	3.90E-06	3.06E-07
IN118	1.11E+00	7.20E+00	3.09E+00	1.32E+00	5.64E-01	1.03E-01	8.10E-03	6.36E-04	4.98E-05	3.90E-06	3.06E-07
CD119	4.20E+01	6.54E-01	1.02E-02	1.60E-04	2.50E-06	6.11E-10	2.33E-15	8.89E-21	3.38E-26	1.29E-31	4.95E-37
IN119M	6.32E-02	7.08E+00	7.70E-01	7.76E-02	7.73E-03	7.61E-05	7.42E-08	7.26E-11	7.08E-14	6.92E-17	6.76E-20
IN119	3.12E+00	3.73E-01	4.32E-02	4.38E-03	4.38E-04	4.29E-06	4.20E-09	4.10E-12	4.01E-15	3.91E-18	3.82E-21
SN121	5.19E-03	5.34E-01	5.19E-01	5.07E-01	4.95E-01	4.70E-01	4.34E-01	4.03E-01	3.72E-01	3.45E-01	3.21E-01
SN123M	2.52E+00	4.72E+00	1.67E+00	5.92E-01	2.09E-01	2.61E-02	1.16E-03	5.12E-05	2.26E-06	9.99E-08	4.42E-09
SN123	2.37E-05	2.48E-03	2.48E-03	2.48E-03	2.48E-03	2.48E-03	2.48E-03	2.48E-03	2.48E-03	2.48E-03	2.48E-03
SN125	5.37E-02	5.35E-02	5.34E-02	5.32E-02	5.30E-02	5.27E-02	5.22E-02	5.17E-02	5.13E-02	5.07E-02	5.03E-02
SB125	3.22E-04	3.24E-04	3.25E-04	3.26E-04	3.28E-04	3.31E-04	3.36E-04	3.40E-04	3.45E-04	3.49E-04	3.53E-04
SB126	6.55E-03	6.53E-03	6.52E-03	6.51E-03	6.49E-03	6.46E-03	6.41E-03	6.37E-03	6.32E-03	6.28E-03	6.24E-03
SN127	5.60E+00	4.02E+00	2.89E+00	2.08E+00	1.50E+00	7.73E-01	2.87E-01	1.07E-01	3.96E-02	1.47E-02	5.47E-03
SB127	6.54E-02	2.25E-01	2.50E-01	2.66E-01	2.77E-01	2.89E-01	2.94E-01	2.91E-01	2.86E-01	2.80E-01	2.75E-01
TE127	3.69E-02	4.60E-02	5.58E-02	6.63E-02	7.66E-02	9.61E-02	1.23E-01	1.44E-01	1.60E-01	1.72E-01	1.80E-01
SN128	2.87E+01	1.42E+01	7.02E+00	3.47E+00	1.72E+00	4.18E-01	5.05E-02	6.10E-03	7.36E-04	8.92E-05	1.07E-05
SB128M	1.46E-02	1.62E+01	8.39E+00	4.14E+00	2.04E+00	5.00E-01	6.02E-02	7.27E-03	8.77E-04	1.06E-04	1.28E-05
SB128	1.21E+00	1.17E+00	1.10E+00	1.03E+00	9.60E-01	8.23E-01	6.57E-01	5.21E-01	4.14E-01	3.29E-01	2.61E-01
SN129M	1.42E+01	7.09E+00	3.56E+00	1.78E+00	8.90E-01	2.22E-01	2.78E-02	3.48E-03	4.35E-04	5.43E-05	6.79E-06
SN129	9.50E+01	9.32E-01	9.20E-03	9.08E-05	8.90E-07	8.66E-11	8.24E-17	7.87E-23	7.51E-29	7.15E-35	6.85E-41
SB129	5.34E+00	8.96E+00	8.42E+00	7.51E+00	6.61E+00	4.91E+00	3.06E+00	1.89E+00	1.17E+00	7.21E-01	4.44E-01
TE129M	1.01E-07	1.12E-03	2.30E-03	3.38E-03	4.35E-03	5.89E-03	7.45E-03	8.42E-03	9.02E-03	9.38E-03	9.62E-03
TE129	3.85E+00	5.29E+00	6.19E+00	6.43E+00	6.19E+00	5.13E+00	3.41E+00	2.15E+00	1.34E+00	8.30E-01	5.15E-01
SB130M	4.63E-01	8.74E-01	2.30E-03	6.03E-06	1.59E-08	1.10E-13	1.99E-21	3.63E-29	6.58E-37	1.20E-44	2.18E-52
SB130	7.94E+01	2.40E+01	6.83E+00	1.93E+00	5.48E-01	4.41E-02	1.00E-03	2.29E-05	5.22E-07	1.19E-08	2.72E-10

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
I130	2.21E-02	2.09E-02	1.98E-02	1.87E-02	1.77E-02	1.58E-02	1.34E-02	1.13E-02	9.54E-03	8.09E-03	6.83E-03
SB131	1.61E+02	4.20E+01	6.87E+00	1.13E+00	1.85E-01	4.98E-03	2.19E-05	9.69E-08	4.26E-10	1.88E-12	9.38E-15
TE131M	7.74E-05	4.05E-01	4.62E-01	4.62E-01	4.54E-01	4.34E-01	4.04E-01	3.77E-01	3.52E-01	3.29E-01	3.07E-01
TE131	7.12E+01	7.74E+01	2.52E+01	6.56E+00	1.59E+00	1.50E-01	7.43E-02	6.87E-02	6.41E-02	6.00E-02	5.59E-02
I131	1.04E-02	3.59E-01	5.28E-01	5.79E-01	5.89E-01	5.95E-01	5.95E-01	5.89E-01	5.89E-01	5.84E-01	5.84E-01
TE132	8.03E-01	1.95E+00	1.93E+00	1.92E+00	1.90E+00	1.86E+00	1.82E+00	1.77E+00	1.72E+00	1.67E+00	1.63E+00
I132	1.97E+00	1.97E+00	1.96E+00	1.95E+00	1.94E+00	1.91E+00	1.87E+00	1.82E+00	1.77E+00	1.73E+00	1.68E+00
TE133M	9.79E-02	3.40E+01	1.43E+01	6.44E+00	2.80E+00	5.32E-01	4.37E-02	3.61E-03	2.98E-04	2.45E-05	2.02E-06
TE133	5.50E+02	3.12E+01	3.47E+00	1.15E+00	4.85E-01	9.19E-02	7.60E-03	6.25E-04	5.18E-05	4.26E-06	3.51E-07
I133	8.53E-01	9.19E+00	9.93E+00	9.93E+00	9.75E+00	9.23E+00	8.39E+00	7.60E+00	6.86E+00	6.25E+00	5.64E+00
XE133M	3.63E-08	2.07E-03	4.99E-03	7.97E-03	1.09E-02	1.63E-02	2.36E-02	3.00E-02	3.54E-02	4.00E-02	4.38E-02
XE133	6.34E-07	3.61E-02	8.77E-02	1.40E-01	1.92E-01	2.91E-01	4.27E-01	5.46E-01	6.53E-01	7.46E-01	8.30E-01
TE134	1.63E+02	7.57E+01	2.82E+01	1.05E+01	3.89E+00	5.39E-01	2.76E-02	1.41E-03	7.23E-05	3.71E-06	1.90E-07
I134	7.49E+01	1.00E+02	7.02E+01	4.11E+01	2.21E+01	5.60E+00	6.16E-01	6.29E-02	6.16E-03	5.90E-04	5.60E-05
I135	1.38E+01	2.43E+01	2.19E+01	1.97E+01	1.78E+01	1.45E+01	1.06E+01	7.77E+00	5.71E+00	4.20E+00	3.07E+00
XE135M	1.53E-03	7.01E+00	6.82E+00	6.18E+00	5.55E+00	4.52E+00	3.32E+00	2.43E+00	1.78E+00	1.31E+00	9.59E-01
XE135	1.59E+00	3.14E+00	4.60E+00	5.79E+00	6.74E+00	8.08E+00	8.96E+00	9.00E+00	8.56E+00	7.81E+00	6.97E+00
CS136	2.24E-03	2.24E-03	2.23E-03	2.23E-03	2.22E-03	2.21E-03	2.20E-03	2.18E-03	2.17E-03	2.15E-03	2.14E-03
CS137	6.41E-05	6.91E-04	6.91E-04	6.91E-04	6.91E-04	6.91E-04	6.91E-04	6.91E-04	6.91E-04	6.91E-04	6.91E-04
BA137M	1.35E-07	6.45E-04	6.45E-04	6.45E-04	6.45E-04	6.45E-04	6.45E-04	6.45E-04	6.45E-04	6.45E-04	6.45E-04
XE138	5.24E+02	4.51E+01	3.92E+00	3.39E-01	2.94E-02	2.20E-04	1.43E-07	9.29E-11	6.05E-14	3.93E-17	2.55E-20
CS138	7.79E+01	1.31E+02	4.55E+01	1.34E+01	3.74E+00	2.85E-01	5.93E-03	1.23E-04	2.55E-06	5.32E-08	1.10E-09
CS139	4.36E+02	1.39E+01	1.74E-01	2.19E-03	2.75E-05	4.31E-09	8.59E-15	1.70E-20	3.36E-26	6.66E-32	1.32E-37
BA139	8.04E+00	8.96E+01	5.53E+01	3.36E+01	2.03E+01	7.46E+00	1.65E+00	3.67E-01	8.17E-02	1.81E-02	4.02E-03
BA140	9.38E-02	5.85E-01	5.85E-01	5.81E-01	5.81E-01	5.76E-01	5.76E-01	5.72E-01	5.67E-01	5.63E-01	5.58E-01
LA140	2.23E-07	1.00E-02	1.98E-02	2.94E-02	3.89E-02	5.72E-02	8.35E-02	1.08E-01	1.31E-01	1.53E-01	1.74E-01
BA141	1.70E+02	5.15E+01	5.11E+00	5.07E-01	5.03E-02	4.99E-04	4.87E-07	4.75E-10	4.63E-13	4.55E-16	4.42E-19
LA141	1.57E+00	3.34E+01	3.11E+01	2.64E+01	2.21E+01	1.55E+01	9.09E+00	5.32E+00	3.13E+00	1.83E+00	1.08E+00
CE141	1.95E-07	2.17E-02	5.07E-02	7.63E-02	9.78E-02	1.31E-01	1.63E-01	1.81E-01	1.92E-01	1.98E-01	2.01E-01
BA142	4.45E+02	1.77E+01	4.04E-01	9.20E-03	2.10E-04	1.09E-07	1.29E-12	1.53E-17	1.82E-22	2.16E-27	2.56E-32
LA142	1.02E+01	7.09E+01	4.68E+01	2.98E+01	1.89E+01	7.66E+00	1.98E+00	5.09E-01	1.31E-01	3.38E-02	8.71E-03
LA143	1.68E+02	3.27E+01	1.68E+00	8.61E-02	4.42E-03	1.16E-05	1.56E-09	2.11E-13	2.84E-17	3.83E-21	5.17E-25
CE143	6.69E-02	4.27E+00	4.42E+00	4.31E+00	4.23E+00	4.07E+00	3.81E+00	3.58E+00	3.36E+00	3.16E+00	2.96E+00
PR143	1.96E-08	6.54E-03	1.58E-02	2.49E-02	3.39E-02	5.13E-02	7.56E-02	9.87E-02	1.20E-01	1.40E-01	1.58E-01
CE144	2.92E-03	2.09E-02	2.09E-02	2.09E-02	2.09E-02	2.09E-02	2.09E-02	2.09E-02	2.09E-02	2.09E-02	2.09E-02
CE144	8.01E-07	1.90E-02	2.08E-02	2.09E-02	2.09E-02	2.09E-02	2.09E-02	2.09E-02	2.09E-02	2.09E-02	2.09E-02
PR145	1.18E-01	1.74E+01	1.55E+01	1.38E+01	1.23E+01	9.74E+00	6.87E+00	4.85E+00	3.43E+00	2.42E+00	1.71E+00
CE146	3.75E+02	1.92E+01	9.86E-01	5.04E-02	2.59E-03	6.83E-06	9.20E-10	1.24E-13	1.67E-17	2.25E-21	3.04E-25
PR146	7.75E+00	6.75E+01	1.53E+01	2.87E+00	5.17E-01	1.63E-02	8.98E-05	4.95E-07	2.74E-09	1.52E-11	8.28E-14
PR147	4.44E+01	1.28E+01	4.01E-01	1.25E-02	3.92E-04	3.82E-07	1.17E-11	3.57E-16	1.09E-20	3.32E-25	1.01E-29

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
ND147	1.58E-05	2.98E-01	3.07E-01	3.06E-01	3.05E-01	3.04E-01	3.01E-01	2.99E-01	2.97E-01	2.94E-01	2.92E-01
ND149	2.66E+01	1.81E+01	1.23E+01	8.39E+00	5.67E+00	2.64E+00	8.29E-01	2.62E-01	8.24E-02	2.59E-02	8.19E-03
PM149	3.70E-03	2.89E-01	4.80E-01	6.08E-01	6.88E-01	7.73E-01	8.04E-01	7.88E-01	7.68E-01	7.38E-01	7.13E-01
PM150	3.05E-01	2.36E-01	1.82E-01	1.41E-01	1.09E-01	6.53E-02	3.02E-02	1.40E-02	6.48E-03	3.00E-03	1.39E-03
ND151	1.17E+02	3.66E+00	1.15E-01	3.58E-03	1.12E-04	1.09E-07	3.34E-12	1.02E-16	3.11E-21	9.48E-26	2.90E-30
PM151	7.43E-02	8.69E-01	8.74E-01	8.53E-01	8.32E-01	7.90E-01	7.33E-01	6.81E-01	6.33E-01	5.86E-01	5.44E-01
PM152	1.83E+02	1.79E-01	1.75E-04	1.71E-07	1.67E-10	1.59E-16	1.48E-25	1.38E-34	1.29E-43	1.20E-52	1.12E-61
SM153	2.65E-01	2.61E-01	2.58E-01	2.54E-01	2.50E-01	2.43E-01	2.32E-01	2.22E-01	2.13E-01	2.04E-01	1.95E-01
SM155	1.29E+01	2.11E+00	3.46E-01	5.66E-02	9.28E-03	2.50E-04	1.10E-06	4.85E-09	2.14E-11	9.53E-14	2.34E-16
EU155	9.45E-06	2.69E-04	3.12E-04	3.19E-04	3.20E-04	3.20E-04	3.20E-04	3.20E-04	3.20E-04	3.20E-04	3.20E-04
SM156	2.49E-01	2.31E-01	2.15E-01	2.00E-01	1.85E-01	1.60E-01	1.28E-01	1.03E-01	8.25E-02	6.61E-02	5.28E-02
EU156	7.28E-04	1.19E-03	1.61E-03	2.01E-03	2.38E-03	3.03E-03	3.86E-03	4.46E-03	5.00E-03	5.39E-03	5.68E-03
EU157	3.01E-02	9.99E-02	9.54E-02	9.11E-02	8.69E-02	7.94E-02	6.93E-02	6.05E-02	5.27E-02	4.59E-02	4.00E-02
EU158	1.03E+00	4.16E-01	1.68E-01	6.82E-02	2.76E-02	4.52E-03	3.01E-04	2.00E-05	1.33E-06	8.80E-08	5.85E-09
EU159	1.43E+00	1.42E-01	1.41E-02	1.40E-03	1.38E-04	1.36E-06	1.33E-09	1.30E-12	1.27E-15	1.24E-18	1.21E-21
GD159	6.11E-03	2.68E-02	2.79E-02	2.70E-02	2.60E-02	2.41E-02	2.15E-02	1.91E-02	1.70E-02	1.52E-02	1.35E-02
TB161	1.23E-04	8.87E-04	8.82E-04	8.79E-04	8.76E-04	8.67E-04	8.58E-04	8.47E-04	8.35E-04	8.26E-04	8.15E-04
TOTAL	1.20E+04	2.45E+03	9.00E+02	5.45E+02	4.08E+02	2.87E+02	2.06E+02	1.61E+02	1.32E+02	1.12E+02	9.65E+01

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO	TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
BE 7	6.80E-04	6.72E-04	6.63E-04	6.38E-04	5.98E-04	5.25E-04	4.61E-04	3.55E-04	1.86E-04	5.04E-05	1.37E-05	
NA 24	1.09E-02	3.60E-03	1.19E-03	4.26E-05	1.67E-07	2.55E-12	3.89E-17	9.05E-27	0.	0.	0.	
MN 54	2.18E-05	2.16E-05	2.16E-05	2.12E-05	2.10E-05	2.06E-05	2.02E-05	1.93E-05	1.72E-05	1.37E-05	1.09E-05	
FE 55	4.12E-05	4.12E-05	4.12E-05	4.10E-05	4.09E-05	4.07E-05	4.03E-05	3.98E-05	3.83E-05	3.57E-05	3.31E-05	
FE 59	1.79E-05	1.76E-05	1.73E-05	1.66E-05	1.53E-05	1.32E-05	1.13E-05	8.28E-06	3.85E-06	8.20E-07	1.76E-07	
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
CU 64	4.32E-02	1.18E-02	3.21E-03	6.53E-05	9.79E-08	2.23E-13	5.04E-19	2.59E-30	0.	0.	0.	
CU 67	5.24E-05	4.00E-05	3.05E-05	1.36E-05	3.54E-06	2.38E-07	1.61E-08	7.31E-11	1.02E-16	0.	0.	
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
W187	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
PB203	1.22E-04	8.86E-05	6.42E-05	2.46E-05	4.99E-06	2.05E-07	8.42E-09	1.41E-11	1.65E-18	0.	0.	
U237	3.93E+00	3.54E+00	3.19E+00	2.35E+00	1.41E+00	5.03E-01	1.81E-01	2.31E-02	1.36E-04	1.46E-08	9.88E-09	
U240	9.49E+00	2.92E+00	8.97E-01	2.60E-02	7.14E-05	5.36E-10	4.03E-15	2.28E-25	0.	0.	0.	
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
NP239	1.02E-02	1.56E+01	1.16E+01	4.79E+00	1.10E+00	5.73E-02	3.00E-03	8.22E-06	3.23E-12	7.72E-22	7.72E-22	
NP240M	1.50E-02	2.94E+00	9.04E-01	2.62E-02	7.19E-05	5.42E-10	4.07E-15	2.30E-25	0.	0.	0.	
AM241	2.19E-10	2.19E-10	2.19E-10	2.19E-10	2.19E-10	2.19E-10	2.19E-10	2.19E-10	2.19E-10	2.19E-10	2.19E-10	
CM242	4.41E-09	4.39E-09	4.37E-09	4.32E-09	4.23E-09	4.05E-09	3.89E-09	3.57E-09	2.90E-09	1.89E-09	1.23E-09	
GE 77	1.58E-02	9.93E-03	2.27E-03	2.75E-05	1.75E-08	7.07E-15	2.85E-21	4.66E-34	0.	0.	0.	
AS 77	1.63E-04	2.41E-02	1.74E-02	5.04E-03	5.90E-04	8.01E-06	1.09E-07	2.00E-11	9.29E-21	1.99E-39	4.28E-58	
SE 77M	6.43E-09	7.25E-05	5.22E-05	1.51E-05	1.76E-06	2.40E-08	3.26E-10	6.02E-14	2.79E-23	5.96E-42	1.29E-60	
AS 78	3.02E-02	2.69E-04	7.87E-09	6.64E-23	0.	0.	0.	0.	0.	0.	0.	
BR 82	5.12E-04	3.20E-04	2.00E-04	4.85E-05	4.60E-06	4.13E-08	3.71E-10	3.00E-14	1.75E-24	6.00E-45	2.04E-65	
BR 83	3.74E-01	9.86E-03	9.92E-06	1.01E-14	1.03E-29	0.	0.	0.	0.	0.	0.	
KR 83M	1.94E-05	4.31E-02	4.90E-05	4.40E-14	4.52E-29	0.	0.	0.	0.	0.	0.	
KR 85M	3.62E-03	2.07E-01	4.70E-03	5.59E-08	3.44E-16	1.31E-32	4.96E-49	0.	0.	0.	0.	
KR 85	3.74E-06	9.82E-05	1.00E-04	1.00E-04	1.00E-04	1.00E-04	1.00E-04	9.97E-05	9.87E-05	9.68E-05	9.53E-05	
KR 87	5.01E+01	9.90E-05	1.96E-10	1.52E-27	0.	0.	0.	0.	0.	0.	0.	
KR 88	2.86E+01	7.53E-02	1.97E-04	3.59E-12	4.52E-25	0.	0.	0.	0.	0.	0.	
RB 88	7.27E+00	8.39E-02	2.21E-04	4.01E-12	5.03E-25	0.	0.	0.	0.	0.	0.	
SR 89	2.68E-06	8.04E-02	7.92E-02	7.61E-02	7.14E-02	6.24E-02	5.45E-02	4.20E-02	2.15E-02	5.65E-03	1.49E-03	
SR 90	5.05E-06	5.19E-04	5.19E-04	5.19E-04	5.19E-04	5.19E-04	5.19E-04	5.19E-04	5.14E-04	5.14E-04	5.10E-04	
Y 90	7.48E-12	1.19E-04	2.10E-04	3.78E-04	4.82E-04	5.14E-04	5.19E-04	5.19E-04	5.14E-04	5.14E-04	5.10E-04	
SR 91	6.93E-01	2.48E+00	4.44E-01	2.55E-03	4.66E-07	1.58E-14	5.36E-22	6.10E-37	0.	0.	0.	

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO	TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
Y 91M	4.66E-05	1.60E+00	2.87E-01	1.65E-03	3.02E-07	1.02E-14	3.45E-22	3.94E-37	0.	0.	0.	0.
Y 91	1.91E-08	7.63E-02	9.02E-02	9.02E-02	8.50E-02	7.54E-02	6.71E-02	5.32E-02	2.94E-02	9.06E-03	2.78E-03	0.
SR 92	9.15E+00	1.14E-01	2.46E-04	2.46E-04	1.16E-12	0.	0.	0.	0.	0.	0.	0.
Y 92	4.22E-01	1.20E+00	1.33E-02	1.02E-08	5.96E-19	2.04E-39	6.98E-60	0.	0.	0.	0.	0.
Y 93	4.60E-01	3.11E+00	6.07E-01	4.56E-03	1.31E-06	1.08E-13	8.95E-21	6.11E-35	0.	0.	0.	0.
ZR 95	9.18E-04	1.15E-01	1.14E-01	1.10E-01	1.04E-01	9.34E-02	8.42E-02	6.81E-02	3.99E-02	1.37E-02	4.71E-03	0.
NB 95M	1.95E-11	3.89E-04	7.09E-04	1.35E-03	1.82E-03	1.93E-03	1.78E-03	1.44E-03	8.46E-04	2.91E-04	1.00E-04	0.
NB 95	1.02E-10	2.22E-03	4.39E-03	1.05E-02	1.95E-02	3.37E-02	4.35E-02	5.40E-02	5.20E-02	2.50E-02	9.59E-03	0.
ZR 97	2.36E+00	4.02E+00	1.51E+00	8.00E-02	6.01E-04	3.38E-08	1.90E-12	6.01E-21	3.39E-42	0.	0.	0.
NB 97M	1.21E-02	3.86E+00	1.45E+00	7.72E-02	5.77E-04	3.25E-08	1.83E-12	5.77E-21	3.26E-42	0.	0.	0.
NB 97	1.18E+00	4.03E+00	1.52E+00	8.04E-02	6.05E-04	3.64E-08	2.05E-12	6.50E-21	3.66E-42	0.	0.	0.
MO 99	7.20E-03	2.34E+00	1.83E+00	8.67E-01	2.51E-01	2.10E-02	1.75E-03	1.22E-05	4.95E-11	8.16E-22	1.34E-32	0.
TC 99M	6.70E-08	2.06E+00	1.73E+00	8.30E-01	2.39E-01	2.00E-02	1.67E-03	1.16E-05	4.72E-11	7.80E-22	1.28E-32	0.
RU103	7.44E-05	1.70E-01	1.67E-01	1.58E-01	1.45E-01	1.22E-01	1.02E-01	7.21E-02	3.00E-02	5.20E-03	9.07E-04	0.
RH103M	4.96E-09	1.70E-01	1.67E-01	1.58E-01	1.45E-01	1.22E-01	1.02E-01	7.21E-02	3.00E-02	5.20E-03	9.07E-04	0.
RU105	4.95E-01	4.74E-01	1.11E-02	1.46E-07	1.07E-15	5.71E-32	3.06E-48	0.	0.	0.	0.	0.
RH105M	3.26E-03	4.74E-01	1.12E-02	1.47E-07	1.07E-15	5.75E-32	3.07E-48	0.	0.	0.	0.	0.
RH105	5.35E-09	1.71E+00	1.12E+00	2.78E-01	2.74E-02	2.67E-04	2.59E-06	2.45E-10	2.12E-20	1.59E-40	1.20E-60	0.
RU106	4.57E-04	8.65E-03	8.62E-03	8.58E-03	8.50E-03	8.35E-03	8.17E-03	7.87E-03	7.16E-03	5.92E-03	4.91E-03	0.
RH106	4.95E-06	8.65E-03	8.62E-03	8.58E-03	8.50E-03	8.35E-03	8.17E-03	7.87E-03	7.16E-03	5.92E-03	4.91E-03	0.
PD109	1.96E-02	4.98E-01	1.45E-01	3.60E-03	7.58E-06	3.38E-11	1.51E-16	2.98E-27	0.	0.	0.	0.
AG109M	1.13E-04	4.98E-01	1.45E-01	3.60E-03	7.62E-06	3.38E-11	1.51E-16	2.98E-27	0.	0.	0.	0.
PD111M	2.54E+00	1.23E-01	5.99E-03	6.87E-07	1.86E-13	1.36E-26	9.95E-40	0.	0.	0.	0.	0.
PD111	9.04E-01	9.95E-02	4.82E-03	5.53E-07	1.50E-13	1.09E-26	7.99E-40	0.	0.	0.	0.	0.
AG111M	7.19E-03	1.30E-01	6.32E-03	7.27E-07	1.96E-13	1.44E-26	1.05E-39	0.	0.	0.	0.	0.
AG111	2.56E-09	7.06E-02	6.79E-02	5.17E-02	3.25E-02	1.29E-02	5.12E-03	8.07E-04	7.94E-06	7.69E-10	7.45E-14	0.
PD112	7.60E-01	3.45E-01	1.56E-01	1.45E-02	2.76E-04	1.00E-07	3.64E-11	4.78E-18	3.01E-35	0.	0.	0.
AG112	2.29E-05	4.01E-01	1.84E-01	1.71E-02	3.27E-04	1.18E-07	4.29E-11	5.66E-18	3.55E-35	0.	0.	0.
AG113	9.45E-03	9.99E-02	4.32E-03	5.51E-07	5.37E-14	1.26E-27	2.94E-41	0.	0.	0.	0.	0.
CD115M	2.90E-08	8.38E-04	8.24E-04	7.84E-04	7.25E-04	6.16E-04	5.26E-04	3.80E-04	1.70E-04	3.37E-05	6.75E-06	0.
CD115	1.12E-05	1.68E-01	1.23E-01	4.86E-02	1.03E-02	4.58E-04	2.04E-05	4.08E-08	7.20E-15	2.25E-28	7.06E-42	0.
IN115M	1.39E-10	1.78E-01	1.35E-01	5.31E-02	1.12E-02	5.00E-04	2.23E-05	4.44E-08	7.87E-15	2.46E-28	7.70E-42	0.
CD117	2.54E-01	5.53E-03	5.38E-06	5.03E-15	4.46E-30	0.	0.	0.	0.	0.	0.	0.
IN117M	1.22E-05	2.30E-02	2.66E-05	2.56E-14	2.28E-29	0.	0.	0.	0.	0.	0.	0.
IN117	4.91E-10	1.51E-02	1.79E-05	1.74E-14	1.54E-29	0.	0.	0.	0.	0.	0.	0.
SN121	5.19E-03	2.96E-01	1.60E-01	2.52E-02	1.15E-03	2.44E-06	5.13E-09	2.29E-14	9.56E-28	0.	0.	0.
SN123	2.37E-05	2.48E-03	2.46E-03	2.42E-03	2.35E-03	2.22E-03	2.11E-03	1.89E-03	1.43E-03	8.21E-04	4.72E-04	0.
SN125	5.37E-02	4.99E-02	4.64E-02	3.71E-02	2.56E-02	1.23E-02	5.87E-03	1.34E-03	3.36E-05	2.12E-08	1.33E-11	0.
SB125	3.22E-04	3.57E-04	3.91E-04	4.78E-04	5.86E-04	7.09E-04	7.63E-04	7.96E-04	7.80E-04	7.28E-04	6.79E-04	0.
SB126	6.55E-03	6.20E-03	5.86E-03	4.96E-03	3.76E-03	2.16E-03	1.24E-03	4.09E-04	2.56E-05	1.24E-07	2.50E-08	0.

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO	TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
SN127	5.60E+00	2.03E-03	7.37E-07	3.52E-17	2.21E-34	0.	0.	0.	0.	0.	0.	0.
SB127	6.54E-02	2.68E-01	2.24E-01	1.31E-01	5.37E-02	8.97E-03	1.50E-03	4.19E-05	5.47E-09	9.34E-17	1.59E-24	0.
TE127M	5.29E-10	4.09E-04	7.50E-04	1.45E-03	2.01E-03	2.22E-03	2.14E-03	1.89E-03	1.38E-03	7.30E-04	3.86E-04	3.82E-04
TE127	3.69E-02	1.92E-01	1.89E-01	1.15E-01	4.86E-02	9.96E-03	3.41E-03	1.91E-03	1.36E-03	7.22E-04	0.	0.
SB128	1.21E+00	2.07E-01	3.26E-02	1.27E-04	1.23E-08	1.16E-16	1.09E-24	9.60E-41	0.	0.	0.	0.
SB129	5.34E+00	2.74E-01	5.71E-03	5.20E-08	2.07E-16	3.26E-33	5.15E-50	0.	0.	0.	0.	0.
TE129M	1.01E-07	1.06E-02	1.06E-02	1.00E-02	9.08E-03	7.39E-03	6.01E-03	4.00E-03	1.44E-03	1.88E-04	2.45E-05	1.57E-05
TE129	3.85E+00	3.20E-01	1.33E-02	6.43E-03	5.80E-03	4.73E-03	3.86E-03	2.57E-03	9.26E-04	1.21E-04	0.	0.
I130	2.21E-02	5.78E-03	1.51E-03	2.70E-05	3.30E-08	4.92E-14	7.33E-20	1.63E-31	0.	0.	0.	0.
TE131M	7.74E-05	2.71E-01	1.55E-01	2.94E-02	1.84E-03	7.18E-06	2.81E-08	4.28E-13	3.90E-25	0.	0.	0.
TE131	7.12E+01	4.94E-02	2.83E-02	5.38E-03	3.36E-04	1.31E-06	5.12E-09	7.84E-14	7.12E-26	0.	0.	0.
I131	1.04E-02	5.59E-01	5.28E-01	4.24E-01	2.79E-01	1.18E-01	4.99E-02	8.92E-03	1.20E-04	2.19E-08	4.00E-12	2.50E-10
XE131M	2.81E-11	2.59E-04	4.92E-04	1.03E-03	1.47E-03	1.45E-03	1.08E-03	4.44E-04	2.96E-05	8.87E-08	3.21E-28	3.31E-28
TE132	8.03E-01	1.59E+00	1.29E+00	6.77E-01	2.33E-01	2.76E-02	3.28E-03	4.60E-05	1.08E-09	5.89E-19	0.	0.
I132	1.97E+00	1.64E+00	1.32E+00	6.96E-01	2.40E-01	2.85E-02	3.37E-03	4.74E-05	1.11E-09	6.04E-19	0.	0.
I133	8.53E-01	4.76E+00	2.15E+00	1.99E-01	3.80E-03	1.38E-06	4.99E-10	6.58E-17	4.13E-34	0.	0.	0.
XE133M	3.63E-08	4.49E-02	5.32E-02	3.12E-02	7.32E-03	3.44E-04	1.60E-05	3.47E-08	7.60E-15	3.63E-28	1.74E-41	1.55E-17
XE133	6.34E-07	8.63E-01	1.16E+00	1.04E+00	5.64E-01	1.53E-01	4.10E-02	2.95E-03	4.11E-06	7.97E-12	0.	0.
I135	1.38E+01	2.25E+00	1.88E-01	1.09E-04	4.44E-10	7.33E-21	1.20E-31	3.27E-53	0.	0.	0.	0.
XE135M	1.53E-03	7.01E-01	5.86E-02	3.41E-05	1.39E-10	2.28E-21	3.76E-32	1.02E-53	0.	0.	0.	0.
XE135	1.59E+00	6.06E+00	1.48E+00	8.48E-03	1.04E-06	1.46E-14	2.04E-22	4.04E-38	0.	0.	0.	0.
CS136	2.24E-03	2.12E-03	2.01E-03	1.72E-03	1.32E-03	7.73E-04	4.54E-04	1.56E-04	1.08E-05	5.22E-08	2.53E-10	6.80E-04
CS137	6.41E-05	6.91E-04	6.91E-04	6.91E-04	6.91E-04	6.91E-04	6.91E-04	6.91E-04	6.87E-04	6.84E-04	6.34E-04	6.34E-04
BA137M	1.35E-07	6.45E-04	6.45E-04	6.45E-04	6.45E-04	6.45E-04	6.45E-04	6.45E-04	6.41E-04	6.38E-04	0.	0.
BA139	8.04E+00	8.59E-04	5.07E-09	1.04E-24	0.	0.	0.	0.	0.	0.	0.	0.
BA140	9.38E-02	5.54E-01	5.27E-01	4.47E-01	3.41E-01	1.98E-01	1.15E-01	3.91E-02	2.61E-03	1.16E-05	5.14E-08	5.94E-08
LA140	2.23E-07	1.93E-01	3.10E-01	4.29E-01	3.82E-01	2.28E-01	1.33E-01	4.51E-02	3.00E-03	1.34E-05	0.	0.
LA141	1.57E+00	6.25E-01	8.77E-03	2.43E-08	1.33E-17	3.96E-36	1.18E-54	0.	0.	0.	0.	0.
CE141	1.95E-07	2.16E-01	2.14E-01	2.01E-01	1.81E-01	1.46E-01	1.18E-01	7.67E-02	2.63E-02	3.10E-03	3.65E-04	0.
LA142	1.02E+01	2.24E-03	4.34E-08	3.19E-22	0.	0.	0.	0.	0.	0.	0.	0.
CE143	6.69E-02	2.75E+00	1.66E+00	3.66E-01	2.95E-02	1.91E-04	1.23E-06	5.17E-11	5.83E-22	0.	0.	0.
PR143	1.96E-08	1.76E-01	2.74E-01	3.54E-01	3.03E-01	1.85E-01	1.12E-01	4.03E-02	3.23E-03	2.05E-05	1.30E-07	1.01E-02
CE144	2.92E-03	2.09E-02	2.08E-02	2.07E-02	2.04E-02	1.99E-02	1.94E-02	1.85E-02	1.64E-02	1.28E-02	1.01E-02	1.01E-02
PR144	8.01E-07	2.09E-02	2.08E-02	2.07E-02	2.04E-02	1.99E-02	1.94E-02	1.85E-02	1.64E-02	1.28E-02	1.01E-02	0.
PR145	1.18E-01	1.21E+00	7.50E-02	1.78E-05	1.62E-11	1.34E-23	1.11E-35	0.	0.	0.	0.	0.
ND147	1.58E-05	2.66E-01	2.50E-01	2.08E-01	1.52E-01	8.15E-02	4.35E-02	1.25E-02	5.48E-04	1.07E-06	2.07E-09	2.68E-03
PM147	4.40E-14	1.99E-04	3.86E-04	8.81E-04	1.52E-03	2.32E-03	2.75E-03	3.06E-03	0.	0.	0.	0.
ND149	2.66E+01	2.57E-03	2.49E-07	2.27E-19	1.94E-39	0.	0.	0.	0.	0.	0.	0.
PM149	3.70E-03	6.83E-01	5.00E-01	1.95E-01	4.08E-02	1.78E-03	7.73E-05	1.47E-07	2.32E-14	5.73E-28	1.43E-41	0.
PM150	3.05E-01	6.43E-04	1.35E-06	1.27E-14	5.32E-28	0.	0.	0.	0.	0.	0.	0.

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO	TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
PM151	7.43E-02	5.07E-01	2.80E-01	4.71E-02	2.41E-03	6.33E-06	1.67E-08	1.15E-13	1.44E-26	0.	0.	0.
SM153	2.65E-01	1.86E-01	1.31E-01	4.52E-02	7.68E-03	2.23E-04	6.49E-06	5.45E-09	1.12E-16	4.79E-32	2.04E-47	0.
SM156	2.49E-01	4.25E-02	7.25E-03	3.57E-05	5.14E-09	1.06E-16	2.18E-24	9.28E-40	0.	0.	0.	0.
EU155	9.45E-06	3.20E-04	3.20E-04	3.20E-04	3.19E-04	3.17E-04	3.16E-04	3.14E-04	3.08E-04	2.95E-04	2.84E-04	0.
EU156	7.28E-04	5.93E-03	6.57E-03	5.89E-03	4.68E-03	2.94E-03	1.85E-03	7.36E-04	7.28E-05	7.18E-07	7.07E-09	0.
EU157	3.01E-02	3.48E-02	1.17E-02	4.39E-04	1.85E-06	3.25E-11	5.76E-16	1.79E-25	0.	0.	0.	0.
GD159	6.11E-03	1.20E-02	4.79E-03	2.99E-04	2.94E-06	2.85E-10	2.76E-14	2.59E-22	2.21E-42	0.	0.	0.
TB161	1.23E-04	8.06E-04	7.27E-04	5.38E-04	3.26E-04	1.19E-04	4.36E-05	5.85E-06	3.87E-08	1.67E-12	7.27E-17	0.
TOTAL	2.73E+02	8.41E+01	4.22E+01	1.60E+01	6.64E+00	2.41E+00	1.36E+00	6.88E-01	3.00E-01	1.14E-01	5.82E-02	0.

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 1.000
 RELAXATION LENGTH = 0.16 GM/SQCM

DEBRIS DECAY FROM 1 TO 50 YEARS

	ZERO TIME	1.00E+00	1.50E+00	2.00E+00	3.50E+00	5.00E+00	7.00E+00	1.00E+01	2.00E+01	3.50E+01	5.00E+01
BE 7	6.80E-04	5.88E-06	5.46E-07	5.07E-08	4.08E-11	3.27E-14	2.44E-18	1.57E-24	0.	0.	0.
MN 54	2.18E-05	9.39E-06	6.19E-06	4.07E-06	1.16E-06	3.32E-07	6.25E-08	5.11E-09	1.20E-12	4.34E-18	1.57E-23
FE 59	1.79E-05	6.46E-08	3.87E-09	2.33E-10	5.06E-14	1.09E-17	1.42E-22	6.67E-30	0.	0.	0.
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	3.93E+00	9.79E-09	9.54E-09	9.28E-09	8.69E-09	8.07E-09	7.33E-09	6.36E-09	3.96E-09	1.94E-09	9.54E-10
AM241	2.19E-10	2.19E-10	2.19E-10	2.19E-10	2.20E-10	2.21E-10	2.21E-10	2.22E-10	2.23E-10	2.21E-10	2.18E-10
CM242	4.41E-09	9.35E-10	4.30E-10	1.98E-10	1.93E-11	1.88E-12	8.41E-14	7.96E-16	2.29E-20	2.13E-20	1.99E-20
KR 85	3.74E-06	9.29E-05	9.01E-05	8.72E-05	7.95E-05	7.18E-05	6.31E-05	5.20E-05	2.75E-05	1.05E-05	4.01E-06
SR 89	2.68E-06	6.28E-04	5.49E-05	4.83E-06	3.25E-09	2.19E-12	1.29E-16	5.88E-23	4.28E-44	0.	0.
SR 90	5.05E-06	5.05E-04	5.01E-04	4.96E-04	4.78E-04	4.59E-04	4.37E-04	4.06E-04	3.17E-04	2.19E-04	1.52E-04
Y 90	7.48E-12	5.05E-04	5.01E-04	4.96E-04	4.78E-04	4.59E-04	4.37E-04	4.06E-04	3.17E-04	2.19E-04	1.52E-04
Y 91	1.91E-08	1.29E-03	1.50E-04	1.74E-05	2.73E-08	4.29E-11	7.84E-15	1.93E-20	3.89E-39	0.	0.
ZR 95	9.18E-04	2.36E-03	3.37E-04	4.79E-05	1.40E-07	4.07E-10	1.68E-13	1.42E-18	1.74E-35	0.	0.
NB 95M	1.95E-11	4.99E-05	7.13E-06	1.02E-06	2.96E-09	8.62E-12	3.57E-15	3.01E-20	3.69E-37	0.	0.
NB 95	1.02E-10	5.07E-03	7.29E-04	1.04E-04	3.01E-07	8.74E-10	3.65E-13	3.08E-18	3.77E-35	0.	0.
RU103	7.44E-05	2.89E-04	1.18E-05	4.87E-07	3.32E-11	2.28E-15	6.39E-21	3.01E-29	0.	0.	0.
RH103M	4.96E-09	2.90E-04	1.18E-05	4.87E-07	3.33E-11	2.28E-15	6.39E-21	3.01E-29	0.	0.	0.
RU106	4.57E-04	4.35E-03	3.08E-03	2.18E-03	7.76E-04	2.75E-04	6.93E-05	8.77E-06	8.84E-09	2.84E-13	9.14E-18
RH106	4.95E-06	4.35E-03	3.08E-03	2.18E-03	7.76E-04	2.75E-04	6.93E-05	8.77E-06	8.84E-09	2.84E-13	9.14E-18
SN123	2.37E-05	3.29E-04	1.19E-04	4.33E-05	2.08E-06	9.97E-08	1.74E-09	4.01E-12	6.42E-21	4.14E-34	2.66E-47
SB125	3.22E-04	6.49E-04	5.70E-04	5.01E-04	3.42E-04	2.33E-04	1.39E-04	6.43E-05	4.94E-06	1.05E-07	2.24E-09
TE125M	8.67E-12	2.65E-04	2.35E-04	2.07E-04	1.41E-04	9.62E-05	5.76E-05	2.66E-05	2.05E-06	4.36E-08	9.27E-10
TE127M	5.29E-10	2.53E-04	7.92E-05	2.48E-05	7.62E-07	2.34E-08	2.25E-10	2.12E-13	1.74E-23	1.30E-38	9.70E-54
TE127	3.69E-02	2.50E-04	7.83E-05	2.45E-05	7.53E-07	2.32E-08	2.23E-10	2.10E-13	1.72E-23	1.28E-38	9.61E-54
CS137	6.41E-05	6.76E-04	6.68E-04	6.61E-04	6.68E-04	6.61E-04	6.68E-04	6.61E-04	6.68E-04	6.61E-04	6.68E-04
BA137M	1.35E-07	6.34E-04	6.26E-04	6.18E-04	5.95E-04	5.76E-04	5.49E-04	5.15E-04	4.34E-04	3.08E-04	2.18E-04
CE141	1.95E-07	8.40E-05	1.69E-06	3.39E-08	2.76E-13	2.29E-18	3.69E-25	2.45E-35	0.	0.	0.
CE144	2.92E-03	8.58E-03	5.52E-03	3.52E-03	9.24E-04	2.43E-04	4.08E-05	2.82E-06	3.80E-10	5.95E-16	9.28E-22
PR144	8.01E-07	8.58E-03	5.52E-03	3.52E-03	9.24E-04	2.43E-04	4.08E-05	2.82E-06	3.80E-10	5.95E-16	9.28E-22
PM147	4.40E-14	2.59E-03	2.24E-03	1.96E-03	1.32E-03	8.86E-04	5.20E-04	2.36E-04	1.68E-05	3.17E-07	6.00E-09
EU155	9.45E-06	2.77E-04	2.57E-04	2.39E-04	1.92E-04	1.54E-04	1.15E-04	7.45E-05	1.74E-05	1.96E-06	2.20E-07
TOTAL	3.97E+00	4.29E-02	2.45E-02	1.69E-02	7.66E-03	4.59E-03	3.13E-03	2.35E-03	1.54E-03	1.05E-03	7.29E-04

TUBALLOY
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

TIME		MR/HR	MICROCURIES/SQ METER
ZERO TIME	HOURS	1.10E+02	1.19E+04
1.00E+00		3.35E+01	2.42E+03
2.00E+00		1.32E+01	9.13E+02
3.00E+00		7.01E+00	5.47E+02
4.00E+00		4.38E+00	4.00E+02
6.00E+00		2.31E+00	2.71E+02
9.00E+00		1.37E+00	1.89E+02
1.20E+01		1.00E+00	1.45E+02
1.50E+01		7.84E-01	1.18E+02
1.80E+01		6.40E-01	9.83E+01
2.10E+01		5.36E-01	8.43E+01
1.00E+00	DAYS	4.52E-01	7.27E+01
2.00E+00		2.05E-01	3.49E+01
5.00E+00		8.09E-02	1.34E+01
1.00E+01		3.75E-02	5.84E+00
2.00E+01		1.47E-02	2.24E+00
3.00E+01		8.22E-03	1.29E+00
5.00E+01		3.66E-03	6.62E-01
1.00E+02		1.21E-03	2.80E-01
2.00E+02		4.02E-04	9.85E-02
3.00E+02		1.60E-04	4.94E-02
1.00E+00	YEARS	9.71E-05	3.68E-02
1.50E+00		3.71E-05	2.17E-02
2.00E+00		2.44E-05	1.55E-02
3.50E+00		1.43E-05	7.59E-03
5.00E+00		1.06E-05	4.85E-03
7.00E+00		8.51E-06	3.51E-03
1.00E+01		7.10E-06	2.78E-03
2.00E+01		5.16E-06	1.94E-03
3.50E+01		3.63E-06	1.33E-03
5.00E+01		2.56E-06	9.24E-04

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
BE 7	4.31E-04	4.31E-04	4.31E-04	4.31E-04	4.31E-04	4.30E-04	4.29E-04	4.28E-04	4.27E-04	4.27E-04	4.26E-04
NA 24	6.92E-03	6.61E-03	6.32E-03	6.03E-03	5.75E-03	5.25E-03	4.57E-03	3.98E-03	3.47E-03	3.02E-03	2.62E-03
MN 54	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.38E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05
FE 55	2.61E-05	2.61E-05	2.61E-05	2.61E-05	2.61E-05	2.61E-05	2.61E-05	2.61E-05	2.61E-05	2.61E-05	2.61E-05
FE 59	1.13E-05	1.13E-05	1.13E-05	1.13E-05	1.13E-05	1.13E-05	1.13E-05	1.13E-05	1.12E-05	1.12E-05	1.12E-05
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CU 64	2.74E-02	2.59E-02	2.46E-02	2.33E-02	2.21E-02	1.98E-02	1.68E-02	1.43E-02	1.22E-02	1.03E-02	8.79E-03
CU 67	3.32E-05	3.30E-05	3.24E-05	3.21E-05	3.18E-05	3.10E-05	2.98E-05	2.90E-05	2.81E-05	2.70E-05	2.62E-05
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W187	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PB203	1.54E-04	1.52E-04	1.50E-04	1.48E-04	1.46E-04	1.43E-04	1.37E-04	1.32E-04	1.26E-04	1.21E-04	1.17E-04
U237	2.49E+00	2.48E+00	2.47E+00	2.46E+00	2.45E+00	2.42E+00	2.39E+00	2.36E+00	2.33E+00	2.30E+00	2.27E+00
U239	1.89E+03	3.22E+02	5.50E+01	9.37E+00	1.59E+00	4.63E-02	2.30E-04	1.13E-06	5.61E-09	2.77E-11	1.37E-13
U240	6.01E+00	5.73E+00	5.46E+00	5.19E+00	4.94E+00	4.48E+00	3.86E+00	3.33E+00	2.88E+00	2.48E+00	2.14E+00
NP239	6.46E-03	1.08E+01	1.25E+01	1.27E+01	1.26E+01	1.23E+01	1.18E+01	1.14E+01	1.10E+01	1.06E+01	1.02E+01
NP240M	9.51E-03	5.75E+00	5.50E+00	5.24E+00	4.99E+00	4.51E+00	3.90E+00	3.36E+00	2.90E+00	2.50E+00	2.16E+00
NP240	2.41E-10	1.24E-10	6.43E-11	3.32E-11	1.72E-11	4.59E-12	6.33E-13	8.74E-14	1.20E-14	1.66E-15	2.30E-16
AM241	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10
CM242	2.80E-09	2.80E-09	2.80E-09	2.80E-09	2.80E-09	2.80E-09	2.78E-09	2.78E-09	2.78E-09	2.78E-09	2.78E-09
GE 75	6.33E-05	3.07E-01	1.85E-01	1.11E-01	6.70E-02	2.43E-02	5.31E-03	1.16E-03	2.54E-04	5.53E-05	1.21E-05
GE 77	2.00E-02	5.15E-02	4.84E-02	4.56E-02	4.29E-02	3.79E-02	3.16E-02	2.62E-02	2.19E-02	1.82E-02	1.51E-02
AS 77	2.07E-04	3.27E-02	3.30E-02	3.33E-02	3.35E-02	3.37E-02	3.37E-02	3.35E-02	3.30E-02	3.23E-02	3.15E-02
SE 77M	8.15E-09	9.78E-05	9.93E-05	1.00E-04	1.00E-04	1.01E-04	1.01E-04	1.01E-04	9.93E-05	9.70E-05	9.41E-05
GE 78	2.13E+00	1.33E+00	8.28E-01	5.17E-01	3.23E-01	1.26E-01	3.05E-02	7.39E-03	1.80E-03	4.38E-04	1.06E-04
AS 78	3.83E-02	6.36E-01	7.83E-01	7.34E-01	6.13E-01	3.62E-01	1.34E-01	4.46E-02	1.38E-02	4.13E-03	1.20E-03
AS 79	3.30E+01	3.25E-01	3.20E-03	3.15E-05	3.10E-07	3.01E-11	2.87E-17	2.73E-23	2.61E-29	2.49E-35	2.38E-41
SE 79M	4.88E-02	5.73E-01	5.66E-03	5.57E-05	5.48E-07	5.30E-11	5.06E-17	4.83E-23	4.61E-29	4.40E-35	4.20E-41
BR 80	1.71E-01	1.62E-02	1.52E-03	1.43E-04	1.35E-05	1.19E-07	9.99E-11	8.33E-14	6.94E-17	5.79E-20	4.84E-23
SE 81M	1.26E-01	5.86E+00	2.83E+00	1.36E+00	6.54E-01	1.53E-01	1.71E-02	1.92E-03	2.15E-04	2.41E-05	2.70E-06
SE 81	1.54E+00	6.93E+00	4.01E+00	2.00E+00	9.72E-01	2.27E-01	2.54E-02	2.84E-03	3.19E-04	3.58E-05	4.00E-06
BR 82	6.49E-04	6.37E-04	6.24E-04	6.13E-04	6.00E-04	5.77E-04	5.44E-04	5.13E-04	4.84E-04	4.56E-04	4.30E-04
SE 83	5.72E+01	1.08E+01	2.05E+00	3.89E-01	7.36E-02	2.65E-03	1.80E-05	1.22E-07	8.36E-10	5.66E-12	3.60E-14
BR 83	4.75E-01	7.09E+00	6.56E+00	5.16E+00	3.92E+00	2.21E+00	9.36E-01	3.94E-01	1.67E-01	7.02E-02	2.96E-02
KR 83M	2.45E-05	1.60E+00	3.28E+00	4.07E+00	4.20E+00	3.50E+00	2.07E+00	1.06E+00	5.12E-01	2.37E-01	1.06E-01

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
BR 84	1.09E-01	1.88E+01	5.07E+00	1.37E+00	3.71E-01	2.71E-02	5.37E-04	1.06E-05	2.10E-07	4.15E-09	8.19E-11
KR 85M	4.59E-03	9.83E+00	8.36E+00	7.14E+00	6.11E+00	4.46E+00	2.78E+00	1.73E+00	1.08E+00	6.72E-01	4.19E-01
KR 87	6.36E+01	3.67E+01	2.12E+01	1.23E+01	7.08E+00	2.38E+00	4.61E-01	8.92E-02	1.73E-02	3.35E-03	6.47E-04
KR 88	3.63E+01	2.83E+01	2.21E+01	1.72E+01	1.35E+01	8.18E+00	3.90E+00	1.86E+00	8.83E-01	4.21E-01	2.00E-01
RB 88	9.22E+00	2.86E+01	2.44E+01	1.92E+01	1.51E+01	9.16E+00	4.37E+00	2.08E+00	9.92E-01	4.72E-01	2.24E-01
RB 89	4.44E+01	4.17E+01	2.81E+00	1.89E-01	1.26E-02	5.72E-05	1.73E-08	5.22E-12	1.59E-15	4.82E-19	1.46E-22
SR 89	3.40E-06	1.19E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.27E-01	1.26E-01	1.26E-01
SR 90	6.40E-06	6.58E-04	6.58E-04	6.58E-04	6.58E-04	6.58E-04	6.58E-04	6.58E-04	6.58E-04	6.58E-04	6.58E-04
SR 91	7.69E-01	1.43E+01	1.33E+01	1.24E+01	1.16E+01	1.00E+01	8.07E+00	6.53E+00	5.27E+00	4.23E+00	3.41E+00
Y 91M	5.17E-05	4.93E+00	6.72E+00	7.20E+00	7.11E+00	6.38E+00	5.22E+00	4.20E+00	3.39E+00	2.73E+00	2.20E+00
Y 91	2.12E-08	4.38E-03	1.01E-02	1.61E-02	2.20E-02	3.30E-02	4.69E-02	5.80E-02	6.72E-02	7.44E-02	8.02E-02
SR 92	5.80E+00	2.59E+01	2.01E+01	1.55E+01	1.20E+01	7.20E+00	3.35E+00	1.55E+00	7.20E-01	3.35E-01	1.56E-01
Y 92	2.67E-01	5.45E+00	8.55E+00	1.02E+01	1.08E+01	1.03E+01	7.88E+00	5.37E+00	3.45E+00	2.13E+00	1.28E+00
SR 93	2.39E+02	4.12E+00	2.28E-02	1.26E-04	6.93E-07	2.12E-11	3.57E-18	6.03E-25	1.02E-31	1.72E-38	2.89E-45
Y 93	2.92E-01	9.44E+00	8.87E+00	8.29E+00	7.75E+00	6.77E+00	5.51E+00	4.50E+00	3.66E+00	3.00E+00	2.44E+00
Y 94	3.57E+01	4.87E+01	6.27E+00	8.08E-01	1.04E-01	1.73E-03	3.71E-06	7.96E-09	1.70E-11	3.71E-14	2.06E-15
Y 95	1.55E+02	1.46E+01	3.22E-01	7.10E-03	1.56E-04	7.58E-08	8.12E-13	8.68E-18	9.27E-23	9.91E-28	1.06E-32
ZR 95	5.82E-04	7.61E-02	7.76E-02	7.76E-02	7.76E-02	7.76E-02	7.76E-02	7.76E-02	7.76E-02	7.76E-02	7.76E-02
NB 95	6.49E-11	4.70E-05	1.10E-04	1.72E-04	2.35E-04	3.60E-04	5.46E-04	7.35E-04	9.19E-04	1.11E-03	1.29E-03
ZR 97	1.50E+00	6.52E+00	6.23E+00	6.00E+00	5.74E+00	5.31E+00	4.69E+00	4.15E+00	3.68E+00	3.24E+00	2.88E+00
NB 97M	7.70E-03	6.26E+00	6.00E+00	5.77E+00	5.54E+00	5.10E+00	4.51E+00	3.99E+00	3.53E+00	3.12E+00	2.76E+00
NB 97	7.49E-01	3.27E+00	4.61E+00	5.25E+00	5.51E+00	5.49E+00	5.00E+00	4.46E+00	3.94E+00	3.48E+00	3.09E+00
NB 98	8.55E+00	3.79E+00	1.67E+00	7.40E-01	3.28E-01	6.42E-02	5.55E-03	4.80E-04	4.18E-05	3.62E-06	3.11E-07
MO 99	4.56E-03	1.88E+00	1.86E+00	1.85E+00	1.83E+00	1.79E+00	1.74E+00	1.68E+00	1.63E+00	1.58E+00	1.53E+00
TC 99M	4.24E-08	1.80E-01	3.37E-01	4.77E-01	5.99E-01	7.99E-01	1.01E+00	1.15E+00	1.24E+00	1.28E+00	1.30E+00
MO101	1.41E+02	6.35E+01	3.69E+00	2.14E-01	1.24E-02	4.16E-05	8.08E-09	1.57E-12	3.06E-16	5.94E-20	1.16E-23
TC101	5.94E+00	1.78E+02	1.95E+01	1.60E+00	1.16E-01	5.25E-04	1.31E-07	2.94E-11	6.23E-15	1.28E-18	2.59E-22
MO102	1.26E+03	2.87E+01	6.52E-01	1.49E-02	3.40E-04	1.77E-07	2.10E-12	2.49E-17	2.95E-22	3.50E-27	4.16E-32
TC102M	8.08E-01	2.42E+01	5.55E-01	1.27E-02	2.89E-04	1.50E-07	1.78E-12	2.11E-17	2.50E-22	2.96E-27	3.52E-32
TC102	3.78E+03	1.44E+01	3.29E-01	7.48E-03	1.71E-04	8.92E-08	1.06E-12	1.26E-17	1.49E-22	1.77E-27	2.09E-32
RU103	9.44E-05	2.19E-01	2.18E-01	2.18E-01	2.18E-01	2.18E-01	2.17E-01	2.17E-01	2.17E-01	2.16E-01	2.15E-01
RH103M	6.29E-09	1.13E-01	1.68E-01	1.94E-01	2.07E-01	2.15E-01	2.17E-01	2.17E-01	2.17E-01	2.16E-01	2.16E-01
TC104	7.57E+01	5.44E+01	5.44E+00	5.38E-01	5.32E-02	5.24E-04	5.12E-07	5.00E-10	4.89E-13	4.77E-16	4.66E-19
RU105	6.28E-01	2.17E+01	1.86E+01	1.59E+01	1.36E+01	9.95E+00	6.23E+00	3.90E+00	2.44E+00	1.53E+00	9.58E-01
RH105M	4.13E-03	2.18E+01	1.86E+01	1.60E+01	1.36E+01	9.99E+00	6.23E+00	3.91E+00	2.45E+00	1.53E+00	9.58E-01
RH105	6.78E-09	4.42E-01	8.21E-01	1.13E+00	1.39E+00	1.78E+00	2.13E+00	2.29E+00	2.34E+00	2.32E+00	2.26E+00
RU106	5.79E-04	1.10E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02
RH106	6.27E-06	1.10E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02
RH107	1.88E-01	2.56E+01	3.88E+00	5.84E-01	8.81E-02	2.01E-03	6.92E-06	2.39E-08	8.21E-11	2.81E-14	2.80E-17
PD107M	3.91E-04	5.21E+00	7.86E-01	1.19E-01	1.79E-02	4.09E-04	1.41E-06	4.86E-09	1.67E-11	5.77E-14	1.97E-16

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO	TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
PD109	2.48E-02	2.06E+00	1.96E+00	1.85E+00	1.76E+00	1.59E+00	1.37E+00	1.17E+00	1.00E+00	8.59E-01	7.38E-01	6.38E-01
AG109M	1.43E-04	2.06E+00	1.96E+00	1.86E+00	1.76E+00	1.59E+00	1.37E+00	1.17E+00	1.00E+00	8.59E-01	7.38E-01	6.38E-01
PD111M	3.22E+00	2.84E+00	2.50E+00	2.21E+00	1.95E+00	1.51E+00	1.04E+00	7.10E-01	4.87E-01	3.33E-01	2.28E-01	1.84E-01
PD111	1.15E+00	2.07E+00	1.98E+00	1.77E+00	1.56E+00	1.21E+00	8.33E-01	5.71E-01	3.91E-01	2.68E-01	1.84E-01	1.40E-01
AG111M	9.11E-03	2.79E+00	2.62E+00	2.34E+00	2.07E+00	1.60E+00	1.09E+00	7.49E-01	5.13E-01	3.52E-01	2.40E-01	1.82E-01
AG111	3.25E-09	9.62E-03	2.02E-02	2.97E-02	3.81E-02	5.19E-02	6.67E-02	7.64E-02	8.28E-02	8.68E-02	8.92E-02	8.82E-02
PD112	9.64E-01	9.35E-01	9.02E-01	8.73E-01	8.46E-01	7.91E-01	7.17E-01	6.50E-01	5.88E-01	5.32E-01	4.82E-01	4.42E-01
AG112	2.90E-05	1.85E-01	3.26E-01	4.38E-01	5.20E-01	6.23E-01	6.85E-01	6.82E-01	6.50E-01	6.05E-01	5.58E-01	5.18E-01
AG113	1.20E-02	2.56E+00	2.25E+00	1.97E+00	1.73E+00	1.33E+00	9.01E-01	6.09E-01	4.11E-01	2.77E-01	1.88E-01	1.38E-01
AG115	4.49E+00	4.81E+00	5.99E-01	7.49E-02	9.37E-03	1.47E-04	2.86E-07	5.60E-10	1.08E-12	1.08E-16	9.98E-16	9.98E-16
CD115M	3.67E-08	9.77E-04	1.10E-03	1.11E-03	1.11E-03	1.11E-03	1.11E-03	1.11E-03	1.11E-03	1.10E-03	1.10E-03	1.10E-03
CD115	1.42E-05	2.67E-01	2.88E-01	2.87E-01	2.83E-01	2.76E-01	2.66E-01	2.56E-01	2.46E-01	2.37E-01	2.27E-01	2.17E-01
IN115M	1.77E-10	2.95E-02	6.56E-02	9.73E-02	1.24E-01	1.65E-01	2.04E-01	2.52E-01	2.94E-01	3.35E-01	3.75E-01	4.15E-01
CD117	3.22E-01	5.36E+00	4.04E+00	3.01E+00	2.26E+00	1.27E+00	5.32E-01	2.24E-01	9.43E-02	4.15E-02	1.85E-02	8.15E-03
IN117M	1.55E-05	1.86E+00	2.70E+00	2.93E+00	2.83E+00	2.23E+00	1.27E+00	6.52E-01	3.13E-01	1.45E-01	6.56E-02	2.95E-02
IN117	6.22E-10	3.40E-01	8.22E-01	1.14E+00	1.27E+00	1.17E+00	7.47E-01	4.00E-01	1.99E-01	9.35E-02	4.30E-02	1.95E-02
CD118	2.13E+01	9.13E+00	3.92E+00	1.67E+00	7.15E-01	1.31E-01	1.03E-02	8.02E-04	6.31E-05	4.94E-06	3.88E-07	3.08E-08
IN118	1.41E+00	9.13E+00	3.92E+00	1.67E+00	7.15E-01	1.31E-01	1.03E-02	8.06E-04	6.31E-05	4.94E-06	3.88E-07	3.08E-08
CD119	5.32E+01	8.30E-01	1.29E-02	2.02E-04	3.16E-06	7.74E-10	2.95E-15	1.13E-20	4.29E-26	1.64E-31	6.27E-37	2.27E-43
IN119M	8.02E-02	8.97E+00	9.76E-01	9.84E-02	9.80E-03	9.65E-05	9.41E-08	9.21E-11	8.97E-14	8.77E-17	8.57E-20	8.37E-23
IN119	3.95E+00	4.72E-01	5.48E-02	5.56E-03	5.56E-04	5.44E-06	5.32E-09	5.20E-12	5.08E-15	4.96E-18	4.84E-21	4.72E-24
SN121	6.58E-03	6.77E-01	6.58E-01	6.43E-01	6.27E-01	5.96E-01	5.50E-01	5.11E-01	4.72E-01	4.37E-01	4.06E-01	3.75E-01
SN123M	3.20E+00	5.99E+00	2.12E+00	7.51E-01	2.65E-01	3.31E-02	1.47E-03	6.49E-05	2.87E-06	1.27E-07	5.60E-09	2.40E-10
SN123	3.01E-05	3.15E-03	3.15E-03	3.15E-03	3.15E-03	3.15E-03	3.15E-03	3.15E-03	3.15E-03	3.15E-03	3.15E-03	3.15E-03
SN125	6.80E-02	6.78E-02	6.77E-02	6.75E-02	6.71E-02	6.68E-02	6.62E-02	6.55E-02	6.50E-02	6.43E-02	6.38E-02	6.33E-02
SB125	4.08E-04	4.10E-04	4.12E-04	4.14E-04	4.16E-04	4.19E-04	4.26E-04	4.32E-04	4.37E-04	4.42E-04	4.48E-04	4.53E-04
SB126	8.30E-03	8.28E-03	8.26E-03	8.25E-03	8.22E-03	8.18E-03	8.13E-03	8.08E-03	8.01E-03	7.96E-03	7.91E-03	7.86E-03
SB127	7.10E+00	5.10E+00	3.66E+00	2.64E+00	1.90E+00	9.80E-01	3.64E-01	1.35E-01	5.02E-02	1.87E-02	6.93E-03	2.52E-03
SB127	8.29E-02	2.86E-01	3.16E-01	3.37E-01	3.52E-01	3.66E-01	3.72E-01	3.69E-01	3.63E-01	3.55E-01	3.48E-01	3.41E-01
TE127	4.68E-02	5.83E-02	7.08E-02	8.40E-02	9.71E-02	1.22E-01	1.56E-01	1.82E-01	2.03E-01	2.19E-01	2.29E-01	2.39E-01
SN128	3.64E+01	1.80E+01	8.90E+00	4.40E+00	2.17E+00	5.31E-01	6.41E-02	7.73E-03	9.33E-04	1.13E-04	1.36E-05	1.62E-06
SB128M	1.86E-02	2.05E+01	1.06E+01	5.25E+00	2.59E+00	6.34E-01	7.63E-02	9.22E-03	1.11E-03	1.34E-04	1.62E-05	1.95E-06
SB128	1.54E+00	1.48E+00	1.39E+00	1.30E+00	1.22E+00	1.04E+00	8.33E-01	6.61E-01	5.25E-01	4.17E-01	3.31E-01	2.61E-01
SN129M	1.81E+01	8.99E+00	4.51E+00	2.26E+00	1.13E+00	2.82E-01	3.53E-02	4.41E-03	5.51E-04	6.89E-05	8.61E-06	1.08E-06
SN129	1.20E+02	1.18E+00	1.17E-02	1.15E-04	1.13E-06	1.10E-10	1.04E-16	9.98E-23	9.53E-29	9.07E-35	8.69E-41	8.31E-47
SB129	6.78E+00	1.14E+01	1.07E+01	9.53E+00	8.38E+00	6.23E+00	3.88E+00	2.40E+00	1.48E+00	9.15E-01	5.62E-01	3.31E-01
TE129M	1.28E-07	1.42E-03	2.92E-03	4.29E-03	5.51E-03	7.47E-03	9.45E-03	1.07E-02	1.14E-02	1.19E-02	1.22E-02	1.25E-02
TE129	4.88E+00	6.71E+00	7.85E+00	8.15E+00	7.85E+00	6.50E+00	4.33E+00	2.73E+00	1.70E+00	1.05E+00	6.52E-01	4.06E-01
SB130M	5.87E-01	1.11E+00	2.91E-03	7.64E-06	2.01E-08	1.39E-13	2.53E-21	4.60E-29	8.34E-37	1.52E-44	2.76E-52	4.95E-60
SB130	1.01E+02	3.04E+01	8.66E+00	2.45E+00	6.94E-01	5.59E-02	1.27E-03	2.90E-05	6.62E-07	1.51E-08	3.45E-10	7.81E-12

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
I130	2.80E-02	2.65E-02	2.51E-02	2.37E-02	2.24E-02	2.01E-02	1.69E-02	1.43E-02	1.21E-02	1.03E-02	8.66E-03
SB131	2.04E+02	5.33E+01	8.71E+00	1.43E+00	2.35E-01	6.32E-03	2.78E-05	1.23E-07	5.41E-10	2.38E-12	1.19E-14
TE131M	9.81E-05	5.13E-01	5.85E-01	5.86E-01	5.75E-01	5.50E-01	5.13E-01	4.78E-01	4.46E-01	4.17E-01	3.89E-01
TE131	9.03E+01	9.81E+01	3.20E+01	8.32E+00	2.02E+00	1.90E-01	9.42E-02	8.71E-02	8.12E-02	7.60E-02	7.08E-02
I131	1.31E-02	4.55E-01	6.69E-01	7.34E-01	7.47E-01	7.54E-01	7.54E-01	7.47E-01	7.47E-01	7.41E-01	7.41E-01
TE132	1.02E+00	2.47E+00	2.45E+00	2.43E+00	2.41E+00	2.36E+00	2.30E+00	2.24E+00	2.18E+00	2.12E+00	2.07E+00
I132	2.50E+00	2.49E+00	2.49E+00	2.47E+00	2.46E+00	2.43E+00	2.37E+00	2.31E+00	2.25E+00	2.19E+00	2.14E+00
TE133M	1.24E-01	4.30E+01	1.87E+01	8.16E+00	3.55E+00	6.74E-01	5.55E-02	4.58E-03	3.77E-04	3.11E-05	2.57E-06
TE133	6.98E+02	3.96E+01	4.40E+00	1.45E+00	6.15E-01	1.16E-01	9.64E-03	7.92E-04	6.56E-05	5.40E-06	4.45E-07
I133	1.08E+00	1.16E+01	1.26E+01	1.26E+01	1.24E+01	1.17E+01	1.06E+01	9.64E+00	8.69E+00	7.92E+00	7.15E+00
XE133M	4.61E-08	2.62E-03	6.33E-03	1.01E-02	1.38E-02	2.07E-02	3.00E-02	3.80E-02	4.48E-02	5.07E-02	5.55E-02
XE133	8.04E-07	4.58E-02	1.11E-01	1.77E-01	2.44E-01	3.69E-01	5.41E-01	6.92E-01	8.28E-01	9.46E-01	1.05E+00
TE134	2.07E+02	9.60E+01	3.57E+01	1.33E+01	4.93E+00	6.83E-01	3.49E-02	1.79E-03	9.17E-05	4.71E-06	2.41E-07
I134	9.49E+01	1.27E+02	8.90E+01	5.21E+01	2.80E+01	7.11E+00	7.81E-01	7.97E-02	7.81E-03	7.49E-04	7.11E-05
I135	1.75E+01	3.08E+01	2.78E+01	2.50E+01	2.26E+01	1.83E+01	1.35E+01	9.85E+00	7.23E+00	5.33E+00	3.89E+00
XE135M	1.93E-03	8.89E+00	8.64E+00	7.84E+00	7.03E+00	5.73E+00	4.21E+00	3.08E+00	2.26E+00	1.66E+00	1.22E+00
XE135	2.01E+00	3.98E+00	5.83E+00	7.33E+00	8.54E+00	1.02E+01	1.14E+01	1.14E+01	1.09E+01	9.90E+00	8.84E+00
CS136	2.84E-03	2.83E-03	2.83E-03	2.83E-03	2.82E-03	2.80E-03	2.78E-03	2.77E-03	2.75E-03	2.73E-03	2.71E-03
CS137	8.13E-05	8.76E-04	8.76E-04	8.76E-04	8.76E-04	8.76E-04	8.76E-04	8.76E-04	8.76E-04	8.76E-04	8.76E-04
BA137M	1.71E-07	8.18E-04	8.18E-04	8.18E-04	8.18E-04	8.18E-04	8.18E-04	8.18E-04	8.18E-04	8.18E-04	8.18E-04
XE138	6.64E+02	5.71E+01	4.97E+00	4.30E-01	3.73E-02	2.79E-04	1.82E-07	1.18E-10	7.67E-14	4.98E-17	3.24E-20
CS138	9.88E+01	1.66E+02	5.76E+01	1.69E+01	4.74E+00	3.61E-01	7.51E-03	1.56E-04	3.24E-06	6.74E-08	1.39E-09
CS139	5.52E+02	1.76E+01	2.21E-01	2.78E-03	3.48E-05	5.47E-09	1.09E-14	2.15E-20	4.26E-26	8.44E-32	1.67E-37
BA139	1.02E+01	1.14E+02	7.01E+01	4.26E+01	2.58E+01	9.45E+00	2.10E+00	4.66E-01	1.04E-01	2.29E-02	5.10E-03
BA140	1.01E-01	6.31E-01	6.31E-01	6.26E-01	6.26E-01	6.21E-01	6.21E-01	6.16E-01	6.11E-01	6.07E-01	6.02E-01
LA140	2.40E-07	1.08E-02	2.14E-02	3.17E-02	4.19E-02	6.16E-02	9.00E-02	1.17E-01	1.42E-01	1.65E-01	1.87E-01
BA141	1.44E+02	4.35E+01	4.31E+00	4.28E-01	4.24E-02	4.21E-04	4.11E-07	4.00E-10	3.90E-13	3.83E-16	3.73E-19
LA141	1.33E+00	2.81E+01	2.62E+01	2.22E+01	1.86E+01	1.31E+01	7.66E+00	4.48E+00	2.64E+00	1.55E+00	9.07E-01
CE141	1.64E-07	1.83E-02	4.28E-02	6.43E-02	8.25E-02	1.11E-01	1.37E-01	1.53E-01	1.61E-01	1.67E-01	1.69E-01
BA142	2.82E+02	1.12E+01	2.56E-01	5.83E-03	1.33E-04	6.91E-08	8.20E-13	9.73E-18	1.15E-22	1.37E-27	1.63E-32
LA142	6.48E+00	4.49E+01	2.96E+01	1.89E+01	1.20E+01	4.85E+00	1.25E+00	3.23E-01	8.32E-02	2.14E-02	5.52E-03
LA143	1.06E+02	2.07E+01	1.06E+00	5.46E-02	2.80E-03	7.35E-06	9.90E-10	1.34E-13	1.80E-17	2.43E-21	3.28E-25
CE143	4.24E-02	2.71E+00	2.80E+00	2.73E+00	2.68E+00	2.58E+00	2.42E+00	2.27E+00	2.13E+00	2.00E+00	1.88E+00
PR143	1.24E-08	4.14E-03	1.00E-02	1.58E-02	2.15E-02	3.25E-02	4.79E-02	6.25E-02	7.59E-02	8.86E-02	1.00E-01
CE144	1.85E-03	1.33E-02	1.33E-02	1.33E-02	1.33E-02	1.33E-02	1.32E-02	1.32E-02	1.32E-02	1.32E-02	1.32E-02
PR144	5.08E-07	1.21E-02	1.32E-02	1.32E-02	1.33E-02	1.33E-02	1.33E-02	1.33E-02	1.32E-02	1.32E-02	1.32E-02
PR145	7.51E-02	1.10E+01	9.82E+00	8.73E+00	7.80E+00	6.17E+00	4.35E+00	3.07E+00	2.18E+00	1.54E+00	1.09E+00
CE146	2.38E+02	1.22E+01	6.25E-01	3.19E-02	1.64E-03	4.33E-06	5.83E-10	7.86E-14	1.06E-17	1.43E-21	1.92E-25
PR146	4.92E+00	4.28E+01	9.69E+00	1.82E+00	3.28E-01	1.03E-02	5.69E-05	3.14E-07	1.74E-09	9.61E-12	5.25E-14
PR147	2.81E+01	8.14E+00	2.54E-01	7.93E-03	2.48E-04	2.42E-07	7.40E-12	2.26E-16	6.89E-21	2.11E-25	6.42E-30

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO	TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
ND147	1.00E-05	1.89E-01	1.94E-01	1.94E-01	1.93E-01	1.93E-01	1.91E-01	1.90E-01	1.88E-01	1.87E-01	1.85E-01	
ND149	1.68E+01	1.15E+01	7.80E+00	5.32E+00	3.60E+00	1.67E+00	5.25E-01	1.66E-01	5.22E-02	1.64E-02	5.19E-03	
PM149	2.35E-03	1.83E-01	3.04E-01	3.85E-01	4.36E-01	4.90E-01	5.09E-01	5.00E-01	4.87E-01	4.68E-01	4.52E-01	
PM150	1.93E-01	1.49E-01	1.16E-01	8.92E-02	6.90E-02	4.14E-02	1.92E-02	8.86E-03	4.11E-03	1.90E-03	8.80E-04	
ND151	7.43E+01	2.32E+00	7.27E-02	2.27E-03	7.10E-05	6.94E-08	2.12E-12	6.47E-17	1.97E-21	6.01E-26	1.84E-30	
PM151	4.71E-02	5.51E-01	5.54E-01	5.41E-01	5.28E-01	5.01E-01	4.65E-01	4.31E-01	4.02E-01	3.72E-01	3.45E-01	
PM152	1.16E+02	1.14E-01	1.11E-04	1.08E-07	1.06E-10	1.01E-16	9.40E-26	8.77E-35	8.17E-44	7.63E-53	7.09E-62	
SM153	1.68E-01	1.66E-01	1.63E-01	1.61E-01	1.59E-01	1.54E-01	1.47E-01	1.41E-01	1.35E-01	1.29E-01	1.23E-01	
SM155	8.15E+00	1.34E+00	2.19E-01	3.59E-02	5.88E-03	1.58E-04	6.99E-07	3.07E-09	1.36E-11	6.04E-14	1.48E-16	
EU155	5.99E-06	1.71E-04	1.98E-04	2.02E-04	2.03E-04	2.03E-04	2.03E-04	2.03E-04	2.03E-04	2.03E-04	2.03E-04	
SM156	1.58E-01	1.47E-01	1.36E-01	1.27E-01	1.17E-01	1.01E-01	8.13E-02	6.52E-02	5.23E-02	4.19E-02	3.35E-02	
EU156	4.62E-04	7.54E-04	1.02E-03	1.27E-03	1.51E-03	1.92E-03	2.44E-03	2.83E-03	3.17E-03	3.42E-03	3.60E-03	
EU157	1.91E-02	6.33E-02	6.05E-02	5.78E-02	5.51E-02	5.03E-02	4.39E-02	3.84E-02	3.34E-02	2.91E-02	2.54E-02	
EU158	6.52E-01	2.64E-01	1.07E-01	4.32E-02	1.75E-02	2.86E-03	1.91E-04	1.27E-05	8.41E-07	5.58E-08	3.71E-09	
EU159	9.05E-01	8.99E-02	8.91E-03	8.85E-04	8.77E-05	8.65E-07	8.45E-10	8.25E-13	8.05E-16	7.87E-19	7.69E-22	
GD159	3.88E-03	1.70E-02	1.77E-02	1.71E-02	1.65E-02	1.53E-02	1.36E-02	1.21E-02	1.08E-02	9.61E-03	8.57E-03	
TB161	7.82E-05	5.63E-04	5.59E-04	5.57E-04	5.55E-04	5.50E-04	5.44E-04	5.37E-04	5.29E-04	5.24E-04	5.16E-04	
TOTAL	1.19E+04	2.42E+03	9.13E+02	5.47E+02	4.00E+02	2.71E+02	1.89E+02	1.45E+02	1.18E+02	9.83E+01	8.43E+01	

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 8

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
BE 7	4.31E-04	4.26E-04	4.20E-04	4.05E-04	3.79E-04	3.33E-04	2.92E-04	2.25E-04	1.18E-04	3.20E-05	8.69E-06
NA 24	6.92E-03	2.28E-03	7.53E-04	2.70E-05	1.06E-07	1.62E-12	2.46E-17	5.74E-27	0.	0.	0.
MN 54	1.38E-05	1.37E-05	1.37E-05	1.34E-05	1.33E-05	1.31E-05	1.28E-05	1.22E-05	1.09E-05	8.68E-06	6.92E-06
FE 55	2.61E-05	2.61E-05	2.61E-05	2.60E-05	2.59E-05	2.58E-05	2.56E-05	2.52E-05	2.42E-05	2.26E-05	2.10E-05
FE 59	1.13E-05	1.12E-05	1.10E-05	1.05E-05	9.72E-06	8.34E-06	7.14E-06	5.25E-06	2.44E-06	5.20E-07	1.12E-07
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CU 64	2.74E-02	7.46E-03	2.04E-03	4.14E-05	6.21E-08	1.41E-13	3.20E-19	1.64E-30	0.	0.	0.
CU 67	3.32E-05	2.53E-05	1.94E-05	8.61E-06	2.24E-06	1.51E-07	1.02E-08	4.63E-11	6.48E-17	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W187	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PB203	1.54E-04	1.12E-04	8.14E-05	3.12E-05	6.33E-06	2.60E-07	1.07E-08	1.79E-11	2.09E-18	0.	0.
U237	2.49E+00	2.25E+00	2.02E+00	1.49E+00	8.91E-01	3.19E-01	1.14E-01	1.46E-02	8.64E-05	9.29E-09	6.26E-09
U240	6.01E+00	1.85E+00	5.68E-01	1.65E-02	4.52E-05	3.40E-10	2.56E-15	1.44E-25	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP239	6.46E-03	9.87E+00	7.35E+00	3.03E+00	6.94E-01	3.63E-02	1.90E-03	5.21E-06	2.05E-12	4.89E-22	4.89E-22
NP240M	9.51E-03	1.86E+00	5.73E-01	1.66E-02	4.56E-05	3.43E-10	2.58E-15	1.45E-25	0.	0.	0.
AM241	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10
CM242	2.80E-09	2.78E-09	2.77E-09	2.74E-09	2.68E-09	2.57E-09	2.46E-09	2.26E-09	1.84E-09	1.20E-09	7.83E-10
GE 77	2.00E-02	1.26E-02	2.88E-03	3.48E-05	2.22E-08	8.96E-15	3.62E-21	5.90E-34	0.	0.	0.
AS 77	2.07E-04	3.05E-02	2.21E-02	6.39E-03	7.48E-04	1.01E-05	1.38E-07	2.54E-11	1.18E-20	2.53E-39	5.42E-58
SE 77M	8.15E-09	9.19E-05	6.62E-05	1.92E-05	2.24E-06	3.04E-08	4.13E-10	7.63E-14	3.53E-23	7.56E-42	1.63E-60
AS 78	3.83E-02	3.41E-04	9.98E-09	8.42E-23	0.	0.	0.	0.	0.	0.	0.
BR 82	6.49E-04	4.05E-04	2.53E-04	6.15E-05	5.83E-06	5.24E-08	4.70E-10	3.80E-14	2.22E-24	7.61E-45	2.59E-65
BR 83	4.75E-01	1.25E-02	1.26E-05	1.28E-14	1.30E-29	0.	0.	0.	0.	0.	0.
KR 83M	2.45E-05	5.47E-02	6.21E-05	5.58E-14	5.73E-29	0.	0.	0.	0.	0.	0.
KR 85M	4.59E-03	2.62E-01	5.96E-03	7.08E-08	4.37E-16	1.66E-32	6.29E-49	0.	0.	0.	0.
KR 85	4.74E-06	1.25E-04	1.27E-04	1.27E-04	1.27E-04	1.27E-04	1.27E-04	1.26E-04	1.25E-04	1.23E-04	1.21E-04
KR 87	6.36E+01	1.25E-04	2.48E-10	1.92E-27	0.	0.	0.	0.	0.	0.	0.
KR 88	3.63E+01	9.54E-02	2.50E-04	4.55E-12	5.73E-25	0.	0.	0.	0.	0.	0.
RB 88	9.22E+00	1.06E-01	2.80E-04	5.09E-12	6.38E-25	0.	0.	0.	0.	0.	0.
SR 89	3.40E-06	1.02E-01	1.00E-01	9.65E-02	9.05E-02	7.91E-02	6.91E-02	5.32E-02	2.72E-02	7.16E-03	1.89E-03
SR 90	6.40E-06	6.58E-04	6.58E-04	6.58E-04	6.58E-04	6.58E-04	6.58E-04	6.58E-04	6.52E-04	6.52E-04	6.46E-04
Y 90	9.49E-12	1.51E-04	2.67E-04	4.79E-04	6.11E-04	6.52E-04	6.58E-04	6.58E-04	6.52E-04	6.52E-04	6.46E-04
SR 91	7.69E-01	2.75E+00	4.93E-01	2.83E-03	5.17E-07	1.75E-14	5.95E-22	6.77E-37	0.	0.	0.

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
Y 91M	5.17E-05	1.78E+00	3.18E-01	1.83E-03	3.35E-07	1.13E-14	3.83E-22	4.37E-37	0.	0.	0.
Y 91	2.12E-08	8.46E-02	1.00E-01	1.00E-01	9.43E-02	8.36E-02	7.44E-02	5.90E-02	3.26E-02	1.01E-02	3.09E-03
SR 92	5.80E+00	7.23E-02	1.56E-04	1.57E-12	7.34E-26	0.	0.	0.	0.	0.	0.
Y 92	2.67E-01	7.58E-01	8.42E-03	6.47E-09	3.78E-19	1.29E-39	4.42E-60	0.	0.	0.	0.
Y 93	2.92E-01	1.97E+00	3.85E-01	2.89E-03	8.32E-07	6.87E-14	5.67E-21	3.87E-35	0.	0.	0.
ZR 95	5.82E-04	7.28E-02	7.20E-02	6.97E-02	6.61E-02	5.92E-02	5.34E-02	4.31E-02	2.53E-02	8.71E-03	2.99E-03
NB 95M	1.24E-11	2.46E-04	4.49E-04	8.58E-04	1.16E-03	1.22E-03	1.13E-03	9.14E-04	5.36E-04	1.85E-04	6.36E-05
NB 95	6.49E-11	1.41E-03	2.78E-03	6.66E-03	1.24E-02	2.14E-02	2.76E-02	3.42E-02	3.29E-02	1.58E-02	6.08E-03
ZR 97	1.50E+00	2.55E+00	9.58E-01	5.07E-02	3.81E-04	2.15E-08	1.21E-12	3.81E-21	2.15E-42	0.	0.
NB 97M	7.70E-03	2.45E+00	9.19E-01	4.89E-02	3.66E-04	2.06E-08	1.16E-12	3.66E-21	2.07E-42	0.	0.
NB 97	7.49E-01	2.56E+00	9.61E-01	5.10E-02	3.84E-04	2.31E-08	1.30E-12	4.12E-21	2.32E-42	0.	0.
MO 99	4.56E-03	1.49E+00	1.16E+00	5.49E-01	1.59E-01	1.33E-02	1.11E-03	7.73E-06	3.14E-11	5.17E-22	8.52E-33
TC 99M	4.24E-08	1.31E+00	1.10E+00	5.26E-01	1.52E-01	1.06E-03	7.38E-06	2.99E-11	4.94E-22	8.14E-33	8.14E-33
RU103	9.44E-05	2.15E-01	2.11E-01	2.00E-01	1.84E-01	1.54E-01	1.29E-01	9.14E-02	3.80E-02	6.59E-03	1.15E-03
RH103M	6.29E-09	2.15E-01	2.12E-01	2.01E-01	1.84E-01	1.54E-01	1.29E-01	9.14E-02	3.81E-02	6.59E-03	1.15E-03
RU105	6.28E-01	6.01E-01	1.41E-02	1.86E-07	1.36E-15	7.24E-32	3.88E-48	0.	0.	0.	0.
RH105M	4.13E-03	6.01E-01	1.42E-02	1.86E-07	1.36E-15	7.29E-32	3.89E-48	0.	0.	0.	0.
RH105	6.78E-09	2.17E+00	1.42E+00	3.53E-01	3.48E-02	3.38E-04	3.29E-06	3.10E-10	2.69E-20	2.02E-40	1.52E-60
RU106	5.79E-04	1.10E-02	1.09E-02	1.09E-02	1.08E-02	1.06E-02	1.04E-02	9.97E-03	9.07E-03	7.50E-03	6.22E-03
RH106	6.27E-06	1.10E-02	1.09E-02	1.09E-02	1.08E-02	1.06E-02	1.04E-02	9.97E-03	9.07E-03	7.50E-03	6.22E-03
PD109	2.48E-02	6.32E-01	1.84E-01	4.57E-03	9.61E-06	4.29E-11	1.91E-16	3.78E-27	0.	0.	0.
AG109M	1.43E-04	6.32E-01	1.84E-01	4.57E-03	9.66E-06	4.29E-11	1.91E-16	3.78E-27	0.	0.	0.
PD111M	3.22E+00	1.56E-01	7.60E-03	8.71E-07	2.36E-13	1.72E-26	1.26E-39	0.	0.	0.	0.
PD111	1.15E+00	1.26E-01	6.11E-03	7.01E-07	1.90E-13	1.38E-26	1.01E-39	0.	0.	0.	0.
AG111M	9.11E-03	1.65E-01	8.02E-03	9.22E-07	2.49E-13	1.83E-26	1.33E-39	0.	0.	0.	0.
AG111	3.25E-09	8.95E-02	8.61E-02	6.55E-02	4.12E-02	1.63E-02	6.49E-03	1.02E-03	1.01E-05	9.75E-10	9.45E-14
PD112	9.64E-01	4.38E-01	1.98E-01	1.84E-02	3.50E-04	1.27E-07	4.61E-11	6.05E-18	3.82E-35	0.	0.
AG112	2.90E-05	5.08E-01	2.34E-01	2.17E-02	4.14E-04	1.50E-07	5.44E-11	7.17E-18	4.50E-35	0.	0.
AG113	1.20E-02	1.27E-01	5.48E-03	4.45E-07	6.81E-14	1.59E-27	3.72E-41	0.	0.	0.	0.
CD115M	3.67E-08	1.06E-03	1.04E-03	9.95E-04	9.20E-04	7.81E-04	6.67E-04	4.81E-04	2.15E-04	4.28E-05	8.56E-06
CD115	1.42E-05	2.14E-01	1.56E-01	6.17E-02	1.30E-02	5.81E-04	2.59E-05	5.17E-08	9.13E-15	2.86E-28	8.95E-42
IN115M	1.77E-10	2.25E-01	1.71E-01	6.74E-02	1.42E-02	6.35E-04	2.83E-05	5.63E-08	9.98E-15	3.12E-28	9.77E-42
CD117	3.22E-01	7.01E-03	6.83E-06	6.37E-15	5.66E-30	0.	0.	0.	0.	0.	0.
IN117M	1.55E-05	2.91E-02	3.37E-05	3.25E-14	2.89E-29	0.	0.	0.	0.	0.	0.
IN117	6.22E-10	1.92E-02	2.27E-05	2.20E-14	1.95E-29	0.	0.	0.	0.	0.	0.
SN121	6.58E-03	3.75E-01	2.02E-01	3.19E-02	1.46E-03	3.09E-06	6.50E-09	2.90E-14	1.21E-27	0.	0.
SN123	3.01E-05	3.15E-03	3.12E-03	3.06E-03	2.98E-03	2.81E-03	2.67E-03	2.39E-03	1.81E-03	1.04E-03	5.99E-04
SN125	6.80E-02	6.33E-02	4.71E-02	3.25E-02	1.56E-02	7.44E-03	3.68E-04	1.70E-03	4.26E-05	2.68E-08	1.68E-11
SB125	4.08E-04	4.53E-04	4.95E-04	6.06E-04	7.42E-04	8.99E-04	9.68E-04	1.01E-03	9.89E-04	9.23E-04	8.61E-04
SB126	8.30E-03	7.86E-03	7.44E-03	6.29E-03	4.77E-03	2.73E-03	1.58E-03	5.19E-04	3.24E-05	1.58E-07	3.17E-08

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 10

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
SN127	7.10E+00	2.57E-03	9.34E-07	4.46E-17	2.80E-34	0.	0.	0.	0.	0.	0.
SB127	8.29E-02	3.40E-01	2.85E-01	1.66E-01	6.81E-02	1.14E-02	1.90E-03	5.32E-05	6.93E-09	1.18E-16	2.01E-24
TE127M	6.70E-10	5.19E-04	9.50E-04	1.84E-03	2.55E-03	2.81E-03	2.71E-03	2.40E-03	1.75E-03	9.25E-04	4.89E-04
TE127	4.68E-02	2.44E-01	2.39E-01	1.46E-01	6.16E-02	1.26E-02	4.33E-03	2.42E-03	1.73E-03	9.15E-04	4.84E-04
SB128	1.54E+00	2.62E-01	4.14E-02	1.61E-04	1.57E-08	1.47E-16	1.38E-24	1.22E-40	0.	0.	0.
SB129	6.78E+00	3.47E-01	7.24E-03	6.59E-08	2.62E-16	4.14E-33	6.53E-50	0.	0.	0.	0.
TE129M	1.28E-07	1.35E-02	1.35E-02	1.27E-02	1.15E-02	9.37E-03	7.62E-03	5.08E-03	1.83E-03	2.39E-04	3.10E-05
TE129	4.88E+00	4.06E-01	1.69E-02	8.15E-03	7.35E-03	6.00E-03	4.89E-03	3.25E-03	1.17E-03	1.53E-04	1.99E-05
I130	2.80E-02	7.32E-03	1.92E-03	3.43E-05	4.18E-08	6.24E-14	9.30E-20	2.07E-31	0.	0.	0.
TE131M	9.81E-05	3.43E-01	1.97E-01	3.73E-02	2.33E-03	9.10E-06	3.56E-08	5.43E-13	4.94E-25	0.	0.
TE131	9.03E+01	6.26E-02	3.59E-02	6.82E-03	4.26E-04	1.66E-06	6.49E-09	9.94E-14	9.03E-26	0.	0.
I131	1.31E-02	7.08E-01	6.69E-01	5.38E-01	3.54E-01	1.49E-01	6.33E-02	1.13E-02	1.53E-04	2.78E-08	5.07E-12
XE131M	3.56E-11	3.28E-04	6.23E-04	1.30E-03	1.86E-03	1.84E-03	1.36E-03	5.63E-04	3.76E-05	1.12E-07	3.17E-10
TE132	1.02E+00	2.02E+00	1.63E+00	8.58E-01	2.96E-01	3.51E-02	4.15E-03	5.83E-05	1.36E-09	7.47E-19	4.07E-28
I132	2.50E+00	2.08E+00	1.68E+00	8.82E-01	3.05E-01	3.61E-02	4.28E-03	6.01E-05	1.41E-09	7.65E-19	4.20E-28
I133	1.08E+00	6.03E+00	2.72E+00	2.52E-01	4.81E-03	1.74E-06	6.33E-10	8.34E-17	5.24E-34	0.	0.
XE133M	4.61E-08	5.69E-02	6.74E-02	3.96E-02	9.28E-03	4.36E-04	2.03E-05	4.40E-08	9.64E-15	4.61E-28	2.21E-41
XE133	8.04E-07	1.09E+00	1.47E+00	1.31E+00	7.15E-01	1.93E-01	5.20E-02	3.74E-03	5.21E-06	1.01E-11	1.96E-17
I135	1.75E+01	2.85E+00	2.38E-01	1.39E-04	5.63E-10	9.29E-21	1.53E-31	4.15E-53	0.	0.	0.
XE135M	1.93E-03	8.89E-01	7.44E-02	4.33E-05	1.76E-10	2.89E-21	4.77E-32	1.30E-53	0.	0.	0.
XE135	2.01E+00	7.69E+00	1.88E+00	1.08E-02	1.32E-06	1.85E-14	2.59E-22	5.12E-38	0.	0.	0.
CS136	2.84E-03	2.69E-03	2.55E-03	2.18E-03	1.67E-03	9.80E-04	5.76E-04	1.98E-04	1.37E-05	6.62E-08	3.21E-10
CS137	8.13E-05	8.76E-04	8.76E-04	8.76E-04	8.76E-04	8.76E-04	8.76E-04	8.76E-04	8.72E-04	8.67E-04	8.62E-04
BA137M	1.71E-07	8.18E-04	8.18E-04	8.18E-04	8.18E-04	8.18E-04	8.18E-04	8.18E-04	8.13E-04	8.08E-04	8.03E-04
BA139	1.02E+01	1.09E-03	6.43E-09	1.32E-24	0.	0.	0.	0.	0.	0.	0.
BA140	1.01E-01	5.97E-01	5.68E-01	4.81E-01	3.67E-01	2.14E-01	1.24E-01	4.21E-02	2.81E-03	1.25E-05	5.54E-08
LA140	2.40E-07	2.08E-01	3.35E-01	4.63E-01	4.11E-01	2.46E-01	1.43E-01	4.86E-02	3.23E-03	1.44E-05	6.40E-08
LA141	1.33E+00	5.27E-01	7.39E-03	2.05E-08	1.12E-17	3.34E-36	9.96E-55	0.	0.	0.	0.
CE141	1.64E-07	1.82E-01	1.81E-01	1.70E-01	1.52E-01	1.23E-01	9.92E-02	6.47E-02	2.22E-02	2.61E-03	3.08E-04
LA142	6.48E+00	1.42E-03	2.75E-08	2.02E-22	0.	0.	0.	0.	0.	0.	0.
CE143	4.24E-02	1.74E+00	1.05E+00	2.32E-01	1.87E-02	1.21E-04	7.82E-07	3.28E-11	3.70E-22	0.	0.
PR143	1.24E-08	1.12E-01	1.74E-01	2.24E-01	1.92E-01	1.17E-01	7.07E-02	2.56E-02	2.05E-03	1.30E-05	8.24E-08
CE144	1.85E-03	1.32E-02	1.32E-02	1.31E-02	1.29E-02	1.26E-02	1.23E-02	1.17E-02	1.04E-02	8.13E-03	6.38E-03
PR144	5.08E-07	1.32E-02	1.32E-02	1.31E-02	1.29E-02	1.26E-02	1.23E-02	1.17E-02	1.04E-02	8.13E-03	6.38E-03
PR145	7.51E-02	7.68E-01	4.75E-02	1.13E-05	1.03E-11	8.51E-24	7.06E-36	0.	0.	0.	0.
ND147	1.00E-05	1.69E-01	1.59E-01	1.32E-01	9.63E-02	5.17E-02	2.76E-02	7.93E-03	3.48E-04	6.77E-07	1.31E-09
PM147	2.79E-14	1.26E-04	2.45E-04	5.59E-04	9.66E-04	1.47E-03	1.74E-03	1.94E-03	1.96E-03	1.82E-03	1.70E-03
ND149	1.68E+01	1.63E-03	1.58E-07	1.44E-19	1.23E-39	0.	0.	0.	0.	0.	0.
PM149	2.35E-03	4.33E-01	3.17E-01	1.24E-01	2.59E-02	1.13E-03	4.90E-05	9.33E-08	1.47E-14	3.63E-28	9.04E-42
PM150	1.93E-01	4.08E-04	8.59E-07	8.06E-15	3.37E-28	0.	0.	0.	0.	0.	0.

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO	TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
PM151	4.71E-02	3.21E-01	1.77E-01	2.98E-02	1.53E-03	4.02E-06	1.06E-08	7.30E-14	9.16E-27	0.	0.	0.
SM153	1.68E-01	1.18E-01	8.29E-02	2.86E-02	4.87E-03	1.42E-04	4.12E-06	3.46E-09	7.13E-17	3.04E-32	1.29E-47	0.
SM156	1.58E-01	2.69E-02	4.59E-03	2.26E-05	3.26E-09	6.70E-17	1.38E-24	5.89E-40	0.	0.	0.	0.
EU155	5.99E-06	2.03E-04	2.03E-04	2.03E-04	2.02E-04	2.01E-04	2.00E-04	1.99E-04	1.95E-04	1.87E-04	1.80E-04	1.80E-04
EU156	4.62E-04	3.76E-03	4.16E-03	3.73E-03	2.97E-03	1.86E-03	1.17E-03	4.66E-04	4.62E-05	4.55E-07	4.48E-09	0.
EU157	1.91E-02	2.21E-02	7.43E-03	2.79E-04	1.17E-06	2.06E-11	3.65E-16	1.14E-25	0.	0.	0.	0.
GD159	3.88E-03	7.63E-03	3.04E-03	1.89E-04	1.86E-06	1.81E-10	1.75E-14	1.64E-22	1.40E-42	0.	0.	0.
TB161	7.82E-05	5.11E-04	4.61E-04	3.41E-04	2.07E-04	7.56E-05	2.77E-05	3.71E-06	2.45E-08	1.06E-12	4.61E-17	0.
TOTAL	3.04E+02	7.27E+01	3.49E+01	1.34E+01	5.84E+00	2.24E+00	1.29E+00	6.62E-01	2.80E-01	9.85E-02	4.94E-02	0.

TUBALLOY
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.500
 RELAXATION LENGTH = 0.16 GM/SQCM

DEBRIS DECAY FROM 1 TO 50 YEARS

	ZERO	TIME	1.00E+00	1.50E+00	2.00E+00	3.50E+00	5.00E+00	7.00E+00	1.00E+01	2.00E+01	3.50E+01	5.00E+01
BE 7	4.31E-04	3.73E-06	3.46E-07	3.22E-08	2.59E-11	2.07E-14	1.55E-18	9.93E-25	0.	0.	0.	0.
MN 54	1.38E-05	5.95E-06	3.92E-06	2.58E-06	7.37E-07	2.10E-07	3.96E-08	3.24E-09	7.60E-13	2.75E-18	9.95E-24	0.
FE 59	1.13E-05	4.09E-08	2.46E-09	1.48E-10	3.21E-14	6.92E-18	9.02E-23	4.23E-30	0.	0.	0.	0.
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	2.49E+00	6.21E-09	6.05E-09	5.89E-09	5.51E-09	5.11E-09	4.65E-09	4.03E-09	2.51E-09	1.23E-09	6.05E-10	0.
AM241	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.39E-10	1.40E-10	1.40E-10	1.41E-10	1.41E-10	1.40E-10	1.38E-10	0.
CM242	2.80E-09	5.93E-10	2.72E-10	1.25E-10	1.22E-11	1.19E-12	5.33E-14	5.04E-16	1.45E-20	1.35E-20	1.26E-20	0.
KR 85	4.74E-06	1.18E-04	1.14E-04	1.11E-04	1.01E-04	9.10E-05	8.00E-05	6.59E-05	3.49E-05	1.33E-05	5.09E-06	0.
SR 89	3.40E-06	7.96E-04	6.96E-05	6.12E-06	4.12E-09	2.78E-12	1.64E-16	7.46E-23	5.42E-44	0.	0.	0.
SR 90	6.40E-06	6.40E-04	6.35E-04	6.29E-04	6.05E-04	5.82E-04	5.54E-04	5.15E-04	4.02E-04	2.78E-04	1.92E-04	0.
Y 90	9.49E-12	6.40E-04	6.35E-04	6.29E-04	6.05E-04	5.82E-04	5.54E-04	5.15E-04	4.02E-04	2.78E-04	1.92E-04	0.
Y 91	2.12E-08	1.43E-03	1.66E-04	1.93E-05	3.03E-08	4.76E-11	8.70E-15	2.14E-20	4.32E-39	0.	0.	0.
ZR 95	5.82E-04	1.50E-03	2.13E-04	3.04E-05	8.86E-08	2.58E-10	1.07E-13	9.01E-19	1.10E-35	0.	0.	0.
NB 95M	1.24E-11	3.17E-05	4.52E-06	6.46E-07	1.88E-09	5.46E-12	2.26E-15	1.91E-20	2.34E-37	0.	0.	0.
NB 95	6.49E-11	3.22E-03	4.62E-04	6.59E-05	1.91E-07	5.54E-10	2.31E-13	1.95E-18	2.39E-35	0.	0.	0.
RU103	9.44E-05	3.67E-04	1.50E-05	6.17E-07	4.21E-11	2.89E-15	8.11E-21	3.81E-29	0.	0.	0.	0.
RH103M	6.29E-09	3.67E-04	1.50E-05	6.17E-07	4.22E-11	2.89E-15	8.11E-21	3.82E-29	0.	0.	0.	0.
RU106	5.79E-04	5.51E-03	3.90E-03	2.76E-03	9.83E-04	3.49E-04	8.79E-05	1.11E-05	1.12E-08	3.61E-13	1.16E-17	0.
RH106	6.27E-06	5.51E-03	3.90E-03	2.76E-03	9.83E-04	3.49E-04	8.79E-05	1.11E-05	1.12E-08	3.61E-13	1.16E-17	0.
SN123	3.01E-05	4.17E-04	1.51E-04	5.49E-05	2.64E-06	1.26E-07	2.20E-09	5.08E-12	8.14E-21	5.24E-34	3.37E-47	0.
SB125	4.08E-04	8.22E-04	7.23E-04	6.36E-04	4.33E-04	2.95E-04	1.76E-04	8.15E-05	6.27E-06	1.33E-07	2.84E-09	0.
TE125M	1.10E-11	3.36E-04	2.98E-04	2.63E-04	1.79E-04	1.22E-04	7.30E-05	3.37E-05	2.59E-06	5.52E-08	1.18E-09	0.
TE127M	6.70E-10	3.21E-04	1.00E-04	3.14E-05	9.66E-07	2.97E-08	2.86E-10	2.69E-13	2.21E-23	1.65E-38	1.23E-53	0.
TE127	4.68E-02	3.18E-04	9.92E-05	3.11E-05	9.55E-07	2.94E-08	2.82E-10	2.66E-13	2.19E-23	1.63E-38	1.22E-53	0.
CS137	8.13E-05	8.57E-04	8.47E-04	8.37E-04	8.08E-04	7.79E-04	7.45E-04	6.96E-04	5.50E-04	3.91E-04	2.76E-04	0.
BA137M	1.71E-07	8.03E-04	7.94E-04	7.84E-04	7.55E-04	7.30E-04	6.96E-04	6.52E-04	5.16E-04	3.65E-04	2.59E-04	0.
CE141	1.64E-07	7.08E-05	1.42E-06	2.86E-08	2.33E-13	1.90E-18	3.11E-25	2.06E-35	0.	0.	0.	0.
CE144	1.85E-03	5.44E-03	3.50E-03	2.23E-03	5.86E-04	1.54E-04	2.59E-05	1.79E-06	2.41E-10	3.77E-16	5.88E-22	0.
PR144	5.08E-07	5.44E-03	3.50E-03	2.23E-03	5.86E-04	1.54E-04	2.59E-05	1.79E-06	2.41E-10	3.77E-16	5.88E-22	0.
PM147	2.79E-14	1.62E-03	1.42E-03	1.24E-03	8.35E-04	5.62E-04	3.30E-04	1.50E-04	1.06E-05	2.01E-07	3.80E-09	0.
EU155	5.99E-06	1.75E-04	1.63E-04	1.52E-04	1.22E-04	9.79E-05	7.31E-05	4.72E-05	1.10E-05	1.24E-06	1.40E-07	0.
TOTAL	2.54E+00	3.68E-02	2.17E-02	1.55E-02	7.59E-03	4.85E-03	3.51E-03	2.78E-03	1.94E-03	1.33E-03	9.24E-04	0.

TUBALLOY
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

TIME		MR/HR	MICROCURIES/SQ METER
ZERO TIME	HOURS	1.18E+02	1.18E+04
1.00E+00		3.75E+01	2.38E+03
2.00E+00		1.46E+01	9.30E+02
3.00E+00		7.53E+00	5.50E+02
4.00E+00		4.54E+00	3.90E+02
6.00E+00		2.31E+00	2.51E+02
9.00E+00		1.37E+00	1.67E+02
1.20E+01		1.00E+00	1.25E+02
1.50E+01		7.80E-01	9.90E+01
1.80E+01		6.32E-01	8.12E+01
2.10E+01		5.24E-01	6.84E+01
1.00E+00	DAYS	4.37E-01	5.79E+01
2.00E+00		1.94E-01	2.56E+01
5.00E+00		8.24E-02	9.96E+00
1.00E+01		3.93E-02	4.82E+00
2.00E+01		1.51E-02	2.02E+00
3.00E+01		8.15E-03	1.20E+00
5.00E+01		3.29E-03	6.29E-01
1.00E+02		7.69E-04	2.53E-01
2.00E+02		1.98E-04	7.87E-02
3.00E+02		8.58E-05	3.80E-02
1.00E+00	YEARS	6.05E-05	2.88E-02
1.50E+00		3.60E-05	1.82E-02
2.00E+00		2.81E-05	1.37E-02
3.50E+00		1.77E-05	7.49E-03
5.00E+00		1.33E-05	5.18E-03
7.00E+00		1.07E-05	4.00E-03
9.00E+01		9.00E-06	3.34E-03
2.00E+01		6.56E-06	2.44E-03
3.50E+01		4.62E-06	1.69E-03
5.00E+01		3.26E-06	1.18E-03

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 3

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO	TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
BE 7	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.09E-04	1.09E-04	1.09E-04	1.09E-04	1.09E-04	1.08E-04
NA 24	1.76E-03	1.68E-03	1.61E-03	1.53E-03	1.46E-03	1.34E-03	1.34E-03	1.16E-03	1.01E-03	8.83E-04	7.69E-04	6.66E-04
MN 54	3.51E-06	3.51E-06	3.51E-06	3.51E-06	3.51E-06	3.51E-06	3.51E-06	3.51E-06	3.48E-06	3.48E-06	3.48E-06	3.48E-06
FE 55	6.65E-06	6.65E-06	6.65E-06	6.65E-06	6.65E-06	6.65E-06	6.65E-06	6.65E-06	6.65E-06	6.65E-06	6.65E-06	6.65E-06
FE 59	2.89E-06	2.88E-06	2.88E-06	2.88E-06	2.88E-06	2.88E-06	2.88E-06	2.87E-06	2.87E-06	2.86E-06	2.86E-06	2.85E-06
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CU 64	6.98E-03	6.60E-03	6.25E-03	5.93E-03	5.61E-03	5.04E-03	4.28E-03	3.64E-03	3.09E-03	2.63E-03	2.24E-03	1.88E-03
CU 67	8.46E-06	8.39E-06	8.25E-06	8.17E-06	8.10E-06	7.88E-06	7.59E-06	7.38E-06	7.15E-06	6.87E-06	6.68E-06	6.48E-06
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W187	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PB203	1.97E-04	1.94E-04	1.91E-04	1.88E-04	1.86E-04	1.81E-04	1.75E-04	1.68E-04	1.61E-04	1.54E-04	1.48E-04	1.42E-04
U237	6.34E-01	6.31E-01	6.28E-01	6.25E-01	6.23E-01	6.17E-01	6.09E-01	6.02E-01	5.94E-01	5.85E-01	5.79E-01	5.72E-01
U239	4.81E+02	8.20E+01	1.40E+01	2.38E+00	4.05E-01	1.18E-02	5.85E-05	2.89E-07	1.43E-09	7.06E-12	3.49E-14	1.64E-16
U240	1.53E+00	1.46E+00	1.39E+00	1.32E+00	1.26E+00	1.14E+00	9.84E-01	8.48E-01	7.32E-01	6.31E-01	5.44E-01	4.68E-01
NP239	1.65E-03	2.76E+00	3.19E+00	3.24E+00	3.22E+00	3.14E+00	3.01E+00	2.91E+00	2.81E+00	2.71E+00	2.61E+00	2.51E+00
NP240M	2.42E-03	1.46E+00	1.40E+00	1.33E+00	1.27E+00	1.15E+00	9.92E-01	8.56E-01	7.38E-01	6.37E-01	5.50E-01	4.74E-01
NP240	6.13E-11	3.15E-11	1.64E-11	8.45E-12	4.37E-12	1.17E-12	1.61E-13	2.22E-14	3.07E-15	4.22E-16	5.84E-17	8.04E-18
AM241	3.53E-11	3.53E-11	3.53E-11	3.53E-11	3.53E-11	3.53E-11	3.53E-11	3.53E-11	3.53E-11	3.53E-11	3.53E-11	3.53E-11
CM242	7.12E-10	7.12E-10	7.12E-10	7.12E-10	7.12E-10	7.12E-10	7.12E-10	7.08E-10	7.08E-10	7.08E-10	7.08E-10	7.08E-10
GE 75	8.06E-05	3.91E-01	2.35E-01	1.42E-01	8.53E-02	3.09E-02	6.75E-03	1.48E-03	3.23E-04	7.04E-05	1.54E-05	3.34E-06
GE 77	2.55E-02	6.55E-02	6.17E-02	5.80E-02	5.46E-02	4.83E-02	4.02E-02	3.34E-02	2.78E-02	2.31E-02	1.92E-02	1.58E-02
AS 77	2.63E-04	4.16E-02	4.20E-02	4.23E-02	4.26E-02	4.29E-02	4.29E-02	4.26E-02	4.20E-02	4.11E-02	4.01E-02	3.91E-02
SE 77M	1.04E-08	1.24E-04	1.26E-04	1.27E-04	1.27E-04	1.28E-04	1.29E-04	1.28E-04	1.26E-04	1.24E-04	1.20E-04	1.16E-04
GE 78	2.71E+00	1.69E+00	1.05E+00	6.58E-01	4.11E-01	1.60E-01	3.88E-02	9.41E-03	2.29E-03	5.58E-04	1.35E-04	3.04E-05
AS 78	4.87E-02	8.09E-01	9.97E-01	9.34E-01	7.81E-01	4.61E-01	1.71E-01	5.68E-02	1.76E-02	5.26E-03	1.52E-03	4.12E-04
AS 79	4.20E+01	4.14E-01	4.07E-03	4.01E-05	3.95E-07	3.83E-11	3.65E-17	3.48E-23	3.32E-29	3.17E-35	3.03E-41	2.89E-47
SE 79M	6.22E-02	7.30E-01	7.20E-03	7.09E-05	6.98E-07	6.75E-11	6.44E-17	6.15E-23	5.86E-29	5.60E-35	5.34E-41	5.08E-47
BR 80	2.18E-01	2.06E-02	1.93E-03	1.82E-04	1.71E-05	1.52E-07	1.27E-10	1.06E-13	8.83E-17	7.37E-20	6.15E-23	5.21E-26
SE 81M	1.60E-01	7.46E+00	3.60E+00	1.73E+00	8.33E-01	1.95E-01	2.18E-02	2.44E-03	2.74E-04	3.07E-05	3.44E-06	3.84E-07
SE 81	1.95E+00	8.82E+00	5.10E+00	2.55E+00	1.24E+00	2.89E-01	3.23E-02	3.62E-03	4.06E-04	4.55E-05	5.10E-06	5.74E-07
BR 82	8.27E-04	8.11E-04	7.95E-04	7.80E-04	7.64E-04	7.35E-04	6.93E-04	6.53E-04	6.16E-04	5.80E-04	5.48E-04	5.18E-04
SE 83	7.28E+01	1.38E+01	2.61E+00	4.95E-01	9.36E-02	3.37E-03	2.29E-05	1.56E-07	1.06E-09	7.21E-12	4.58E-14	2.84E-16
BR 83	6.04E-01	9.02E+00	8.35E+00	6.57E+00	4.99E+00	2.82E+00	1.19E+00	5.01E-01	2.12E-01	8.94E-02	3.77E-02	1.54E-02
KR 83M	3.12E-05	2.04E+00	4.17E+00	5.18E+00	5.34E+00	4.46E+00	2.63E+00	1.35E+00	6.52E-01	3.01E-01	1.35E-01	5.84E-02

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 CM/SQCM

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO	TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
BR 84	1.38E-01	2.39E+01	6.46E+00	1.75E+00	4.72E-01	3.45E-02	6.83E-04	1.35E-05	2.67E-07	5.28E-09	1.04E-10	
KR 85M	5.84E-03	1.25E+01	1.06E+01	9.09E+00	7.77E+00	5.67E+00	3.54E+00	2.21E+00	1.38E+00	8.55E-01	5.34E-01	
KR 87	8.09E+01	4.67E+01	2.70E+01	1.56E+01	9.01E+00	3.02E+00	5.86E-01	1.14E-01	2.20E-02	4.26E-03	8.23E-04	
KR 88	4.62E+01	3.60E+01	2.81E+01	2.19E+01	1.71E+01	1.04E+01	4.97E+00	2.37E+00	1.12E+00	5.36E-01	2.55E-01	
RB 88	1.17E+01	3.64E+01	3.11E+01	2.45E+01	1.92E+01	1.17E+01	5.57E+00	2.65E+00	1.26E+00	6.00E-01	2.85E-01	
RB 89	5.65E+01	5.31E+01	3.57E+00	2.40E-01	1.61E-02	7.28E-05	2.20E-08	6.65E-12	2.03E-15	6.13E-19	1.86E-22	
SR 89	4.33E-06	1.52E-01	1.62E-01	1.62E-01	1.62E-01	1.62E-01	1.62E-01	1.61E-01	1.61E-01	1.61E-01	1.61E-01	
SR 90	8.15E-06	8.37E-04	8.37E-04	8.37E-04	8.37E-04	8.37E-04	8.37E-04	8.37E-04	8.37E-04	8.37E-04	8.37E-04	
SR 91	8.66E-01	1.61E+01	1.50E+01	1.40E+01	1.30E+01	1.13E+01	9.10E+00	7.36E+00	5.94E+00	4.77E+00	3.85E+00	
Y 91M	5.83E-05	5.56E+00	7.57E+00	8.12E+00	8.01E+00	7.19E+00	5.89E+00	4.74E+00	3.82E+00	3.08E+00	2.48E+00	
Y 91	2.39E-08	4.94E-03	1.14E-02	1.82E-02	2.48E-02	3.72E-02	5.51E-02	6.54E-02	7.57E-02	8.39E-02	9.05E-02	
SR 92	1.48E+00	6.59E+00	5.11E+00	3.96E+00	3.06E+00	1.83E+00	8.51E-01	3.96E-01	1.83E-01	8.51E-02	3.96E-02	
Y 92	6.81E-02	1.39E+00	2.18E+00	2.59E+00	2.75E+00	2.62E+00	2.01E+00	1.37E+00	8.79E-01	5.41E-01	3.26E-01	
SR 93	6.09E+01	1.05E+00	5.79E-03	3.20E-05	1.76E-07	5.40E-12	9.10E-19	1.53E-25	2.59E-32	4.37E-39	7.36E-46	
Y 93	7.43E-02	2.40E+00	2.26E+00	2.11E+00	1.97E+00	1.72E+00	1.40E+00	1.15E+00	9.30E-01	7.64E-01	6.21E-01	
Y 94	9.08E+00	1.24E+01	1.60E+00	2.06E-01	2.66E-02	4.41E-04	9.46E-07	2.03E-09	4.33E-12	9.46E-15	5.24E-16	
Y 95	3.94E+01	3.72E+00	8.19E-02	1.81E-03	3.98E-05	1.93E-08	2.07E-13	2.21E-18	2.36E-23	2.52E-28	2.70E-33	
ZR 95	1.48E-04	1.94E-02	1.98E-02	1.98E-02	1.98E-02	1.98E-02	1.98E-02	1.97E-02	1.97E-02	1.96E-02	1.96E-02	
NB 95	1.65E-11	1.20E-05	2.79E-05	4.38E-05	5.98E-05	9.16E-05	1.39E-04	1.87E-04	2.34E-04	2.81E-04	3.28E-04	
ZR 97	3.81E-01	1.66E+00	1.59E+00	1.53E+00	1.46E+00	1.35E+00	1.19E+00	1.06E+00	9.37E-01	8.26E-01	7.34E-01	
NB 97M	1.96E-03	1.59E+00	1.53E+00	1.47E+00	1.41E+00	1.30E+00	1.15E+00	1.02E+00	8.98E-01	7.93E-01	7.01E-01	
NB 97	1.91E-01	8.32E-01	1.17E+00	1.34E+00	1.40E+00	1.40E+00	1.27E+00	1.13E+00	1.00E+00	8.85E-01	7.87E-01	
NB 98	2.18E+00	9.64E-01	4.26E-01	1.88E-01	8.35E-02	1.63E-02	1.41E-03	1.22E-04	1.06E-05	9.21E-07	7.92E-08	
MO 99	1.16E-03	4.79E-01	4.74E-01	4.70E-01	4.65E-01	4.55E-01	4.42E-01	4.28E-01	4.15E-01	4.03E-01	3.90E-01	
TC 99M	1.08E-08	4.57E-02	8.58E-02	1.21E-01	1.52E-01	2.03E-01	2.58E-01	2.93E-01	3.14E-01	3.26E-01	3.31E-01	
MO101	1.79E+02	8.09E+01	4.69E+00	2.72E-01	1.58E-02	5.29E-05	1.03E-08	2.00E-12	3.89E-16	7.56E-20	1.47E-23	
TC101	7.56E+00	2.27E+02	2.48E+01	2.03E+00	1.48E-01	6.68E-04	1.67E-07	3.74E-11	7.94E-15	1.63E-18	3.30E-22	
MO102	1.60E+03	3.65E+01	8.30E-01	1.90E-02	4.33E-04	2.25E-07	2.67E-12	3.17E-17	3.75E-22	4.46E-27	5.29E-32	
TC102M	1.03E+00	3.08E+01	7.07E-01	1.61E-02	3.68E-04	1.90E-07	2.26E-12	2.68E-17	3.18E-22	3.77E-27	4.48E-32	
TC102	4.81E+03	1.84E+01	4.19E-01	9.52E-03	2.18E-04	1.13E-07	1.35E-12	1.60E-17	1.90E-22	2.25E-27	2.67E-32	
RU103	1.20E-04	2.79E-01	2.78E-01	2.78E-01	2.78E-01	2.77E-01	2.76E-01	2.76E-01	2.76E-01	2.75E-01	2.74E-01	
RH103M	8.01E-09	1.44E-01	2.13E-01	2.47E-01	2.63E-01	2.74E-01	2.76E-01	2.76E-01	2.76E-01	2.75E-01	2.75E-01	
TC104	9.63E+01	6.92E+01	6.92E+00	6.85E-01	6.78E-02	6.67E-04	6.52E-07	6.37E-10	6.22E-13	6.08E-16	5.93E-19	
RU105	7.99E-01	2.77E+01	2.36E+01	2.02E+01	1.73E+01	1.27E+01	7.93E+00	4.96E+00	3.10E+00	1.94E+00	1.22E+00	
RH105M	5.26E-03	2.77E+01	2.37E+01	2.03E+01	1.73E+01	1.27E+01	7.93E+00	4.98E+00	3.12E+00	1.95E+00	1.22E+00	
RH105	8.63E-09	5.62E-01	1.04E+00	1.44E+00	1.77E+00	2.27E+00	2.71E+00	2.92E+00	2.98E+00	2.95E+00	2.87E+00	
RU106	7.37E-04	1.40E-02	1.40E-02	1.40E-02	1.40E-02	1.40E-02	1.40E-02	1.40E-02	1.40E-02	1.40E-02	1.40E-02	
RH106	7.98E-06	1.40E-02	1.40E-02	1.40E-02	1.40E-02	1.40E-02	1.40E-02	1.40E-02	1.40E-02	1.40E-02	1.40E-02	
RH107	2.40E-01	3.26E+01	4.94E+00	7.43E-01	1.12E-01	2.56E-03	8.81E-06	3.04E-08	1.05E-10	3.58E-14	3.56E-17	
PD107M	4.98E-04	6.63E+00	1.00E+00	1.51E-01	2.28E-02	5.20E-04	1.79E-06	6.18E-09	2.13E-11	7.34E-14	2.50E-16	

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

ZERO TIME 1.00E+00 2.00E+00 3.00E+00 4.00E+00 6.00E+00 9.00E+00 1.20E+01 1.50E+01 1.80E+01 2.10E+01

PD109	3.16E-02	2.62E+00	2.49E+00	2.36E+00	2.24E+00	2.02E+00	1.74E+00	1.49E+00	1.28E+00	1.09E+00	9.40E-01
AG109M	1.82E-04	2.62E+00	2.49E+00	2.36E+00	2.25E+00	2.03E+00	1.74E+00	1.49E+00	1.28E+00	1.09E+00	9.40E-01
PD111M	4.10E+00	3.61E+00	3.18E+00	2.81E+00	2.48E+00	1.93E+00	1.32E+00	9.04E-01	6.20E-01	4.24E-01	2.91E-01
PD111	1.46E+00	2.63E+00	2.52E+00	2.25E+00	1.99E+00	1.55E+00	1.06E+00	7.27E-01	4.97E-01	3.41E-01	2.34E-01
AG111M	1.16E-02	3.55E+00	3.33E+00	2.98E+00	2.63E+00	2.03E+00	1.39E+00	9.53E-01	6.53E-01	4.48E-01	3.06E-01
AG111	4.13E-09	1.22E-02	2.57E-02	3.78E-02	4.85E-02	6.61E-02	8.49E-02	9.73E-02	1.05E-01	1.10E-01	1.14E-01
PD112	1.23E+00	1.19E+00	1.15E+00	1.11E+00	1.08E+00	1.01E+00	9.13E-01	8.27E-01	7.48E-01	6.77E-01	6.13E-01
AG112	3.70E-05	2.35E-01	4.15E-01	5.57E-01	6.62E-01	7.93E-01	8.72E-01	8.68E-01	8.27E-01	7.71E-01	7.11E-01
AG113	1.52E-02	3.26E+00	2.86E+00	2.51E+00	2.20E+00	1.69E+00	1.15E+00	7.74E-01	5.23E-01	3.53E-01	2.39E-01
AG115	5.72E+00	6.12E+00	7.62E-01	9.53E-02	1.19E-02	1.86E-04	3.64E-07	7.12E-10	1.38E-12	1.37E-16	1.27E-15
CD115M	4.67E-08	1.24E-03	1.40E-03	1.42E-03	1.42E-03	1.42E-03	1.41E-03	1.41E-03	1.41E-03	1.40E-03	1.40E-03
CD115	1.81E-05	3.40E-01	3.66E-01	3.65E-01	3.61E-01	3.52E-01	3.38E-01	3.25E-01	3.13E-01	3.01E-01	2.89E-01
IN115M	2.25E-10	3.76E-02	8.35E-02	1.24E-01	1.58E-01	2.10E-01	2.60E-01	2.86E-01	2.99E-01	3.01E-01	2.99E-01
CD117	4.09E-01	6.82E+00	5.14E+00	3.83E+00	2.88E+00	1.61E+00	6.77E-01	2.85E-01	1.20E-01	5.04E-02	2.12E-02
IN117M	1.97E-05	2.37E+00	3.43E+00	3.72E+00	3.60E+00	2.84E+00	1.62E+00	8.30E-01	3.99E-01	1.85E-01	8.35E-02
IN117	7.92E-10	4.32E-01	1.05E+00	1.45E+00	1.62E+00	1.49E+00	9.50E-01	5.09E-01	2.53E-01	1.19E-01	5.47E-02
CD118	2.71E+01	1.16E+01	4.99E+00	2.12E+00	9.10E-01	1.66E-01	1.31E-02	1.02E-03	8.03E-05	6.29E-06	4.94E-07
IN118	1.80E+00	1.16E+01	4.99E+00	2.12E+00	9.10E-01	1.67E-01	1.31E-02	1.03E-03	8.03E-05	6.29E-06	4.94E-07
CD119	6.77E+01	1.06E+00	1.65E-02	2.58E-04	4.03E-06	9.85E-10	3.75E-15	1.43E-20	5.46E-26	2.09E-31	7.98E-37
IN119M	1.02E-01	1.14E+01	1.24E+00	1.25E-01	1.25E-02	1.23E-04	1.20E-07	1.17E-10	1.14E-13	1.12E-16	1.09E-19
IN119	5.03E+00	6.01E-01	6.97E-02	7.07E-03	7.07E-04	6.92E-06	6.77E-09	6.62E-12	6.47E-15	6.31E-18	6.16E-21
SN121	8.37E-03	8.62E-01	8.37E-01	8.18E-01	7.98E-01	7.59E-01	7.00E-01	6.50E-01	6.01E-01	5.57E-01	5.17E-01
SN123M	4.07E+00	7.62E+00	2.70E+00	9.55E-01	3.38E-01	4.21E-02	1.86E-03	8.25E-05	3.65E-06	1.61E-07	7.13E-09
SN123	3.83E-05	4.00E-03	4.00E-03	4.00E-03	4.00E-03	4.00E-03	4.00E-03	4.00E-03	4.00E-03	4.00E-03	4.00E-03
SN125	8.66E-02	8.63E-02	8.61E-02	8.59E-02	8.54E-02	8.50E-02	8.43E-02	8.34E-02	8.27E-02	8.18E-02	8.11E-02
SB125	5.20E-04	5.22E-04	5.24E-04	5.27E-04	5.29E-04	5.33E-04	5.42E-04	5.49E-04	5.56E-04	5.63E-04	5.70E-04
SB126	1.06E-02	1.05E-02	1.05E-02	1.05E-02	1.05E-02	1.04E-02	1.03E-02	1.02E-02	1.02E-02	1.01E-02	1.01E-02
SN127	9.04E+00	6.49E+00	4.66E+00	3.36E+00	2.42E+00	1.25E+00	4.64E-01	1.72E-01	6.39E-02	2.38E-02	8.82E-03
SB127	1.05E-01	3.64E-01	4.03E-01	4.29E-01	4.48E-01	4.66E-01	4.74E-01	4.69E-01	4.62E-01	4.52E-01	4.43E-01
TE127	5.95E-02	7.42E-02	9.01E-02	1.07E-01	1.24E-01	1.55E-01	1.98E-01	2.32E-01	2.58E-01	2.78E-01	2.91E-01
SN128	4.64E+01	2.29E+01	1.13E+01	5.60E+00	2.77E+00	6.75E-01	8.15E-02	9.84E-03	1.19E-03	1.44E-04	1.73E-05
SB128M	2.36E-02	2.61E+01	1.35E+01	6.68E+00	3.30E+00	8.07E-01	9.72E-02	1.17E-02	1.41E-03	1.71E-04	2.07E-05
SB128	1.96E+00	1.88E+00	1.77E+00	1.66E+00	1.55E+00	1.33E+00	1.06E+00	8.41E-01	6.68E-01	5.30E-01	4.21E-01
SN129M	2.30E+01	1.14E+01	5.74E+00	2.87E+00	1.44E+00	3.59E-01	4.49E-02	5.62E-03	7.01E-04	8.77E-05	1.10E-05
SN129	1.53E+02	1.50E+00	1.48E-02	1.46E-04	1.44E-06	1.40E-10	1.33E-16	1.27E-22	1.21E-28	1.15E-34	1.11E-40
SB129	8.62E+00	1.45E+01	1.36E+01	1.21E+01	1.07E+01	7.92E+00	4.94E+00	3.06E+00	1.88E+00	1.16E+00	7.16E-01
TE129M	1.63E-07	1.80E-03	3.71E-03	5.46E-03	7.01E-03	9.51E-03	1.20E-02	1.36E-02	1.45E-02	1.51E-02	1.55E-02
TE129	6.21E+00	8.54E+00	9.99E+00	1.04E+01	9.99E+00	8.27E+00	5.51E+00	3.47E+00	2.16E+00	1.34E+00	8.30E-01
SB130M	7.47E-01	1.41E+00	3.70E-03	9.73E-06	2.56E-08	1.77E-13	3.22E-21	5.85E-29	1.06E-36	1.93E-44	3.51E-52
SB130	1.28E+02	3.87E+01	1.10E+01	3.12E+00	8.83E-01	7.11E-02	1.62E-03	3.70E-05	8.43E-07	1.92E-08	4.39E-10

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
I130	3.57E-02	3.37E-02	3.19E-02	3.02E-02	2.85E-02	2.55E-02	2.16E-02	1.82E-02	1.54E-02	1.30E-02	1.10E-02
SB131	2.60E+02	6.78E+01	1.11E+01	1.82E+00	2.99E-01	8.04E-03	3.54E-05	1.56E-07	6.88E-10	3.04E-12	1.51E-14
TE131M	1.25E-04	6.53E-01	7.45E-01	7.46E-01	7.32E-01	7.00E-01	6.53E-01	6.09E-01	5.68E-01	5.30E-01	4.95E-01
TE131	1.15E+02	1.25E+02	4.07E+01	1.06E+01	2.57E+00	2.41E-01	1.20E-01	1.11E-01	1.03E-01	9.68E-02	9.01E-02
I131	1.67E-02	5.79E-01	8.52E-01	9.35E-01	9.51E-01	9.59E-01	9.59E-01	9.51E-01	9.51E-01	9.43E-01	9.43E-01
TE132	1.30E+00	3.15E+00	3.12E+00	3.09E+00	3.06E+00	3.01E+00	2.93E+00	2.85E+00	2.78E+00	2.70E+00	2.63E+00
I132	3.18E+00	3.17E+00	3.17E+00	3.15E+00	3.13E+00	3.11E+00	3.02E+00	2.94E+00	2.86E+00	2.79E+00	2.72E+00
TE133M	1.58E-01	5.48E+01	2.39E+01	1.04E+01	4.51E+00	8.58E-01	7.06E-02	5.82E-03	4.80E-04	3.96E-05	3.27E-06
TE133	8.88E+02	5.03E+01	5.60E+00	1.85E+00	7.83E-01	1.48E-01	1.23E-02	1.01E-03	8.35E-05	6.87E-06	5.67E-07
TE133	1.38E+00	1.48E+01	1.60E+01	1.60E+01	1.57E+01	1.49E+01	1.35E+01	1.23E+01	1.11E+01	1.01E+01	9.11E+00
XE133M	5.86E-08	3.33E-03	8.05E-03	1.29E-02	1.75E-02	2.63E-02	3.82E-02	4.84E-02	5.70E-02	6.45E-02	7.07E-02
XE133	1.02E-06	5.82E-02	1.41E-01	2.26E-01	3.10E-01	4.70E-01	6.89E-01	8.80E-01	1.05E+00	1.20E+00	1.34E+00
TE134	2.64E+02	1.22E+02	4.55E+01	1.69E+01	6.27E+00	8.70E-01	4.45E-02	2.28E-03	1.17E-04	5.99E-06	3.07E-07
I134	1.21E+02	1.62E+02	1.13E+02	6.63E+01	3.56E+01	2.04E+00	9.94E-01	1.01E-01	9.94E-03	9.53E-04	9.04E-05
I135	2.23E+01	3.92E+01	3.54E+01	3.33E+00	2.88E+01	2.33E+01	1.71E+01	1.25E+01	9.21E+00	6.78E+00	4.95E+00
XE135M	2.46E-03	1.13E+01	1.10E+01	9.97E+00	8.95E+00	7.29E+00	5.35E+00	3.92E+00	2.88E+00	2.11E+00	1.55E+00
XE135	2.56E+00	5.07E+00	7.42E+00	9.33E+00	1.09E+01	1.30E+01	1.44E+01	1.45E+01	1.38E+01	1.26E+01	1.13E+01
CS136	3.62E-03	3.61E-03	3.60E-03	3.60E-03	3.58E-03	3.57E-03	3.54E-03	3.52E-03	3.50E-03	3.47E-03	3.45E-03
CS137	1.03E-04	1.12E-03	1.12E-03	1.12E-03	1.12E-03	1.12E-03	1.12E-03	1.12E-03	1.12E-03	1.12E-03	1.12E-03
BA137M	2.18E-07	1.04E-03	1.04E-03	1.04E-03	1.04E-03	1.04E-03	1.04E-03	1.04E-03	1.04E-03	1.04E-03	1.04E-03
CS138	8.45E+02	7.27E+01	6.32E+00	5.47E-01	4.74E-02	3.56E-04	2.31E-07	1.50E-10	9.76E-14	6.34E-17	4.12E-20
CS138	1.26E+02	2.12E+02	7.33E+01	2.15E+01	6.04E+00	4.60E-01	9.56E-03	1.98E-04	4.12E-06	8.58E-08	1.77E-09
CS139	7.03E+01	2.24E+01	2.81E-01	3.53E-03	4.43E-05	6.96E-09	1.39E-14	2.74E-20	5.42E-26	1.07E-31	2.12E-37
BA139	1.30E+01	1.45E+02	8.92E+01	5.42E+01	3.28E+01	1.20E+01	2.67E+00	6.74E-01	6.68E-01	6.63E-01	6.58E-01
BA140	1.11E-01	6.89E-01	6.89E-01	6.84E-01	6.84E-01	6.79E-01	6.79E-01	6.74E-01	6.68E-01	6.63E-01	6.58E-01
LA140	2.63E-07	1.18E-02	2.34E-02	3.47E-02	4.58E-02	6.74E-02	9.84E-02	1.27E-01	1.55E-01	1.80E-01	2.05E-01
BA141	1.09E+02	3.30E+01	3.28E+00	3.25E-01	3.22E-02	3.20E-04	3.12E-07	3.04E-10	2.96E-13	2.91E-16	2.83E-19
LA141	1.01E+00	2.14E+01	1.99E+01	1.69E+01	1.42E+01	9.93E+00	5.82E+00	3.41E+00	2.00E+00	1.17E+00	6.89E-01
CE141	1.25E-07	1.39E-02	3.25E-02	4.89E-02	6.26E-02	8.40E-02	1.04E-01	1.16E-01	1.23E-01	1.27E-01	1.29E-01
BA142	7.18E+01	2.85E+00	6.51E+00	1.48E-03	3.38E-05	1.76E+00	2.09E-13	2.48E-18	2.94E-23	3.49E-28	4.14E-33
LA142	1.65E+00	1.14E+01	7.55E+00	4.80E+00	3.05E+00	1.24E+00	3.19E-01	8.21E-02	2.12E-02	5.45E-03	1.41E-03
LA143	2.70E+01	5.27E+00	2.70E-01	1.39E-02	7.14E-04	1.87E-06	2.52E-10	3.40E-14	4.58E-18	6.18E-22	8.34E-26
CE143	1.08E-02	6.89E-01	7.14E-01	6.95E-01	6.82E-01	6.57E-01	6.15E-01	5.78E-01	5.43E-01	5.09E-01	4.78E-01
PR143	3.16E-09	1.05E-03	2.55E-03	4.02E-03	5.47E-03	8.28E-03	1.22E-02	1.59E-02	1.93E-02	2.26E-02	2.55E-02
CE144	4.71E-04	3.38E-03	3.38E-03	3.38E-03	3.38E-03	3.38E-03	3.38E-03	3.38E-03	3.38E-03	3.38E-03	3.38E-03
PR144	1.29E-07	3.07E-03	3.35E-03	3.37E-03	3.38E-03	3.38E-03	3.38E-03	3.38E-03	3.38E-03	3.38E-03	3.38E-03
PR145	1.91E-02	2.81E+00	2.50E+00	2.22E+00	1.98E+00	1.57E+00	1.11E+00	7.82E-01	5.54E-01	3.91E-01	2.77E-01
CE146	6.05E+01	3.10E+00	1.59E-01	8.13E-03	4.19E-04	1.10E-06	1.48E-10	2.00E-14	2.69E-18	3.63E-22	4.90E-26
PR146	1.25E+00	1.09E+01	2.47E+00	4.64E-01	8.34E-02	2.62E-03	1.45E-05	7.99E-08	4.43E-10	2.45E-12	1.34E-14
PR147	7.16E+00	2.07E+00	6.47E-02	2.02E-03	6.32E-05	6.17E-08	1.88E-12	5.75E-17	1.75E-21	5.36E-26	1.63E-30

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO	TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
ND147	2.56E-06	4.81E-02	4.95E-02	4.94E-02	4.92E-02	4.90E-02	4.86E-02	4.82E-02	4.79E-02	4.75E-02	4.71E-02	4.67E-02
ND149	4.29E+00	2.92E+00	1.99E+00	1.35E+00	9.16E-01	4.25E-01	1.34E-01	4.22E-02	1.33E-02	4.18E-03	1.32E-03	1.30E-03
PM149	5.97E-04	4.67E-02	7.75E-02	9.80E-02	1.11E-01	1.25E-01	1.30E-01	1.27E-01	1.24E-01	1.19E-01	1.15E-01	1.13E-01
PM150	4.92E-02	3.80E-02	2.94E-02	2.27E-02	1.76E-02	1.05E-02	4.88E-03	2.26E-03	1.05E-03	4.84E-04	2.24E-04	2.24E-04
ND151	1.89E+01	5.91E-01	1.85E-02	5.78E-04	1.81E-05	1.77E-08	5.39E-13	1.65E-17	5.02E-22	1.53E-26	4.68E-31	4.68E-31
PM151	1.20E-02	1.40E-01	1.41E-01	1.38E-01	1.34E-01	1.28E-01	1.18E-01	1.10E-01	1.02E-01	9.46E-02	8.78E-02	8.78E-02
PM152	2.96E+01	2.89E-02	2.82E-05	2.75E-08	2.69E-11	2.57E-17	2.39E-26	2.23E-35	2.08E-44	1.94E-53	1.80E-62	1.80E-62
SM153	4.28E-02	4.21E-02	4.16E-02	4.09E-02	4.04E-02	3.92E-02	3.75E-02	3.58E-02	3.43E-02	3.29E-02	3.14E-02	3.14E-02
SM155	2.07E+00	3.41E-01	5.58E-02	9.13E-03	1.50E-03	4.03E-05	1.78E-07	7.83E-10	3.45E-12	1.54E-14	3.78E-17	3.78E-17
EU155	1.52E-06	4.35E-05	5.03E-05	5.14E-05	5.16E-05	5.16E-05	5.16E-05	5.16E-05	5.16E-05	5.16E-05	5.16E-05	5.16E-05
SM156	4.02E-02	3.73E-02	3.47E-02	3.22E-02	2.99E-02	2.58E-02	2.07E-02	1.66E-02	1.33E-02	1.07E-02	8.53E-03	8.53E-03
EU156	1.18E-04	1.92E-04	2.60E-04	3.24E-04	3.84E-04	4.89E-04	6.22E-04	7.20E-04	8.07E-04	8.70E-04	9.16E-04	9.16E-04
EU157	4.86E-03	1.61E-02	1.54E-02	1.47E-02	1.40E-02	1.28E-02	1.12E-02	9.77E-03	8.51E-03	7.41E-03	6.46E-03	6.46E-03
EU158	1.66E-01	6.72E-02	2.72E-02	1.10E-02	4.46E-03	7.29E-04	4.86E-05	3.22E-06	2.14E-07	1.42E-08	9.44E-10	9.44E-10
EU159	2.30E-01	2.29E-02	2.27E-03	2.25E-04	2.23E-05	2.20E-07	2.15E-10	2.10E-13	2.05E-16	2.00E-19	1.96E-22	1.96E-22
GD159	9.86E-04	4.32E-03	4.50E-03	4.36E-03	4.20E-03	3.88E-03	3.46E-03	3.09E-03	2.75E-03	2.45E-03	2.18E-03	2.18E-03
TB161	1.99E-05	1.43E-04	1.42E-04	1.42E-04	1.41E-04	1.40E-04	1.38E-04	1.37E-04	1.35E-04	1.33E-04	1.31E-04	1.31E-04
TOTAL	1.18E+04	2.38E+03	9.30E+02	5.50E+02	3.90E+02	2.51E+02	1.67E+02	1.25E+02	9.90E+01	8.12E+01	6.84E+01	6.84E+01

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
BE 7	1.10E-04	1.08E-04	1.07E-04	1.03E-04	9.65E-05	8.47E-05	7.44E-05	5.72E-05	2.99E-05	8.14E-06	2.21E-06
NA 24	1.76E-03	5.81E-04	1.92E-04	6.88E-06	2.69E-08	4.11E-13	6.27E-18	1.46E-27	0.	0.	0.
MN 54	3.51E-06	3.48E-06	3.48E-06	3.42E-06	3.39E-06	3.33E-06	3.27E-06	3.11E-06	2.78E-06	2.21E-06	1.76E-06
FE 55	6.65E-06	6.65E-06	6.65E-06	6.62E-06	6.60E-06	6.57E-06	6.50E-06	6.42E-06	6.17E-06	5.76E-06	5.34E-06
FE 59	2.89E-06	2.84E-06	2.80E-06	2.67E-06	2.47E-06	2.12E-06	1.82E-06	1.34E-06	6.21E-07	1.32E-07	2.84E-08
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CU 64	6.98E-03	1.90E-03	5.18E-04	1.05E-05	1.58E-08	3.59E-14	8.13E-20	4.18E-31	0.	0.	0.
CU 67	8.46E-06	6.45E-06	4.93E-06	2.19E-06	5.71E-07	3.85E-08	2.60E-09	1.18E-11	1.65E-17	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W187	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PB203	1.97E-04	1.43E-04	1.04E-04	3.97E-05	8.05E-06	3.31E-07	1.36E-08	2.28E-11	2.67E-18	0.	0.
U237	6.34E-01	5.72E-01	5.15E-01	3.79E-01	2.27E-01	8.12E-02	2.91E-02	3.72E-03	2.20E-05	2.36E-09	1.59E-09
U240	1.53E+00	4.72E-01	1.45E-01	4.20E-03	1.15E-05	8.65E-11	6.51E-16	3.67E-26	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP239	1.65E-03	2.51E+00	1.87E+00	7.72E-01	1.77E-01	9.24E-03	4.84E-04	1.33E-06	5.22E-13	1.25E-22	1.25E-22
NP240M	2.42E-03	4.74E-01	1.46E-01	4.22E-03	1.16E-05	8.74E-11	6.57E-16	3.70E-26	0.	0.	0.
AM241	3.53E-11	3.53E-11	3.53E-11	3.53E-11	3.53E-11	3.53E-11	3.53E-11	3.53E-11	3.53E-11	3.53E-11	3.53E-11
CM242	7.12E-10	7.08E-10	7.05E-10	6.97E-10	6.82E-10	6.53E-10	6.27E-10	5.75E-10	4.68E-10	3.05E-10	1.99E-10
GE 77	2.55E-02	1.60E-02	3.67E-03	4.43E-05	2.82E-08	1.14E-14	4.60E-21	7.51E-34	0.	0.	0.
AS 77	2.63E-04	3.88E-02	2.81E-02	8.13E-03	9.52E-04	1.29E-05	1.75E-07	3.23E-11	1.50E-20	3.22E-39	6.90E-58
SE 77M	1.04E-08	1.17E-04	8.42E-05	2.44E-05	2.85E-06	3.88E-08	5.26E-10	9.71E-14	4.50E-23	9.62E-42	2.07E-60
AS 78	4.87E-02	4.34E-04	1.27E-08	1.07E-22	0.	0.	0.	0.	0.	0.	0.
BR 82	8.27E-04	5.16E-04	3.22E-04	7.83E-05	7.42E-06	6.67E-08	5.99E-10	4.83E-14	2.82E-24	9.68E-45	3.30E-65
BR 83	6.04E-01	1.59E-02	1.60E-05	1.63E-14	1.66E-29	0.	0.	0.	0.	0.	0.
KR 83M	3.12E-05	6.96E-02	7.91E-05	7.11E-14	7.29E-29	0.	0.	0.	0.	0.	0.
KR 85M	5.84E-03	3.33E-01	7.59E-03	9.01E-08	5.56E-16	2.11E-32	8.00E-49	0.	0.	0.	0.
KR 85	6.04E-06	1.59E-04	1.62E-04	1.62E-04	1.62E-04	1.62E-04	1.62E-04	1.61E-04	1.59E-04	1.56E-04	1.54E-04
KR 87	8.09E+01	1.60E-04	3.16E-10	2.45E-27	0.	0.	0.	0.	0.	0.	0.
KR 88	4.62E+01	1.21E-01	3.19E-04	5.79E-12	7.29E-25	0.	0.	0.	0.	0.	0.
RB 88	1.17E+01	1.35E-01	3.57E-04	6.47E-12	8.12E-25	0.	0.	0.	0.	0.	0.
SR 89	4.33E-06	1.30E-01	1.28E-01	1.23E-01	1.15E-01	1.01E-01	8.80E-02	6.77E-02	3.46E-02	9.12E-03	2.41E-03
SR 90	8.15E-06	8.37E-04	8.37E-04	8.37E-04	8.37E-04	8.37E-04	8.37E-04	8.37E-04	8.30E-04	8.30E-04	8.22E-04
Y 90	1.21E-11	1.92E-04	3.39E-04	6.10E-04	7.78E-04	8.30E-04	8.37E-04	8.37E-04	8.30E-04	8.30E-04	8.22E-04
SR 91	8.66E-01	3.10E+00	5.56E-01	3.19E-03	5.83E-07	1.98E-14	6.70E-22	7.63E-37	0.	0.	0.

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 9

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
Y 91M	5.83E-05	2.01E+00	3.59E-01	2.06E-03	3.78E-07	1.28E-14	4.32E-22	4.93E-37	0.	0.	0.
Y 91	2.39E-08	9.54E-02	1.13E-01	1.13E-01	1.06E-01	9.43E-02	8.39E-02	6.65E-02	3.68E-02	1.13E-02	3.48E-03
SR 92	1.48E+00	1.84E-02	3.97E-05	3.99E-13	1.87E-26	0.	0.	0.	0.	0.	0.
Y 92	6.81E-02	1.93E-01	2.14E-03	1.65E-09	9.61E-20	3.29E-40	1.13E-60	0.	0.	0.	0.
Y 93	7.43E-02	5.02E-01	9.79E-02	7.36E-04	2.12E-07	1.75E-14	1.44E-21	9.86E-36	0.	0.	0.
ZR 95M	1.48E-04	1.85E-02	1.83E-02	1.77E-02	1.68E-02	1.51E-02	1.36E-02	1.10E-02	6.43E-03	2.22E-03	7.60E-04
NB 95M	3.15E-12	6.27E-05	1.14E-04	2.18E-04	2.94E-04	3.11E-04	2.87E-04	2.33E-04	1.36E-04	4.70E-05	1.62E-05
NB 95	1.65E-11	3.58E-04	7.08E-04	1.70E-03	3.15E-03	5.44E-03	7.02E-03	8.71E-03	8.38E-03	4.03E-03	1.55E-03
ZR 97	3.81E-01	6.48E-01	2.44E-01	1.29E-02	9.70E-05	5.46E-09	3.07E-13	9.70E-22	5.47E-43	0.	0.
NB 97M	1.96E-03	6.23E-01	2.34E-01	1.25E-02	9.31E-05	5.24E-09	2.95E-13	9.31E-22	5.26E-43	0.	0.
NB 97	1.91E-01	6.51E-01	2.44E-01	1.30E-02	9.77E-05	5.88E-09	3.30E-13	1.05E-21	5.90E-43	0.	0.
MO 99	1.16E-03	3.78E-01	2.95E-01	1.40E-01	4.05E-02	3.38E-03	2.82E-04	1.97E-06	7.99E-12	1.32E-22	2.17E-33
TC 99M	1.08E-08	3.32E-01	2.80E-01	1.34E-01	3.86E-02	3.23E-03	2.69E-04	1.88E-06	7.62E-12	1.26E-22	2.07E-33
RU103	1.20E-04	2.74E-01	2.69E-01	2.55E-01	2.34E-01	1.96E-01	1.65E-01	1.16E-01	4.84E-02	8.39E-03	1.46E-03
RH103M	8.01E-09	2.74E-01	2.69E-01	2.56E-01	2.34E-01	1.96E-01	1.65E-01	1.16E-01	4.84E-02	8.39E-03	1.46E-03
RU105M	7.99E-01	7.64E-01	1.80E-02	2.36E-07	1.73E-15	9.22E-32	4.94E-48	0.	0.	0.	0.
RH105M	5.26E-03	7.64E-01	1.80E-02	2.37E-07	1.73E-15	9.28E-32	4.95E-48	0.	0.	0.	0.
RH105	8.63E-09	2.76E+00	1.80E+00	4.49E-01	4.43E-02	4.31E-04	4.18E-06	3.95E-10	3.42E-20	2.57E-40	1.93E-60
RU106	7.37E-04	1.40E-02	1.39E-02	1.38E-02	1.37E-02	1.35E-02	1.32E-02	1.27E-02	1.15E-02	9.55E-03	7.92E-03
RH106	7.98E-06	1.40E-02	1.39E-02	1.38E-02	1.37E-02	1.35E-02	1.32E-02	1.27E-02	1.15E-02	9.55E-03	7.92E-03
PD109	3.16E-02	8.04E-01	2.34E-01	5.81E-03	1.22E-05	5.46E-11	2.43E-16	4.81E-27	0.	0.	0.
AG109M	1.82E-04	8.04E-01	2.35E-01	5.82E-03	1.23E-05	5.46E-11	2.43E-16	4.81E-27	0.	0.	0.
PD111M	4.10E+00	1.99E-01	9.67E-03	1.11E-06	3.00E-13	2.19E-26	1.61E-39	0.	0.	0.	0.
PD111	1.46E+00	1.61E-01	7.77E-03	8.92E-07	2.42E-13	1.76E-26	1.29E-39	0.	0.	0.	0.
AG111M	1.16E-02	2.10E-01	1.02E-02	1.17E-06	3.17E-13	2.33E-26	1.70E-39	0.	0.	0.	0.
AG111	4.13E-09	1.14E-01	1.10E-01	8.34E-02	5.25E-02	2.08E-02	8.26E-03	1.30E-03	1.28E-05	1.24E-09	1.20E-13
PD112	1.23E+00	5.57E-01	2.52E-01	2.34E-02	4.45E-04	1.62E-07	5.87E-11	7.71E-18	4.86E-35	0.	0.
AG112	3.70E-05	6.47E-01	2.97E-01	2.76E-02	5.27E-04	1.91E-07	6.92E-11	9.13E-18	5.72E-35	0.	0.
AG113	1.52E-02	1.61E-01	6.97E-03	5.66E-07	8.66E-14	2.03E-27	4.74E-41	0.	0.	0.	0.
CD115M	4.67E-08	1.35E-03	1.33E-03	1.27E-03	1.17E-03	9.94E-04	8.48E-04	6.12E-04	2.74E-04	5.44E-05	1.09E-05
CD115	1.81E-05	2.72E-01	1.99E-01	7.85E-02	1.66E-02	7.39E-04	3.30E-05	6.58E-08	1.16E-14	3.64E-28	1.14E-41
IN115M	2.25E-10	2.87E-01	2.17E-01	8.57E-02	1.81E-02	8.08E-04	3.60E-05	7.17E-08	1.27E-14	3.97E-28	1.24E-41
CD117	4.09E-01	8.93E-03	8.69E-06	8.11E-15	7.20E-30	0.	0.	0.	0.	0.	0.
IN117M	1.97E-05	3.71E-02	4.29E-05	4.14E-14	3.68E-29	0.	0.	0.	0.	0.	0.
IN117	7.92E-10	2.44E-02	2.89E-05	2.80E-14	2.49E-29	0.	0.	0.	0.	0.	0.
SN121	8.37E-03	4.77E-01	2.58E-01	4.06E-02	1.86E-03	3.93E-06	8.28E-09	3.69E-14	1.54E-27	0.	0.
SN123	3.83E-05	4.00E-03	3.97E-03	3.90E-03	3.79E-03	3.58E-03	3.40E-03	3.04E-03	2.30E-03	1.32E-03	7.62E-04
SN125	8.66E-02	8.05E-02	7.48E-02	5.99E-02	4.14E-02	1.98E-02	9.47E-03	2.17E-03	5.42E-05	3.41E-08	2.14E-11
SB125	5.20E-04	5.76E-04	6.31E-04	7.71E-04	9.45E-04	1.14E-03	1.23E-03	1.28E-03	1.26E-03	1.18E-03	1.10E-03
SB126	1.06E-02	1.00E-02	9.46E-03	8.01E-03	6.07E-03	3.48E-03	2.01E-03	6.60E-04	4.13E-05	2.01E-07	4.03E-08

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

PAGE 10

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO	TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
SN127	9.04E+00	3.27E-03	1.19E-06	5.68E-17	3.56E-34	0.	0.	0.	0.	0.	0.	0.
SB127	1.05E-01	4.33E-01	3.62E-01	2.11E-01	8.66E-02	1.45E-02	2.42E-03	6.76E-05	8.82E-09	1.51E-16	2.56E-24	2.56E-24
TE127M	8.53E-10	6.61E-04	1.21E-03	2.35E-03	3.24E-03	3.58E-03	3.45E-03	3.06E-03	2.23E-03	1.18E-03	6.23E-04	6.23E-04
TE127	5.95E-02	3.10E-01	3.04E-01	1.85E-01	7.84E-02	1.61E-02	5.50E-03	3.09E-03	2.20E-03	1.16E-03	6.16E-04	6.16E-04
SB128	1.96E+00	3.33E-01	5.26E-02	2.05E-04	1.99E-08	1.87E-16	1.76E-24	1.55E-40	0.	0.	0.	0.
SB129	8.62E+00	4.41E-01	9.21E-03	8.39E-08	3.34E-16	5.27E-33	8.31E-50	0.	0.	0.	0.	0.
TE129M	1.63E-07	1.72E-02	1.72E-02	1.62E-02	1.46E-02	1.19E-02	9.70E-03	6.46E-03	2.33E-03	3.04E-04	3.95E-05	3.95E-05
TE129	6.21E+00	5.17E-01	2.15E-02	1.04E-02	9.36E-03	7.63E-03	6.23E-03	4.14E-03	1.49E-03	1.95E-04	2.53E-05	2.53E-05
I130	3.57E-02	9.32E-03	2.44E-03	4.36E-05	5.33E-08	7.94E-14	1.18E-19	2.63E-31	0.	0.	0.	0.
TE131M	1.25E-04	4.37E-01	2.51E-01	4.75E-02	2.97E-03	1.16E-05	4.53E-08	6.91E-13	6.29E-25	0.	0.	0.
TE131	1.15E+02	7.96E-02	4.57E-02	8.68E-03	5.42E-04	2.12E-06	8.26E-09	1.27E-13	1.15E-25	0.	0.	0.
I131	1.67E-02	9.01E-01	8.52E-01	6.85E-01	4.51E-01	1.90E-01	8.06E-02	1.44E-02	1.94E-04	3.54E-08	6.45E-12	6.45E-12
XE131M	4.53E-11	4.18E-04	7.93E-04	1.65E-03	2.37E-03	2.34E-03	1.74E-03	7.17E-04	4.78E-05	1.43E-07	4.04E-10	4.04E-10
TE132	1.30E+00	2.57E+00	2.07E+00	1.09E+00	3.76E-01	4.46E-02	5.29E-03	7.42E-05	1.74E-09	9.50E-19	5.18E-28	5.18E-28
I132	3.18E+00	2.65E+00	2.14E+00	1.12E+00	3.88E-01	4.59E-02	5.44E-03	7.65E-05	1.79E-09	9.74E-19	5.34E-28	5.34E-28
I133	1.38E+00	7.68E+00	3.46E+00	3.21E-01	6.13E-03	2.22E-06	8.05E-10	1.06E-16	6.67E-34	0.	0.	0.
XE133M	5.86E-08	7.25E-02	8.58E-02	5.03E-02	1.18E-02	5.55E-04	2.58E-05	5.60E-08	1.23E-14	5.86E-28	2.81E-41	2.81E-41
XE133	1.02E-06	1.39E+00	1.87E+00	1.67E+00	9.11E-01	2.46E-01	6.61E-02	4.76E-03	6.64E-06	1.29E-11	2.50E-17	2.50E-17
I135	2.23E+01	3.63E+00	3.03E-01	1.76E-04	7.16E-10	1.18E-20	1.94E-31	5.28E-53	0.	0.	0.	0.
XE135M	2.46E-03	1.13E+00	9.46E-02	5.51E-05	2.24E-10	3.68E-21	6.07E-32	1.65E-53	0.	0.	0.	0.
XE135	2.56E+00	9.78E+00	2.39E+00	1.37E-02	1.68E-06	2.35E-14	3.30E-22	6.52E-38	0.	0.	0.	0.
CS136	3.62E-03	3.43E-03	3.25E-03	2.77E-03	2.12E-03	1.25E-03	7.33E-04	2.52E-04	1.75E-05	8.43E-08	4.09E-10	4.09E-10
CS137	1.03E-04	1.12E-03	1.12E-03	1.12E-03	1.12E-03	1.12E-03	1.12E-03	1.12E-03	1.11E-03	1.10E-03	1.10E-03	1.10E-03
BA137M	2.18E-07	1.04E-03	1.04E-03	1.04E-03	1.04E-03	1.04E-03	1.04E-03	1.04E-03	1.03E-03	1.03E-03	1.02E-03	1.02E-03
BA139	1.30E+01	1.39E-03	8.18E-09	1.68E-24	0.	0.	0.	0.	0.	0.	0.	0.
BA140	1.11E-01	6.52E-01	6.21E-01	5.26E-01	4.01E-01	2.34E-01	1.36E-01	4.60E-02	3.07E-03	1.37E-05	6.05E-08	6.05E-08
LA140	2.63E-07	2.27E-01	3.66E-01	5.06E-01	4.49E-01	2.69E-01	1.56E-01	5.31E-02	3.53E-03	1.57E-05	7.00E-08	7.00E-08
LA141	1.01E+00	4.00E-01	5.62E-03	1.55E-08	8.50E-18	2.54E-36	7.56E-55	0.	0.	0.	0.	0.
CE141	1.25E-07	1.38E-01	1.37E-01	1.29E-01	1.16E-01	9.36E-02	7.54E-02	4.91E-02	1.69E-02	1.99E-03	2.34E-04	2.34E-04
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PR144	1.29E-07	3.37E-03	3.36E-03	3.33E-03	3.29E-03	3.21E-03	3.14E-03	2.99E-03	2.64E-03	2.07E-03	1.62E-03	1.62E-03
PR145	1.91E-02	1.96E-01	1.21E-02	2.87E-06	2.61E-12	2.17E-24	1.80E-36	0.	0.	0.	0.	0.
ND147	2.56E-06	4.30E-02	4.04E-02	3.35E-02	2.45E-02	1.32E-02	7.03E-03	2.02E-03	8.85E-05	1.72E-07	3.34E-10	3.34E-10
PM147	7.09E-15	3.21E-05	6.22E-05	1.42E-04	2.46E-04	3.75E-04	4.43E-04	4.94E-04	4.98E-04	4.64E-04	4.32E-04	4.32E-04
ND149	4.29E+00	4.15E-04	4.02E-08	3.66E-20	3.13E-40	0.	0.	0.	0.	0.	0.	0.
PM149	5.97E-04	1.10E-01	8.07E-02	3.15E-02	6.58E-03	2.87E-04	1.25E-05	2.37E-08	3.74E-15	9.24E-29	2.30E-42	2.30E-42
PM150	4.92E-02	1.04E-04	2.19E-07	2.05E-15	8.59E-29	0.	0.	0.	0.	0.	0.	0.

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

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DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO	TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
PM151	1.20E-02	8.18E-02	4.51E-02	7.59E-03	3.89E-04	1.02E-06	2.69E-09	1.86E-14	2.33E-27	0.	0.	0.
SM153	4.28E-02	3.01E-02	2.11E-02	7.29E-03	1.24E-03	3.61E-05	1.05E-06	8.80E-10	1.81E-17	7.73E-33	3.29E-48	0.
SM156	4.02E-02	6.86E-03	1.17E-03	5.76E-06	8.30E-10	1.71E-17	3.52E-25	1.50E-40	0.	0.	0.	0.
EU155	1.52E-06	5.16E-05	5.16E-05	5.16E-05	5.14E-05	5.12E-05	5.10E-05	5.06E-05	4.96E-05	4.76E-05	4.58E-05	0.
EU156	1.18E-04	9.56E-04	1.06E-03	9.51E-04	7.55E-04	4.74E-04	2.99E-04	1.19E-04	1.18E-05	1.16E-07	1.14E-09	0.
EU157	4.86E-03	5.62E-03	1.89E-03	7.09E-05	2.98E-07	5.25E-12	9.30E-17	2.89E-26	0.	0.	0.	0.
GD159	9.86E-04	1.94E-03	7.73E-04	4.82E-05	4.74E-07	4.60E-11	4.45E-15	4.18E-23	3.57E-43	0.	0.	0.
TB161	1.99E-05	1.30E-04	1.17E-04	8.68E-05	5.26E-05	1.92E-05	7.04E-06	9.44E-07	6.24E-09	2.70E-13	1.17E-17	0.
TOTAL	3.45E+02	5.79E+01	2.56E+01	9.96E+00	4.82E+00	2.02E+00	1.20E+00	6.29E-01	2.53E-01	7.87E-02	3.80E-02	0.

TUBALLOY MICROCURIES/SQ METER
 MR/HR AT H+12 HOURS = 1.000
 FRACTION OF REFRACTORIES PRESENT = 0.100
 RELAXATION LENGTH = 0.16 GM/SQCM

DEBRIS DECAY FROM 1 TO 50 YEARS

	ZERO TIME	1.00E+00	1.50E+00	2.00E+00	3.50E+00	5.00E+00	7.00E+00	1.00E+01	2.00E+01	3.50E+01	5.00E+01
BE 7	1.10E-04	9.48E-07	8.82E-08	8.19E-09	6.59E-12	5.27E-15	3.94E-19	2.53E-25	0.	0.	0.
MN 54	3.51E-06	1.51E-06	9.98E-07	6.56E-07	1.88E-07	5.35E-08	1.01E-08	8.24E-10	1.93E-13	7.00E-19	2.53E-24
FE 59	2.89E-06	1.04E-08	6.25E-10	3.76E-11	8.16E-15	1.76E-18	2.30E-23	1.08E-30	0.	0.	0.
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	6.34E-01	1.58E-09	1.54E-09	1.50E-09	1.40E-09	1.30E-09	1.18E-09	1.03E-09	6.39E-10	3.13E-10	1.54E-10
AM241	3.53E-11	3.53E-11	3.53E-11	3.53E-11	3.54E-11	3.56E-11	3.56E-11	3.58E-11	3.59E-11	3.56E-11	3.51E-11
CM242	7.12E-10	1.51E-10	6.94E-11	3.19E-11	3.11E-12	3.03E-13	1.36E-14	1.28E-16	3.69E-21	3.44E-21	3.21E-21
KR 85	6.04E-06	1.50E-04	1.45E-04	1.41E-04	1.28E-04	1.16E-04	1.02E-04	8.39E-05	4.44E-05	1.69E-05	6.47E-06
SR 89	4.33E-06	1.01E-03	8.86E-05	7.79E-06	5.24E-09	3.54E-12	2.09E-16	9.50E-23	6.90E-44	0.	0.
SR 90	8.15E-06	8.15E-04	8.08E-04	8.00E-04	7.71E-04	7.41E-04	7.05E-04	6.55E-04	5.12E-04	3.53E-04	2.45E-04
Y 90	1.21E-11	8.15E-04	8.08E-04	8.00E-04	7.71E-04	7.41E-04	7.05E-04	6.55E-04	5.12E-04	3.53E-04	2.45E-04
Y 91	2.39E-08	1.61E-03	1.87E-04	2.18E-05	3.42E-08	5.36E-11	9.81E-15	2.41E-20	4.87E-39	0.	0.
ZR 95	1.48E-04	3.81E-04	5.43E-05	7.73E-06	2.26E-08	6.56E-11	2.72E-14	2.29E-19	2.81E-36	0.	0.
NB 95M	3.15E-12	8.06E-06	1.15E-06	1.64E-07	4.78E-10	1.39E-12	5.76E-16	4.86E-21	5.96E-38	0.	0.
NB 95	1.65E-11	8.19E-04	1.18E-04	1.68E-05	4.86E-08	1.41E-10	5.89E-14	4.97E-19	6.09E-36	0.	0.
RU103	1.20E-04	4.67E-04	1.91E-05	7.85E-07	5.36E-11	3.67E-15	1.03E-20	4.85E-29	0.	0.	0.
RH103M	8.01E-09	4.67E-04	1.91E-05	7.85E-07	5.37E-11	3.68E-15	1.03E-20	4.86E-29	0.	0.	0.
RU106	7.37E-04	7.01E-03	4.96E-03	3.52E-03	1.25E-03	4.44E-04	1.12E-04	1.41E-05	1.43E-08	4.59E-13	1.47E-17
RH106	7.98E-06	7.01E-03	4.96E-03	3.52E-03	1.25E-03	4.44E-04	1.12E-04	1.41E-05	1.43E-08	4.59E-13	1.47E-17
SN123	3.83E-05	5.30E-04	1.92E-04	6.99E-05	3.35E-06	1.61E-07	2.80E-09	6.46E-12	1.04E-20	6.67E-34	4.28E-47
SB125	5.20E-04	1.05E-03	9.20E-04	8.09E-04	5.51E-04	3.75E-04	2.24E-04	1.04E-04	7.98E-06	1.70E-07	3.62E-09
TE125M	1.40E-11	4.27E-04	3.80E-04	3.35E-04	2.28E-04	1.55E-04	9.29E-05	4.29E-05	3.30E-06	7.03E-08	1.50E-09
TE127M	8.53E-10	4.08E-04	1.28E-04	4.00E-05	1.23E-06	3.78E-08	3.64E-10	3.42E-13	2.81E-23	2.10E-38	1.56E-53
TE127	5.95E-02	4.04E-04	1.26E-04	3.95E-05	1.22E-06	3.74E-08	3.59E-10	3.39E-13	2.78E-23	2.07E-38	1.55E-53
CS137	1.03E-04	1.09E-03	1.08E-03	1.07E-03	1.03E-03	9.91E-04	9.48E-04	8.86E-04	7.00E-04	4.98E-04	3.51E-04
BA137M	2.18E-07	1.02E-03	1.01E-03	9.98E-04	9.61E-04	9.30E-04	8.86E-04	8.30E-04	6.57E-04	4.65E-04	3.29E-04
CE141	1.25E-07	5.38E-05	1.08E-06	2.17E-08	1.77E-13	1.44E-18	2.36E-25	1.55E-35	0.	0.	0.
CE144	4.71E-04	1.38E-03	8.90E-04	5.68E-04	1.49E-04	3.92E-05	6.59E-06	4.55E-07	6.12E-11	9.61E-17	1.50E-22
PR144	1.29E-07	1.38E-03	8.90E-04	5.68E-04	1.49E-04	3.92E-05	6.59E-06	4.55E-07	6.12E-11	9.61E-17	1.50E-22
PM147	7.09E-15	4.12E-04	3.61E-04	3.16E-04	2.12E-04	1.43E-04	8.39E-05	3.81E-05	2.71E-06	5.12E-08	9.68E-10
EU155	1.52E-06	4.46E-05	4.15E-05	3.86E-05	3.10E-05	2.49E-05	1.86E-05	1.20E-05	2.81E-06	3.16E-07	3.56E-08
TOTAL	6.95E-01	2.88E-02	1.82E-02	1.37E-02	7.49E-03	5.18E-03	4.00E-03	3.34E-03	2.44E-03	1.69E-03	1.18E-03

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