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# Results of Calculations of External Gamma Radiation Exposure Rates from Fallout and the Related Radionuclide Compositions Operation Teapot, 1955

Harry G. Hicks

July 1981



Lawrence  
Livermore  
National  
Laboratory



ERRATA

TO: Recipients of UCRL-53152, Parts 1-8, and UCRL-53505

FROM: Harry G. Hicks

DATE: July 1984

SUBJECT: Errata

$^{203}\text{Pb}$  data, page 8 of each appendix citing  $^{203}\text{Pb}$

The zero time value was omitted but appears correctly on page 3 of these appendices. The  $^{203}\text{Pb}$  values pertain to the decay time of the column immediately to the right; thus, the "zero time" value is the value after 1.00 day's decay.

$^{181}\text{W}$  data on page 12 of each appendix citing  $^{181}\text{W}$

The value for a decay time of 3.50 years is a factor of 10 too high.

py  
A2  
3 1  
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TO: All holders of UCRL-53152, "Results of Calculations of External Gamma Radiation Exposure Rates from Fallout and the Related Radionuclide Compositions," Part 5, "Operation Teapot, 1955"

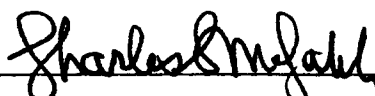
FROM: Technical Information Department

ADDENDUM

For purposes of clarification, the following information (underlined below) is being added to your copy of UCRL-53152 Part 5:

Each Appendix contains 11 pages of calculated results relating to one Event in Table 1. Each set of 11 pages is marked Page 2 through Page 12 at the top and A2 through A12 (or B2 through B12, etc.) at the bottom. 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. Note that the totals at zero time include only the nuclides listed in pages 3 through 12, not all the nuclides present at zero time. Calculated values for each radionuclide at various decay intervals are given in the remaining pages--from 1 to 21 hr in Pages 3-7, from 1 to 300 d in Pages 8-11, and from 1 to 50 y in Page 12. Unless otherwise indicated, the value for each nuclide at zero time is the result of a radiochemical measurement. The measurements were performed on debris samples taken by aircraft approximately 1 to 4 hr after detonation. The production of nuclides designated by (\*) has been estimated. When no estimate could be made, the value appears as zero.

To incorporate this addendum, please staple or affix the attached page so as to cover the existing Page 2 in your document.

  
Technical Information Department

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# Results of Calculations of External Gamma Radiation Exposure Rates from Fallout and the Related Radionuclide Compositions

## Operation Teapot, 1955

### ABSTRACT

This report presents data on calculated gamma radiation exposure rates and ground deposition of related radionuclides resulting from Events that deposited detectable radioactivity outside the Nevada Test Site complex.

### INTRODUCTION

The Events which deposited detectable radioactivity outside the Nevada Test Site complex<sup>1</sup> are listed in Table. 1.

### RESULTS

Results of the calculations of relative external gamma radiation exposure rate and related radionuclide ground deposition are given in the Appendices. These calculations are described in detail in Ref. 2. The output of the calculation has 30 decay times, 10 from 1 to 21 h, 10 from 1 to 300 d, and 10 from 1 to 50 y. 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 m above the surface, 12 h after the event, the associated values of  $\mu\text{Ci}/\text{m}^2$  for each radionuclide, and the total  $\mu\text{Ci}/\text{m}^2$ .

TABLE 1. Yield, date and placement of Events of Operation Teapot, 1955.

Event	Yield (kt)	Date	Placement
Wasp	1	Feb. 18	Air drop 762 ft
Moth	2	Feb. 22	300 ft Tower
Tesla	7	March 1	300 ft Tower
Turk	43	March 7	500 ft Tower
Hornet	4	March 12	300 ft Tower
Bee	8	March 22	500 ft Tower
Ess	1	March 23	Buried 67 ft
Apple I	14	March 29	500 ft Tower
Wasp Prime	3	March 29	Air drop 740 ft
HA	3	April 6	Air drop 36620 ft
Post	2	April 9	300 ft Tower
Met	22	April 15	400 ft Tower
Apple II	29	May 5	500 ft Tower
Zucchini	28	May 15	500 ft Tower

The  $^{233}\text{U}$ ,  $^{235}\text{U}$ ,  $^{238}\text{U}$ , and  $^{239,240}\text{Pu}$  data were omitted primarily to keep the output unclassified. Furthermore, the natural uranium content of the soil is about one million times that received from fallout and at least half of the plutonium in Nevada and Utah soils comes from worldwide fallout.<sup>3</sup>

Surface roughness effects are simulated by using Beck's values<sup>4</sup> of  $(\text{mR/h})/(\mu\text{Ci}/\text{m}^2)$  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. In general, air drops were assumed to be unfractionated, surface and cratering Events were assumed to have 0.4 of the refractory elements present, and all other Events were assumed to have 0.5 of the refractory elements present.

Each Appendix contains 11 pages of calculated results relating to one Event in Table 1. Each set of 11 pages is marked Page 2 through Page 12 at the top and A2 through A12 (or B2 through B12, etc.) at the bottom. 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. Note that the totals at zero time include only the nuclides listed in Pages 3 through 12, not all the nuclides present at zero time. Calculated values for each radionuclide at various decay intervals are given in the remaining pages—from 1 to 21 h in Pages 3–7, from 1 to 300 d in Page 8–11, and from 1 to 50 y in Page 12. Unless otherwise indicated, the value for each nuclide at zero time is the result of a radiochemical measurement. The measurements were performed on debris samples taken by aircraft approximately 1 to 4 h after detonation. The production of nuclides designated by (\*) has been estimated. When no estimate could be made, the value appears as zero.

## REFERENCES

1. *Announced United States Nuclear Tests, July, 1945, through December, 1980*, Office of Public Affairs, Nevada Operations Office, Department of Energy, Las Vegas, NV, NVO-209, Rev. 1, January 1981.
2. H. G. Hicks, *Calculation of the Concentration of Any Radionuclide Deposited on the Ground by Fallout from a Nuclear Detonation*, Lawrence Livermore National Laboratory, Livermore, CA, Preprint UCRL-86177 (1981). Accepted for publication in *Health Physics*.
3. E. Hardy, *Plutonium in Soil Northeast of the Nevada Test Site*, Environmental Measurements Laboratory, Department of Energy, New York, NY, HASL-306, pg. 1-51, July 1, 1976.
4. H. L. Beck, *Exposure Rate Conversion Factors for Radionuclides Deposited on the Ground*, Environmental Measurements Laboratory, Department of Energy, New York, NY, EML-387, July, 1980.

**APPENDIX A**  
**DETAILED RESULTS FOR EVENT WASP**



WASP  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 5.026E-12

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.16E+02	1.06E+04
1.00E+00	3.36E+01	2.18E+03
2.00E+00	1.33E+01	8.63E+02
3.00E+00	7.28E+00	5.39E+02
4.00E+00	4.61E+00	4.00E+02
6.00E+00	2.43E+00	2.71E+02
9.00E+00	1.40E+00	1.86E+02
1.20E+01	1.00E+00	1.41E+02
1.50E+01	7.76E-01	1.13E+02
1.80E+01	6.30E-01	9.28E+01
2.10E+01	5.26E-01	7.84E+01
1.00E+00 DAYS	4.41E-01	6.66E+01
2.00E+00	1.93E-01	2.95E+01
5.00E+00	7.10E-02	1.03E+01
1.00E+01	3.44E-02	4.70E+00
2.00E+01	1.48E-02	2.07E+00
3.00E+01	8.86E-03	1.31E+00
5.00E+01	4.37E-03	7.42E-01
1.00E+02	1.71E-03	3.32E-01
2.00E+02	6.11E-04	1.26E-01
3.00E+02	2.41E-04	6.56E-02
1.00E+00 YEARS	1.41E-04	4.90E-02
1.50E+00	4.55E-05	2.86E-02
2.00E+00	2.67E-05	1.99E-02
3.50E+00	1.40E-05	8.81E-03
5.00E+00	1.00E-05	5.10E-03
7.00E+00	8.04E-06	3.41E-03
1.00E+01	6.92E-06	2.58E-03
2.00E+01	5.19E-06	1.74E-03
3.50E+01	3.64E-06	1.19E-03
5.00E+01	2.57E-06	8.29E-04

WASP  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 5.026E-12

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-	3.32E-07	3.31E-07	3.31E-07	3.31E-07	3.31E-07	3.31E-07	3.30E-07	3.29E-07	3.29E-07	3.28E-07	3.28E-07
NA 24	8.99E-03	8.59E-03	8.21E-03	7.83E-03	7.47E-03	6.82E-03	5.93E-03	5.17E-03	4.51E-03	3.93E-03	3.40E-03
MN 54	3.58E-05	3.58E-05	3.58E-05	3.58E-05	3.58E-05	3.58E-05	3.58E-05	3.55E-05	3.55E-05	3.55E-05	3.55E-05
FE 55	5.43E-05	5.43E-05	5.43E-05	5.43E-05	5.43E-05	5.43E-05	5.43E-05	5.43E-05	5.43E-05	5.43E-05	5.43E-05
FE 59	5.95E-05	5.94E-05	5.94E-05	5.94E-05	5.94E-05	5.93E-05	5.92E-05	5.91E-05	5.90E-05	5.89E-05	5.88E-05
*CO 57	1.36E-06	1.36E-06	1.36E-06	1.36E-06	1.36E-06	1.36E-06	1.36E-06	1.36E-06	1.36E-06	1.36E-06	1.36E-06
*CO 58	1.65E-04	1.65E-04	1.65E-04	1.65E-04	1.65E-04	1.65E-04	1.65E-04	1.65E-04	1.64E-04	1.64E-04	1.64E-04
*CO 60	1.70E-05	1.70E-05	1.70E-05	1.70E-05	1.70E-05	1.70E-05	1.70E-05	1.70E-05	1.70E-05	1.70E-05	1.70E-05
CU 64	3.39E+00	3.21E+00	3.04E+00	2.89E+00	2.73E+00	2.45E+00	2.08E+00	1.77E+00	1.50E+00	1.28E+00	1.09E+00
CU 67	6.47E-06	6.41E-06	6.30E-06	6.25E-06	6.19E-06	6.03E-06	5.81E-06	5.64E-06	5.46E-06	5.25E-06	5.10E-06
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
*W185	1.04E-06	1.04E-06	1.04E-06	1.04E-06	1.04E-06	1.04E-06	1.04E-06	1.03E-06	1.03E-06	1.03E-06	1.03E-06
*W187	3.45E-04	3.34E-04	3.24E-04	3.15E-04	3.07E-04	2.89E-04	2.65E-04	2.44E-04	2.22E-04	2.05E-04	1.87E-04
*W188	1.50E-07	1.50E-07	1.50E-07	1.50E-07	1.50E-07	1.50E-07	1.50E-07	1.50E-07	1.49E-07	1.49E-07	1.49E-07
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	1.87E-05	1.84E-05	1.82E-05	1.79E-05	1.76E-05	1.72E-05	1.66E-05	1.59E-05	1.53E-05	1.46E-05	1.41E-05
U237	3.48E-02	3.46E-02	3.45E-02	3.43E-02	3.42E-02	3.39E-02	3.34E-02	3.30E-02	3.26E-02	3.21E-02	3.17E-02
U239	3.44E+02	5.86E+01	1.00E+01	1.70E+00	2.90E-01	8.43E-03	4.18E-05	2.06E-07	1.02E-09	5.05E-12	2.50E-14
U240	9.31E-03	8.87E-03	8.44E-03	8.04E-03	7.65E-03	6.93E-03	5.98E-03	5.15E-03	4.45E-03	3.83E-03	3.31E-03
NP239	1.18E-03	1.97E+00	2.28E+00	2.32E+00	2.30E+00	2.24E+00	2.15E+00	2.08E+00	2.01E+00	1.94E+00	1.86E+00
NP240M	1.47E-05	8.90E-03	8.51E-03	8.11E-03	7.72E-03	6.98E-03	6.03E-03	5.21E-03	4.49E-03	3.87E-03	3.34E-03
NP240	3.73E-13	1.92E-13	9.96E-14	5.14E-14	2.66E-14	7.11E-15	9.80E-16	1.35E-16	1.86E-17	2.57E-18	3.55E-19
*AM241	3.62E-07	3.62E-07	3.62E-07	3.62E-07	3.62E-07	3.62E-07	3.62E-07	3.62E-07	3.62E-07	3.62E-07	3.62E-07
*CM242	1.07E-06	1.07E-06	1.07E-06	1.07E-06	1.07E-06	1.07E-06	1.06E-06	1.06E-06	1.06E-06	1.06E-06	1.06E-06
GE 75	6.98E-06	3.38E-02	2.04E-02	1.23E-02	7.38E-03	2.68E-03	5.85E-04	1.28E-04	2.80E-05	6.09E-06	1.33E-06
GE 77	5.42E-03	1.40E-02	1.31E-02	1.23E-02	1.16E-02	1.03E-02	8.55E-03	7.11E-03	5.92E-03	4.92E-03	4.10E-03
AS 77	5.60E-05	8.85E-03	8.95E-03	9.01E-03	9.07E-03	9.13E-03	9.13E-03	9.07E-03	8.93E-03	8.75E-03	8.53E-03
SE 77M	2.21E-09	2.65E-05	2.69E-05	2.71E-05	2.71E-05	2.73E-05	2.75E-05	2.73E-05	2.69E-05	2.63E-05	2.55E-05
GE 78	8.82E-01	5.51E-01	3.43E-01	2.14E-01	1.34E-01	5.20E-02	1.26E-02	3.06E-03	7.47E-04	1.82E-04	4.41E-05
AS 78	1.59E-02	2.63E-01	3.24E-01	3.04E-01	2.54E-01	1.50E-01	5.57E-02	1.85E-02	5.72E-03	1.71E-03	4.96E-04
AS 79	1.60E+01	1.58E-01	1.55E-03	1.53E-05	1.51E-07	1.46E-11	1.39E-17	1.33E-23	1.27E-29	1.21E-35	1.16E-41
SE 79M	2.37E-02	2.78E-01	2.75E-03	2.71E-05	2.66E-07	2.57E-11	2.46E-17	2.34E-23	2.24E-29	2.14E-35	2.04E-41
BR 80	9.08E-02	8.57E-03	8.05E-04	7.58E-05	7.14E-06	6.33E-08	5.30E-11	4.41E-14	3.68E-17	3.07E-20	2.56E-23
SE 81M	7.05E-02	3.29E+00	1.59E+00	7.63E-01	3.67E-01	8.57E-02	9.59E-03	1.08E-03	1.21E-04	1.35E-05	1.51E-06
SE 81	8.61E-01	3.89E+00	2.25E+00	1.12E+00	5.45E-01	1.27E-01	1.42E-02	1.59E-03	1.79E-04	2.00E-05	2.24E-06
BR 82	3.83E-04	3.76E-04	3.68E-04	3.62E-04	3.54E-04	3.41E-04	3.21E-04	3.03E-04	2.86E-04	2.69E-04	2.54E-04
SE 83	3.34E+01	6.33E+00	1.20E+00	2.28E-01	4.30E-02	1.55E-03	1.05E-05	7.16E-08	4.89E-10	3.31E-12	2.10E-14
BR 83	2.78E-01	4.14E+00	3.84E+00	3.02E+00	2.29E+00	1.29E+00	5.47E-01	2.30E-01	9.74E-02	4.11E-02	1.73E-02
KR 83M	1.44E-05	9.38E-01	1.92E+00	2.38E+00	2.46E+00	2.05E+00	1.21E+00	6.22E-01	3.00E-01	1.38E-01	6.22E-02

WASP MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 5.026E-12

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO	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	6.65E-02	1.15E+01	3.10E+00	8.40E-01	2.27E-01	1.66E-02	3.28E-04	6.47E-06	1.28E-07	2.53E-09	5.00E-11
KR 85M	2.74E-03	5.88E+00	5.01E+00	4.27E+00	3.65E+00	2.67E+00	1.66E+00	1.04E+00	6.47E-01	4.02E-01	2.51E-01
KR 87	4.57E+01	2.64E+01	1.53E+01	8.81E+00	5.09E+00	1.71E+00	3.31E-01	6.41E-02	1.24E-02	2.40E-03	4.65E-04
KR 88	2.47E+01	1.93E+01	1.51E+01	1.18E+01	9.18E+00	5.58E+00	2.66E+00	1.27E+00	6.02E-01	2.87E-01	1.36E-01
RB 88	6.28E+00	1.95E+01	1.67E+01	1.31E+01	1.03E+01	6.25E+00	2.98E+00	1.42E+00	6.77E-01	3.22E-01	1.53E-01
RB 89	3.17E+01	2.98E+01	2.00E+00	1.35E-01	9.02E-03	4.08E-05	1.24E-08	3.73E-12	1.14E-15	3.44E-19	1.04E-22
SR 89	2.43E-06	8.52E-02	9.09E-02	9.09E-02	9.09E-02	9.09E-02	9.09E-02	9.05E-02	9.05E-02	9.02E-02	9.02E-02
SR 90	4.82E-06	4.96E-04	4.96E-04	4.96E-04	4.96E-04	4.96E-04	4.96E-04	4.96E-04	4.96E-04	4.96E-04	4.96E-04
SR 91	6.79E-01	1.26E+01	1.18E+01	1.10E+01	1.02E+01	8.83E+00	7.13E+00	5.76E+00	4.65E+00	3.73E+00	3.01E+00
Y 91M	4.57E-05	4.35E+00	5.93E+00	6.36E+00	6.27E+00	5.63E+00	4.61E+00	3.71E+00	2.99E+00	2.41E+00	1.95E+00
Y 91	1.87E-08	3.87E-03	8.92E-03	1.43E-02	1.95E-02	2.91E-02	4.14E-02	5.12E-02	5.93E-02	6.57E-02	7.08E-02
SR 92	9.00E+00	4.02E+01	3.12E+01	2.41E+01	1.87E+01	1.12E+01	5.19E+00	2.41E+00	1.12E+00	5.19E-01	2.42E-01
Y 92	4.15E-01	8.46E+00	1.33E+01	1.58E+01	1.68E+01	1.60E+01	1.22E+01	8.33E+00	5.36E+00	3.30E+00	1.99E+00
SR 93	3.89E+02	6.70E+00	3.70E-02	2.05E-04	1.13E-06	3.45E-11	5.62E-18	9.81E-25	1.66E-31	2.79E-38	4.71E-45
Y 93	4.75E-01	1.54E+01	1.44E+01	1.35E+01	1.26E+01	1.10E+01	8.97E+00	7.33E+00	5.95E+00	4.88E+00	3.97E+00
Y 94	5.75E+01	7.86E+01	1.01E+01	1.30E+00	1.68E-01	2.79E-03	5.99E-06	1.28E-08	2.75E-11	5.99E-14	3.32E-15
Y 95	2.58E+02	2.43E+01	5.35E-01	1.18E-02	2.60E-04	1.26E-07	1.35E-12	1.44E-17	1.54E-22	1.65E-27	1.76E-32
ZR 95	9.68E-04	1.27E-01	1.29E-01	1.29E-01	1.29E-01	1.29E-01	1.29E-01	1.29E-01	1.29E-01	1.28E-01	1.28E-01
NB 95	1.08E-10	7.81E-05	1.82E-04	2.86E-04	3.91E-04	5.99E-04	9.09E-04	1.22E-03	1.53E-03	1.84E-03	2.14E-03
ZR 97	2.48E+00	1.08E+01	1.03E+01	9.96E+00	9.53E+00	8.80E+00	7.78E+00	6.88E+00	6.11E+00	5.38E+00	4.79E+00
NB 97M	1.28E-02	1.04E+01	9.96E+00	9.57E+00	9.19E+00	8.46E+00	7.48E+00	6.62E+00	5.85E+00	5.17E+00	4.57E+00
NB 97	1.24E+00	5.43E+00	7.65E+00	8.72E+00	9.14E+00	9.10E+00	8.29E+00	7.39E+00	6.54E+00	5.77E+00	5.13E+00
NB 98	1.46E+01	6.45E+00	2.85E+00	1.26E+00	5.59E-01	1.09E-01	9.45E-03	8.16E-04	7.11E-05	6.16E-06	5.30E-07
MO 99	8.06E-03	3.33E+00	3.29E+00	3.26E+00	3.22E+00	3.16E+00	3.06E+00	2.97E+00	2.88E+00	2.79E+00	2.70E+00
TC 99M	7.49E-08	3.17E-01	5.95E-01	8.42E-01	1.06E+00	1.41E+00	1.79E+00	2.03E+00	2.18E+00	2.26E+00	2.30E+00
MO101	1.29E+02	5.84E+01	3.39E+00	1.96E-01	1.14E-02	3.82E-05	7.42E-09	1.45E-12	2.81E-16	5.46E-20	1.06E-23
TC101	5.46E+00	1.64E+02	1.79E+01	1.47E+00	1.07E-01	4.82E-04	1.21E-07	2.70E-11	5.73E-15	1.18E-18	2.39E-22
MO102	1.18E+03	2.68E+01	6.10E-01	1.39E-02	3.18E-04	1.65E-07	1.96E-12	2.33E-17	2.76E-22	3.27E-27	3.89E-32
TC102M	7.55E-01	2.27E+01	5.19E-01	1.19E-02	2.70E-04	1.40E-07	1.66E-12	1.97E-17	2.33E-22	2.77E-27	3.29E-32
TC102	3.54E+03	1.35E+01	3.08E-01	6.99E-03	1.60E-04	8.34E-08	9.90E-13	1.18E-17	1.39E-22	1.65E-27	1.96E-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	8.96E+01	6.43E+01	6.43E+00	6.37E-01	6.30E-02	6.21E-04	6.06E-07	5.92E-10	5.78E-13	5.65E-16	5.52E-19
RU105	8.39E-01	2.90E+01	2.48E+01	2.13E+01	1.82E+01	1.33E+01	8.33E+00	5.21E+00	3.26E+00	2.04E+00	1.28E+00
RH105M	5.52E-03	2.91E+01	2.49E+01	2.13E+01	1.82E+01	1.34E+01	8.33E+00	5.23E+00	3.27E+00	2.05E+00	1.28E+00
RH105	9.07E-09	5.91E-01	1.10E+00	1.51E+00	1.86E+00	2.38E+00	2.85E+00	3.06E+00	3.13E+00	3.09E+00	3.01E+00
RU106	7.79E-04	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02
RH106	8.43E-06	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02	1.48E-02
RH107	2.44E-01	3.31E+01	5.02E+00	7.55E-01	1.14E-01	2.60E-03	8.95E-06	3.09E-08	1.06E-10	3.63E-14	3.62E-17
PD107M	5.06E-04	6.73E+00	1.02E+00	1.54E-01	2.32E-02	5.29E-04	1.82E-06	6.28E-09	2.16E-11	7.46E-14	2.54E-16

WASP MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 5.026E-12

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	1.39E-02	1.16E+00	1.10E+00	1.04E+00	9.88E-01	8.92E-01	7.67E-01	6.57E-01	5.63E-01	4.82E-01	4.15E-01
AG109M	8.03E-05	1.16E+00	1.10E+00	1.04E+00	9.91E-01	8.94E-01	7.67E-01	6.57E-01	5.63E-01	4.82E-01	4.15E-01
PD111M	1.65E+00	1.46E+00	1.28E+00	1.14E+00	1.00E+00	7.78E-01	5.32E-01	3.65E-01	2.50E-01	1.71E-01	1.17E-01
PD111	5.89E-01	1.06E+00	1.02E+00	9.08E-01	8.03E-01	6.24E-01	4.28E-01	2.93E-01	2.01E-01	1.38E-01	9.45E-02
AG111M	4.68E-03	1.43E+00	1.35E+00	1.20E+00	1.06E+00	8.21E-01	5.61E-01	3.85E-01	2.64E-01	1.81E-01	1.23E-01
AG111	1.67E-09	4.94E-03	1.04E-02	1.53E-02	1.96E-02	2.67E-02	3.43E-02	3.93E-02	4.25E-02	4.46E-02	4.58E-02
PD112	2.99E-01	2.90E-01	2.80E-01	2.71E-01	2.63E-01	2.45E-01	2.22E-01	2.01E-01	1.82E-01	1.65E-01	1.50E-01
AG112	9.01E-06	5.73E-02	1.01E-01	1.36E-01	1.61E-01	1.93E-01	2.12E-01	2.11E-01	2.01E-01	1.88E-01	1.73E-01
AG113	2.33E-03	4.98E-01	4.37E-01	3.84E-01	3.36E-01	2.59E-01	1.75E-01	1.18E-01	7.98E-02	5.39E-02	3.64E-02
AG115	6.96E-01	7.46E-01	9.28E-02	1.16E-02	1.45E-03	2.27E-05	4.44E-08	8.67E-11	1.68E-13	1.67E-16	1.55E-16
CD115M	5.69E-09	1.51E-04	1.70E-04	1.72E-04	1.72E-04	1.72E-04	1.72E-04	1.72E-04	1.71E-04	1.71E-04	1.71E-04
CD115	2.20E-06	4.14E-02	4.46E-02	4.45E-02	4.39E-02	4.28E-02	4.12E-02	3.96E-02	3.81E-02	3.67E-02	3.52E-02
IN115M	2.74E-11	4.57E-03	1.02E-02	1.51E-02	1.92E-02	2.56E-02	3.16E-02	3.49E-02	3.63E-02	3.67E-02	3.64E-02
CD117	4.83E-02	8.04E-01	6.06E-01	4.53E-01	3.39E-01	1.90E-01	7.99E-02	3.36E-02	1.42E-02	5.95E-03	2.50E-03
IN117M	2.32E-06	2.80E-01	4.05E-01	4.40E-01	4.25E-01	3.35E-01	1.91E-01	9.80E-02	4.71E-02	2.18E-02	9.86E-03
IN117	9.35E-11	5.10E-02	1.23E-01	1.72E-01	1.91E-01	1.76E-01	1.12E-01	6.00E-02	2.99E-02	1.40E-02	6.46E-03
CD118	3.16E+00	1.35E+00	5.81E-01	2.47E-01	1.06E-01	1.94E-02	1.52E-03	1.19E-04	9.36E-06	7.33E-07	5.75E-08
IN118	2.09E-01	1.35E+00	5.81E-01	2.48E-01	1.06E-01	1.94E-02	1.52E-03	1.19E-04	9.36E-06	7.33E-07	5.75E-08
CD119	7.90E+00	1.23E-01	1.92E-03	3.01E-05	4.70E-07	1.15E-10	4.38E-16	1.67E-21	6.37E-27	2.44E-32	9.32E-38
IN119M	1.19E-02	1.33E+00	1.45E-01	1.46E-02	1.46E-03	1.43E-05	1.40E-08	1.37E-11	1.33E-14	1.30E-17	1.27E-20
IN119	5.87E-01	7.02E-02	8.14E-03	8.26E-04	8.26E-05	8.08E-07	7.90E-10	7.72E-13	7.55E-16	7.37E-19	7.19E-22
SN121	9.92E-04	1.02E-01	9.92E-02	9.69E-02	9.46E-02	8.99E-02	8.29E-02	7.71E-02	7.12E-02	6.60E-02	6.13E-02
SN123M	5.88E-01	1.10E+00	3.90E-01	1.38E-01	4.87E-02	6.09E-03	2.69E-04	1.19E-05	5.27E-07	2.33E-08	1.03E-09
SN123	5.53E-06	5.78E-04	5.78E-04	5.78E-04	5.78E-04	5.78E-04	5.78E-04	5.78E-04	5.78E-04	5.78E-04	5.78E-04
SN125	1.60E-02	1.59E-02	1.59E-02	1.58E-02	1.57E-02	1.57E-02	1.55E-02	1.54E-02	1.52E-02	1.51E-02	1.50E-02
SB125	9.58E-05	9.62E-05	9.66E-05	9.70E-05	9.75E-05	9.83E-05	1.00E-04	1.01E-04	1.02E-04	1.04E-04	1.05E-04
SB126	2.90E-03	2.89E-03	2.88E-03	2.88E-03	2.87E-03	2.86E-03	2.84E-03	2.82E-03	2.80E-03	2.78E-03	2.76E-03
SN127	3.28E+00	2.36E+00	1.69E+00	1.22E+00	8.79E-01	4.53E-01	1.68E-01	6.26E-02	2.32E-02	8.63E-03	3.20E-03
SB127	3.83E-02	1.32E-01	1.46E-01	1.56E-01	1.63E-01	1.69E-01	1.72E-01	1.70E-01	1.68E-01	1.64E-01	1.61E-01
TE127	2.16E-02	2.69E-02	3.27E-02	3.88E-02	4.49E-02	5.63E-02	7.21E-02	8.42E-02	9.37E-02	1.01E-01	1.06E-01
SN128	2.22E+01	1.10E+01	5.43E+00	2.68E+00	1.33E+00	3.24E-01	3.91E-02	4.72E-03	5.69E-04	6.90E-05	8.32E-06
SB128M	1.13E-02	1.25E+01	6.49E+00	3.20E+00	1.58E+00	3.87E-01	4.66E-02	5.63E-03	6.78E-04	8.20E-05	9.91E-06
SB128	9.38E-01	9.02E-01	8.49E-01	7.96E-01	7.43E-01	6.37E-01	5.08E-01	4.03E-01	3.20E-01	2.54E-01	2.02E-01
SN129M	1.35E+01	6.74E+00	3.38E+00	1.69E+00	8.46E-01	2.11E-01	2.65E-02	3.31E-03	4.13E-04	5.17E-05	6.46E-06
SN129	9.03E+01	8.86E-01	8.74E-03	8.63E-05	8.46E-07	8.23E-11	7.83E-17	7.49E-23	7.14E-29	6.80E-35	6.52E-41
SB129	5.09E+00	8.52E+00	8.00E+00	7.14E+00	6.29E+00	4.67E+00	2.91E+00	1.80E+00	1.11E+00	6.86E-01	4.22E-01
TE129M	9.60E-08	1.06E-03	2.19E-03	3.22E-03	4.13E-03	5.60E-03	7.09E-03	8.00E-03	8.57E-03	8.92E-03	9.14E-03
TE129	3.66E+00	5.03E+00	5.89E+00	6.12E+00	5.89E+00	4.87E+00	3.25E+00	2.05E+00	1.27E+00	7.89E-01	4.89E-01
SB130M	5.19E-01	9.80E-01	2.57E-03	6.76E-06	1.78E-08	1.23E-13	2.24E-21	4.07E-29	7.38E-37	1.34E-44	2.44E-52
SB130	8.90E+01	2.69E+01	7.66E+00	2.17E+00	6.14E-01	4.94E-02	1.13E-03	2.57E-05	5.86E-07	1.34E-08	3.05E-10

WASP  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 5.026E-12

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	2.48E-02	2.34E-02	2.22E-02	2.10E-02	1.98E-02	1.77E-02	1.50E-02	1.27E-02	1.07E-02	9.07E-03	7.66E-03
SB131	1.97E+02	5.15E+01	8.41E+00	1.38E+00	2.27E-01	6.10E-03	2.69E-05	1.19E-07	5.22E-10	2.30E-12	1.15E-14
TE131M	9.48E-05	4.96E-01	5.66E-01	5.66E-01	5.56E-01	5.31E-01	4.95E-01	4.62E-01	4.31E-01	4.02E-01	3.75E-01
TE131	8.73E+01	9.48E+01	3.09E+01	8.04E+00	1.95E+00	1.83E-01	9.10E-02	8.41E-02	7.85E-02	7.35E-02	6.84E-02
I131	1.27E-02	4.40E-01	6.47E-01	7.09E-01	7.22E-01	7.28E-01	7.28E-01	7.22E-01	7.22E-01	7.16E-01	7.16E-01
TE132	9.15E-01	2.22E+00	2.20E+00	2.19E+00	2.16E+00	2.12E+00	2.07E+00	2.01E+00	1.96E+00	1.91E+00	1.86E+00
I132	2.25E+00	2.24E+00	2.24E+00	2.22E+00	2.21E+00	2.18E+00	2.13E+00	2.07E+00	2.02E+00	1.97E+00	1.92E+00
TE133M	1.09E-01	3.78E+01	1.65E+01	7.16E+00	3.11E+00	5.92E-01	4.87E-02	4.02E-03	3.31E-04	2.73E-05	2.25E-06
TE133	6.12E+02	3.47E+01	3.86E+00	1.28E+00	5.40E-01	1.02E-01	8.46E-03	6.95E-04	5.76E-05	4.74E-06	3.91E-07
I133	9.50E-01	1.02E+01	1.11E+01	1.11E+01	1.08E+01	1.03E+01	9.34E+00	8.46E+00	7.63E+00	6.95E+00	6.28E+00
XE133M	4.04E-08	2.30E-03	5.55E-03	8.88E-03	1.21E-02	1.82E-02	2.63E-02	3.34E-02	3.93E-02	4.45E-02	4.87E-02
XE133	7.06E-07	4.02E-02	9.76E-02	1.56E-01	2.14E-01	3.24E-01	4.75E-01	6.07E-01	7.27E-01	8.30E-01	9.24E-01
TE134	1.97E+02	9.14E+01	3.40E+01	1.26E+01	4.69E+00	6.50E-01	3.32E-02	1.70E-03	8.72E-05	4.48E-06	2.30E-07
I134	9.03E+01	1.21E+02	8.46E+01	4.96E+01	2.66E+01	6.76E+00	7.43E-01	7.59E-02	7.43E-03	7.12E-04	6.76E-05
I135	1.60E+01	2.82E+01	2.55E+01	2.29E+01	2.07E+01	1.68E+01	1.23E+01	9.03E+00	6.64E+00	4.88E+00	3.57E+00
XE135M	1.77E-03	8.16E+00	7.93E+00	7.19E+00	6.45E+00	5.25E+00	3.86E+00	2.82E+00	2.07E+00	1.52E+00	1.12E+00
XE135	1.85E+00	3.65E+00	5.34E+00	6.73E+00	7.83E+00	9.40E+00	1.04E+01	1.05E+01	9.95E+00	9.08E+00	8.11E+00
CS136	1.29E-02	1.29E-02	1.29E-02	1.28E-02	1.28E-02	1.27E-02	1.26E-02	1.26E-02	1.25E-02	1.24E-02	1.23E-02
CS137	8.14E-05	8.78E-04	8.78E-04	8.78E-04	8.78E-04	8.78E-04	8.78E-04	8.78E-04	8.78E-04	8.78E-04	8.78E-04
BA137M	1.72E-07	8.19E-04	8.19E-04	8.19E-04	8.19E-04	8.19E-04	8.19E-04	8.19E-04	8.19E-04	8.19E-04	8.19E-04
XE138	5.47E+02	4.71E+01	4.09E+00	3.54E-01	3.07E-02	2.30E-04	1.50E-07	9.71E-11	6.32E-14	4.10E-17	2.67E-20
CS138	8.14E+01	1.37E+02	4.75E+01	1.39E+01	3.91E+00	2.98E-01	6.19E-03	1.28E-04	2.67E-06	5.55E-08	1.15E-09
CS139	6.15E+02	1.96E+01	2.46E-01	3.09E-03	3.88E-05	6.09E-09	1.21E-14	2.39E-20	4.74E-26	9.40E-32	1.86E-37
BA139	1.13E+01	1.26E+02	7.80E+01	4.74E+01	2.87E+01	1.05E+01	2.33E+00	5.18E-01	1.15E-01	2.55E-02	5.67E-03
BA140	1.03E-01	6.43E-01	6.43E-01	6.38E-01	6.38E-01	6.33E-01	6.33E-01	6.28E-01	6.23E-01	6.18E-01	6.13E-01
LA140	2.45E-07	1.10E-02	2.18E-02	3.23E-02	4.27E-02	6.28E-02	9.18E-02	1.19E-01	1.44E-01	1.68E-01	1.91E-01
BA141	2.00E+02	6.05E+01	6.00E+00	5.95E-01	5.90E-02	5.85E-04	5.71E-07	5.57E-10	5.43E-13	5.33E-16	5.19E-19
LA141	1.85E+00	3.91E+01	3.65E+01	3.09E+01	2.59E+01	1.82E+01	1.07E+01	6.24E+00	3.67E+00	2.15E+00	1.26E+00
CE141	2.28E-07	2.54E-02	5.95E-02	8.95E-02	1.15E-01	1.54E-01	1.91E-01	2.12E-01	2.25E-01	2.32E-01	2.36E-01
BA142	5.42E+02	2.15E+01	4.91E-01	1.12E-02	2.55E-04	1.33E-07	1.57E-12	1.87E-17	2.22E-22	2.63E-27	3.12E-32
LA142	1.24E+01	8.63E+01	5.69E+01	3.62E+01	2.30E+01	9.32E+00	2.41E+00	6.20E-01	1.60E-01	4.11E-02	1.06E-02
LA143	1.91E+02	3.73E+01	1.91E+00	9.82E-02	5.04E-03	1.32E-05	1.78E-09	2.40E-13	3.24E-17	4.37E-21	5.89E-25
CE143	7.63E-02	4.87E+00	5.04E+00	4.91E+00	4.82E+00	4.64E+00	4.35E+00	4.08E+00	3.83E+00	3.60E+00	3.38E+00
PR143	2.23E-08	7.45E-03	1.80E-02	2.84E-02	3.87E-02	5.85E-02	8.61E-02	1.12E-01	1.37E-01	1.59E-01	1.80E-01
CE144	2.93E-03	2.10E-02	2.10E-02	2.10E-02	2.10E-02	2.10E-02	2.10E-02	2.10E-02	2.10E-02	2.10E-02	2.10E-02
PR144	8.04E-07	1.91E-02	2.08E-02	2.10E-02	2.10E-02	2.10E-02	2.10E-02	2.10E-02	2.10E-02	2.10E-02	2.10E-02
PR145	1.25E-01	1.84E+01	1.64E+01	1.46E+01	1.30E+01	1.03E+01	7.25E+00	5.12E+00	3.63E+00	2.56E+00	1.81E+00
CE146	3.90E+02	2.00E+01	1.02E+00	5.24E-02	2.70E-03	7.10E-06	9.56E-10	1.29E-13	1.74E-17	2.34E-21	3.16E-25
PR146	8.06E+00	7.01E+01	1.59E+01	2.99E+00	5.37E-01	1.69E-02	9.34E-05	5.15E-07	2.85E-09	1.58E-11	8.61E-14
PR147	4.48E+01	1.30E+01	4.04E-01	1.26E-02	3.95E-04	3.86E-07	1.18E-11	3.60E-16	1.10E-20	3.35E-25	1.02E-29

WASP MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 5.026E-12

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	1.60E-05	3.01E-01	3.09E-01	3.09E-01	3.08E-01	3.07E-01	3.04E-01	3.02E-01	2.99E-01	2.97E-01	2.95E-01
ND149	2.60E+01	1.77E+01	1.20E+01	8.21E+00	5.56E+00	2.58E+00	8.11E-01	2.56E-01	8.06E-02	2.54E-02	8.01E-03
PM149	3.62E-03	2.83E-01	4.70E-01	5.95E-01	6.74E-01	7.57E-01	7.87E-01	7.72E-01	7.52E-01	7.23E-01	6.98E-01
PM150	3.17E-01	2.45E-01	1.90E-01	1.46E-01	1.13E-01	6.79E-02	3.14E-02	1.45E-02	6.74E-03	3.12E-03	1.44E-03
ND151	1.21E+02	3.78E+00	1.18E-01	3.70E-03	1.16E-04	1.13E-07	3.45E-12	1.05E-16	3.21E-21	9.78E-26	2.99E-30
PM151	7.68E-02	8.97E-01	9.03E-01	8.81E-01	8.59E-01	8.16E-01	7.57E-01	7.03E-01	6.54E-01	6.05E-01	5.62E-01
PM152	2.02E+02	1.97E-01	1.92E-04	1.88E-07	1.83E-10	1.75E-16	1.63E-25	1.52E-34	1.42E-43	1.32E-52	1.23E-61
SM153	2.80E-01	2.76E-01	2.72E-01	2.68E-01	2.64E-01	2.57E-01	2.46E-01	2.35E-01	2.25E-01	2.15E-01	2.06E-01
SM155	1.90E+01	3.12E+00	5.12E-01	8.38E-02	1.37E-02	3.70E-04	1.63E-06	7.18E-09	3.17E-11	1.41E-13	3.46E-16
EU155	1.40E-05	3.99E-04	4.62E-04	4.72E-04	4.74E-04	4.74E-04	4.74E-04	4.74E-04	4.74E-04	4.74E-04	4.74E-04
SM156	3.79E-01	3.52E-01	3.27E-01	3.04E-01	2.82E-01	2.43E-01	1.95E-01	1.56E-01	1.25E-01	1.00E-01	8.04E-02
EU156	1.11E-03	1.81E-03	2.45E-03	3.06E-03	3.62E-03	4.61E-03	5.86E-03	6.79E-03	7.60E-03	8.20E-03	8.63E-03
EU157	6.10E-02	2.02E-01	1.93E-01	1.84E-01	1.76E-01	1.61E-01	1.40E-01	1.22E-01	1.07E-01	9.29E-02	8.10E-02
EU158	2.64E+00	1.07E+00	4.32E-01	1.75E-01	7.09E-02	1.16E-02	7.74E-04	5.13E-05	3.41E-06	2.26E-07	1.50E-08
EU159	3.16E+00	3.14E-01	3.11E-02	3.09E-03	3.06E-04	3.02E-06	2.95E-09	2.88E-12	2.81E-15	2.75E-18	2.68E-21
GD159	1.35E-02	5.93E-02	6.16E-02	5.98E-02	5.75E-02	5.33E-02	4.75E-02	4.23E-02	3.77E-02	3.35E-02	2.99E-02
TB161	1.85E-04	1.33E-03	1.32E-03	1.32E-03	1.32E-03	1.30E-03	1.29E-03	1.27E-03	1.25E-03	1.24E-03	1.22E-03
TOTAL	1.06E+04	2.18E+03	8.63E+02	5.39E+02	4.00E+02	2.71E+02	1.86E+02	1.41E+02	1.13E+02	9.28E+01	7.84E+01

WASP MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 5.026E-12

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-	3.32E-07	3.28E-07	3.23E-07	3.11E-07	2.92E-07	2.56E-07	2.25E-07	1.73E-07	9.05E-08	2.46E-08	6.68E-09	
NA 24	8.99E-03	2.97E-03	9.79E-04	3.51E-05	1.37E-07	2.10E-12	3.20E-17	7.45E-27	0.	0.	0.	
MN 54	3.58E-05	3.55E-05	3.55E-05	3.48E-05	3.45E-05	3.39E-05	3.32E-05	3.17E-05	2.83E-05	2.25E-05	1.79E-05	
FE 55	5.43E-05	5.43E-05	5.43E-05	5.40E-05	5.39E-05	5.36E-05	5.31E-05	5.24E-05	5.03E-05	4.70E-05	4.36E-05	
FE 59	5.95E-05	5.86E-05	5.77E-05	5.51E-05	5.10E-05	4.37E-05	3.75E-05	2.76E-05	1.28E-05	2.73E-06	5.86E-07	
*CO 57	1.36E-06	1.36E-06	1.35E-06	1.35E-06	1.33E-06	1.29E-06	1.26E-06	1.20E-06	1.06E-06	8.15E-07	6.31E-07	
*CO 58	1.65E-04	1.64E-04	1.62E-04	1.57E-04	1.50E-04	1.36E-04	1.23E-04	1.02E-04	6.26E-05	2.37E-05	8.94E-06	
*CO 60	1.70E-05	1.70E-05	1.70E-05	1.70E-05	1.69E-05	1.69E-05	1.68E-05	1.67E-05	1.63E-05	1.58E-05	1.52E-05	
CU 64	3.39E+00	9.24E-01	2.52E-01	5.12E-03	7.68E-06	1.75E-11	3.96E-17	2.04E-28	0.	0.	0.	
CU 67	6.47E-06	4.93E-06	3.77E-06	1.68E-06	4.36E-07	2.94E-08	1.98E-09	9.01E-12	1.26E-17	0.	0.	
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
*W185	1.04E-06	1.03E-06	1.01E-06	9.90E-07	9.47E-07	8.62E-07	7.87E-07	6.53E-07	4.12E-07	1.64E-07	6.51E-08	
*W187	3.45E-04	1.72E-04	8.52E-05	1.06E-05	3.26E-07	3.11E-10	2.94E-13	2.65E-21	0.	0.	0.	
*W188	1.50E-07	1.48E-07	1.47E-07	1.43E-07	1.36E-07	1.23E-07	1.11E-07	9.11E-08	5.52E-08	2.04E-08	7.49E-09	
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	1.36E-05	9.85E-06	3.78E-06	7.66E-07	3.15E-08	1.29E-09	2.17E-12	2.54E-19	0.	0.	0.	
U237	3.48E-02	3.14E-02	2.83E-02	2.08E-02	1.24E-02	4.46E-03	1.60E-03	2.04E-04	1.21E-06	1.30E-10	8.75E-11	
U240	9.31E-03	2.87E-03	8.80E-04	2.55E-05	7.00E-08	5.26E-13	3.96E-18	2.23E-28	0.	0.	0.	
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
NP239	1.18E-03	1.79E+00	1.34E+00	5.52E-01	1.26E-01	6.60E-03	3.46E-04	9.48E-07	3.73E-13	8.90E-23	8.90E-23	
NP240M	1.47E-05	2.88E-03	8.87E-04	2.57E-05	7.05E-08	5.31E-13	3.99E-18	2.25E-28	0.	0.	0.	
*AM241	3.62E-07	3.62E-07	3.62E-07	3.62E-07	3.62E-07	3.62E-07	3.62E-07	3.62E-07	3.62E-07	3.62E-07	3.62E-07	
*CM242	1.07E-06	1.06E-06	1.06E-06	1.04E-06	1.02E-06	9.79E-07	9.40E-07	8.62E-07	7.02E-07	4.57E-07	2.99E-07	
GE 77	5.42E-03	3.41E-03	7.81E-04	9.44E-06	6.00E-09	2.43E-15	9.80E-22	1.60E-34	0.	0.	0.	
AS 77	5.60E-05	8.27E-03	5.98E-03	1.73E-03	2.03E-04	2.75E-06	3.73E-08	6.89E-12	3.19E-21	6.85E-40	1.47E-58	
SE 77M	2.21E-09	2.49E-05	1.79E-05	5.20E-06	6.06E-07	8.25E-09	1.12E-10	2.07E-14	9.58E-24	2.05E-42	4.42E-61	
AS 78	1.59E-02	1.41E-04	4.13E-09	3.49E-23	0.	0.	0.	0.	0.	0.	0.	
BR 82	3.83E-04	2.39E-04	1.49E-04	3.63E-05	3.44E-06	3.09E-08	2.78E-10	2.24E-14	1.31E-24	4.49E-45	1.53E-65	
BR 83	2.78E-01	7.31E-03	7.35E-06	7.47E-15	7.63E-30	0.	0.	0.	0.	0.	0.	
KR 83M	1.44E-05	3.20E-02	3.63E-05	3.27E-14	3.35E-29	0.	0.	0.	0.	0.	0.	
KR 85M	2.74E-03	1.57E-01	3.57E-03	4.24E-08	2.61E-16	9.94E-33	3.76E-49	0.	0.	0.	0.	
KR 85	2.84E-06	7.45E-05	7.60E-05	7.60E-05	7.60E-05	7.60E-05	7.60E-05	7.56E-05	7.49E-05	7.34E-05	7.23E-05	
KR 87	4.57E+01	9.01E-05	1.78E-10	1.38E-27	0.	0.	0.	0.	0.	0.	0.	
KR 88	2.47E+01	6.51E-02	1.71E-04	3.10E-12	3.90E-25	0.	0.	0.	0.	0.	0.	
RB 88	6.28E+00	7.25E-02	1.91E-04	3.47E-12	4.35E-25	0.	0.	0.	0.	0.	0.	
SR 89	2.43E-06	7.28E-02	7.17E-02	6.89E-02	6.46E-02	5.64E-02	4.93E-02	3.80E-02	1.94E-02	5.11E-03	1.35E-03	
SR 90	4.82E-06	4.96E-04	4.96E-04	4.96E-04	4.96E-04	4.96E-04	4.96E-04	4.96E-04	4.91E-04	4.91E-04	4.87E-04	
Y 90	7.15E-12	1.14E-04	2.01E-04	3.61E-04	4.61E-04	4.91E-04	4.96E-04	4.96E-04	4.91E-04	4.91E-04	4.87E-04	
SR 91	6.79E-01	2.43E+00	4.35E-01	2.50E-03	4.57E-07	1.55E-14	5.25E-22	5.98E-37	0.	0.	0.	

A-8

WASP MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 5.026E-12

DEBRIS DECAY FROM 1 TO 300 DAYS

A-9

	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	4.57E-05	1.57E+00	2.81E-01	1.61E-03	2.96E-07	9.99E-15	3.38E-22	3.86E-37	0.	0.	0.	0.
Y 91	1.87E-08	7.47E-02	8.83E-02	8.83E-02	8.32E-02	7.38E-02	6.57E-02	5.21E-02	2.88E-02	8.88E-03	2.73E-03	0.
SR 92	9.00E+00	1.12E-01	2.42E-04	2.43E-12	1.14E-25	0.	0.	0.	0.	0.	0.	0.
Y 92	4.15E-01	1.18E+00	1.31E-02	1.01E-08	5.86E-19	2.01E-39	6.87E-60	0.	0.	0.	0.	0.
Y 93	4.75E-01	3.21E+00	6.26E-01	4.71E-03	1.35E-06	1.12E-13	9.23E-21	6.30E-35	0.	0.	0.	0.
ZR 95	9.68E-04	1.21E-01	1.20E-01	1.16E-01	1.10E-01	9.85E-02	8.88E-02	7.18E-02	4.20E-02	1.45E-02	4.97E-03	0.
NB 95M	2.06E-11	4.10E-04	7.47E-04	1.43E-03	1.92E-03	2.03E-03	1.87E-03	1.52E-03	8.92E-04	3.07E-04	1.06E-04	0.
NB 95	1.08E-10	2.34E-03	4.63E-03	1.11E-02	2.06E-02	3.55E-02	4.59E-02	5.69E-02	5.48E-02	2.63E-02	1.01E-02	0.
ZR 97	2.48E+00	4.23E+00	1.59E+00	8.42E-02	6.32E-04	3.56E-08	2.00E-12	6.32E-21	3.57E-42	0.	0.	0.
NB 97M	1.28E-02	4.06E+00	1.53E+00	8.12E-02	6.07E-04	3.42E-08	1.92E-12	6.07E-21	3.43E-42	0.	0.	0.
NB 97	1.24E+00	4.24E+00	1.59E+00	8.46E-02	6.37E-04	3.83E-08	2.15E-12	6.84E-21	3.85E-42	0.	0.	0.
MC 99	8.06E-03	2.62E+00	2.05E+00	9.70E-01	2.81E-01	2.35E-02	1.96E-03	1.37E-05	5.54E-11	9.14E-22	1.50E-32	0.
TC 99M	7.49E-08	2.30E+00	1.94E+00	9.29E-01	2.68E-01	2.24E-02	1.87E-03	1.30E-05	5.29E-11	8.72E-22	1.44E-32	0.
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	0.
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	0.
RU105	8.39E-01	8.03E-01	1.89E-02	2.48E-07	1.81E-15	9.68E-32	5.19E-48	0.	0.	0.	0.	0.
RH105M	5.52E-03	8.03E-01	1.89E-02	2.49E-07	1.82E-15	9.74E-32	5.20E-48	0.	0.	0.	0.	0.
RH105	9.07E-09	2.90E+00	1.89E+00	4.72E-01	4.65E-02	4.52E-04	4.39E-06	4.15E-10	3.60E-20	2.70E-40	2.03E-60	0.
RU106	7.79E-04	1.48E-02	1.47E-02	1.46E-02	1.45E-02	1.42E-02	1.39E-02	1.34E-02	1.22E-02	1.01E-02	8.37E-03	0.
RH106	8.43E-06	1.48E-02	1.47E-02	1.46E-02	1.45E-02	1.42E-02	1.39E-02	1.34E-02	1.22E-02	1.01E-02	8.37E-03	0.
PD109	1.39E-02	3.55E-01	1.03E-01	2.56E-03	5.40E-06	2.41E-11	1.07E-16	2.12E-27	0.	0.	0.	0.
AG109M	8.03E-05	3.55E-01	1.04E-01	2.57E-03	5.42E-06	2.41E-11	1.07E-16	2.12E-27	0.	0.	0.	0.
PD111M	1.65E+00	8.03E-02	3.90E-03	4.48E-07	1.21E-13	8.83E-27	6.48E-40	0.	0.	0.	0.	0.
PD111	5.89E-01	6.48E-02	3.14E-03	3.60E-07	9.76E-14	7.10E-27	5.21E-40	0.	0.	0.	0.	0.
AG111M	4.68E-03	8.46E-02	4.12E-03	4.74E-07	1.28E-13	9.39E-27	6.85E-40	0.	0.	0.	0.	0.
AG111	1.67E-09	4.60E-02	4.42E-02	3.37E-02	2.12E-02	8.40E-03	3.33E-03	5.25E-04	5.17E-06	5.01E-10	4.85E-14	0.
PD112	2.99E-01	1.36E-01	6.14E-02	5.71E-03	1.08E-04	3.94E-08	1.43E-11	1.88E-18	1.19E-35	0.	0.	0.
AG112	9.01E-06	1.58E-01	7.25E-02	6.73E-03	1.29E-04	4.65E-08	1.69E-11	2.22E-18	1.39E-35	0.	0.	0.
AG113	2.33E-03	2.46E-02	1.06E-03	8.65E-08	1.32E-14	3.10E-28	7.24E-42	0.	0.	0.	0.	0.
CD115M	5.69E-09	1.65E-04	1.62E-04	1.54E-04	1.42E-04	1.21E-04	1.03E-04	7.46E-05	3.34E-05	6.63E-06	1.33E-06	0.
CD115	2.20E-06	3.31E-02	2.42E-02	9.55E-03	2.02E-03	9.00E-05	4.02E-06	8.01E-09	1.41E-15	4.43E-29	1.39E-42	0.
IN115M	2.74E-11	3.49E-02	2.65E-02	1.04E-02	2.20E-03	9.83E-05	4.38E-06	8.73E-09	1.55E-15	4.84E-29	1.51E-42	0.
CD117	4.83E-02	1.05E-03	1.03E-06	9.57E-16	8.50E-31	0.	0.	0.	0.	0.	0.	0.
IN117M	2.32E-06	4.37E-03	5.06E-06	4.88E-15	4.34E-30	0.	0.	0.	0.	0.	0.	0.
IN117	9.35E-11	2.88E-03	3.42E-06	3.31E-15	2.93E-30	0.	0.	0.	0.	0.	0.	0.
SN121	9.92E-04	5.66E-02	3.05E-02	4.81E-03	2.21E-04	4.66E-07	9.81E-10	4.37E-15	1.83E-28	0.	0.	0.
SN123	5.53E-06	5.78E-04	5.73E-04	5.63E-04	5.48E-04	5.17E-04	4.91E-04	4.39E-04	3.33E-04	1.91E-04	1.10E-04	0.
SN125	1.60E-02	1.48E-02	1.38E-02	1.10E-02	7.62E-03	3.65E-03	1.75E-03	3.99E-04	1.00E-05	6.29E-09	3.94E-12	0.
SB125	9.58E-05	1.06E-04	1.16E-04	1.42E-04	1.74E-04	2.11E-04	2.27E-04	2.37E-04	2.32E-04	2.17E-04	2.02E-04	0.
SB126	2.90E-03	2.74E-03	2.59E-03	2.20E-03	1.66E-03	9.53E-04	5.50E-04	1.81E-04	1.13E-05	5.50E-08	1.10E-08	0.



WASP MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 5.026E-12

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	3.28E+00	1.19E-03	4.32E-07	2.06E-17	1.29E-34	0.	0.	0.	0.	0.	0.
SB127	3.83E-02	1.57E-01	1.32E-01	7.68E-02	3.15E-02	5.26E-03	8.79E-04	2.46E-05	3.20E-09	5.47E-17	9.31E-25
TE127M	3.10E-10	2.40E-04	4.39E-04	8.52E-04	1.18E-03	1.30E-03	1.25E-03	1.11E-03	8.10E-04	4.28E-04	2.26E-04
TE127	2.16E-02	1.13E-01	1.11E-01	6.74E-02	2.85E-02	5.84E-03	2.00E-03	1.12E-03	8.00E-04	4.23E-04	2.24E-04
SB128	9.38E-01	1.60E-01	2.52E-02	9.85E-05	9.56E-09	8.97E-17	8.43E-25	7.43E-41	0.	0.	0.
SB129	5.08E+00	2.60E-01	5.43E-03	4.94E-08	1.97E-16	3.10E-33	4.90E-50	0.	0.	0.	0.
TE129M	9.60E-08	1.01E-02	1.01E-02	9.54E-03	8.63E-03	7.03E-03	5.72E-03	3.81E-03	1.37E-03	1.79E-04	2.33E-05
TE129	3.66E+00	3.05E-01	1.27E-02	6.12E-03	5.52E-03	4.50E-03	3.67E-03	2.44E-03	8.80E-04	1.15E-04	1.49E-05
I130	2.48E-02	6.48E-03	1.70E-03	3.03E-05	3.70E-08	5.52E-14	8.23E-20	1.83E-31	0.	0.	0.
TE131M	9.48E-05	3.32E-01	1.90E-01	3.60E-02	2.25E-03	8.79E-06	3.44E-08	5.25E-13	4.77E-25	0.	0.
TE131	8.73E+01	6.05E-02	3.47E-02	6.59E-03	4.11E-04	1.61E-06	6.27E-09	9.61E-14	8.73E-26	0.	0.
I131	1.27E-02	6.84E-01	6.47E-01	5.20E-01	3.42E-01	1.44E-01	6.12E-02	1.09E-02	1.48E-04	2.69E-08	4.90E-12
XE131M	3.44E-11	3.17E-04	6.02E-04	1.26E-03	1.80E-03	1.78E-03	1.32E-03	5.44E-04	3.63E-05	1.09E-07	3.06E-10
TE132	9.15E-01	1.81E+00	1.46E+00	7.71E-01	2.66E-01	3.15E-02	3.73E-03	5.24E-05	1.23E-09	6.71E-19	3.66E-28
I132	2.25E+00	1.87E+00	1.51E+00	7.93E-01	2.74E-01	3.24E-02	3.84E-03	5.40E-05	1.26E-09	6.88E-19	3.77E-28
I133	9.50E-01	5.29E+00	2.39E+00	2.22E-01	4.22E-03	1.53E-06	5.55E-10	7.32E-17	4.60E-34	0.	0.
XE133M	4.04E-08	5.00E-02	5.92E-02	3.47E-02	8.15E-03	3.83E-04	1.78E-05	3.86E-08	8.46E-15	4.04E-28	1.94E-41
XE133	7.06E-07	9.60E-01	1.29E+00	1.15E+00	6.28E-01	1.70E-01	4.56E-02	3.29E-03	4.58E-06	8.88E-12	1.72E-17
I135	1.60E+01	2.62E+00	2.18E-01	1.27E-04	5.16E-10	8.52E-21	1.40E-31	3.81E-53	0.	0.	0.
XE135M	1.77E-03	8.16E-01	6.82E-02	3.97E-05	1.61E-10	2.65E-21	4.37E-32	1.19E-53	0.	0.	0.
XE135	1.85E+00	7.05E+00	1.72E+00	9.86E-03	1.21E-06	1.70E-14	2.38E-22	4.70E-38	0.	0.	0.
CS136	1.29E-02	1.22E-02	1.16E-02	9.89E-03	7.58E-03	4.45E-03	2.62E-03	8.98E-04	6.24E-05	3.01E-07	1.46E-09
CS137	8.14E-05	8.78E-04	8.78E-04	8.78E-04	8.78E-04	8.78E-04	8.78E-04	8.78E-04	8.73E-04	8.68E-04	8.63E-04
BA137M	1.72E-07	8.19E-04	8.19E-04	8.19E-04	8.19E-04	8.19E-04	8.19E-04	8.19E-04	8.14E-04	8.09E-04	8.04E-04
BA139	1.13E+01	1.21E-03	7.15E-09	1.47E-24	0.	0.	0.	0.	0.	0.	0.
BA140	1.03E-01	6.09E-01	5.79E-01	4.91E-01	3.74E-01	2.18E-01	1.27E-01	4.29E-02	2.87E-03	1.28E-05	5.64E-08
LA140	2.45E-07	2.12E-01	3.41E-01	4.72E-01	4.19E-01	2.51E-01	1.46E-01	4.96E-02	3.29E-03	1.47E-05	6.53E-08
LA141	1.85E+00	7.33E-01	1.03E-02	2.85E-08	1.56E-17	4.65E-36	1.39E-54	0.	0.	0.	0.
CE141	2.28E-07	2.53E-01	2.51E-01	2.36E-01	2.12E-01	1.71E-01	1.38E-01	9.00E-02	3.09E-02	3.64E-03	4.28E-04
LA142	1.24E+01	2.73E-03	5.28E-08	3.88E-22	0.	0.	0.	0.	0.	0.	0.
CE143	7.63E-02	3.14E+00	1.90E+00	4.18E-01	3.36E-02	2.17E-04	1.41E-06	5.89E-11	6.65E-22	0.	0.
PR143	2.23E-08	2.01E-01	3.12E-01	4.03E-01	3.46E-01	2.11E-01	1.27E-01	4.60E-02	3.68E-03	2.33E-05	1.48E-07
CE144	2.93E-03	2.10E-02	2.09E-02	2.07E-02	2.05E-02	2.00E-02	1.95E-02	1.86E-02	1.64E-02	1.29E-02	1.01E-02
PR144	8.04E-07	2.10E-02	2.09E-02	2.07E-02	2.05E-02	2.00E-02	1.95E-02	1.86E-02	1.64E-02	1.29E-02	1.01E-02
PR145	1.25E-01	1.28E+00	7.92E-02	1.88E-05	1.71E-11	1.42E-23	1.18E-35	0.	0.	0.	0.
ND147	1.60E-05	2.69E-01	2.53E-01	2.10E-01	1.53E-01	8.23E-02	4.39E-02	1.26E-02	5.53E-04	1.08E-06	2.09E-09
PM147	4.44E-14	2.01E-04	3.89E-04	8.89E-04	1.54E-03	2.35E-03	2.77E-03	3.09E-03	3.12E-03	2.90E-03	2.70E-03
ND149	2.60E+01	2.52E-03	2.44E-07	2.22E-19	1.90E-39	0.	0.	0.	0.	0.	0.
PM149	3.62E-03	6.69E-01	4.90E-01	1.91E-01	3.99E-02	1.74E-03	7.57E-05	1.44E-07	2.27E-14	5.60E-28	1.40E-41
PM150	3.17E-01	6.69E-04	1.41E-06	1.32E-14	5.53E-28	0.	0.	0.	0.	0.	0.

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WASP MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 5.026E-12

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	7.68E-02	5.23E-01	2.89E-01	4.86E-02	2.49E-03	6.54E-06	1.72E-08	1.19E-13	1.49E-26	0.	0.
SM153	2.80E-01	1.97E-01	1.38E-01	4.77E-02	8.11E-03	2.36E-04	6.86E-06	5.76E-09	1.19E-16	5.06E-32	2.15E-47
SM156	3.79E-01	6.46E-02	1.10E-02	5.43E-05	7.82E-09	1.61E-16	3.32E-24	1.41E-39	0.	0.	0.
EU155	1.40E-05	4.74E-04	4.73E-04	4.73E-04	4.72E-04	4.70E-04	4.68E-04	4.64E-04	4.55E-04	4.37E-04	4.20E-04
EU156	1.11E-03	9.01E-03	9.99E-03	8.96E-03	7.11E-03	4.47E-03	2.82E-03	1.12E-03	1.11E-04	1.09E-06	1.08E-08
EU157	6.10E-02	7.05E-02	2.37E-02	8.89E-04	3.73E-06	6.59E-11	1.17E-15	3.63E-25	0.	0.	0.
GD159	1.35E-02	2.66E-02	1.06E-02	6.61E-04	6.51E-06	6.30E-10	6.11E-14	5.73E-22	4.90E-42	0.	0.
TB161	1.85E-04	1.21E-03	1.09E-03	8.09E-04	4.90E-04	1.79E-04	6.56E-05	8.79E-06	5.82E-08	2.51E-12	1.09E-16
TOTAL	2.74E+02	6.66E+01	2.95E+01	1.03E+01	4.70E+00	2.07E+00	1.31E+00	7.42E-01	3.32E-01	1.26E-01	6.56E-02

WASP  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 5.026E-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	3.32E-07	2.86E-09	2.66E-10	2.47E-11	1.99E-14	1.59E-17	1.19E-21	7.64E-28	0.	0.	0.
MN 54	3.58E-05	1.54E-05	1.02E-05	6.68E-06	1.91E-06	5.45E-07	1.03E-07	8.39E-09	1.97E-12	7.12E-18	2.58E-23
FE 59	5.95E-05	2.15E-07	1.29E-08	7.75E-10	1.68E-13	3.63E-17	4.73E-22	2.22E-29	0.	0.	0.
* CO 57	1.36E-06	5.35E-07	3.35E-07	2.10E-07	5.18E-08	1.28E-08	1.97E-10	1.20E-10	1.05E-14	8.58E-21	0.
* CO 58	1.65E-04	4.75E-06	8.06E-07	1.37E-07	6.65E-10	3.24E-12	2.67E-15	6.33E-20	2.42E-35	0.	0.
* CO 60	1.70E-05	1.49E-05	1.39E-05	1.30E-05	1.07E-05	8.76E-06	6.72E-06	4.53E-06	1.22E-06	1.69E-07	2.33E-08
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
* W185	1.04E-06	3.57E-08	6.61E-09	1.22E-09	7.79E-12	4.98E-14	5.86E-17	2.37E-21	0.	0.	0.
* W188	1.50E-07	3.91E-09	6.33E-10	1.02E-10	4.29E-13	1.80E-15	1.22E-18	2.15E-23	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	3.48E-02	8.67E-11	8.44E-11	8.22E-11	7.69E-11	7.14E-11	6.49E-11	5.63E-11	3.51E-11	1.72E-11	8.44E-12
* AM241	3.62E-07	3.62E-07	3.62E-07	3.62E-07	3.64E-07	3.66E-07	3.66E-07	3.67E-07	3.69E-07	3.66E-07	3.61E-07
* CM242	1.07E-06	2.26E-07	1.04E-07	4.78E-08	4.66E-09	4.54E-10	2.03E-11	1.92E-13	5.53E-18	5.15E-18	4.81E-18
KR 85	2.84E-06	7.05E-05	6.83E-05	6.61E-05	6.03E-05	5.44E-05	4.79E-05	3.95E-05	2.09E-05	7.96E-06	3.04E-06
SR 89	2.43E-06	5.68E-04	4.97E-05	4.37E-05	2.94E-09	1.98E-12	1.17E-16	5.33E-23	3.87E-44	0.	0.
SR 90	4.82E-06	4.82E-04	4.78E-04	4.74E-04	4.56E-04	4.39E-04	4.18E-04	3.88E-04	3.03E-04	2.09E-04	1.45E-04
Y 90	7.15E-12	4.82E-04	4.78E-04	4.74E-04	4.56E-04	4.39E-04	4.18E-04	3.88E-04	3.03E-04	2.09E-04	1.45E-04
Y 91	1.87E-08	1.26E-03	1.47E-04	1.71E-05	2.68E-08	4.20E-11	7.68E-15	1.89E-20	3.81E-39	0.	0.
ZR 95	9.68E-04	2.49E-03	3.55E-04	5.05E-05	1.47E-07	4.29E-10	1.78E-13	1.50E-18	1.83E-35	0.	0.
NB 95M	2.06E-11	5.27E-05	7.52E-06	1.07E-06	3.12E-09	9.09E-12	3.76E-15	3.18E-20	3.89E-37	0.	0.
NB 95	1.08E-10	5.35E-03	7.69E-04	1.10E-04	3.18E-07	9.22E-10	3.85E-13	3.25E-18	3.98E-35	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.
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.
RU106	7.79E-04	7.41E-03	5.24E-03	3.72E-03	1.32E-03	4.69E-04	1.18E-04	1.49E-05	1.51E-08	4.85E-13	1.56E-17
RH106	8.43E-06	7.41E-03	5.24E-03	3.72E-03	1.32E-03	4.69E-04	1.18E-04	1.49E-05	1.51E-08	4.85E-13	1.56E-17
SN123	5.53E-06	7.66E-05	2.78E-05	1.01E-05	4.84E-07	2.32E-08	4.05E-10	9.33E-13	1.50E-21	9.63E-35	6.19E-48
SB125	9.58E-05	1.93E-04	1.70E-04	1.49E-04	1.02E-04	6.91E-05	4.13E-05	1.91E-05	1.47E-06	3.13E-08	6.66E-10
TE125M	2.58E-12	7.87E-05	7.00E-05	6.16E-05	4.21E-05	2.86E-05	1.71E-05	7.91E-06	6.08E-07	1.30E-08	2.76E-10
TE127M	3.10E-10	1.48E-04	4.64E-05	1.45E-05	4.47E-07	1.37E-08	1.32E-10	1.24E-13	1.02E-23	7.63E-39	5.68E-54
TE127	2.16E-02	1.47E-04	4.59E-05	1.44E-05	4.41E-07	1.36E-08	1.30E-10	1.23E-13	1.01E-23	7.52E-39	5.63E-54
CS137	8.14E-05	8.58E-04	8.48E-04	8.39E-04	8.09E-04	7.80E-04	7.46E-04	6.97E-04	5.51E-04	3.92E-04	2.76E-04
BA137M	1.72E-07	8.04E-04	7.95E-04	7.85E-04	7.56E-04	7.31E-04	6.97E-04	6.53E-04	5.17E-04	3.66E-04	2.59E-04
CE141	2.28E-07	9.85E-05	1.98E-06	3.98E-08	3.24E-13	2.64E-18	4.33E-25	2.87E-35	0.	0.	0.
CE144	2.93E-03	8.61E-03	5.54E-03	3.53E-03	9.27E-04	2.44E-04	4.10E-05	2.83E-06	3.81E-10	5.97E-16	9.31E-22
PR144	8.04E-07	8.61E-03	5.54E-03	3.53E-03	9.27E-04	2.44E-04	4.10E-05	2.83E-06	3.81E-10	5.97E-16	9.31E-22
PM147	4.44E-14	2.58E-03	2.26E-03	1.98E-03	1.33E-03	8.94E-04	5.25E-04	2.38E-04	1.69E-05	3.20E-07	6.06E-09
EU155	1.40E-05	4.09E-04	3.80E-04	3.54E-04	2.85E-04	2.29E-04	1.71E-04	1.10E-04	2.58E-05	2.90E-06	3.26E-07
TOTAL	6.17E-02	4.90E-02	2.86E-02	1.99E-02	8.81E-03	5.10E-03	3.41E-03	2.58E-03	1.74E-03	1.19E-03	8.29E-04

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**APPENDIX B**  
**DETAILED RESULTS FOR EVENT MOTH**

MOTH  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.067E-12

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME		
HOURS		
1.00E+00	1.21E+02	1.16E+04
2.00E+00	3.59E+01	2.31E+03
3.00E+00	1.41E+01	8.99E+02
4.00E+00	7.47E+00	5.44E+02
6.00E+00	4.62E+00	3.94E+02
9.00E+00	2.38E+00	2.59E+02
1.20E+01	1.39E+00	1.76E+02
1.50E+01	1.00E+00	1.33E+02
1.80E+01	7.78E-01	1.06E+02
2.10E+01	6.31E-01	8.70E+01
2.40E+01	5.24E-01	7.34E+01
DAYS		
1.00E+00	4.39E-01	6.23E+01
2.00E+00	1.94E-01	2.76E+01
5.00E+00	7.72E-02	1.01E+01
1.00E+01	3.71E-02	4.71E+00
2.00E+01	1.52E-02	2.04E+00
3.00E+01	8.74E-03	1.27E+00
5.00E+01	4.01E-03	7.05E-01
1.00E+02	1.34E-03	3.04E-01
2.00E+02	4.42E-04	1.08E-01
3.00E+02	1.80E-04	5.63E-02
YEARS		
1.00E+00	1.12E-04	4.25E-02
1.50E+00	4.63E-05	2.59E-02
2.00E+00	3.11E-05	1.85E-02
3.50E+00	1.76E-05	8.66E-03
5.00E+00	1.29E-05	5.26E-03
7.00E+00	1.04E-05	3.70E-03
1.00E+01	8.86E-06	2.95E-03
2.00E+01	6.45E-06	2.10E-03
3.50E+01	4.46E-06	1.45E-03
5.00E+01	3.13E-06	1.01E-03

MOTH  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.067E-12

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	1.01E-06	1.01E-06	1.01E-06	1.01E-06	1.01E-06	1.01E-06	1.01E-06	1.00E-06	1.00E-06	1.00E-06	1.00E-06
NA 24	2.87E-03	2.74E-03	2.62E-03	2.50E-03	2.38E-03	2.17E-03	1.89E-03	1.65E-03	1.44E-03	1.25E-03	1.08E-03
MN 54	5.54E-05	5.54E-05	5.54E-05	5.54E-05	5.54E-05	5.54E-05	5.54E-05	5.50E-05	5.50E-05	5.50E-05	5.50E-05
FE 55	1.12E-04	1.12E-04	1.12E-04	1.12E-04	1.12E-04	1.12E-04	1.12E-04	1.12E-04	1.12E-04	1.12E-04	1.12E-04
FE 59	2.37E-04	2.36E-04	2.36E-04	2.36E-04	2.36E-04	2.36E-04	2.36E-04	2.35E-04	2.34E-04	2.34E-04	2.34E-04
CO 57	3.39E-06	3.39E-06	3.39E-06	3.39E-06	3.39E-06	3.39E-06	3.39E-06	3.39E-06	3.39E-06	3.39E-06	3.39E-06
CO 58	3.52E-03	3.52E-03	3.52E-03	3.52E-03	3.51E-03	3.51E-03	3.50E-03	3.50E-03	3.49E-03	3.49E-03	3.49E-03
CO 60	6.74E-05	6.74E-05	6.74E-05	6.74E-05	6.74E-05	6.74E-05	6.74E-05	6.74E-05	6.74E-05	6.74E-05	6.74E-05
CU 64	1.68E+00	1.59E+00	1.51E+00	1.43E+00	1.35E+00	1.22E+00	1.03E+00	8.78E-01	7.47E-01	6.35E-01	5.40E-01
CU 67	9.08E-06	9.00E-06	8.85E-06	8.77E-06	8.69E-06	8.46E-06	8.15E-06	7.91E-06	7.67E-06	7.37E-06	7.16E-06
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	5.07E-06	5.07E-06	5.07E-06	5.07E-06	5.05E-06	5.05E-06	5.05E-06	5.04E-06	5.04E-06	5.03E-06	5.03E-06
W187	3.62E-03	3.51E-03	3.40E-03	3.31E-03	3.22E-03	3.03E-03	2.79E-03	2.56E-03	2.33E-03	2.15E-03	1.96E-03
W188	2.62E-07	2.62E-07	2.62E-07	2.61E-07	2.61E-07	2.61E-07	2.61E-07	2.61E-07	2.60E-07	2.60E-07	2.59E-07
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	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	3.45E-02	3.43E-02	3.42E-02	3.40E-02	3.39E-02	3.36E-02	3.31E-02	3.28E-02	3.23E-02	3.19E-02	3.15E-02
U239	4.66E+02	7.94E+01	1.36E+01	2.31E+00	3.92E-01	1.14E-02	5.66E-05	2.79E-07	1.38E-09	6.84E-12	3.38E-14
U240	4.12E-02	3.93E-02	3.74E-02	3.56E-02	3.39E-02	3.07E-02	2.65E-02	2.29E-02	1.97E-02	1.70E-02	1.46E-02
NP239	1.59E-03	2.67E+00	3.09E+00	3.14E+00	3.11E+00	3.04E+00	2.92E+00	2.82E+00	2.72E+00	2.62E+00	2.52E+00
NP240M	6.52E-05	3.94E-02	3.77E-02	3.59E-02	3.42E-02	3.09E-02	2.67E-02	2.31E-02	1.99E-02	1.71E-02	1.48E-02
NP240	1.65E-12	8.49E-13	4.41E-13	2.27E-13	1.18E-13	3.15E-14	4.34E-15	5.99E-16	8.26E-17	1.14E-17	1.57E-18
*AM241	7.80E-08	7.80E-08	7.80E-08	7.80E-08	7.80E-08	7.80E-08	7.80E-08	7.80E-08	7.80E-08	7.80E-08	7.80E-08
*CM242	6.51E-07	6.51E-07	6.51E-07	6.51E-07	6.51E-07	6.51E-07	6.48E-07	6.48E-07	6.48E-07	6.48E-07	6.48E-07
GE 75	8.52E-06	4.13E-02	2.49E-02	1.50E-02	9.01E-03	3.27E-03	7.14E-04	1.56E-04	3.41E-05	7.43E-06	1.63E-06
GE 77	6.61E-03	1.70E-02	1.60E-02	1.51E-02	1.42E-02	1.25E-02	1.04E-02	8.67E-03	7.23E-03	6.00E-03	5.00E-03
AS 77	6.84E-05	1.08E-02	1.09E-02	1.10E-02	1.11E-02	1.11E-02	1.11E-02	1.11E-02	1.09E-02	1.07E-02	1.04E-02
SE 77M	2.69E-09	3.23E-05	3.28E-05	3.31E-05	3.31E-05	3.33E-05	3.36E-05	3.33E-05	3.28E-05	3.21E-05	3.11E-05
GE 78	1.08E+00	6.72E-01	4.18E-01	2.61E-01	1.63E-01	6.35E-02	1.54E-02	3.74E-03	9.11E-04	2.22E-04	5.38E-05
AS 78	1.93E-02	3.21E-01	3.96E-01	3.71E-01	3.10E-01	1.83E-01	6.80E-02	2.26E-02	6.99E-03	2.09E-03	6.05E-04
AS 79	1.95E+01	1.93E-01	1.90E-03	1.87E-05	1.84E-07	1.78E-11	1.70E-17	1.62E-23	1.55E-29	1.48E-35	1.41E-41
SE 79M	2.89E-02	3.40E-01	3.35E-03	3.30E-05	3.25E-07	3.14E-11	3.00E-17	2.86E-23	2.73E-29	2.61E-35	2.49E-41
BR 80	1.11E-01	1.05E-02	9.83E-04	9.25E-05	8.71E-06	7.72E-08	6.46E-11	5.39E-14	4.49E-17	3.75E-20	3.13E-23
SE 81M	8.60E-02	4.01E+00	1.94E+00	9.31E-01	4.48E-01	1.05E-01	1.17E-02	1.31E-03	1.47E-04	1.65E-05	1.85E-06
SE 81	1.05E+00	4.74E+00	2.74E+00	1.37E+00	6.65E-01	1.55E-01	1.74E-02	1.95E-03	2.18E-04	2.45E-05	2.74E-06
BR 82	4.68E-04	4.59E-04	4.50E-04	4.41E-04	4.32E-04	4.16E-04	3.92E-04	3.69E-04	3.49E-04	3.28E-04	3.10E-04
SE 83	4.08E+01	7.73E+00	1.46E+00	2.78E-01	5.25E-02	1.89E-03	1.28E-05	8.73E-08	5.96E-10	4.04E-12	2.57E-14
BR 83	3.39E-01	5.06E+00	4.68E+00	3.68E+00	2.80E+00	1.58E+00	6.68E-01	2.81E-01	1.19E-01	5.01E-02	2.11E-02
KR 83N	1.75E-05	1.15E+00	2.34E+00	2.91E+00	3.00E+00	2.50E+00	1.47E+00	7.59E-01	3.66E-01	1.69E-01	7.59E-02

B-3

MOTH  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.067E-12

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO	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	8.11E-02	1.40E+01	3.78E+00	1.02E+00	2.77E-01	2.02E-02	4.00E-04	7.90E-06	1.56E-07	3.09E-09	6.10E-11
KR 85M	3.35E-03	7.18E+00	6.11E+00	5.22E+00	4.46E+00	3.25E+00	2.03E+00	1.27E+00	7.89E-01	4.90E-01	3.06E-01
KR 87	5.57E+01	3.22E+01	1.86E+01	1.08E+01	6.21E+00	2.08E+00	4.04E-01	7.82E-02	1.52E-02	2.93E-03	5.67E-04
KR 88	3.02E+01	2.36E+01	1.84E+01	1.43E+01	1.12E+01	6.81E+00	3.25E+00	1.55E+00	7.35E-01	3.50E-01	1.67E-01
RB 88	7.67E+00	2.38E+01	2.03E+01	1.60E+01	1.25E+01	7.62E+00	3.64E+00	1.73E+00	8.26E-01	3.93E-01	1.87E-01
RB 89	3.87E+01	3.63E+01	2.44E+00	1.64E-01	1.10E-02	4.98E-05	1.51E-08	4.55E-12	1.39E-15	4.20E-19	1.27E-22
SR 89	2.96E-06	1.04E-01	1.11E-01	1.11E-01	1.11E-01	1.11E-01	1.11E-01	1.10E-01	1.10E-01	1.10E-01	1.10E-01
SR 90	5.89E-06	6.05E-04	6.05E-04	6.05E-04	6.05E-04	6.05E-04	6.05E-04	6.05E-04	6.05E-04	6.05E-04	6.05E-04
SR 91	7.25E-01	1.35E+01	1.26E+01	1.17E+01	1.09E+01	9.43E+00	7.61E+00	6.15E+00	4.97E+00	3.99E+00	3.22E+00
Y 91M	4.88E-05	4.65E+00	6.33E+00	6.79E+00	6.70E+00	6.02E+00	4.92E+00	3.96E+00	3.19E+00	2.57E+00	2.08E+00
Y 91	2.00E-08	4.13E-03	9.52E-03	1.52E-02	2.08E-02	3.11E-02	4.42E-02	5.47E-02	6.33E-02	7.02E-02	7.57E-02
SR 92	5.49E+00	2.45E+01	1.90E+01	1.47E+01	1.14E+01	6.82E+00	3.17E+00	1.47E+00	6.82E-01	3.17E-01	1.47E-01
Y 92	2.53E-01	5.16E+00	8.10E+00	9.63E+00	1.02E+01	9.74E+00	7.46E+00	5.09E+00	3.27E+00	2.01E+00	1.21E+00
SR 93	2.38E+02	4.09E+00	2.26E-02	1.25E-04	6.88E-07	2.10E-11	3.55E-18	5.99E-25	1.01E-31	1.70E-38	2.87E-45
Y 93	2.90E-01	9.37E+00	8.80E+00	8.24E+00	7.69E+00	6.72E+00	5.47E+00	4.47E+00	3.63E+00	2.98E+00	2.42E+00
Y 94	3.51E+01	4.80E+01	6.17E+00	7.96E-01	1.03E-01	1.71E-03	3.66E-06	7.84E-09	1.68E-11	3.66E-14	2.03E-15
Y 95	1.57E+02	1.48E+01	3.26E-01	7.20E-03	1.59E-04	7.70E-08	8.24E-13	8.81E-18	9.41E-23	1.01E-27	1.08E-32
ZR 95	5.91E-04	7.72E-02	7.88E-02	7.88E-02	7.88E-02	7.88E-02	7.88E-02	7.85E-02	7.85E-02	7.83E-02	7.83E-02
NB 95	6.58E-11	4.77E-05	1.11E-04	1.75E-04	2.38E-04	3.65E-04	5.55E-04	7.46E-04	9.33E-04	1.12E-03	1.31E-03
ZR 97	1.51E+00	6.60E+00	6.31E+00	6.08E+00	5.81E+00	5.37E+00	4.75E+00	4.20E+00	3.73E+00	3.29E+00	2.92E+00
NB 97M	7.80E-03	6.34E+00	6.08E+00	5.84E+00	5.61E+00	5.16E+00	4.56E+00	4.04E+00	3.57E+00	3.15E+00	2.79E+00
NB 97	7.59E-01	3.31E+00	4.67E+00	5.32E+00	5.58E+00	5.55E+00	5.06E+00	4.51E+00	3.99E+00	3.52E+00	3.13E+00
NB 98	8.89E+00	3.93E+00	1.74E+00	7.69E-01	3.41E-01	6.67E-02	5.77E-03	4.98E-04	4.34E-05	3.76E-06	3.23E-07
MC 99	4.92E-03	2.03E+00	2.01E+00	1.99E+00	1.97E+00	1.93E+00	1.87E+00	1.81E+00	1.76E+00	1.70E+00	1.65E+00
TC 99M	4.57E-08	1.94E-01	3.63E-01	5.14E-01	6.45E-01	8.61E-01	1.09E+00	1.24E+00	1.33E+00	1.38E+00	1.40E+00
MC 01	1.58E+02	7.13E+01	4.14E+00	2.40E-01	1.39E-02	4.66E-05	9.06E-09	1.77E-12	3.43E-16	6.66E-20	1.30E-23
TC 01	6.66E+00	2.00E+02	2.18E+01	1.79E+00	1.31E-01	5.89E-04	1.47E-07	3.30E-11	6.99E-15	1.44E-18	2.91E-22
MC 02	1.43E+03	3.27E+01	7.44E-01	1.70E-02	3.88E-04	2.01E-07	2.40E-12	2.84E-17	3.37E-22	3.99E-27	4.75E-32
TC 02M	9.22E-01	2.77E+01	6.34E-01	1.45E-02	3.30E-04	1.71E-07	2.03E-12	2.40E-17	2.85E-22	3.38E-27	4.02E-32
TC 02	4.32E+03	1.65E+01	3.76E-01	8.54E-03	1.95E-04	1.02E-07	1.21E-12	1.43E-17	1.70E-22	2.01E-27	2.39E-32
RU 03	1.15E-04	2.67E-01	2.67E-01	2.67E-01	2.67E-01	2.66E-01	2.65E-01	2.65E-01	2.64E-01	2.64E-01	2.63E-01
RH 03M	7.68E-09	1.38E-01	2.05E-01	2.37E-01	2.53E-01	2.63E-01	2.65E-01	2.65E-01	2.64E-01	2.64E-01	2.64E-01
TC 04	1.09E+02	7.85E+01	7.85E+00	7.78E-01	7.69E-02	7.58E-04	7.40E-07	7.23E-10	7.06E-13	6.90E-16	6.74E-19
RU 05	1.02E+00	3.54E+01	3.03E+01	2.59E+01	2.22E+01	1.62E+01	1.02E+01	6.36E+00	3.98E+00	2.49E+00	1.56E+00
RH 05M	6.74E-03	3.55E+01	3.04E+01	2.60E+01	2.22E+01	1.63E+01	1.02E+01	6.38E+00	3.99E+00	2.50E+00	1.56E+00
RH 05	1.11E-08	7.21E-01	1.34E+00	1.85E+00	2.27E+00	2.91E+00	3.48E+00	3.74E+00	3.81E+00	3.78E+00	3.68E+00
RU 06	9.51E-04	1.80E-02	1.80E-02	1.80E-02	1.80E-02	1.80E-02	1.80E-02	1.80E-02	1.80E-02	1.80E-02	1.80E-02
RH 06	1.03E-05	1.80E-02	1.80E-02	1.80E-02	1.80E-02	1.80E-02	1.80E-02	1.80E-02	1.80E-02	1.80E-02	1.80E-02
RH 07	2.97E-01	4.04E+01	6.12E+00	9.21E-01	1.39E-01	3.17E-03	1.09E-05	3.77E-08	1.30E-10	4.43E-14	4.41E-17
PD 07M	6.18E-04	8.22E+00	1.24E+00	1.88E-01	2.83E-02	6.45E-04	2.22E-06	7.67E-09	2.64E-11	9.10E-14	3.11E-16

B-4

M0TH MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.067E-12

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	1.70E-02	1.41E+00	1.34E+00	1.27E+00	1.21E+00	1.09E+00	9.36E-01	8.02E-01	6.87E-01	5.89E-01	5.06E-01
AG109M	9.80E-05	1.41E+00	1.34E+00	1.27E+00	1.21E+00	1.09E+00	9.36E-01	8.02E-01	6.87E-01	5.89E-01	5.06E-01
PD111M	2.02E+00	1.78E+00	1.57E+00	1.39E+00	1.22E+00	9.49E-01	6.50E-01	4.45E-01	3.05E-01	2.09E-01	1.43E-01
PD111	7.19E-01	1.30E+00	1.24E+00	1.11E+00	9.80E-01	7.61E-01	5.22E-01	3.58E-01	2.45E-01	1.68E-01	1.15E-01
AG111M	5.71E-03	1.75E+00	1.64E+00	1.47E+00	1.30E+00	1.00E+00	6.85E-01	4.69E-01	3.22E-01	2.21E-01	1.51E-01
AG111	2.03E-09	6.03E-03	1.27E-02	1.86E-02	2.39E-02	3.26E-02	4.18E-02	4.79E-02	5.19E-02	5.44E-02	5.59E-02
PD112	3.65E-01	3.54E-01	3.42E-01	3.30E-01	3.20E-01	2.99E-01	2.71E-01	2.46E-01	2.22E-01	2.01E-01	1.82E-01
AG112	1.10E-05	7.00E-02	1.23E-01	1.66E-01	1.97E-01	2.36E-01	2.59E-01	2.58E-01	2.46E-01	2.29E-01	2.11E-01
AG113	2.84E-03	6.08E-01	5.33E-01	4.68E-01	4.10E-01	3.16E-01	2.14E-01	1.44E-01	9.74E-02	6.58E-02	4.45E-02
AG115	8.49E-01	9.10E-01	1.13E-01	1.42E-02	1.77E-03	2.77E-05	5.41E-08	1.06E-10	2.05E-13	2.04E-16	1.89E-16
CD115M	6.94E-09	1.85E-04	2.08E-04	2.10E-04	2.10E-04	2.10E-04	2.10E-04	2.10E-04	2.09E-04	2.08E-04	2.08E-04
CD115	2.68E-06	5.06E-02	5.44E-02	5.43E-02	5.36E-02	5.22E-02	5.03E-02	4.83E-02	4.65E-02	4.48E-02	4.30E-02
IN115M	3.34E-11	5.58E-03	1.24E-02	1.84E-02	2.35E-02	3.13E-02	3.86E-02	4.25E-02	4.44E-02	4.48E-02	4.44E-02
CD117	5.90E-02	9.82E-01	7.40E-01	5.52E-01	4.14E-01	2.32E-01	9.75E-02	4.11E-02	1.73E-02	7.26E-03	3.06E-03
IN117M	2.83E-06	3.41E-01	4.94E-01	5.36E-01	5.18E-01	4.09E-01	2.34E-01	1.20E-01	5.74E-02	2.66E-02	1.20E-02
IN117	1.14E-10	6.23E-02	1.51E-01	2.09E-01	2.34E-01	2.15E-01	1.37E-01	7.33E-02	3.64E-02	1.71E-02	7.88E-03
CD118	3.85E+00	1.65E+00	7.08E-01	3.02E-01	1.29E-01	2.37E-02	1.86E-03	1.45E-04	1.14E-05	8.94E-07	7.02E-08
IN118	2.55E-01	1.65E+00	7.08E-01	3.03E-01	1.29E-01	2.37E-02	1.86E-03	1.46E-04	1.14E-05	8.94E-07	7.02E-08
CD119	9.64E+00	1.50E-01	2.35E-03	3.67E-05	5.74E-07	1.40E-10	5.35E-16	2.04E-21	7.77E-27	2.97E-32	1.14E-37
IN119M	1.45E-02	1.63E+00	1.77E-01	1.78E-02	1.78E-03	1.75E-05	1.71E-08	1.67E-11	1.63E-14	1.59E-17	1.55E-20
IN119	7.17E-01	8.56E-02	9.93E-03	1.01E-03	1.01E-04	9.86E-07	9.64E-10	9.43E-13	9.21E-16	9.00E-19	8.78E-22
SN121	1.21E-03	1.25E-01	1.21E-01	1.18E-01	1.15E-01	1.10E-01	1.01E-01	9.40E-02	8.69E-02	8.05E-02	7.48E-02
SN123M	7.18E-01	1.34E+00	4.76E-01	1.68E-01	5.95E-02	7.43E-03	3.29E-04	1.45E-05	6.44E-07	2.84E-08	1.26E-09
SN123	6.75E-06	7.05E-04	7.05E-04	7.05E-04	7.05E-04	7.05E-04	7.05E-04	7.05E-04	7.05E-04	7.05E-04	7.05E-04
SN125	1.95E-02	1.94E-02	1.94E-02	1.93E-02	1.92E-02	1.91E-02	1.90E-02	1.88E-02	1.86E-02	1.84E-02	1.82E-02
SB125	1.17E-04	1.17E-04	1.18E-04	1.18E-04	1.19E-04	1.20E-04	1.22E-04	1.24E-04	1.25E-04	1.27E-04	1.28E-04
SB126	3.54E-03	3.52E-03	3.52E-03	3.51E-03	3.50E-03	3.49E-03	3.46E-03	3.44E-03	3.41E-03	3.39E-03	3.37E-03
SN127	4.01E+00	2.88E+00	2.07E+00	1.49E+00	1.07E+00	5.53E-01	2.05E-01	7.64E-02	2.83E-02	1.05E-02	3.91E-03
SB127	4.67E-02	1.61E-01	1.79E-01	1.90E-01	1.98E-01	2.07E-01	2.10E-01	2.08E-01	2.05E-01	2.00E-01	1.96E-01
TE127	2.64E-02	3.29E-02	3.99E-02	4.74E-02	5.48E-02	6.87E-02	8.80E-02	1.03E-01	1.14E-01	1.23E-01	1.29E-01
SN128	2.71E+01	1.34E+01	6.63E+00	3.28E+00	1.62E+00	3.95E-01	4.77E-02	5.76E-03	6.95E-04	8.42E-05	1.01E-05
SB128M	1.38E-02	1.53E+01	7.92E+00	3.91E+00	1.93E+00	4.72E-01	5.69E-02	6.87E-03	8.28E-04	1.00E-04	1.21E-05
SB128	1.14E+00	1.10E+00	1.04E+00	9.72E-01	9.07E-01	7.77E-01	6.20E-01	4.92E-01	3.91E-01	3.10E-01	2.46E-01
SN129M	1.65E+01	8.23E+00	4.13E+00	2.06E+00	1.03E+00	2.58E-01	3.23E-02	4.04E-03	5.04E-04	6.30E-05	7.88E-06
SN129	1.10E+02	1.08E+00	1.07E-02	1.05E-04	1.03E-06	1.00E-10	9.56E-17	9.14E-23	8.72E-29	8.30E-35	7.95E-41
SB129	6.20E+00	1.04E+01	9.76E+00	8.72E+00	7.67E+00	5.70E+00	3.55E+00	2.20E+00	1.35E+00	8.37E-01	5.15E-01
TE129M	1.17E-07	1.30E-03	2.67E-03	3.93E-03	5.04E-03	6.84E-03	8.65E-03	9.76E-03	1.05E-02	1.09E-02	1.12E-02
TE129	4.46E+00	6.14E+00	7.18E+00	7.46E+00	7.18E+00	5.95E+00	3.96E+00	2.50E+00	1.56E+00	9.62E-01	5.97E-01
SB130M	6.34E-01	1.20E+00	3.14E-03	8.25E-06	2.17E-08	1.50E-13	2.73E-21	4.96E-29	9.01E-37	1.64E-44	2.98E-52
SB130	1.09E+02	3.29E+01	9.35E+00	2.65E+00	7.49E-01	6.03E-02	1.38E-03	3.14E-05	7.15E-07	1.63E-08	3.72E-10



MOTH  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.067E-12

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	3.03E-02	2.86E-02	2.71E-02	2.56E-02	2.42E-02	2.17E-02	1.83E-02	1.55E-02	1.31E-02	1.11E-02	9.35E-03
SB131	2.41E+02	6.28E+01	1.03E+01	1.69E+00	2.77E-01	7.45E-03	3.28E-05	1.45E-07	6.38E-10	2.81E-12	1.40E-14
TE131M	1.16E-04	6.05E-01	6.90E-01	6.91E-01	6.78E-01	6.48E-01	6.05E-01	5.64E-01	5.26E-01	4.91E-01	4.58E-01
TE131	1.07E+02	1.16E+02	3.77E+01	9.81E+00	2.38E+00	2.24E-01	1.11E-01	1.03E-01	9.58E-02	8.96E-02	8.35E-02
I131	1.55E-02	5.36E-01	7.89E-01	8.66E-01	8.81E-01	8.89E-01	8.89E-01	8.81E-01	8.81E-01	8.74E-01	8.74E-01
TE132	1.12E+00	2.71E+00	2.69E+00	2.67E+00	2.64E+00	2.59E+00	2.52E+00	2.46E+00	2.40E+00	2.33E+00	2.27E+00
I132	2.74E+00	2.73E+00	2.73E+00	2.71E+00	2.69E+00	2.66E+00	2.60E+00	2.53E+00	2.46E+00	2.40E+00	2.34E+00
TE133M	1.33E-01	4.61E+01	2.01E+01	8.74E+00	3.80E+00	7.22E-01	5.94E-02	4.90E-03	4.04E-04	3.33E-05	2.75E-06
TE133	7.47E+02	4.24E+01	4.71E+00	1.56E+00	6.59E-01	1.25E-01	1.03E-02	8.49E-04	7.03E-05	5.78E-06	4.77E-07
I133	1.16E+00	1.25E+01	1.35E+01	1.35E+01	1.32E+01	1.25E+01	1.14E+01	1.03E+01	9.31E+00	8.49E+00	7.66E+00
XE133M	4.93E-08	2.81E-03	6.78E-03	1.08E-02	1.48E-02	2.22E-02	3.21E-02	4.07E-02	4.80E-02	5.43E-02	5.95E-02
XE133	8.61E-07	4.90E-02	1.19E-01	1.90E-01	2.61E-01	3.95E-01	5.80E-01	7.41E-01	8.87E-01	1.01E+00	1.13E+00
TE134	2.41E+02	1.11E+02	4.15E+01	1.54E+01	5.73E+00	7.94E-01	4.06E-02	2.08E-03	1.06E-04	5.47E-06	2.80E-07
I134	1.10E+02	1.47E+02	1.03E+02	6.05E+01	3.25E+00	9.25E+00	9.07E-01	9.26E-02	9.07E-03	8.69E-04	8.69E-05
I135	1.96E+01	3.45E+01	3.11E+01	2.80E+01	2.53E+01	2.05E+01	1.51E+01	1.10E+01	8.10E+00	5.96E+00	4.35E+00
XE135M	2.16E-03	9.95E+00	9.67E+00	8.77E+00	7.87E+00	6.41E+00	4.71E+00	3.45E+00	2.53E+00	1.86E+00	1.36E+00
XE135	2.25E+00	4.46E+00	6.52E+00	8.21E+00	9.56E+00	1.15E+01	1.27E+01	1.28E+01	1.21E+01	1.11E+01	9.90E+00
CS136	1.58E-02	1.57E-02	1.57E-02	1.57E-02	1.56E-02	1.55E-02	1.54E-02	1.53E-02	1.52E-02	1.51E-02	1.50E-02
CS137	9.94E-05	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03
BA137M	2.09E-07	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03
XE138	6.67E+02	5.74E+01	4.99E+00	4.32E-01	3.75E-02	2.81E-04	1.83E-07	1.18E-10	7.71E-14	5.01E-17	3.25E-20
CS138	9.93E+01	1.67E+02	5.79E+01	1.70E+01	4.77E+00	3.63E-01	7.55E-03	1.57E-04	3.25E-06	6.78E-08	1.40E-09
CS139	7.50E+02	2.39E+01	3.00E-01	3.77E-03	4.73E-05	7.43E-09	1.48E-14	2.92E-20	5.78E-26	1.15E-31	2.26E-37
BA139	1.38E+01	1.54E+02	9.52E+01	5.78E+01	3.50E+01	1.28E+01	2.85E+00	6.32E-01	1.41E-01	3.12E-02	6.92E-03
BA140	1.07E-01	6.67E-01	6.67E-01	6.62E-01	6.62E-01	6.57E-01	6.57E-01	6.52E-01	6.47E-01	6.41E-01	6.36E-01
LA140	2.54E-07	1.14E-02	2.26E-02	3.35E-02	4.43E-02	6.52E-02	9.52E-02	1.23E-01	1.50E-01	1.75E-01	1.98E-01
BA141	1.62E+02	4.91E+01	4.87E+00	4.83E-01	4.79E-02	4.75E-04	4.64E-07	4.52E-10	4.40E-13	4.33E-16	4.21E-19
LA141	1.50E+00	3.18E+01	2.96E+01	2.51E+01	2.11E+01	1.48E+01	8.65E+00	5.06E+00	2.98E+00	1.75E+00	1.02E+00
CE141	1.85E-07	2.06E-02	4.83E-02	7.26E-02	9.31E-02	1.25E-01	1.55E-01	1.72E-01	1.82E-01	1.88E-01	1.91E-01
BA142	3.30E+02	1.31E+01	3.00E-01	6.83E-03	1.56E-04	8.09E-08	9.61E-13	1.14E-17	1.35E-22	1.60E-27	1.90E-32
LA142	7.59E+00	5.27E+01	3.47E+01	2.21E+01	1.41E+01	5.69E+00	1.47E+00	3.78E-01	9.75E-02	2.51E-02	6.47E-03
LA143	1.17E+02	2.27E+01	1.17E+00	5.99E-02	3.08E-03	8.06E-06	1.09E-09	1.47E-13	1.97E-17	2.66E-21	3.60E-25
CE143	4.66E-02	2.97E+00	3.08E+00	3.00E+00	2.94E+00	2.83E+00	2.65E+00	2.49E+00	2.34E+00	2.20E+00	2.06E+00
FR143	1.36E-08	4.55E-03	1.10E-02	1.73E-02	2.36E-02	3.57E-02	5.26E-02	6.86E-02	8.33E-02	9.72E-02	1.10E-01
CE144	1.79E-03	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02
PR144	4.91E-07	1.17E-02	1.27E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02
PR145	7.64E-02	1.12E+01	9.98E+00	8.88E+00	7.92E+00	6.28E+00	4.43E+00	3.12E+00	2.21E+00	1.56E+00	1.10E+00
CE146	2.38E+02	1.22E+01	6.25E-01	3.20E-02	1.65E-03	4.34E-06	5.84E-10	7.86E-14	1.06E-17	1.43E-21	1.93E-25
PR146	4.92E+00	4.28E+01	9.70E+00	1.82E+00	3.28E-01	1.03E-02	5.70E-05	3.14E-07	1.74E-09	9.62E-12	5.25E-14
PR147	2.73E+01	7.91E+00	2.47E-01	7.71E-03	2.41E-04	2.36E-07	7.19E-12	2.20E-16	6.70E-21	2.05E-25	6.23E-30

MOTH MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.067E-12

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	9.76E-06	1.84E-01	1.89E-01	1.88E-01	1.88E-01	1.87E-01	1.86E-01	1.84E-01	1.83E-01	1.81E-01	1.80E-01
ND149	1.59E+01	1.08E+01	7.35E+00	5.01E+00	3.39E+00	1.57E+00	4.95E-01	1.56E-01	4.92E-02	1.55E-02	4.89E-03
PM149	2.21E-03	1.73E-01	2.87E-01	3.63E-01	4.11E-01	4.62E-01	4.80E-01	4.71E-01	4.59E-01	4.41E-01	4.26E-01
PM150	1.93E-01	1.50E-01	1.16E-01	8.93E-02	6.91E-02	4.14E-02	1.92E-02	8.87E-03	4.11E-03	1.90E-03	8.81E-04
ND151	7.39E+01	2.31E+00	7.22E-02	2.26E-03	7.06E-05	6.89E-08	2.10E-12	6.43E-17	1.96E-21	5.97E-26	1.83E-30
PM151	4.68E-02	5.47E-01	5.51E-01	5.38E-01	5.24E-01	4.98E-01	4.62E-01	4.29E-01	3.99E-01	3.69E-01	3.43E-01
PM152	1.23E+02	1.20E-01	1.17E-04	1.15E-07	1.12E-10	1.07E-16	9.95E-26	9.28E-35	8.65E-44	8.08E-53	7.51E-62
SM153	1.71E-01	1.68E-01	1.66E-01	1.64E-01	1.61E-01	1.57E-01	1.50E-01	1.43E-01	1.37E-01	1.31E-01	1.26E-01
SM155	1.16E+01	1.91E+00	3.12E-01	5.11E-02	8.38E-03	2.26E-04	9.95E-07	4.38E-09	1.93E-11	8.61E-14	2.11E-16
EU155	8.53E-06	2.43E-04	2.82E-04	2.88E-04	2.89E-04	2.89E-04	2.89E-04	2.89E-04	2.89E-04	2.89E-04	2.89E-04
SM156	2.31E-01	2.15E-01	1.99E-01	1.85E-01	1.72E-01	1.48E-01	1.19E-01	9.54E-02	7.65E-02	6.13E-02	4.90E-02
EU156	6.76E-04	1.10E-03	1.50E-03	1.87E-03	2.21E-03	2.81E-03	3.58E-03	4.14E-03	4.64E-03	5.00E-03	5.27E-03
EU157	3.72E-02	1.23E-01	1.18E-01	1.13E-01	1.07E-01	9.80E-02	8.56E-02	7.47E-02	6.51E-02	5.67E-02	4.94E-02
EU158	1.61E+00	6.53E-01	2.64E-01	1.07E-01	4.33E-02	7.08E-03	4.72E-04	3.13E-05	2.08E-06	1.38E-07	9.16E-09
EU159	1.93E+00	1.91E-01	1.90E-02	1.88E-03	1.87E-04	1.84E-06	1.80E-09	1.76E-12	1.71E-15	1.68E-18	1.64E-21
GD159	8.25E-03	3.62E-02	3.76E-02	3.65E-02	3.51E-02	3.25E-02	2.90E-02	2.58E-02	2.30E-02	2.05E-02	1.83E-02
TB161	1.13E-04	8.14E-04	8.08E-04	8.06E-04	8.03E-04	7.95E-04	7.87E-04	7.76E-04	7.66E-04	7.58E-04	7.47E-04
TOTAL	1.16E+04	2.31E+03	8.99E+02	5.44E+02	3.94E+02	2.59E+02	1.76E+02	1.33E+02	1.06E+02	8.70E+01	7.34E+01

MOTH  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.067E-12

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	1.01E-06	1.00E-06	9.86E-07	9.49E-07	8.89E-07	7.81E-07	6.85E-07	5.27E-07	2.76E-07	7.50E-08	2.04E-08	
NA 24	2.87E-03	9.46E-04	3.12E-04	1.12E-05	4.38E-08	6.69E-13	1.02E-17	2.38E-27	0.	0.	0.	
MN 54	5.54E-05	5.50E-05	5.50E-05	5.40E-05	5.35E-05	5.25E-05	5.15E-05	4.91E-05	4.38E-05	3.48E-05	2.78E-05	
FE 55	1.12E-04	1.12E-04	1.12E-04	1.11E-04	1.11E-04	1.10E-04	1.09E-04	1.08E-04	1.04E-04	9.66E-05	8.96E-05	
FE 59	2.37E-04	2.33E-04	2.29E-04	2.19E-04	2.03E-04	1.74E-04	1.49E-04	1.10E-04	5.09E-05	1.09E-05	2.33E-06	
CO 57	3.39E-06	3.39E-06	3.37E-06	3.37E-06	3.32E-06	3.22E-06	3.14E-06	2.99E-06	2.64E-06	2.04E-06	1.58E-06	
CO 58	3.52E-03	3.49E-03	3.45E-03	3.34E-03	3.20E-03	2.90E-03	2.63E-03	2.16E-03	1.33E-03	5.04E-04	1.90E-04	
CO 60	6.74E-05	6.74E-05	6.74E-05	6.74E-05	6.70E-05	6.70E-05	6.66E-05	6.62E-05	6.46E-05	6.26E-05	6.02E-05	
CU 64	1.68E+00	4.58E-01	1.25E-01	2.54E-03	3.81E-06	8.67E-12	1.96E-17	1.01E-28	0.	0.	0.	
CU 67	9.08E-06	6.92E-06	5.28E-06	2.35E-06	6.12E-07	4.13E-08	2.79E-09	1.26E-11	1.77E-17	0.	0.	
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
W185	5.07E-06	5.02E-06	4.93E-06	4.83E-06	4.62E-06	4.21E-06	3.84E-06	3.19E-06	2.01E-06	8.00E-07	3.18E-07	
W187	3.62E-03	1.80E-03	8.94E-04	1.12E-04	3.43E-06	3.27E-09	3.09E-12	2.79E-20	0.	0.	0.	
W188	2.62E-07	2.59E-07	2.56E-07	2.49E-07	2.37E-07	2.14E-07	1.94E-07	1.59E-07	9.63E-08	3.55E-08	1.31E-08	
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	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
U237	3.45E-02	3.11E-02	2.81E-02	2.07E-02	1.23E-02	4.42E-03	1.59E-03	2.03E-04	1.20E-06	1.29E-10	8.68E-11	
U240	4.12E-02	1.27E-02	3.89E-03	1.13E-04	3.10E-07	2.33E-12	1.75E-17	9.89E-28	0.	0.	0.	
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
NP239	1.59E-03	2.43E+00	1.81E+00	7.47E-01	1.71E-01	8.94E-03	4.68E-04	1.28E-06	5.05E-13	1.21E-22	1.21E-22	
NP240M	6.52E-05	1.28E-02	3.93E-03	1.14E-04	3.12E-07	2.35E-12	1.77E-17	9.97E-28	0.	0.	0.	
*AM241	7.80E-08	7.80E-08	7.80E-08	7.80E-08	7.80E-08	7.80E-08	7.80E-08	7.80E-08	7.80E-08	7.80E-08	7.80E-08	
*CM242	6.51E-07	6.48E-07	6.44E-07	6.38E-07	6.24E-07	5.97E-07	5.73E-07	5.26E-07	4.28E-07	2.79E-07	1.82E-07	
GE 77	6.61E-03	4.16E-03	9.53E-04	1.15E-05	7.32E-09	2.96E-15	1.20E-21	1.95E-34	0.	0.	0.	
AS 77	6.84E-05	1.01E-02	7.30E-03	2.11E-03	2.47E-04	3.36E-06	4.56E-08	8.40E-12	3.90E-21	8.35E-40	1.79E-58	
SE 77M	2.69E-09	3.04E-05	2.19E-05	6.35E-06	7.40E-07	1.01E-08	1.37E-10	2.52E-14	1.17E-23	2.50E-42	5.39E-61	
AS 78	1.93E-02	1.72E-04	5.04E-09	4.26E-23	0.	0.	0.	0.	0.	0.	0.	
BR 82	4.68E-04	2.92E-04	1.82E-04	4.43E-05	4.20E-06	3.77E-08	3.39E-10	2.73E-14	1.60E-24	5.48E-45	1.87E-65	
BR 83	3.39E-01	8.92E-03	8.97E-06	9.11E-15	9.31E-30	0.	0.	0.	0.	0.	0.	
KR 83M	1.75E-05	3.90E-02	4.43E-05	3.98E-14	4.09E-29	0.	0.	0.	0.	0.	0.	
KR 85M	3.35E-03	1.91E-01	4.36E-03	5.17E-08	3.19E-16	1.21E-32	4.59E-49	0.	0.	0.	0.	
KR 85	9.46E-06	9.10E-05	9.27E-05	9.27E-05	9.27E-05	9.27E-05	9.27E-05	9.23E-05	9.14E-05	8.96E-05	8.83E-05	
KR 87	5.57E+01	1.10E-04	2.18E-10	1.69E-27	0.	0.	0.	0.	0.	0.	0.	
KR 88	3.02E+01	7.94E-02	2.08E-04	3.78E-12	4.76E-25	0.	0.	0.	0.	0.	0.	
RB 88	7.67E+00	8.85E-02	2.33E-04	4.23E-12	5.31E-25	0.	0.	0.	0.	0.	0.	
SR 89	2.96E-06	8.88E-02	8.75E-02	8.40E-02	7.89E-02	6.89E-02	6.02E-02	4.64E-02	2.37E-02	6.24E-03	1.65E-03	
SR 90	5.89E-06	6.05E-04	6.05E-04	6.05E-04	6.05E-04	6.05E-04	6.05E-04	6.05E-04	5.99E-04	5.99E-04	5.94E-04	
Y 90	8.72E-12	1.39E-04	2.45E-04	4.41E-04	5.62E-04	5.99E-04	6.05E-04	6.05E-04	5.99E-04	5.99E-04	5.94E-04	
SR 91	7.25E-01	2.59E+00	4.65E-01	2.67E-03	4.88E-07	1.65E-14	5.61E-22	6.38E-37	0.	0.	0.	

B-8

MOETH MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.067E-12

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	4.88E-05	1.68E+00	3.00E-01	1.72E-03	3.16E-07	1.07E-14	3.61E-22	4.12E-37	0.	0.	0.	0.
Y 91	2.00E-08	7.98E-02	9.43E-02	9.43E-02	8.89E-02	7.88E-02	7.02E-02	5.56E-02	3.08E-02	9.48E-03	2.91E-03	0.
SR 92	5.49E+00	6.85E-02	1.48E-04	1.48E-12	6.95E-26	0.	0.	0.	0.	0.	0.	0.
Y 92	2.53E-01	7.18E-01	7.97E-03	6.13E-09	3.58E-19	1.22E-39	4.19E-60	0.	0.	0.	0.	0.
Y 93	2.90E-01	1.96E+00	3.82E-01	2.87E-03	8.26E-07	6.83E-14	5.63E-21	3.85E-35	0.	0.	0.	0.
ZR 95	5.91E-04	7.39E-02	7.31E-02	7.07E-02	6.71E-02	6.01E-02	5.42E-02	4.38E-02	2.57E-02	8.84E-03	3.03E-03	0.
NB 95M	1.26E-11	2.50E-04	4.56E-04	8.71E-04	1.17E-03	1.24E-03	1.14E-03	9.28E-04	5.44E-04	1.87E-04	6.45E-05	0.
NB 95	6.58E-11	1.43E-03	2.82E-03	6.76E-03	1.26E-02	2.17E-02	2.80E-02	3.47E-02	3.34E-02	1.61E-02	6.17E-03	0.
ZR 97	1.51E+00	2.58E+00	9.70E-01	5.14E-02	3.86E-04	2.17E-08	1.22E-12	3.86E-21	2.18E-42	0.	0.	0.
NB 97M	7.80E-03	2.48E+00	9.31E-01	4.95E-02	3.70E-04	2.09E-08	1.17E-12	3.70E-21	2.09E-42	0.	0.	0.
NB 97	7.59E-01	2.59E+00	9.73E-01	5.16E-02	3.88E-04	2.34E-08	1.31E-12	4.17E-21	2.35E-42	0.	0.	0.
MC 99	4.92E-03	1.60E+00	1.25E+00	5.92E-01	1.71E-01	1.43E-02	1.19E-03	8.33E-06	3.38E-11	5.57E-22	9.18E-33	0.
TC 99M	4.57E-08	1.41E+00	1.18E+00	5.67E-01	1.63E-01	1.37E-02	1.14E-03	7.95E-06	3.23E-11	5.32E-22	8.77E-33	0.
RU103	1.15E-04	2.63E-01	2.58E-01	2.44E-01	2.24E-01	1.88E-01	1.58E-01	1.11E-01	4.64E-02	8.05E-03	1.40E-03	0.
RH103M	7.68E-09	2.63E-01	2.58E-01	2.45E-01	2.24E-01	1.88E-01	1.58E-01	1.11E-01	4.64E-02	8.05E-03	1.40E-03	0.
RU105	1.02E+00	9.80E-01	2.30E-02	3.03E-07	2.21E-15	1.18E-31	6.33E-48	0.	0.	0.	0.	0.
RH105M	6.74E-03	9.80E-01	2.31E-02	3.04E-07	2.22E-15	1.19E-31	6.35E-48	0.	0.	0.	0.	0.
RH105	1.11E-08	3.54E+00	2.31E+00	5.76E-01	5.68E-02	5.52E-04	5.36E-06	5.06E-10	4.39E-20	3.30E-40	2.48E-60	0.
RU106	9.51E-04	1.80E-02	1.79E-02	1.78E-02	1.77E-02	1.74E-02	1.70E-02	1.64E-02	1.49E-02	1.23E-02	1.02E-02	0.
RH106	1.03E-05	1.80E-02	1.79E-02	1.78E-02	1.77E-02	1.74E-02	1.70E-02	1.64E-02	1.49E-02	1.23E-02	1.02E-02	0.
PD109	1.70E-02	4.33E-01	1.26E-01	3.13E-03	6.59E-06	2.94E-11	1.31E-16	2.59E-27	0.	0.	0.	0.
AG109M	9.80E-05	4.33E-01	1.26E-01	3.13E-03	6.62E-06	2.94E-11	1.31E-16	2.59E-27	0.	0.	0.	0.
PD111M	2.02E+00	9.80E-02	4.76E-03	5.46E-07	1.48E-13	1.08E-26	7.91E-40	0.	0.	0.	0.	0.
PD111	7.19E-01	7.91E-02	3.83E-03	4.39E-07	1.19E-13	8.67E-27	6.35E-40	0.	0.	0.	0.	0.
AG111M	5.71E-03	1.03E-01	5.03E-02	5.78E-07	1.56E-13	1.15E-26	8.36E-40	0.	0.	0.	0.	0.
AG111	2.03E-09	5.61E-02	5.40E-02	4.11E-02	2.58E-02	1.02E-02	4.07E-03	6.41E-04	6.31E-06	6.11E-10	5.92E-14	0.
PD112	3.65E-01	1.66E-01	7.50E-02	6.96E-03	1.32E-04	4.81E-08	1.75E-11	2.29E-18	1.45E-35	0.	0.	0.
AG112M	1.10E-05	1.92E-01	8.84E-02	8.21E-03	1.57E-04	5.67E-08	2.06E-11	2.71E-18	1.70E-35	0.	0.	0.
AG113	2.84E-03	3.00E-02	1.30E-03	1.06E-07	1.61E-14	3.78E-28	8.83E-42	0.	0.	0.	0.	0.
CD115M	6.94E-09	2.01E-04	1.97E-04	1.88E-04	1.74E-04	1.48E-04	1.26E-04	9.10E-05	4.07E-05	8.09E-06	1.62E-06	0.
CD115	2.68E-06	4.04E-02	2.96E-02	1.17E-02	2.46E-03	1.10E-04	4.90E-06	9.77E-09	1.73E-15	5.41E-29	1.69E-42	0.
IN115M	3.34E-11	4.26E-02	3.23E-02	1.27E-02	2.68E-03	1.20E-04	5.34E-06	1.06E-08	1.89E-15	5.90E-29	1.85E-42	0.
CD117M	5.90E-02	1.29E-03	1.25E-06	1.17E-15	1.04E-30	0.	0.	0.	0.	0.	0.	0.
IN117M	2.83E-06	5.34E-03	6.18E-06	5.96E-15	5.30E-30	0.	0.	0.	0.	0.	0.	0.
IN117	1.14E-10	3.52E-03	4.17E-06	4.04E-15	3.58E-30	0.	0.	0.	0.	0.	0.	0.
SN121	1.21E-03	6.90E-02	3.73E-02	5.87E-03	2.69E-04	5.69E-07	1.20E-09	5.34E-15	2.23E-28	0.	0.	0.
SN123	6.75E-06	7.05E-04	6.99E-04	6.87E-04	6.68E-04	6.31E-04	5.99E-04	5.36E-04	4.06E-04	2.33E-04	1.34E-04	0.
SN125	1.95E-02	1.81E-02	1.68E-02	1.35E-02	9.30E-03	4.46E-03	2.13E-03	4.87E-04	1.22E-05	7.67E-09	4.81E-12	0.
SB125	1.17E-04	1.30E-04	1.42E-04	1.73E-04	2.12E-04	2.57E-04	2.77E-04	2.89E-04	2.83E-04	2.64E-04	2.47E-04	0.
SB126	3.54E-03	3.35E-03	3.17E-03	2.68E-03	2.03E-03	1.16E-03	6.71E-04	2.21E-04	1.38E-05	6.71E-08	1.35E-08	0.

MOTH  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.067E-12

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	4.01E+00	1.45E-03	5.27E-07	2.52E-17	1.58E-34	0.	0.	0.	0.	0.	0.	0.
SB127	4.67E-02	1.92E-01	1.61E-01	9.38E-02	3.84E-02	6.42E-03	1.07E-03	3.00E-05	3.91E-09	6.68E-17	1.14E-24	0.
TE127M	3.78E-10	2.93E-04	5.36E-04	1.04E-03	1.44E-03	1.59E-03	1.53E-03	1.35E-03	9.89E-04	5.22E-04	2.76E-04	0.
TE127	2.64E-02	1.37E-01	1.35E-01	8.22E-02	3.47E-02	7.13E-03	2.44E-03	1.37E-03	9.76E-04	5.16E-04	2.73E-04	0.
SB128	1.14E+00	1.95E-01	3.08E-02	1.20E-04	1.17E-08	1.09E-16	1.03E-24	9.07E-41	0.	0.	0.	0.
SB129	6.20E+00	3.17E-01	6.63E-03	6.03E-08	2.40E-16	3.79E-33	5.98E-50	0.	0.	0.	0.	0.
TE129M	1.17E-07	1.23E-02	1.23E-02	1.16E-02	1.05E-02	8.58E-03	6.97E-03	4.65E-03	1.67E-03	2.18E-04	2.84E-05	0.
TE129	4.46E+00	3.72E-01	1.55E-02	7.46E-03	6.73E-03	5.49E-03	4.48E-03	2.98E-03	1.07E-03	1.40E-04	1.82E-05	0.
I130	3.03E-02	7.91E-03	2.07E-03	3.70E-05	4.52E-08	6.73E-14	1.00E-19	2.23E-31	0.	0.	0.	0.
TE131M	1.16E-04	4.05E-01	2.32E-01	4.40E-02	2.75E-03	1.07E-05	4.20E-08	6.41E-13	5.82E-25	0.	0.	0.
TE131	1.07E+02	7.38E-02	4.24E-02	8.05E-03	5.02E-04	1.96E-06	7.65E-09	1.17E-13	1.07E-25	0.	0.	0.
I131	1.55E-02	8.35E-01	7.89E-01	6.34E-01	4.18E-01	1.76E-01	7.46E-02	1.33E-02	1.80E-04	3.28E-08	5.98E-12	0.
XE131M	4.20E-11	3.87E-04	7.35E-04	1.53E-03	2.19E-03	2.17E-03	1.61E-03	6.64E-04	4.43E-05	1.33E-07	3.74E-10	0.
TE132	1.12E+00	2.21E+00	1.79E+00	9.41E-01	3.24E-01	3.84E-02	4.55E-03	6.40E-05	1.50E-09	8.19E-19	4.47E-28	0.
I132	2.74E+00	2.28E+00	1.84E+00	9.68E-01	3.34E-01	3.96E-02	4.69E-03	6.59E-05	1.54E-09	8.39E-19	4.60E-28	0.
I133	1.16E+00	6.46E+00	2.91E+00	2.70E-01	5.16E-03	1.87E-06	6.78E-10	8.93E-17	5.61E-34	0.	0.	0.
XE133M	4.93E-08	6.10E-02	7.22E-02	4.24E-02	9.94E-03	4.67E-04	2.17E-05	4.71E-08	1.03E-14	4.93E-28	2.36E-41	0.
XE133	8.61E-07	1.17E+00	1.57E+00	1.41E+00	7.66E-01	2.07E-01	5.57E-02	4.01E-03	5.59E-06	1.08E-11	2.10E-17	0.
I135	1.96E+01	3.19E+00	2.67E-01	1.55E-04	6.30E-10	1.04E-20	1.71E-31	4.64E-53	0.	0.	0.	0.
XE135M	2.16E-03	9.95E-01	8.32E-02	4.84E-05	1.97E-10	3.24E-21	5.34E-32	1.45E-53	0.	0.	0.	0.
XE135	2.25E+00	8.60E+00	2.10E+00	1.20E-02	1.47E-06	2.07E-14	2.90E-22	5.74E-38	0.	0.	0.	0.
CS136	1.58E-02	1.49E-02	1.42E-02	1.21E-02	9.25E-03	5.43E-03	3.19E-03	1.10E-03	7.62E-05	3.67E-07	1.78E-09	0.
CS137	9.94E-05	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.06E-03	1.05E-03	0.
BA137M	2.09E-07	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	9.94E-04	9.88E-04	9.82E-04
BA139	1.38E+01	1.48E-03	8.73E-09	1.80E-24	0.	0.	0.	0.	0.	0.	0.	0.
BA140	1.07E-01	6.31E-01	6.01E-01	5.09E-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	3.54E-01	4.89E-01	4.35E-01	2.60E-01	1.51E-01	5.14E-02	3.42E-03	1.52E-05	6.77E-08	0.
LA141	1.50E+00	5.95E-01	8.34E-03	2.31E-08	1.26E-17	3.77E-36	1.12E-54	0.	0.	0.	0.	0.
CE141	1.85E-07	2.06E-01	2.04E-01	1.92E-01	1.72E-01	1.39E-01	1.12E-01	7.30E-02	2.51E-02	2.95E-03	3.48E-04	0.
LA142	7.59E+00	1.66E-03	3.22E-08	2.37E-22	0.	0.	0.	0.	0.	0.	0.	0.
CE143	4.66E-02	1.91E+00	1.16E+00	2.55E-01	2.05E-02	1.33E-04	8.58E-07	3.60E-11	4.06E-22	0.	0.	0.
PR143	1.36E-08	1.23E-01	1.91E-01	2.46E-01	2.11E-01	1.29E-01	7.76E-02	2.81E-02	2.24E-03	1.42E-05	9.04E-08	0.
CE144	1.79E-03	1.28E-02	1.27E-02	1.27E-02	1.25E-02	1.22E-02	1.19E-02	1.13E-02	1.00E-02	7.85E-03	6.17E-03	0.
PR144	4.91E-07	1.28E-02	1.27E-02	1.27E-02	1.25E-02	1.22E-02	1.19E-02	1.13E-02	1.00E-02	7.85E-03	6.17E-03	0.
PR145	7.64E-02	7.81E-01	4.83E-02	1.15E-05	1.04E-11	8.65E-24	7.17E-36	0.	0.	0.	0.	0.
ND147	9.76E-06	1.64E-01	1.54E-01	1.28E-01	9.35E-02	5.02E-02	2.68E-02	7.71E-03	3.38E-04	6.58E-07	1.28E-09	0.
PM147	2.71E-14	1.23E-04	2.38E-04	5.43E-04	9.38E-04	1.43E-03	1.69E-03	1.88E-03	1.90E-03	1.77E-03	1.65E-03	0.
ND149	1.59E+01	1.54E-03	1.49E-07	1.36E-19	1.16E-39	0.	0.	0.	0.	0.	0.	0.
PM149	2.21E-03	4.08E-01	2.99E-01	1.17E-01	2.44E-02	1.06E-03	4.62E-05	8.79E-08	1.39E-14	3.42E-28	8.52E-42	0.
PM150	1.93E-01	4.08E-04	8.60E-07	8.07E-15	3.38E-28	0.	0.	0.	0.	0.	0.	0.

MOTH  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.067E-12

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	4.68E-02	3.19E-01	1.76E-01	2.96E-02	1.52E-03	3.99E-06	1.05E-08	7.26E-14	9.10E-27	0.	0.	0.
SM153	1.71E-01	1.20E-01	8.43E-02	2.91E-02	4.95E-03	1.44E-04	4.18E-06	3.51E-09	7.25E-17	3.09E-32	1.31E-47	0.
SM156	2.31E-01	3.94E-02	6.73E-03	3.31E-05	4.77E-09	9.81E-17	2.02E-24	8.61E-40	0.	0.	0.	0.
EU155	8.53E-06	2.89E-04	2.89E-04	2.89E-04	2.88E-04	2.87E-04	2.85E-04	2.83E-04	2.78E-04	2.67E-04	2.56E-04	2.56E-04
EU156	6.76E-04	5.50E-03	6.10E-03	5.47E-03	4.34E-03	2.73E-03	1.72E-03	6.83E-04	6.76E-05	6.66E-07	6.56E-09	0.
EU157	3.72E-02	4.30E-02	1.45E-02	5.42E-04	2.28E-06	4.02E-11	7.11E-16	2.21E-25	0.	0.	0.	0.
GD159	8.25E-03	1.63E-02	6.47E-03	4.03E-04	3.97E-06	3.85E-10	3.73E-14	3.50E-22	2.99E-42	0.	0.	0.
TB161	1.13E-04	7.39E-04	6.67E-04	4.94E-04	2.99E-04	1.09E-04	4.00E-05	5.36E-06	3.55E-08	1.53E-12	6.67E-17	0.
TOTAL	2.98E+02	6.23E+01	2.76E+01	1.01E+01	4.71E+00	2.04E+00	1.27E+00	7.05E-01	3.04E-01	1.08E-01	5.63E-02	0.

MOTH MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.067E-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	1.01E-06	8.74E-09	8.13E-10	7.54E-11	6.07E-14	4.86E-17	3.63E-21	2.33E-27	0.	0.	0.
MN 54	5.54E-05	2.39E-05	1.58E-05	1.04E-05	2.96E-06	8.44E-07	1.59E-07	1.30E-08	3.05E-12	1.10E-17	3.99E-23
FE 59	2.37E-04	8.54E-07	5.12E-08	3.08E-09	6.69E-13	1.44E-16	1.88E-21	8.82E-29	0.	0.	0.
CO 57	3.39E-06	1.34E-06	8.37E-07	5.26E-07	1.30E-07	3.19E-08	4.93E-10	2.99E-10	2.62E-14	2.15E-20	0.
CO 58	3.52E-03	1.01E-04	1.71E-05	2.90E-06	1.41E-08	6.89E-11	5.68E-14	1.35E-18	5.15E-34	0.	0.
CO 60	6.74E-05	5.90E-05	5.50E-05	5.14E-05	4.23E-05	3.47E-05	2.67E-05	1.80E-05	4.82E-06	6.70E-07	9.25E-08
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	5.07E-06	1.74E-07	3.23E-08	5.97E-09	3.80E-11	2.43E-13	2.86E-16	1.16E-20	0.	0.	0.
W188	2.62E-07	6.81E-09	1.10E-09	1.77E-10	7.48E-13	3.13E-15	2.12E-18	3.75E-23	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	3.45E-02	8.61E-11	8.38E-11	8.16E-11	7.63E-11	7.09E-11	6.44E-11	5.59E-11	3.48E-11	1.71E-11	8.38E-12
*AM241	7.80E-08	7.80E-08	7.80E-08	7.80E-08	7.84E-08	7.88E-08	7.88E-08	7.91E-08	7.95E-08	7.88E-08	7.77E-08
*CM242	6.51E-07	1.38E-07	6.34E-08	2.92E-08	2.84E-09	2.77E-10	1.24E-11	1.17E-13	3.37E-18	3.14E-18	2.93E-18
KR 85	3.46E-06	8.60E-05	8.34E-05	8.07E-05	7.36E-05	6.64E-05	5.84E-05	4.82E-05	2.55E-05	9.72E-06	3.71E-06
SR 89	2.96E-06	6.93E-04	6.07E-05	5.33E-06	3.59E-09	2.42E-12	1.43E-16	6.50E-23	4.72E-44	0.	0.
SR 90	5.89E-06	5.89E-04	5.83E-04	5.78E-04	5.57E-04	5.35E-04	5.10E-04	4.73E-04	3.70E-04	2.55E-04	1.77E-04
Y 90	8.72E-12	5.89E-04	5.83E-04	5.78E-04	5.57E-04	5.35E-04	5.10E-04	4.73E-04	3.70E-04	2.55E-04	1.77E-04
Y 91	2.00E-08	1.35E-03	1.57E-04	1.82E-05	2.86E-08	4.48E-11	8.20E-15	2.01E-20	4.07E-39	0.	0.
ZR 95	5.91E-04	1.52E-03	2.17E-04	3.08E-05	8.99E-08	2.62E-10	1.08E-13	9.15E-19	1.12E-35	0.	0.
NB 95M	1.26E-11	3.21E-05	4.59E-06	6.56E-07	1.90E-09	5.55E-12	2.30E-15	1.94E-20	2.38E-37	0.	0.
NB 95	6.58E-11	3.26E-03	4.69E-04	6.69E-05	1.94E-07	5.62E-10	2.35E-13	1.98E-18	2.43E-35	0.	0.
RU103	1.15E-04	4.47E-04	1.83E-05	7.53E-07	5.14E-11	3.52E-15	9.89E-21	4.65E-29	0.	0.	0.
RH103M	7.68E-09	4.48E-04	1.83E-05	7.53E-07	5.15E-11	3.53E-15	9.89E-21	4.66E-29	0.	0.	0.
RU106	9.51E-04	9.04E-03	6.40E-03	4.54E-03	1.61E-03	5.73E-04	1.44E-04	1.82E-05	1.84E-08	5.92E-13	1.90E-17
RH106	1.03E-05	9.04E-03	6.40E-03	4.54E-03	1.61E-03	5.73E-04	1.44E-04	1.82E-05	1.84E-08	5.92E-13	1.90E-17
SN123	6.75E-06	9.34E-05	3.39E-05	1.23E-05	5.91E-07	2.83E-08	4.94E-10	1.14E-12	1.83E-21	1.18E-34	7.55E-48
SB125	1.17E-04	2.35E-04	2.07E-04	1.82E-04	1.24E-04	8.44E-05	5.04E-05	2.33E-05	1.79E-06	3.82E-08	8.13E-10
TE125M	3.15E-12	9.61E-05	8.54E-05	7.52E-05	5.13E-05	3.49E-05	2.09E-05	9.66E-06	7.42E-07	1.58E-08	3.36E-10
TE127M	3.78E-10	1.81E-04	5.66E-05	1.77E-05	5.45E-07	1.68E-08	1.61E-10	1.52E-13	1.25E-23	9.31E-39	6.94E-54
TE127	2.64E-02	1.79E-04	5.60E-05	1.75E-05	5.39E-07	1.66E-08	1.59E-10	1.50E-13	1.23E-23	9.18E-39	6.87E-54
CS137	9.94E-05	1.05E-03	1.04E-03	1.02E-03	9.88E-04	9.52E-04	9.10E-04	8.51E-04	6.72E-04	4.78E-04	3.37E-04
BA137M	2.09E-07	9.82E-04	9.70E-04	9.58E-04	9.22E-04	8.93E-04	8.51E-04	7.97E-04	6.31E-04	4.46E-04	3.16E-04
CE141	1.85E-07	8.00E-05	1.61E-06	3.23E-08	2.63E-13	2.14E-18	3.51E-25	2.33E-35	0.	0.	0.
CE144	1.79E-03	5.25E-03	3.38E-03	2.16E-03	5.66E-04	1.49E-04	2.50E-05	1.73E-06	2.32E-10	3.65E-16	5.68E-22
PR144	4.91E-07	5.25E-03	3.38E-03	2.16E-03	5.66E-04	1.49E-04	2.50E-05	1.73E-06	2.32E-10	3.65E-16	5.68E-22
PM147	2.71E-14	1.57E-03	1.38E-03	1.21E-03	8.11E-04	5.46E-04	3.20E-04	1.45E-04	1.03E-05	1.95E-07	3.69E-09
EU155	8.53E-06	2.50E-04	2.32E-04	2.16E-04	1.74E-04	1.39E-04	1.04E-04	6.72E-05	1.57E-05	1.77E-06	1.99E-07
TOTAL	6.85E-02	4.25E-02	2.59E-02	1.85E-02	8.66E-03	5.26E-03	3.70E-03	2.95E-03	2.10E-03	1.45E-03	1.01E-03

B-12

**APPENDIX C**  
**DETAILED RESULTS FOR EVENT TESLA**



TESLA  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 8.795E-13

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.27E+02	1.36E+04
1.00E+00	3.61E+01	2.57E+03
2.00E+00	1.40E+01	9.39E+02
3.00E+00	7.40E+00	5.50E+02
4.00E+00	4.57E+00	3.96E+02
6.00E+00	2.36E+00	2.63E+02
9.00E+00	1.38E+00	1.81E+02
1.20E+01	1.00E+00	1.39E+02
1.50E+01	7.82E-01	1.13E+02
1.80E+01	6.37E-01	9.40E+01
2.10E+01	5.32E-01	8.04E+01
1.00E+00 DAYS	4.48E-01	6.93E+01
2.00E+00	2.06E-01	3.34E+01
5.00E+00	8.31E-02	1.26E+01
1.00E+01	3.83E-02	5.26E+00
2.00E+01	1.51E-02	2.08E+00
3.00E+01	8.67E-03	1.28E+00
5.00E+01	3.99E-03	7.10E-01
1.00E+02	1.32E-03	3.05E-01
2.00E+02	4.27E-04	1.10E-01
3.00E+02	1.78E-04	5.91E-02
1.00E+00 YEARS	1.14E-04	4.56E-02
1.50E+00	5.06E-05	2.85E-02
2.00E+00	3.45E-05	2.04E-02
3.50E+00	1.85E-05	9.22E-03
5.00E+00	1.28E-05	5.30E-03
7.00E+00	1.00E-05	3.52E-03
1.00E+01	8.53E-06	2.71E-03
2.00E+01	6.36E-06	1.90E-03
3.50E+01	4.46E-06	1.31E-03
5.00E+01	3.14E-06	9.17E-04

C-2

TESLA MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 8.795E-13

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	5.49E-05	5.48E-05	5.48E-05	5.48E-05	5.48E-05	5.47E-05	5.46E-05	5.44E-05	5.44E-05	5.43E-05	5.42E-05
*NA 24	3.06E-03	2.92E-03	2.80E-03	2.67E-03	2.54E-03	2.32E-03	2.02E-03	1.76E-03	1.53E-03	1.34E-03	1.16E-03
MN 54	1.32E-04	1.32E-04	1.32E-04	1.32E-04	1.32E-04	1.32E-04	1.32E-04	1.31E-04	1.31E-04	1.31E-04	1.31E-04
FE 55	1.03E-04	1.03E-04	1.03E-04	1.03E-04	1.03E-04	1.03E-04	1.03E-04	1.03E-04	1.03E-04	1.03E-04	1.03E-04
FE 59	1.06E-04	1.06E-04	1.06E-04	1.06E-04	1.06E-04	1.06E-04	1.06E-04	1.06E-04	1.05E-04	1.05E-04	1.05E-04
CO 57	4.16E-07	4.16E-07	4.16E-07	4.16E-07	4.16E-07	4.16E-07	4.16E-07	4.16E-07	4.16E-07	4.16E-07	4.16E-07
CO 58	3.33E-05	3.33E-05	3.33E-05	3.33E-05	3.32E-05	3.32E-05	3.31E-05	3.31E-05	3.31E-05	3.31E-05	3.30E-05
CO 60	2.65E-05	2.65E-05	2.65E-05	2.65E-05	2.65E-05	2.65E-05	2.65E-05	2.65E-05	2.65E-05	2.65E-05	2.65E-05
*CU 64	6.85E-01	6.48E-01	6.14E-01	5.83E-01	5.51E-01	4.95E-01	4.20E-01	3.57E-01	3.04E-01	2.59E-01	2.20E-01
*CU 67	1.08E-05	1.07E-05	1.05E-05	1.04E-05	1.03E-05	1.01E-05	9.70E-06	9.42E-06	9.12E-06	8.77E-06	8.52E-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	5.41E-05	5.34E-05	5.26E-05	5.19E-05	5.11E-05	5.00E-05	4.81E-05	4.62E-05	4.43E-05	4.24E-05	4.09E-05
U237	8.60E-02	8.56E-02	8.53E-02	8.49E-02	8.45E-02	8.38E-02	8.26E-02	8.17E-02	8.06E-02	7.95E-02	7.85E-02
U239	1.87E+03	3.19E+02	5.45E+01	9.28E+00	1.58E+00	4.59E-02	2.28E-04	1.12E-06	5.56E-09	2.75E-11	1.36E-13
U240	3.08E-02	2.93E-02	2.79E-02	2.66E-02	2.53E-02	2.29E-02	1.98E-02	1.70E-02	1.47E-02	1.27E-02	1.09E-02
NP239	6.40E-03	1.07E+01	1.24E+01	1.26E+01	1.25E+01	1.22E+01	1.17E+01	1.13E+01	1.09E+01	1.05E+01	1.01E+01
NP240M	4.87E-05	2.94E-02	2.82E-02	2.68E-02	2.55E-02	2.31E-02	2.00E-02	1.72E-02	1.48E-02	1.28E-02	1.11E-02
NP240	1.23E-12	6.34E-13	3.29E-13	1.70E-13	8.79E-14	2.35E-14	3.24E-15	4.47E-16	6.17E-17	8.49E-18	1.18E-18
AM241	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07
CM242	3.98E-06	3.98E-06	3.98E-06	3.98E-06	3.98E-06	3.98E-06	3.96E-06	3.96E-06	3.96E-06	3.96E-06	3.96E-06
GE 75	8.46E-06	4.10E-02	2.47E-02	1.49E-02	8.95E-03	3.25E-03	7.09E-04	1.55E-04	3.39E-05	7.39E-06	1.62E-06
GE 77	7.16E-03	1.84E-02	1.73E-02	1.63E-02	1.53E-02	1.36E-02	1.13E-02	9.38E-03	7.82E-03	6.49E-03	5.41E-03
AS 77	7.39E-05	1.17E-02	1.18E-02	1.19E-02	1.20E-02	1.21E-02	1.21E-02	1.20E-02	1.18E-02	1.16E-02	1.13E-02
SE 77M	2.92E-09	3.50E-05	3.55E-05	3.58E-05	3.58E-05	3.60E-05	3.63E-05	3.60E-05	3.55E-05	3.47E-05	3.37E-05
GE 78	1.19E+00	7.41E-01	4.61E-01	2.88E-01	1.80E-01	7.00E-02	1.70E-02	4.12E-03	1.00E-03	2.44E-04	5.93E-05
AS 78	2.13E-02	3.54E-01	4.36E-01	4.09E-01	3.42E-01	2.02E-01	7.49E-02	2.49E-02	7.70E-03	2.30E-03	6.67E-04
AS 79	2.08E+01	2.05E-01	2.02E-03	1.99E-05	1.96E-07	1.90E-11	1.81E-17	1.73E-23	1.65E-29	1.57E-35	1.50E-41
SE 79M	3.09E-02	3.62E-01	3.58E-03	3.52E-05	3.47E-07	3.35E-11	3.20E-17	3.05E-23	2.91E-29	2.78E-35	2.65E-41
BR 80	1.14E-01	1.07E-02	1.01E-03	9.47E-05	8.92E-06	7.91E-08	6.62E-11	5.52E-14	4.60E-17	3.84E-20	3.20E-23
SE 81M	8.63E-02	4.03E+00	1.94E+00	9.34E-01	4.49E-01	1.05E-01	1.17E-02	1.32E-03	1.48E-04	1.66E-05	1.86E-06
SE 81	1.05E+00	4.76E+00	2.75E+00	1.37E+00	6.67E-01	1.56E-01	1.74E-02	1.95E-03	2.19E-04	2.46E-05	2.75E-06
BR 82	4.38E-04	4.29E-04	4.21E-04	4.13E-04	4.05E-04	3.89E-04	3.67E-04	3.46E-04	3.26E-04	3.07E-04	2.90E-04
SE 83	3.73E+01	7.07E+00	1.34E+00	2.54E-01	4.80E-02	1.73E-03	1.17E-05	7.99E-08	5.46E-10	3.70E-12	2.35E-14
BR 83	3.10E-01	4.63E+00	4.28E+00	3.37E+00	2.56E+00	1.44E+00	6.11E-01	2.57E-01	1.09E-01	4.58E-02	1.93E-02
KR 83M	1.60E-05	1.05E+00	2.14E+00	2.66E+00	2.74E+00	2.29E+00	1.35E+00	6.94E-01	3.34E-01	1.55E-01	6.94E-02

C-3

TESLA MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 8.795E-13

DEBRIS DECAY FROM 1 TO 21 HOURS

C-4

	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	7.09E-02	1.22E+01	3.31E+00	8.96E-01	2.42E-01	1.77E-02	3.50E-04	6.90E-06	1.37E-07	2.70E-09	5.34E-11	
KR 85M	2.55E-03	5.47E+00	4.65E+00	3.97E+00	3.39E+00	2.48E+00	1.54E+00	9.64E-01	6.01E-01	3.73E-01	2.33E-01	
KR 87	4.06E+01	2.34E+01	1.36E+01	7.83E+00	4.52E+00	1.52E+00	2.94E-01	5.70E-02	1.10E-02	2.14E-03	4.13E-04	
KR 88	2.10E+01	1.64E+01	1.28E+01	9.97E+00	7.79E+00	4.73E+00	2.26E+00	1.08E+00	5.11E-01	2.44E-01	1.16E-01	
RB 88	5.33E+00	1.66E+01	1.41E+01	1.11E+01	8.71E+00	5.30E+00	2.53E+00	1.21E+00	5.74E-01	2.73E-01	1.30E-01	
RB 89	2.88E+01	2.70E+01	1.82E+00	1.22E-01	8.25E-03	3.70E-05	1.12E-08	3.38E-12	1.03E-15	3.12E-19	9.47E-23	
SR 89	2.20E-06	7.73E-02	8.25E-02	8.25E-02	8.25E-02	8.25E-02	8.25E-02	8.21E-02	8.21E-02	8.18E-02	8.18E-02	
SR 90	4.30E-06	4.42E-04	4.42E-04	4.42E-04	4.42E-04	4.42E-04	4.42E-04	4.42E-04	4.42E-04	4.42E-04	4.42E-04	
SR 91	5.57E-01	1.04E+01	9.66E+00	9.00E+00	8.37E+00	7.25E+00	5.85E+00	4.73E+00	3.82E+00	3.06E+00	2.47E+00	
Y 91M	3.75E-05	3.57E+00	4.87E+00	5.22E+00	5.15E+00	4.62E+00	3.78E+00	3.04E+00	2.45E+00	1.98E+00	1.60E+00	
Y 91	1.53E-08	3.18E-03	7.32E-03	1.17E-02	1.60E-02	2.39E-02	3.40E-02	4.20E-02	4.87E-02	5.39E-02	5.81E-02	
SR 92	4.40E+00	1.96E+01	1.52E+01	1.18E+01	9.12E+00	5.46E+00	2.54E+00	1.18E+00	5.46E-01	2.54E-01	1.18E-01	
Y 92	2.03E-01	4.13E+00	6.48E+00	7.71E+00	8.18E+00	7.79E+00	5.97E+00	4.07E+00	2.62E+00	1.61E+00	9.72E-01	
SR 93	2.05E+02	3.53E+00	1.95E-02	1.08E-04	5.94E-07	1.82E-11	3.06E-18	5.17E-25	8.73E-32	1.47E-38	2.48E-45	
Y 93	2.50E-01	8.10E+00	7.60E+00	7.11E+00	6.64E+00	5.80E+00	4.73E+00	3.86E+00	3.14E+00	2.57E+00	2.09E+00	
Y 94	3.08E+01	4.21E+01	5.41E+00	6.98E-01	9.01E-02	1.50E-03	3.21E-06	6.88E-09	1.47E-11	3.21E-14	1.78E-15	
Y 95	1.42E+02	1.34E+01	2.95E-01	6.51E-03	1.43E-04	6.96E-08	7.45E-13	7.96E-18	8.50E-23	9.09E-28	9.72E-33	
ZR 95	5.34E-04	6.98E-02	7.12E-02	7.12E-02	7.12E-02	7.12E-02	7.12E-02	7.10E-02	7.10E-02	7.07E-02	7.07E-02	
NB 95	5.95E-11	4.31E-05	1.00E-04	1.58E-04	2.15E-04	3.30E-04	5.01E-04	6.75E-04	8.43E-04	1.01E-03	1.18E-03	
ZR 97	1.44E+00	6.28E+00	6.01E+00	5.79E+00	5.54E+00	5.12E+00	4.52E+00	4.00E+00	3.55E+00	3.13E+00	2.78E+00	
NB 97M	7.43E-03	6.04E+00	5.79E+00	5.56E+00	5.34E+00	4.92E+00	4.35E+00	3.85E+00	3.40E+00	3.01E+00	2.66E+00	
NB 97	7.23E-01	3.15E+00	4.45E+00	5.07E+00	5.32E+00	5.29E+00	4.82E+00	4.30E+00	3.80E+00	3.35E+00	2.98E+00	
NB 98	8.64E+00	3.83E+00	1.69E+00	7.48E-01	3.32E-01	6.49E-02	5.61E-03	4.85E-04	4.22E-05	3.66E-06	3.15E-07	
MO 99	4.91E-03	2.03E+00	2.00E+00	1.98E+00	1.96E+00	1.92E+00	1.87E+00	1.81E+00	1.75E+00	1.70E+00	1.65E+00	
TC 99M	4.56E-08	1.93E-01	3.63E-01	5.13E-01	6.44E-01	8.59E-01	1.09E+00	1.24E+00	1.33E+00	1.38E+00	1.40E+00	
MO 101	1.68E+02	7.59E+01	4.41E+00	2.55E-01	1.48E-02	4.97E-05	9.65E-09	1.88E-12	3.65E-16	7.10E-20	1.38E-23	
TC 101	7.10E+00	2.13E+02	2.33E+01	1.91E+00	1.39E-01	6.27E-04	1.57E-07	3.51E-11	7.45E-15	1.53E-18	3.10E-22	
MO 102	1.61E+03	3.67E+01	8.34E-01	1.91E-02	4.35E-04	2.26E-07	2.69E-12	3.18E-17	3.77E-22	4.48E-27	5.32E-32	
TC 102M	1.03E+00	3.10E+01	7.10E-01	1.62E-02	3.70E-04	1.91E-07	2.27E-12	2.69E-17	3.19E-22	3.79E-27	4.50E-32	
TC 102	4.84E+03	1.84E+01	4.21E-01	9.57E-03	2.19E-04	1.14E-07	1.35E-12	1.61E-17	1.91E-22	2.26E-27	2.68E-32	
RU 103	1.36E-04	3.16E-01	3.15E-01	3.15E-01	3.15E-01	3.14E-01	3.13E-01	3.13E-01	3.13E-01	3.12E-01	3.11E-01	
RH 103M	9.08E-09	1.63E-01	2.42E-01	2.80E-01	2.99E-01	3.11E-01	3.13E-01	3.13E-01	3.13E-01	3.12E-01	3.12E-01	
TC 104	1.32E+02	9.52E+01	9.52E+00	9.42E-01	9.32E-02	9.18E-04	8.97E-07	8.76E-10	8.55E-13	8.36E-16	8.16E-19	
RU 105	1.29E+00	4.47E+01	3.82E+01	3.27E+01	2.80E+01	2.04E+01	1.28E+01	8.01E+00	5.01E+00	3.14E+00	1.97E+00	
RH 105M	8.49E-03	4.48E+01	3.83E+01	3.28E+01	2.80E+01	2.05E+01	1.28E+01	8.04E+00	5.03E+00	3.15E+00	1.97E+00	
RH 105	1.39E-08	9.08E-01	1.69E+00	2.33E+00	2.86E+00	3.67E+00	4.38E+00	4.71E+00	4.81E+00	4.76E+00	4.64E+00	
RU 106	1.22E-03	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	
RH 106	1.33E-05	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	
RH 107	4.01E-01	5.44E+01	8.25E+00	1.24E+00	1.87E-01	4.27E-03	1.47E-05	5.08E-08	1.75E-10	5.98E-14	5.95E-17	
PD 107M	8.32E-04	1.11E+01	1.67E+00	2.53E-01	3.81E-02	8.70E-04	3.00E-06	1.03E-08	3.55E-11	1.23E-13	4.18E-16	

TESLA MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 8.795E-13

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	2.29E-02	1.90E+00	1.80E+00	1.71E+00	1.62E+00	1.46E+00	1.26E+00	1.08E+00	9.25E-01	7.92E-01	6.81E-01	6.81E-01
AG109M	1.32E-04	1.90E+00	1.80E+00	1.71E+00	1.63E+00	1.47E+00	1.26E+00	1.08E+00	9.25E-01	7.92E-01	6.81E-01	6.81E-01
PD111M	2.66E+00	2.34E+00	2.06E+00	1.82E+00	1.61E+00	1.25E+00	8.54E-01	5.86E-01	4.01E-01	2.75E-01	1.88E-01	1.88E-01
PD111	9.45E-01	1.70E+00	1.64E+00	1.46E+00	1.29E+00	1.00E+00	6.87E-01	4.71E-01	3.22E-01	2.21E-01	1.52E-01	1.52E-01
AG111M	7.51E-03	2.30E+00	2.16E+00	1.93E+00	1.70E+00	1.32E+00	9.01E-01	6.17E-01	4.23E-01	2.90E-01	1.98E-01	1.98E-01
AG111	2.68E-09	7.93E-03	1.66E-02	2.45E-02	3.14E-02	4.28E-02	5.50E-02	6.30E-02	6.83E-02	7.15E-02	7.35E-02	7.35E-02
PD112	4.78E-01	4.64E-01	4.48E-01	4.33E-01	4.20E-01	3.92E-01	3.56E-01	3.22E-01	2.92E-01	2.64E-01	2.39E-01	2.39E-01
AG112	1.44E-05	9.17E-02	1.62E-01	2.17E-01	2.58E-01	3.09E-01	3.40E-01	3.38E-01	3.22E-01	3.00E-01	2.77E-01	2.77E-01
AG113	3.56E-03	7.62E-01	6.68E-01	5.87E-01	5.15E-01	3.96E-01	2.68E-01	1.81E-01	1.22E-01	8.24E-02	5.58E-02	5.58E-02
AG115	1.00E+00	1.08E+00	1.34E-01	1.67E-02	2.10E-03	3.27E-05	6.40E-08	1.25E-10	2.42E-13	2.41E-16	2.23E-16	2.23E-16
CD115M	8.21E-09	2.18E-04	2.45E-04	2.49E-04	2.49E-04	2.49E-04	2.48E-04	2.48E-04	2.47E-04	2.46E-04	2.46E-04	2.46E-04
CD115	3.17E-06	5.98E-02	6.43E-02	6.41E-02	6.33E-02	6.18E-02	5.94E-02	5.71E-02	5.50E-02	5.29E-02	5.08E-02	5.08E-02
IN115M	3.95E-11	6.60E-03	1.47E-02	2.18E-02	2.77E-02	3.70E-02	4.57E-02	5.03E-02	5.24E-02	5.29E-02	5.25E-02	5.25E-02
CD117	6.95E-02	1.16E+00	8.71E-01	6.51E-01	4.88E-01	2.74E-01	1.15E-01	4.84E-02	2.04E-02	8.55E-03	3.60E-03	3.60E-03
IN117M	3.34E-06	4.02E-01	5.82E-01	6.32E-01	6.11E-01	4.81E-01	2.75E-01	1.41E-01	6.77E-02	3.13E-02	1.42E-02	1.42E-02
IN117	1.34E-10	7.34E-02	1.78E-01	2.47E-01	2.75E-01	2.53E-01	1.61E-01	8.63E-02	4.29E-02	2.02E-02	9.28E-03	9.28E-03
CD118	4.52E+00	1.94E+00	8.31E-01	3.54E-01	1.52E-01	2.77E-02	2.18E-03	1.70E-04	1.34E-05	1.05E-06	8.23E-08	8.23E-08
IN118	2.99E-01	1.94E+00	8.31E-01	3.55E-01	1.52E-01	2.78E-02	2.18E-03	1.71E-04	1.34E-05	1.05E-06	8.23E-08	8.23E-08
CD119	1.13E+01	1.77E-01	2.75E-03	4.31E-05	6.73E-07	1.65E-10	6.28E-16	2.40E-21	9.12E-27	3.49E-32	1.33E-37	1.33E-37
IN119M	1.71E-02	1.91E+00	2.08E-01	2.10E-02	2.09E-03	2.05E-05	2.00E-08	1.96E-11	1.91E-14	1.87E-17	1.82E-20	1.82E-20
IN119	8.41E-01	1.01E-01	1.17E-02	1.18E-03	1.18E-04	1.16E-06	1.13E-09	1.11E-12	1.08E-15	1.06E-18	1.03E-21	1.03E-21
SN121	1.43E-03	1.47E-01	1.43E-01	1.40E-01	1.36E-01	1.29E-01	1.19E-01	1.11E-01	1.03E-01	9.50E-02	8.83E-02	8.83E-02
SN123M	8.56E-01	1.60E+00	5.68E-01	2.01E-01	7.09E-02	8.86E-03	3.92E-04	1.73E-05	7.68E-07	3.39E-08	1.50E-09	1.50E-09
SN123	8.04E-06	8.41E-04	8.41E-04	8.41E-04	8.41E-04	8.41E-04	8.41E-04	8.41E-04	8.41E-04	8.41E-04	8.41E-04	8.41E-04
SN125	2.33E-02	2.32E-02	2.31E-02	2.31E-02	2.29E-02	2.28E-02	2.26E-02	2.24E-02	2.22E-02	2.20E-02	2.18E-02	2.18E-02
SB125	1.40E-04	1.40E-04	1.41E-04	1.41E-04	1.42E-04	1.43E-04	1.46E-04	1.48E-04	1.49E-04	1.51E-04	1.53E-04	1.53E-04
SB126	4.14E-03	4.13E-03	4.12E-03	4.12E-03	4.10E-03	4.08E-03	4.06E-03	4.03E-03	4.00E-03	3.97E-03	3.95E-03	3.95E-03
SN127	4.19E+00	3.01E+00	2.16E+00	1.56E+00	1.12E+00	5.78E-01	2.15E-01	7.99E-02	2.96E-02	1.10E-02	4.09E-03	4.09E-03
SB127	4.89E-02	1.68E-01	1.87E-01	1.99E-01	2.07E-01	2.16E-01	2.20E-01	2.18E-01	2.14E-01	2.09E-01	2.05E-01	2.05E-01
TE127	2.76E-02	3.44E-02	4.18E-02	4.95E-02	5.73E-02	7.18E-02	9.20E-02	1.07E-01	1.19E-01	1.29E-01	1.35E-01	1.35E-01
SN128	2.86E+01	1.41E+01	6.98E+00	3.45E+00	1.70E+00	4.16E-01	5.02E-02	6.06E-03	7.31E-04	8.86E-05	1.07E-05	1.07E-05
SB128M	1.45E-02	1.61E+01	8.33E+00	4.11E+00	2.03E+00	4.97E-01	5.98E-02	7.23E-03	8.71E-04	1.05E-04	1.27E-05	1.27E-05
SB128	1.20E+00	1.16E+00	1.09E+00	1.02E+00	9.54E-01	8.18E-01	6.53E-01	5.18E-01	4.11E-01	3.26E-01	2.59E-01	2.59E-01
SN129M	1.71E+01	8.50E+00	4.26E+00	2.13E+00	1.07E+00	2.67E-01	3.34E-02	4.17E-03	5.21E-04	6.51E-05	8.14E-06	8.14E-06
SN129	1.14E+02	1.12E+00	1.10E-02	1.09E-04	1.07E-06	1.04E-10	9.87E-17	9.44E-23	9.01E-29	8.57E-35	8.21E-41	8.21E-41
SB129	6.40E+00	1.07E+01	1.01E+01	9.01E+00	7.92E+00	5.89E+00	3.67E+00	2.27E+00	1.40E+00	8.64E-01	5.32E-01	5.32E-01
TE129M	1.21E-07	1.34E-03	2.76E-03	4.06E-03	5.21E-03	7.06E-03	8.93E-03	1.01E-02	1.08E-02	1.12E-02	1.15E-02	1.15E-02
TE129	4.61E+00	6.34E+00	7.42E+00	7.71E+00	7.42E+00	6.15E+00	4.09E+00	2.58E+00	1.61E+00	9.94E-01	6.17E-01	6.17E-01
SB130M	6.71E-01	1.27E+00	3.33E-03	8.74E-06	2.30E-08	1.59E-13	2.89E-21	5.26E-29	9.54E-37	1.73E-44	3.15E-52	3.15E-52
SB130	1.15E+02	3.48E+01	9.90E+00	2.80E+00	7.94E-01	6.39E-02	1.46E-03	3.32E-05	7.57E-07	1.73E-08	3.94E-10	3.94E-10

C-5

TESLA MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 8.795E-13

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	3.20E-02	3.03E-02	2.87E-02	2.71E-02	2.56E-02	2.29E-02	1.94E-02	1.64E-02	1.38E-02	1.17E-02	9.90E-03
SB131	2.53E+02	6.61E+01	1.08E+01	1.77E+00	2.91E-01	7.83E-03	3.45E-05	1.52E-07	6.70E-10	2.96E-12	1.47E-14
TE131M	1.22E-04	6.36E-01	7.26E-01	7.27E-01	7.13E-01	6.82E-01	6.36E-01	5.93E-01	5.53E-01	5.16E-01	4.82E-01
TE131	1.12E+02	1.22E+02	3.96E+01	1.03E+01	2.51E+00	2.35E-01	1.17E-01	1.08E-01	1.01E-01	9.43E-02	8.78E-02
I131	1.63E-02	5.64E-01	8.30E-01	9.10E-01	9.27E-01	9.35E-01	9.35E-01	9.27E-01	9.27E-01	9.18E-01	9.18E-01
TE132	1.12E+00	2.73E+00	2.70E+00	2.68E+00	2.65E+00	2.61E+00	2.54E+00	2.47E+00	2.41E+00	2.34E+00	2.28E+00
I132	2.76E+00	2.75E+00	2.74E+00	2.73E+00	2.71E+00	2.67E+00	2.61E+00	2.54E+00	2.48E+00	2.41E+00	2.35E+00
TE133M	1.31E-01	4.54E+01	1.98E+01	8.61E+00	3.74E+00	7.11E-01	5.85E-02	4.83E-03	3.98E-04	3.28E-05	2.71E-06
TE133	7.36E+02	4.17E+01	4.64E+00	1.53E+00	6.49E-01	1.23E-01	1.02E-02	8.36E-04	6.92E-05	5.70E-06	4.70E-07
I133	1.14E+00	1.23E+01	1.33E+01	1.33E+01	1.30E+01	1.24E+01	1.12E+01	1.02E+01	9.17E+00	8.36E+00	7.55E+00
XE133M	4.86E-08	2.76E-03	6.67E-03	1.07E-02	1.45E-02	2.18E-02	3.16E-02	4.01E-02	4.73E-02	5.35E-02	5.86E-02
XE133	8.48E-07	4.83E-02	1.17E-01	1.87E-01	2.57E-01	3.89E-01	5.71E-01	7.30E-01	8.73E-01	9.98E-01	1.11E+00
TE134	2.42E+02	1.12E+02	4.17E+01	1.55E+01	5.75E+00	7.98E-01	4.08E-02	2.09E-03	1.07E-04	5.49E-06	2.82E-07
I134	1.11E+02	1.48E+02	1.04E+02	6.08E+01	3.27E+01	8.29E+00	9.12E-01	9.31E-02	9.12E-03	8.74E-04	8.29E-05
I135	1.93E+01	3.41E+01	3.07E+01	2.77E+01	2.50E+01	2.03E+01	1.49E+01	1.09E+01	8.00E+00	5.89E+00	4.30E+00
XE135M	2.14E-03	9.83E+00	9.56E+00	8.67E+00	7.78E+00	6.33E+00	4.65E+00	3.41E+00	2.50E+00	1.83E+00	1.34E+00
XE135	2.23E+00	4.41E+00	6.44E+00	8.11E+00	9.44E+00	1.13E+01	1.26E+01	1.26E+01	1.20E+01	1.09E+01	9.78E+00
CS136	2.07E-02	2.07E-02	2.06E-02	2.06E-02	2.05E-02	2.04E-02	2.03E-02	2.02E-02	2.00E-02	1.99E-02	1.98E-02
CS137	9.96E-05	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03
BA137M	2.10E-07	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03
XE138	6.17E+02	5.31E+01	4.62E+00	4.00E-01	3.46E-02	2.60E-04	1.69E-07	1.10E-10	7.13E-14	4.63E-17	3.01E-20
CS138	9.19E+01	1.55E+02	5.36E+01	1.57E+01	4.41E+00	3.36E-01	6.99E-03	1.45E-04	3.01E-06	6.27E-08	1.30E-09
CS139	7.60E+02	2.42E+01	3.04E-01	3.82E-03	4.79E-05	7.52E-09	1.50E-14	2.96E-20	5.86E-26	1.16E-31	2.29E-37
BA139	1.40E+01	1.56E+02	9.64E+01	5.86E+01	3.54E+01	1.30E+01	2.88E+00	6.40E-01	1.42E-01	3.15E-02	7.01E-03
BA140	1.02E-01	6.36E-01	6.36E-01	6.31E-01	6.31E-01	6.26E-01	6.26E-01	6.21E-01	6.16E-01	6.12E-01	6.07E-01
LA140	2.42E-07	1.09E-02	2.15E-02	3.20E-02	4.22E-02	6.21E-02	9.08E-02	1.17E-01	1.43E-01	1.66E-01	1.89E-01
BA141	1.54E+02	4.65E+01	4.62E+00	4.58E-01	4.54E-02	4.51E-04	4.40E-07	4.29E-10	4.18E-13	4.10E-16	3.99E-19
LA141	1.42E+00	3.01E+01	2.81E+01	2.38E+01	2.00E+01	1.40E+01	8.21E+00	4.80E+00	2.83E+00	1.66E+00	9.71E-01
CE141	1.76E-07	1.96E-02	4.58E-02	6.89E-02	8.83E-02	1.18E-01	1.47E-01	1.63E-01	1.73E-01	1.78E-01	1.81E-01
BA142	3.17E+02	1.26E+01	2.87E-01	6.56E-03	1.49E-04	7.77E-08	9.22E-13	1.09E-17	1.30E-22	1.54E-27	1.83E-32
LA142	7.28E+00	5.05E+01	3.33E+01	2.12E+01	1.35E+01	5.45E+00	1.41E+00	3.63E-01	9.35E-02	2.41E-02	6.21E-03
LA143	1.07E+02	2.08E+01	1.07E+00	5.48E-02	2.81E-03	7.37E-06	9.94E-10	1.34E-13	1.81E-17	2.44E-21	3.29E-25
CE143	4.26E-02	2.71E+00	2.81E+00	2.74E+00	2.69E+00	2.59E+00	2.43E+00	2.28E+00	2.14E+00	2.01E+00	1.89E+00
PR143	1.25E-08	4.16E-03	1.00E-02	1.59E-02	2.16E-02	3.26E-02	4.81E-02	6.28E-02	7.62E-02	8.89E-02	1.01E-01
CE144	1.61E-03	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02
PR144	4.41E-07	1.05E-02	1.14E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02	1.15E-02
PR145	7.20E-02	1.06E+01	9.41E+00	8.37E+00	7.47E+00	5.92E+00	4.17E+00	2.95E+00	2.09E+00	1.47E+00	1.04E+00
CE146	2.37E+02	1.21E+01	6.22E-01	3.18E-02	1.64E-03	4.31E-06	5.81E-10	7.82E-14	1.05E-17	1.42E-21	1.92E-25
PR146	4.89E+00	4.26E+01	9.65E+00	1.81E+00	3.26E-01	1.03E-02	5.67E-05	3.12E-07	1.73E-09	9.56E-12	5.22E-14
PR147	2.70E+01	7.82E+00	2.44E-01	7.62E-03	2.39E-04	2.33E-07	7.11E-12	2.17E-16	6.62E-21	2.02E-25	6.17E-30

TESLA MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 8.795E-13

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	9.65E-06	1.82E-01	1.87E-01	1.86E-01	1.86E-01	1.85E-01	1.84E-01	1.82E-01	1.81E-01	1.79E-01	1.78E-01
ND149	1.72E+01	1.17E+01	7.97E+00	5.43E+00	3.68E+00	1.71E+00	5.37E-01	1.69E-01	5.33E-02	1.68E-02	5.30E-03
PM149	2.40E-03	1.87E-07	3.11E-01	3.94E-01	4.46E-01	5.01E-01	5.20E-01	5.11E-01	4.98E-01	4.78E-01	4.62E-01
PM150	2.14E-01	1.66E-01	1.28E-01	9.91E-02	7.66E-02	4.60E-02	2.13E-02	9.84E-03	4.56E-03	2.11E-03	9.77E-04
ND151	8.68E+01	2.71E+00	8.49E-02	2.65E-03	8.29E-05	8.10E-08	2.47E-12	7.56E-17	2.30E-21	7.02E-26	2.15E-30
PM151	5.50E-02	6.43E-01	6.47E-01	6.32E-01	6.16E-01	5.85E-01	5.43E-01	5.04E-01	4.69E-01	4.34E-01	4.03E-01
PM152	1.46E+02	1.43E-01	1.39E-04	1.36E-07	1.33E-10	1.27E-16	1.18E-25	1.10E-34	1.03E-43	9.60E-53	8.92E-62
SM153	2.07E-01	2.04E-01	2.01E-01	1.98E-01	1.95E-01	1.90E-01	1.81E-01	1.73E-01	1.66E-01	1.59E-01	1.52E-01
SM155	1.46E+01	2.41E+00	3.94E-01	6.45E-02	1.06E-02	2.85E-04	1.26E-06	5.53E-09	2.44E-11	1.09E-13	2.67E-16
EU155	1.08E-05	3.07E-04	3.55E-04	3.63E-04	3.65E-04	3.65E-04	3.65E-04	3.65E-04	3.65E-04	3.65E-04	3.65E-04
SM156	3.04E-01	2.83E-01	2.63E-01	2.44E-01	2.26E-01	1.95E-01	1.57E-01	1.26E-01	1.01E-01	8.07E-02	6.45E-02
EU156	8.90E-04	1.45E-03	1.97E-03	2.46E-03	2.90E-03	3.70E-03	4.71E-03	5.45E-03	6.10E-03	6.58E-03	6.93E-03
EU157	4.81E-02	1.59E-01	1.52E-01	1.45E-01	1.39E-01	1.27E-01	1.11E-01	9.66E-02	8.42E-02	7.32E-02	6.39E-02
EU158	2.15E+00	8.71E-01	3.52E-01	1.43E-01	5.78E-02	9.46E-03	6.30E-04	4.18E-05	2.78E-06	1.84E-07	1.22E-08
EU159	2.57E+00	2.55E-01	2.53E-02	2.52E-03	2.49E-04	2.46E-06	2.40E-09	2.34E-12	2.29E-15	2.24E-18	2.19E-21
GD159	1.10E-02	4.83E-02	5.02E-02	4.87E-02	4.68E-02	4.34E-02	3.87E-02	3.45E-02	3.07E-02	2.73E-02	2.44E-02
TB161	1.53E-04	1.10E-03	1.09E-03	1.09E-03	1.08E-03	1.07E-03	1.06E-03	1.05E-03	1.03E-03	1.02E-03	1.01E-03
TOTAL	1.36E+04	2.57E+03	9.39E+02	5.50E+02	3.96E+02	2.63E+02	1.81E+02	1.39E+02	1.13E+02	9.40E+01	8.04E+01

TESLA MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 8.795E-13

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	5.49E-05	5.42E-05	5.34E-05	5.14E-05	4.82E-05	4.23E-05	3.72E-05	2.86E-05	1.50E-05	4.06E-06	1.11E-06
* NA 24	3.06E-03	1.01E-03	3.33E-04	1.19E-05	4.67E-08	7.14E-13	1.09E-17	2.54E-27	0.	0.	0.
MN 54	1.32E-04	1.31E-04	1.31E-04	1.29E-04	1.28E-04	1.25E-04	1.23E-04	1.17E-04	1.04E-04	8.31E-05	6.62E-05
FE 55	1.03E-04	1.03E-04	1.03E-04	1.03E-04	1.03E-04	1.02E-04	1.01E-04	9.98E-05	9.59E-05	8.95E-05	8.30E-05
FE 59	1.06E-04	1.05E-04	1.03E-04	9.86E-05	9.12E-05	7.83E-05	6.71E-05	4.93E-05	2.29E-05	4.88E-06	1.05E-06
CO 57	4.16E-07	4.16E-07	4.12E-07	4.12E-07	4.06E-07	3.94E-07	3.85E-07	3.66E-07	3.23E-07	2.50E-07	1.93E-07
CO 58	3.33E-05	3.30E-05	3.26E-05	3.16E-05	3.02E-05	2.74E-05	2.49E-05	2.05E-05	1.26E-05	4.76E-06	1.80E-06
CO 60	2.65E-05	2.65E-05	2.65E-05	2.65E-05	2.64E-05	2.64E-05	2.62E-05	2.61E-05	2.54E-05	2.46E-05	2.37E-05
* CU 64	6.85E-01	1.87E-01	5.09E-02	1.03E-03	1.55E-06	3.53E-12	7.99E-18	4.11E-29	0.	0.	0.
* CU 67	1.08E-05	8.24E-06	6.29E-06	2.80E-06	7.29E-07	4.91E-08	3.32E-09	1.51E-11	2.11E-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	3.94E-05	2.85E-05	1.09E-05	2.22E-06	9.12E-08	3.74E-09	6.29E-12	7.35E-19	0.	0.	0.
U237	8.60E-02	7.76E-02	7.00E-02	5.15E-02	3.08E-02	1.10E-02	3.95E-03	5.06E-04	2.98E-06	3.21E-10	2.16E-10
U240	3.08E-02	9.48E-03	2.91E-03	8.44E-05	2.32E-07	1.74E-12	1.31E-17	7.39E-28	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP239	6.40E-03	9.77E+00	7.28E+00	3.00E+00	6.88E-01	3.60E-02	1.88E-03	5.16E-06	2.03E-12	4.85E-22	4.85E-22
NP240M	4.87E-05	9.54E-03	2.93E-03	8.49E-05	2.33E-07	1.76E-12	1.32E-17	7.45E-28	0.	0.	0.
AM241	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07
CM242	3.98E-06	3.96E-06	3.94E-06	3.90E-06	3.82E-06	3.65E-06	3.51E-06	3.22E-06	2.62E-06	1.70E-06	1.11E-06
GE 77	7.16E-03	4.51E-03	1.03E-03	1.25E-05	7.92E-09	3.21E-15	1.29E-21	2.11E-34	0.	0.	0.
AS 77	7.39E-05	1.09E-02	7.90E-03	2.28E-03	2.68E-04	3.63E-06	4.93E-08	9.09E-12	4.21E-21	9.04E-40	1.94E-58
SE 77M	2.92E-09	3.29E-05	2.37E-05	6.86E-06	8.00E-07	1.09E-08	1.48E-10	2.73E-14	1.26E-23	2.70E-42	5.83E-61
AS 78	2.13E-02	1.90E-04	5.56E-09	4.69E-23	0.	0.	0.	0.	0.	0.	0.
BR 82	4.38E-04	2.73E-04	1.71E-04	4.15E-05	3.93E-06	3.53E-08	3.17E-10	2.56E-14	1.49E-24	5.13E-45	1.75E-65
BR 83	3.10E-01	8.16E-03	8.21E-06	8.34E-15	8.51E-30	0.	0.	0.	0.	0.	0.
KR 83M	1.60E-05	3.57E-02	4.06E-05	3.64E-14	3.74E-29	0.	0.	0.	0.	0.	0.
KR 85M	2.55E-03	1.46E-01	3.32E-03	3.94E-08	2.43E-16	9.23E-33	3.50E-49	0.	0.	0.	0.
KR 85	2.64E-06	6.93E-05	7.06E-05	7.06E-05	7.06E-05	7.06E-05	7.06E-05	7.03E-05	6.96E-05	6.82E-05	6.72E-05
KR 87	4.06E+01	8.01E-05	1.58E-10	1.23E-27	0.	0.	0.	0.	0.	0.	0.
KR 88	2.10E+01	5.52E-02	1.45E-04	2.63E-12	3.31E-25	0.	0.	0.	0.	0.	0.
RB 88	5.33E+00	6.15E-02	1.62E-04	2.94E-12	3.69E-25	0.	0.	0.	0.	0.	0.
SR 89	2.20E-06	6.60E-02	6.51E-02	6.25E-02	5.86E-02	5.12E-02	4.48E-02	3.45E-02	1.76E-02	4.64E-03	1.22E-03
SR 90	4.30E-06	4.42E-04	4.42E-04	4.42E-04	4.42E-04	4.42E-04	4.42E-04	4.42E-04	4.38E-04	4.38E-04	4.34E-04
Y 90	6.38E-12	1.01E-04	1.79E-04	3.22E-04	4.11E-04	4.38E-04	4.42E-04	4.42E-04	4.38E-04	4.38E-04	4.34E-04
SR 91	5.57E-01	1.99E+00	3.57E-01	2.05E-03	3.75E-07	1.27E-14	4.31E-22	4.90E-37	0.	0.	0.

TESLA MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 8.795E-13

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	3.75E-05	1.29E+00	2.30E-01	1.32E-03	2.43E-07	8.19E-15	2.77E-22	3.16E-37	0.	0.	0.	0.
Y 91	1.53E-08	6.13E-02	7.25E-02	7.25E-02	6.83E-02	6.06E-02	5.39E-02	4.27E-02	2.36E-02	7.28E-03	2.24E-03	0.
SR 92	4.40E+00	5.48E-02	1.18E-04	1.19E-12	5.56E-26	0.	0.	0.	0.	0.	0.	0.
Y 92	2.03E-01	5.75E-01	6.38E-03	4.91E-09	2.86E-19	9.80E-40	3.35E-60	0.	0.	0.	0.	0.
Y 93	2.50E-01	1.69E+00	3.30E-01	2.48E-03	7.14E-07	5.90E-14	4.87E-21	3.32E-35	0.	0.	0.	0.
ZR 95	5.34E-04	6.68E-02	6.61E-02	6.39E-02	6.07E-02	5.43E-02	4.90E-02	3.96E-02	2.32E-02	7.99E-03	2.74E-03	0.
NB 95M	1.14E-11	2.26E-04	4.12E-04	7.87E-04	1.06E-03	1.12E-03	1.03E-03	8.39E-04	4.92E-04	1.69E-04	5.83E-05	0.
NB 95	5.95E-11	1.29E-03	2.55E-03	6.11E-03	1.14E-02	1.96E-02	2.53E-02	3.14E-02	3.02E-02	1.45E-02	5.57E-03	0.
ZR 97	1.44E+00	2.46E+00	9.24E-01	4.89E-02	3.68E-04	2.07E-08	1.16E-12	3.68E-21	2.07E-42	0.	0.	0.
NB 97M	7.43E-03	2.36E+00	8.87E-01	4.72E-02	3.53E-04	1.99E-08	1.12E-12	3.53E-21	1.99E-42	0.	0.	0.
NB 97	7.23E-01	2.47E+00	9.27E-01	4.92E-02	3.70E-04	2.23E-08	1.25E-12	3.97E-21	2.24E-42	0.	0.	0.
MC 99	4.91E-03	1.60E+00	1.25E+00	5.91E-01	1.71E-01	1.43E-02	1.19E-03	8.31E-06	3.38E-11	5.56E-22	9.16E-33	0.
TC 99M	4.56E-08	1.40E+00	1.18E+00	5.66E-01	1.63E-01	1.36E-02	1.14E-03	7.94E-06	3.22E-11	5.31E-22	8.75E-33	0.
RU103	1.36E-04	3.11E-01	3.05E-01	2.89E-01	2.65E-01	2.23E-01	1.87E-01	1.32E-01	5.48E-02	9.52E-03	1.66E-03	0.
RH103M	9.08E-09	3.11E-01	3.06E-01	2.90E-01	2.65E-01	2.23E-01	1.87E-01	1.32E-01	5.49E-02	9.52E-03	1.66E-03	0.
RU105	1.29E+00	1.23E+00	2.90E-02	3.82E-07	2.79E-15	1.49E-31	7.98E-48	0.	0.	0.	0.	0.
RH105M	8.49E-03	1.23E+00	2.91E-02	3.83E-07	2.80E-15	1.50E-31	8.00E-48	0.	0.	0.	0.	0.
RH105	1.39E-08	4.46E+00	2.91E+00	7.25E-01	7.15E-02	6.95E-04	6.76E-06	6.38E-10	5.53E-20	4.16E-40	3.12E-60	0.
RU106	1.22E-03	2.32E-02	2.31E-02	2.30E-02	2.28E-02	2.24E-02	2.19E-02	2.11E-02	1.92E-02	1.59E-02	1.32E-02	0.
RH106	1.33E-05	2.32E-02	2.31E-02	2.30E-02	2.28E-02	2.24E-02	2.19E-02	2.11E-02	1.92E-02	1.59E-02	1.32E-02	0.
PD109	2.29E-02	5.82E-01	1.70E-01	4.21E-03	8.86E-06	3.95E-11	1.76E-16	3.48E-27	0.	0.	0.	0.
AG109M	1.32E-04	5.82E-01	1.70E-01	4.21E-03	8.90E-06	3.96E-11	1.76E-16	3.48E-27	0.	0.	0.	0.
PD111M	2.66E+00	1.29E-01	6.26E-03	7.18E-07	1.94E-13	1.42E-26	1.04E-39	0.	0.	0.	0.	0.
PD111	9.45E-01	1.04E-01	5.03E-03	5.78E-07	1.57E-13	1.14E-26	8.35E-40	0.	0.	0.	0.	0.
AG111M	7.51E-03	1.36E-01	6.61E-03	7.60E-07	2.05E-13	1.51E-26	1.10E-39	0.	0.	0.	0.	0.
AG111	2.68E-09	7.38E-02	7.10E-02	5.40E-02	3.40E-02	1.35E-02	5.35E-03	8.43E-04	8.29E-06	8.04E-10	7.79E-14	0.
PD112	4.78E-01	2.17E-01	9.83E-02	9.13E-03	1.74E-04	6.30E-08	2.29E-11	3.00E-18	1.90E-35	0.	0.	0.
AG112	1.44E-05	2.52E-01	1.16E-01	1.08E-02	2.06E-04	7.44E-08	2.70E-11	3.56E-18	2.23E-35	0.	0.	0.
AG113	3.56E-03	3.77E-02	1.63E-03	1.32E-07	2.02E-14	4.74E-28	1.11E-41	0.	0.	0.	0.	0.
CD115M	8.21E-09	2.37E-04	2.33E-04	2.22E-04	2.06E-04	1.75E-04	1.49E-04	1.08E-04	4.81E-05	9.56E-06	1.91E-06	0.
CD115	3.17E-06	4.77E-02	3.50E-02	1.38E-02	2.91E-03	1.30E-04	5.79E-06	1.16E-08	2.04E-15	6.39E-29	2.00E-42	0.
IN115M	3.95E-11	5.04E-02	3.82E-02	1.51E-02	3.17E-03	1.42E-04	6.32E-06	1.26E-08	2.23E-15	6.98E-29	2.18E-42	0.
CD117	6.95E-02	1.51E-03	1.47E-06	1.38E-15	1.22E-30	0.	0.	0.	0.	0.	0.	0.
IN117M	3.34E-06	6.29E-03	7.28E-06	7.02E-15	6.24E-30	0.	0.	0.	0.	0.	0.	0.
IN117	1.34E-10	4.14E-03	4.91E-06	4.76E-15	4.22E-30	0.	0.	0.	0.	0.	0.	0.
SN121	1.43E-03	8.15E-02	4.40E-02	6.93E-03	3.18E-04	6.71E-07	1.41E-09	6.30E-15	2.63E-28	0.	0.	0.
SN123	8.04E-06	8.41E-04	8.34E-04	8.19E-04	7.97E-04	7.53E-04	7.14E-04	6.39E-04	4.84E-04	2.78E-04	1.60E-04	0.
SN125	2.33E-02	2.16E-02	2.01E-02	1.61E-02	1.11E-02	5.32E-03	2.54E-03	5.82E-04	1.46E-05	9.17E-09	5.74E-12	0.
SB125	1.40E-04	1.55E-04	1.69E-04	2.07E-04	2.54E-04	3.07E-04	3.31E-04	3.45E-04	3.38E-04	3.16E-04	2.94E-04	0.
SB126	4.14E-03	3.92E-03	3.71E-03	3.14E-03	2.38E-03	1.36E-03	7.86E-04	2.59E-04	1.62E-05	7.86E-08	1.58E-08	0.

C-9



TESLA MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 8.795E-13

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	4.19E+00	1.52E-03	5.51E-07	2.63E-17	1.65E-34	0.	0.	0.	0.	0.	0.
SB127	4.89E-02	2.01E-01	1.68E-01	9.80E-02	4.01E-02	6.71E-03	1.12E-03	3.14E-05	4.09E-09	6.98E-17	1.19E-24
TE127M	3.95E-10	3.06E-04	5.61E-04	1.09E-03	1.50E-03	1.66E-03	1.60E-03	1.42E-03	1.03E-03	5.46E-04	2.89E-04
TE127	2.76E-02	1.44E-01	1.41E-01	8.59E-02	3.63E-02	7.45E-03	2.55E-03	1.43E-03	1.02E-03	5.40E-04	2.85E-04
SB128	1.20E+00	2.05E-01	3.24E-02	1.27E-04	1.23E-08	1.15E-16	1.08E-24	9.54E-41	0.	0.	0.
SB129	6.40E+00	3.28E-01	6.84E-03	6.23E-08	2.48E-16	3.91E-33	6.17E-50	0.	0.	0.	0.
TE129M	1.21E-07	1.28E-02	1.28E-02	1.20E-02	1.09E-02	8.86E-03	7.20E-03	4.80E-03	1.73E-03	2.25E-04	2.93E-05
TE129	4.61E+00	3.84E-01	1.60E-02	7.71E-03	6.95E-03	5.67E-03	4.63E-03	3.08E-03	1.11E-03	1.45E-04	1.88E-05
I130	3.20E-02	8.37E-03	2.19E-03	3.92E-05	4.78E-08	7.13E-14	1.06E-19	2.37E-31	0.	0.	0.
TE131M	1.22E-04	4.25E-01	2.44E-01	4.62E-02	2.89E-03	1.13E-05	4.41E-08	6.74E-13	6.12E-25	0.	0.
TE131	1.12E+02	7.76E-02	4.46E-02	8.46E-03	5.28E-04	2.06E-06	8.05E-09	1.23E-13	1.12E-25	0.	0.
I131	1.63E-02	8.78E-01	8.30E-01	6.67E-01	4.39E-01	1.85E-01	7.85E-02	1.40E-02	1.89E-04	3.45E-08	6.28E-12
XE131M	4.41E-11	4.07E-04	7.73E-04	1.61E-03	2.30E-03	2.28E-03	1.69E-03	6.99E-04	4.66E-05	1.39E-07	3.93E-10
TE132	1.12E+00	2.22E+00	1.80E+00	9.46E-01	3.26E-01	3.86E-02	4.58E-03	6.43E-05	1.50E-09	8.23E-19	4.49E-28
I132	2.76E+00	2.29E+00	1.85E+00	9.73E-01	3.36E-01	3.98E-02	4.71E-03	6.63E-05	1.55E-09	8.44E-19	4.63E-28
I133	1.14E+00	6.36E+00	2.87E+00	2.66E-01	5.08E-03	1.84E-06	6.67E-10	8.80E-17	5.53E-34	0.	0.
XE133M	4.86E-08	6.01E-02	7.11E-02	4.17E-02	9.79E-03	4.60E-04	2.14E-05	4.64E-08	1.02E-14	4.86E-28	2.33E-41
XE133	8.48E-07	1.15E+00	1.55E+00	1.38E+00	7.55E-01	2.04E-01	5.48E-02	3.95E-03	5.50E-06	1.07E-11	2.07E-17
I135	1.93E+01	3.16E+00	2.63E-01	1.53E-04	6.22E-10	1.03E-20	1.69E-31	4.59E-53	0.	0.	0.
XE135M	2.14E-03	9.83E-01	8.22E-02	4.78E-05	1.94E-10	3.20E-21	5.27E-32	1.43E-53	0.	0.	0.
XE135	2.23E+00	8.50E+00	2.08E+00	1.19E-02	1.46E-06	2.04E-14	2.87E-22	5.67E-38	0.	0.	0.
CS136	2.07E-02	1.96E-02	1.86E-02	1.59E-02	1.22E-02	7.14E-03	4.20E-03	1.44E-03	1.00E-04	4.83E-07	2.34E-09
CS137	9.96E-05	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.07E-03	1.06E-03	1.06E-03
BA137M	2.10E-07	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	9.96E-04	9.90E-04	9.84E-04
BA139	1.40E+01	1.50E-03	8.84E-09	1.82E-24	0.	0.	0.	0.	0.	0.	0.
BA140	1.02E-01	6.02E-01	5.73E-01	4.85E-01	3.70E-01	2.15E-01	1.25E-01	4.25E-02	2.83E-03	1.26E-05	5.58E-08
LA140	2.42E-07	2.10E-01	3.37E-01	4.66E-01	4.14E-01	2.48E-01	1.44E-01	4.90E-02	3.26E-03	1.45E-05	6.45E-08
LA141	1.42E+00	5.64E-01	7.92E-03	2.19E-08	1.20E-17	3.58E-36	1.07E-54	0.	0.	0.	0.
CE141	1.76E-07	1.95E-01	1.93E-01	1.82E-01	1.63E-01	1.32E-01	1.06E-01	6.93E-02	2.38E-02	2.80E-03	3.30E-04
LA142	7.28E+00	1.60E-03	3.09E-08	2.27E-22	0.	0.	0.	0.	0.	0.	0.
CE143	4.26E-02	1.75E+00	1.06E+00	2.33E-01	1.88E-02	1.21E-04	7.85E-07	3.29E-11	3.71E-22	0.	0.
PR143	1.25E-08	1.12E-01	1.74E-01	2.25E-01	1.93E-01	1.18E-01	7.10E-02	2.57E-02	2.05E-03	1.30E-05	6.27E-08
CE144	1.61E-03	1.15E-02	1.15E-02	1.14E-02	1.12E-02	1.10E-02	1.07E-02	1.02E-02	9.02E-03	7.06E-03	5.55E-03
PR144	4.41E-07	1.15E-02	1.15E-02	1.14E-02	1.12E-02	1.10E-02	1.07E-02	1.02E-02	9.02E-03	7.06E-03	5.55E-03
PR145	7.20E-02	7.36E-01	4.56E-02	1.08E-05	9.85E-12	8.16E-24	6.76E-36	0.	0.	0.	0.
ND147	9.65E-06	1.62E-01	1.52E-01	1.26E-01	9.25E-02	4.97E-02	2.65E-02	7.62E-03	3.34E-04	6.51E-07	1.26E-09
PM147	2.68E-14	1.21E-04	2.35E-04	5.37E-04	9.28E-04	1.42E-03	1.67E-03	1.86E-03	1.88E-03	1.75E-03	1.63E-03
ND149	1.72E+01	1.67E-03	1.61E-07	1.47E-19	1.26E-39	0.	0.	0.	0.	0.	0.
PM149	2.40E-03	4.42E-01	3.24E-01	1.27E-01	2.64E-02	1.15E-03	5.01E-05	9.53E-08	1.50E-14	3.71E-28	9.24E-42
PM150	2.14E-01	4.53E-04	9.53E-07	8.95E-15	3.74E-28	0.	0.	0.	0.	0.	0.

TESLA MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 8.795E-13

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	5.50E-02	3.75E-01	2.07E-01	3.48E-02	1.79E-03	4.69E-06	1.24E-08	8.53E-14	1.07E-26	0.	0.
SM153	2.07E-01	1.45E-01	1.02E-01	3.53E-02	6.00E-03	1.74E-04	5.07E-06	4.25E-09	8.78E-17	3.74E-32	1.59E-47
SM156	3.04E-01	5.19E-02	8.85E-03	4.36E-05	6.28E-09	1.29E-16	2.66E-24	1.13E-39	0.	0.	0.
EU155	1.08E-05	3.65E-04	3.64E-04	3.64E-04	3.63E-04	3.62E-04	3.60E-04	3.57E-04	3.51E-04	3.37E-04	3.23E-04
EU156	8.90E-04	7.24E-03	8.02E-03	7.20E-03	5.71E-03	3.59E-03	2.26E-03	8.98E-04	8.90E-05	8.76E-07	8.63E-09
EU157	4.81E-02	5.56E-02	1.87E-02	7.01E-04	2.95E-06	5.19E-11	9.19E-16	2.86E-25	0.	0.	0.
GD159	1.10E-02	2.17E-02	8.63E-03	5.38E-04	5.30E-06	5.13E-10	4.97E-14	4.67E-22	3.99E-42	0.	0.
TB161	1.53E-04	9.98E-04	9.01E-04	6.66E-04	4.03E-04	1.48E-04	5.40E-05	7.24E-06	4.79E-08	2.07E-12	9.01E-17
TOTAL	2.77E+02	6.93E+01	3.34E+01	1.26E+01	5.26E+00	2.08E+00	1.28E+00	7.10E-01	3.05E-01	1.10E-01	5.91E-02

TESLA MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 8.795E-13

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	5.49E-05	4.74E-07	4.41E-08	4.09E-09	3.29E-12	2.63E-15	1.97E-19	1.26E-25	0.	0.	0.	0.
MN 54	1.32E-04	5.70E-05	3.75E-05	2.47E-05	7.05E-06	2.01E-06	3.79E-07	3.10E-08	7.28E-12	2.63E-17	9.52E-23	0.
FE 59	1.06E-04	3.84E-07	2.31E-08	1.39E-09	3.01E-13	6.50E-17	8.47E-22	3.97E-29	0.	0.	0.	0.
CO 57	4.16E-07	1.64E-07	1.03E-07	6.43E-08	1.59E-08	3.91E-09	6.03E-11	3.66E-11	3.20E-15	2.63E-21	0.	0.
CO 58	3.33E-05	9.56E-07	1.62E-07	2.75E-08	1.34E-10	6.51E-13	5.37E-16	1.27E-20	4.87E-36	0.	0.	0.
CO 60	2.65E-05	2.32E-05	2.17E-05	2.03E-05	1.66E-05	1.37E-05	1.05E-05	7.08E-06	1.90E-06	2.64E-07	3.64E-08	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	8.60E-02	2.15E-10	2.09E-10	2.03E-10	1.90E-10	1.77E-10	1.61E-10	1.39E-10	8.67E-11	4.25E-11	2.09E-11	0.
AM241	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.70E-07	1.71E-07	1.71E-07	1.72E-07	1.73E-07	1.71E-07	1.69E-07	1.69E-07
CM242	3.98E-06	8.44E-07	3.88E-07	1.78E-07	1.74E-08	1.69E-09	7.59E-11	7.18E-13	2.06E-17	1.92E-17	1.79E-17	1.79E-17
KR 85	2.64E-06	6.55E-05	6.35E-05	6.14E-05	5.60E-05	5.06E-05	4.45E-05	3.67E-05	1.94E-05	7.40E-06	2.83E-06	0.
SR 89	2.20E-06	5.15E-04	4.51E-05	3.96E-06	2.67E-09	1.80E-12	1.06E-16	4.83E-23	3.51E-44	0.	0.	0.
SR 90	4.30E-06	4.30E-04	4.26E-04	4.22E-04	4.07E-04	3.91E-04	3.72E-04	3.46E-04	2.70E-04	1.87E-04	1.29E-04	1.29E-04
Y 90	6.38E-12	4.30E-04	4.26E-04	4.22E-04	4.07E-04	3.91E-04	3.72E-04	3.46E-04	2.70E-04	1.87E-04	1.29E-04	1.29E-04
Y 91	1.53E-08	1.04E-03	1.20E-04	1.40E-05	2.20E-08	3.44E-11	6.30E-15	1.55E-20	3.13E-39	0.	0.	0.
ZR 95	5.34E-04	1.37E-03	1.96E-04	2.79E-05	8.13E-08	2.37E-10	9.79E-14	8.27E-19	1.01E-35	0.	0.	0.
NB 95M	1.14E-11	2.90E-05	4.15E-06	5.93E-07	1.72E-09	5.01E-12	2.08E-15	1.75E-20	2.15E-37	0.	0.	0.
NB 95	5.95E-11	2.95E-03	4.24E-04	6.04E-05	1.75E-07	5.08E-10	2.12E-13	1.79E-18	2.19E-35	0.	0.	0.
RU103	1.36E-04	5.29E-04	2.17E-05	8.91E-07	6.08E-11	4.16E-15	1.17E-20	5.50E-29	0.	0.	0.	0.
RH103M	9.08E-09	5.30E-04	2.17E-05	8.91E-07	6.09E-11	4.17E-15	1.17E-20	5.51E-29	0.	0.	0.	0.
RU106	1.22E-03	1.16E-02	8.24E-03	5.84E-03	2.08E-03	7.38E-04	1.86E-04	2.35E-05	2.37E-08	7.62E-13	2.45E-17	2.45E-17
RH106	1.33E-05	1.16E-02	8.24E-03	5.84E-03	2.08E-03	7.38E-04	1.86E-04	2.35E-05	2.37E-08	7.62E-13	2.45E-17	2.45E-17
SN123	8.04E-06	1.11E-04	4.04E-05	1.47E-05	7.05E-07	3.38E-08	5.89E-10	1.36E-12	2.18E-21	1.40E-34	9.00E-48	9.00E-48
SB125	1.40E-04	2.81E-04	2.47E-04	2.17E-04	1.48E-04	1.01E-04	6.02E-05	2.79E-05	2.14E-06	4.56E-08	9.71E-10	9.71E-10
TE125M	3.76E-12	1.15E-04	1.02E-04	8.99E-05	6.13E-05	4.17E-05	2.50E-05	1.15E-05	8.86E-07	1.89E-08	4.02E-10	4.02E-10
TE127M	3.95E-10	1.89E-04	5.92E-05	1.85E-05	5.70E-07	1.75E-08	1.68E-10	1.58E-13	1.30E-23	9.73E-39	7.25E-54	7.25E-54
TE127	2.76E-02	1.87E-04	5.85E-05	1.83E-05	5.63E-07	1.73E-08	1.66E-10	1.57E-13	1.29E-23	9.60E-39	7.18E-54	7.18E-54
CS137	9.96E-05	1.05E-03	1.04E-03	1.03E-03	9.90E-04	9.55E-04	9.13E-04	8.53E-04	6.74E-04	4.79E-04	3.38E-04	3.38E-04
BA137M	2.10E-07	9.84E-04	9.72E-04	9.61E-04	9.25E-04	8.95E-04	8.53E-04	7.99E-04	6.32E-04	4.47E-04	3.17E-04	3.17E-04
CE141	1.76E-07	7.59E-05	1.52E-06	3.06E-08	2.50E-13	2.03E-18	3.33E-25	2.21E-35	0.	0.	0.	0.
CE144	1.61E-03	4.73E-03	3.04E-03	1.94E-03	5.09E-04	1.34E-04	2.25E-05	1.55E-06	2.09E-10	3.28E-16	5.11E-22	5.11E-22
PR144	4.41E-07	4.73E-03	3.04E-03	1.94E-03	5.09E-04	1.34E-04	2.25E-05	1.55E-06	2.09E-10	3.28E-16	5.11E-22	5.11E-22
PM147	2.68E-14	1.56E-03	1.36E-03	1.19E-03	8.02E-04	5.40E-04	3.17E-04	1.44E-04	1.02E-05	1.93E-07	3.65E-09	3.65E-09
EU155	1.08E-05	3.15E-04	2.93E-04	2.73E-04	2.19E-04	1.76E-04	1.31E-04	8.49E-05	1.98E-05	2.23E-06	2.51E-07	2.51E-07
TOTAL	1.18E-01	4.56E-02	2.85E-02	2.04E-02	9.22E-03	5.30E-03	3.52E-03	2.71E-03	1.90E-03	1.31E-03	9.17E-04	9.17E-04

C-12

**APPENDIX D**  
**DETAILED RESULTS FOR EVENT TURK**

TURK  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.374E-13

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.08E+02	1.03E+04
1.00E+00	3.47E+01	2.22E+03
2.00E+00	1.38E+01	8.87E+02
3.00E+00	7.34E+00	5.41E+02
4.00E+00	4.55E+00	3.93E+02
6.00E+00	2.37E+00	2.60E+02
9.00E+00	1.39E+00	1.75E+02
1.20E+01	1.00E+00	1.31E+02
1.50E+01	7.78E-01	1.04E+02
1.80E+01	6.31E-01	8.55E+01
2.10E+01	5.25E-01	7.20E+01
1.00E+00 DAYS	4.39E-01	6.09E+01
2.00E+00	1.91E-01	2.66E+01
5.00E+00	7.49E-02	9.74E+00
1.00E+01	3.63E-02	4.57E+00
2.00E+01	1.49E-02	1.98E+00
3.00E+01	8.52E-03	1.22E+00
5.00E+01	3.84E-03	6.73E-01
1.00E+02	1.26E-03	2.89E-01
2.00E+02	4.27E-04	1.01E-01
3.00E+02	1.68E-04	4.96E-02
1.00E+00 YEARS	9.91E-05	3.61E-02
1.50E+00	3.43E-05	2.08E-02
2.00E+00	2.17E-05	1.49E-02
3.50E+00	1.33E-05	7.52E-03
5.00E+00	1.04E-05	5.04E-03
7.00E+00	8.85E-06	3.85E-03
1.00E+01	7.76E-06	3.19E-03
2.00E+01	5.87E-06	2.30E-03
3.50E+01	4.14E-06	1.58E-03
5.00E+01	2.92E-06	1.10E-03

TURK  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.374E-13

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.08E+02	1.03E+04
1.00E+00	3.47E+01	2.22E+03
2.00E+00	1.38E+01	8.87E+02
3.00E+00	7.34E+00	5.41E+02
4.00E+00	4.55E+00	3.93E+02
6.00E+00	2.37E+00	2.60E+02
9.00E+00	1.39E+00	1.75E+02
1.20E+01	1.00E+00	1.31E+02
1.50E+01	7.78E-01	1.04E+02
1.80E+01	6.31E-01	8.55E+01
2.10E+01	5.25E-01	7.20E+01
1.00E+00 DAYS	4.39E-01	6.09E+01
2.00E+00	1.91E-01	2.66E+01
5.00E+00	7.49E-02	9.74E+00
1.00E+01	3.63E-02	4.57E+00
2.00E+01	1.49E-02	1.98E+00
3.00E+01	8.52E-03	1.22E+00
5.00E+01	3.84E-03	6.73E-01
1.00E+02	1.26E-03	2.89E-01
2.00E+02	4.27E-04	1.01E-01
3.00E+02	1.68E-04	4.96E-02
1.00E+00 YEARS	9.91E-05	3.61E-02
1.50E+00	3.43E-05	2.08E-02
2.00E+00	2.17E-05	1.49E-02
3.50E+00	1.33E-05	7.52E-03
5.00E+00	1.04E-05	5.04E-03
7.00E+00	8.85E-06	3.85E-03
1.00E+01	7.76E-06	3.19E-03
2.00E+01	5.87E-06	2.30E-03
3.50E+01	4.14E-06	1.58E-03
5.00E+01	2.92E-06	1.10E-03

D-2

TURK MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.374E-13

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	6.59E-05	6.58E-05	6.58E-05	6.58E-05	6.58E-05	6.57E-05	6.56E-05	6.54E-05	6.53E-05	6.52E-05	6.51E-05
NA 24	1.32E-03	1.26E-03	1.21E-03	1.15E-03	1.10E-03	1.00E-03	8.72E-04	7.61E-04	6.62E-04	5.77E-04	5.00E-04
MN 54	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.36E-05	1.36E-05	1.36E-05	1.36E-05
FE 55	3.10E-05	3.10E-05	3.10E-05	3.10E-05	3.10E-05	3.10E-05	3.10E-05	3.10E-05	3.10E-05	3.10E-05	3.10E-05
FE 59	6.74E-05	6.73E-05	6.73E-05	6.73E-05	6.73E-05	6.72E-05	6.71E-05	6.70E-05	6.68E-05	6.67E-05	6.66E-05
CO 57	1.60E-06	1.60E-06	1.60E-06	1.60E-06	1.60E-06	1.60E-06	1.60E-06	1.60E-06	1.60E-06	1.60E-06	1.60E-06
CO 58	7.79E-05	7.79E-05	7.79E-05	7.79E-05	7.77E-05	7.77E-05	7.76E-05	7.76E-05	7.74E-05	7.74E-05	7.73E-05
CO 60	5.49E-06	5.49E-06	5.49E-06	5.49E-06	5.49E-06	5.49E-06	5.49E-06	5.49E-06	5.49E-06	5.49E-06	5.49E-06
CU 64	2.50E-01	2.36E-01	2.24E-01	2.13E-01	2.01E-01	1.81E-01	1.53E-01	1.30E-01	1.11E-01	9.43E-02	8.02E-02
CU 67	6.91E-06	6.86E-06	6.74E-06	6.68E-06	6.62E-06	6.44E-06	6.21E-06	6.03E-06	5.84E-06	5.61E-06	5.45E-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	3.55E-03	3.50E-05	3.45E-05	3.40E-05	3.35E-05	3.28E-05	3.15E-05	3.03E-05	2.90E-05	2.78E-05	2.68E-05
U237	5.30E-02	5.28E-02	5.25E-02	5.23E-02	5.21E-02	5.16E-02	5.09E-02	5.03E-02	4.97E-02	4.90E-02	4.84E-02
U239	5.43E+02	9.26E+01	1.58E+01	2.69E+00	4.57E-01	1.33E-02	6.60E-05	3.26E-07	1.61E-09	7.97E-12	3.94E-14
U240	1.27E-01	1.21E-01	1.15E-01	1.10E-01	1.05E-01	9.47E-02	8.17E-02	7.04E-02	6.08E-02	5.24E-02	4.52E-02
NP239	1.86E-03	3.11E+00	3.60E+00	3.66E+00	3.63E+00	3.54E+00	3.40E+00	3.29E+00	3.17E+00	3.06E+00	2.94E+00
NP240M	2.01E-04	1.22E-01	1.16E-01	1.11E-01	1.05E-01	9.54E-02	8.24E-02	7.11E-02	6.13E-02	5.29E-02	4.56E-02
NP240	5.09E-12	2.62E-12	1.36E-12	7.02E-13	3.63E-13	9.71E-14	1.34E-14	1.85E-15	2.55E-16	3.51E-17	4.85E-18
AM241	6.26E-09	6.26E-09	6.26E-09	6.26E-09	6.26E-09	6.26E-09	6.26E-09	6.26E-09	6.26E-09	6.26E-09	6.26E-09
CM242	2.34E-06	2.34E-06	2.34E-06	2.34E-06	2.34E-06	2.34E-06	2.33E-06	2.33E-06	2.33E-06	2.33E-06	2.33E-06
GE 75	1.53E-05	7.42E-02	4.47E-02	2.69E-02	1.62E-02	5.87E-03	1.28E-03	2.81E-04	6.13E-05	1.34E-05	2.93E-06
GE 77	7.09E-03	1.82E-02	1.72E-02	1.61E-02	1.52E-02	1.34E-02	1.12E-02	9.29E-03	7.75E-03	6.43E-03	5.36E-03
AS 77	7.33E-05	1.16E-02	1.17E-02	1.18E-02	1.19E-02	1.19E-02	1.19E-02	1.19E-02	1.17E-02	1.14E-02	1.12E-02
SE 77M	2.89E-09	3.47E-05	3.52E-05	3.54E-05	3.54E-05	3.57E-05	3.60E-05	3.57E-05	3.52E-05	3.44E-05	3.33E-05
GE 78	9.45E-01	5.91E-01	3.68E-01	2.30E-01	1.43E-01	5.58E-02	1.36E-02	3.28E-03	8.01E-04	1.95E-04	4.73E-05
AS 78	1.70E-02	2.82E-01	3.48E-01	3.26E-01	2.72E-01	1.61E-01	5.97E-02	1.98E-02	6.14E-03	1.83E-03	5.32E-04
AS 79	1.75E+01	1.73E-01	1.70E-03	1.68E-05	1.65E-07	1.60E-11	1.53E-17	1.45E-23	1.39E-29	1.33E-35	1.27E-41
SE 79M	2.60E-02	3.05E-01	3.01E-03	2.97E-05	2.92E-07	2.82E-11	2.69E-17	2.57E-23	2.45E-29	2.34E-35	2.23E-41
BR 80	1.06E-01	1.00E-02	9.42E-04	8.86E-05	8.34E-06	7.40E-08	6.19E-11	5.16E-14	4.30E-17	3.59E-20	3.00E-23
SE 81M	8.59E-02	4.01E+00	1.93E+00	9.30E-01	4.47E-01	1.04E-01	1.17E-02	1.31E-03	1.47E-04	1.65E-05	1.85E-06
SE 81	1.05E+00	4.74E+00	2.74E+00	1.37E+00	6.64E-01	1.55E-01	1.74E-02	1.94E-03	2.18E-04	2.44E-05	2.74E-06
BR 82	5.11E-04	5.01E-04	4.91E-04	4.82E-04	4.72E-04	4.54E-04	4.28E-04	4.03E-04	3.81E-04	3.58E-04	3.38E-04
SE 83	4.75E+01	9.00E+00	1.71E+00	3.23E-01	6.11E-02	2.20E-03	1.49E-05	1.02E-07	6.94E-10	4.71E-12	2.99E-14
BR 83	3.94E-01	5.89E+00	5.45E+00	4.29E+00	3.26E+00	1.84E+00	7.78E-01	3.27E-01	1.38E-01	5.83E-02	2.46E-02
KR 83M	2.04E-05	1.33E+00	2.72E+00	3.38E+00	3.49E+00	2.91E+00	1.72E+00	8.83E-01	4.26E-01	1.97E-01	8.83E-02

D-3

TURK  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.374E-13

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	9.97E-02	1.72E+01	4.65E+00	1.26E+00	3.40E-01	2.49E-02	4.92E-04	9.71E-06	1.92E-07	3.80E-09	7.50E-11
KR 85M	4.80E-03	1.03E+01	8.76E+00	7.48E+00	6.39E+00	4.67E+00	2.91E+00	1.82E+00	1.13E+00	7.03E-01	4.39E-01
KR 87	7.72E+01	4.46E+01	2.58E+01	1.49E+01	8.60E+00	2.89E+00	5.59E-01	1.08E-01	2.10E-02	4.06E-03	7.86E-04
KR 88	4.46E+01	3.48E+01	2.71E+01	2.12E+01	1.66E+01	1.01E+01	4.80E+00	2.29E+00	1.09E+00	5.17E-01	2.46E-01
RB 88	1.13E+01	3.52E+01	3.00E+01	2.37E+01	1.85E+01	1.13E+01	5.38E+00	2.56E+00	1.22E+00	5.80E-01	2.77E-01
RB 89	5.37E+01	5.04E+01	3.39E+00	2.28E+01	1.53E-02	6.91E-05	2.09E-08	6.31E-12	1.92E-15	5.82E-19	1.76E-22
SR 89	4.11E-06	1.44E-01	1.54E-01	1.54E-01	1.54E-01	1.54E-01	1.54E-01	1.53E-01	1.53E-01	1.53E-01	1.53E-01
SR 90	8.12E-06	8.34E-04	8.34E-04	8.34E-04	8.34E-04	8.34E-04	8.34E-04	8.34E-04	8.34E-04	8.34E-04	8.34E-04
SR 91	9.56E-01	1.78E+01	1.66E+01	1.55E+01	1.44E+01	1.24E+01	1.00E+01	8.12E+00	6.55E+00	5.26E+00	4.25E+00
Y 91M	6.43E-05	6.13E+00	8.36E+00	8.96E+00	8.84E+00	7.94E+00	6.49E+00	5.23E+00	4.22E+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	7.22E-02	8.36E-02	9.26E-02	9.98E-02
SR 92	6.98E+00	3.12E+01	2.42E+01	1.87E+01	1.45E+01	8.67E+00	4.03E+00	1.87E+00	8.67E-01	4.03E-01	1.87E-01
Y 92	3.22E-01	6.56E+00	1.03E+01	1.22E+01	1.30E+01	1.24E+01	9.49E+00	6.46E+00	4.16E+00	2.56E+00	1.54E+00
SR 93	8.80E+02	4.82E+00	2.66E-02	1.47E-04	8.11E-07	2.48E-11	4.18E-18	7.06E-25	1.19E-31	2.01E-38	3.39E-45
Y 93	3.42E-01	1.10E+01	1.04E+01	9.71E+00	9.07E+00	7.92E+00	6.45E+00	5.27E+00	4.28E+00	3.51E+00	2.85E+00
Y 94	4.07E+01	5.57E+01	7.16E+00	9.23E-01	1.19E-01	1.98E-03	4.24E-06	9.09E-09	1.94E-11	4.24E-14	2.35E-15
Y 95	1.75E+02	1.65E+01	3.64E-01	8.02E-03	1.77E-04	8.57E-08	9.17E-13	9.81E-18	1.05E-22	1.12E-27	1.20E-32
ZR 95	6.58E-04	8.60E-02	8.77E-02	8.77E-02	8.77E-02	8.77E-02	8.77E-02	8.74E-02	8.74E-02	8.71E-02	8.71E-02
NB 95	7.33E-11	5.31E-05	1.24E-04	1.94E-04	2.65E-04	4.07E-04	6.17E-04	8.31E-04	1.04E-03	1.25E-03	1.46E-03
ZR 97	1.59E+00	6.94E+00	6.63E+00	6.39E+00	6.11E+00	5.65E+00	4.99E+00	4.41E+00	3.92E+00	3.45E+00	3.07E+00
NB 97M	8.20E-03	6.66E+00	6.39E+00	6.14E+00	5.89E+00	5.43E+00	4.80E+00	4.25E+00	3.76E+00	3.32E+00	2.93E+00
NB 97	7.98E-01	3.48E+00	4.91E+00	5.59E+00	5.87E+00	5.84E+00	5.32E+00	4.74E+00	4.19E+00	3.70E+00	3.29E+00
NB 98	9.00E+00	3.98E+00	1.76E+00	7.79E-01	3.45E-01	6.76E-02	5.84E-03	5.05E-04	4.40E-05	3.81E-06	3.28E-07
MO 99	4.74E-03	1.96E+00	1.94E+00	1.92E+00	1.90E+00	1.86E+00	1.80E+00	1.75E+00	1.69E+00	1.64E+00	1.59E+00
TC 99M	4.41E-08	1.87E-01	3.50E-01	4.95E-01	6.22E-01	8.31E-01	1.05E+00	1.20E+00	1.28E+00	1.33E+00	1.35E+00
MO 101	1.35E+02	6.11E+01	3.54E+00	2.05E-01	1.19E-02	4.00E-05	7.76E-09	1.51E-12	2.94E-16	5.71E-20	1.11E-23
TC 101	5.71E+00	1.71E+02	1.87E+01	1.54E+00	1.12E-01	5.05E-04	1.26E-07	2.83E-11	5.99E-15	1.23E-18	2.49E-22
MO 102	1.12E+03	2.56E+01	5.83E-01	1.33E-02	3.04E-04	1.58E-07	1.88E-12	2.22E-17	2.64E-22	3.13E-27	3.72E-32
TC 102M	7.22E-01	2.17E+01	4.96E-01	1.13E-02	2.58E-04	1.34E-07	1.59E-12	1.88E-17	2.23E-22	2.65E-27	3.14E-32
TC 102	3.38E+03	1.29E+01	2.94E-01	6.68E-03	1.53E-04	7.97E-08	9.46E-13	1.12E-17	1.33E-22	1.58E-27	1.87E-32
RU 103	7.99E-05	1.86E-01	1.85E-01	1.85E-01	1.85E-01	1.84E-01	1.84E-01	1.84E-01	1.83E-01	1.83E-01	1.82E-01
RH 103M	5.33E-09	9.58E-02	1.42E-01	1.65E-01	1.75E-01	1.82E-01	1.84E-01	1.84E-01	1.83E-01	1.83E-01	1.83E-01
TC 104	6.76E+01	4.86E+01	4.86E+00	4.81E-01	4.76E-02	4.69E-04	4.58E-07	4.47E-10	4.37E-13	4.27E-16	4.17E-19
RU 105	5.39E-01	1.87E+01	1.59E+01	1.37E+01	1.17E+01	8.54E+00	5.35E+00	3.34E+00	2.09E+00	1.31E+00	8.22E-01
RH 105M	3.55E-03	1.87E+01	1.60E+01	1.37E+01	1.17E+01	8.58E+00	5.35E+00	3.36E+00	2.10E+00	1.31E+00	8.22E-01
RH 105	5.82E-09	3.79E-01	7.04E-01	9.72E-01	1.20E+00	1.53E+00	1.83E+00	1.97E+00	2.01E+00	1.99E+00	1.94E+00
RU 106	4.64E-04	8.79E-03	8.79E-03	8.79E-03	8.79E-03	8.79E-03	8.79E-03	8.79E-03	8.79E-03	8.79E-03	8.79E-03
RH 106	5.02E-06	8.79E-03	8.79E-03	8.79E-03	8.79E-03	8.79E-03	8.79E-03	8.79E-03	8.79E-03	8.79E-03	8.79E-03
RH 107	1.23E-01	1.67E+01	2.54E+00	3.82E-01	5.76E-02	1.31E-03	4.53E-06	1.56E-08	5.37E-11	1.84E-14	1.83E-17
PD 107M	2.56E-04	3.41E+00	5.14E-01	7.77E-02	1.17E-02	2.67E-04	9.21E-07	3.18E-09	1.09E-11	3.77E-14	1.29E-16



TURK  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.374E-13

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	1.15E-02	9.56E-01	9.08E-01	8.61E-01	8.18E-01	7.38E-01	6.34E-01	5.44E-01	4.66E-01	3.99E-01	3.43E-01
AG109M	6.64E-05	9.56E-01	9.08E-01	8.63E-01	8.20E-01	7.40E-01	6.34E-01	5.44E-01	4.66E-01	3.99E-01	3.43E-01
PD111M	1.58E+00	1.39E+00	1.22E+00	1.08E+00	9.53E-01	7.41E-01	5.07E-01	3.48E-01	2.38E-01	1.63E-01	1.12E-01
PD111	5.61E-01	1.01E+00	9.71E-01	8.65E-01	7.65E-01	5.94E-01	4.08E-01	2.79E-01	1.91E-01	1.31E-01	9.00E-02
AG111M	4.46E-03	1.36E+00	1.28E+00	1.15E+00	1.01E+00	7.82E-01	5.35E-01	3.67E-01	2.51E-01	1.72E-01	1.18E-01
AG111	1.59E-09	4.71E-03	9.88E-03	1.45E-02	1.87E-02	2.54E-02	3.27E-02	3.74E-02	4.05E-02	4.25E-02	4.37E-02
PD112	4.14E-01	4.02E-01	3.88E-01	3.75E-01	3.64E-01	3.40E-01	3.08E-01	2.79E-01	2.53E-01	2.29E-01	2.07E-01
AG112	1.25E-05	7.95E-02	1.40E-01	1.88E-01	2.24E-01	2.68E-01	2.94E-01	2.93E-01	2.79E-01	2.60E-01	2.40E-01
AG113	4.94E-03	1.06E+00	9.27E-01	8.14E-01	7.13E-01	5.49E-01	3.72E-01	2.51E-01	1.69E-01	1.14E-01	7.73E-02
AG115	1.89E+00	2.02E+00	2.52E-01	3.15E-02	3.94E-03	6.16E-05	1.20E-07	2.35E-10	4.56E-13	4.53E-16	4.20E-16
CD115M	1.54E-08	4.11E-04	4.61E-04	4.67E-04	4.67E-04	4.67E-04	4.66E-04	4.66E-04	4.64E-04	4.63E-04	4.63E-04
CD115	5.96E-06	1.12E-01	1.21E-01	1.21E-01	1.19E-01	1.16E-01	1.12E-01	1.07E-01	1.03E-01	9.95E-02	9.56E-02
IN115M	7.43E-11	1.24E-02	2.76E-02	4.09E-02	5.21E-02	6.95E-02	8.59E-02	9.45E-02	9.86E-02	9.95E-02	9.87E-02
CD117	1.32E-01	2.20E+00	1.66E+00	1.24E+00	9.30E-01	5.21E-01	2.19E-01	9.22E-02	3.88E-02	1.63E-02	6.86E-03
IN117M	6.36E-06	7.67E-01	1.11E+00	1.20E+00	1.16E+00	9.17E-01	5.25E-01	2.68E-01	1.29E-01	5.97E-02	2.70E-02
IN117	2.56E-10	1.40E-01	3.38E-01	4.70E-01	5.25E-01	4.83E-01	3.07E-01	1.64E-01	8.18E-02	3.85E-02	1.77E-02
CD118	8.75E+00	3.75E+00	1.61E+00	6.86E-01	2.94E-01	5.38E-02	4.22E-03	3.30E-04	2.60E-05	2.03E-06	1.59E-07
IN118	5.80E-01	3.75E+00	1.61E+00	6.88E-01	2.94E-01	5.39E-02	4.22E-03	3.31E-04	2.60E-05	2.03E-06	1.59E-07
CD119	2.20E+01	3.43E-01	5.36E-03	8.38E-05	1.31E-06	3.20E-10	1.22E-15	4.67E-21	1.77E-26	6.79E-32	2.60E-37
IN119M	3.32E-02	3.71E+00	4.04E-01	4.07E-02	4.06E-03	3.99E-05	3.89E-08	3.81E-11	3.71E-14	3.63E-17	3.55E-20
IN119	1.64E+00	1.96E-01	2.27E-02	2.30E-03	2.30E-04	2.25E-06	2.20E-09	2.15E-12	2.10E-15	2.05E-18	2.00E-21
SN121	2.76E-03	2.84E-01	2.76E-01	2.69E-01	2.63E-01	2.50E-01	2.30E-01	2.14E-01	1.98E-01	1.83E-01	1.70E-01
SN123M	1.39E+00	2.60E+00	9.22E-01	3.26E-01	1.15E-01	1.44E-02	6.37E-04	2.82E-05	1.25E-06	5.50E-08	2.43E-09
SN123	1.31E-05	1.37E-03	1.37E-03	1.37E-03	1.37E-03	1.37E-03	1.37E-03	1.37E-03	1.37E-03	1.37E-03	1.37E-03
SN125	3.07E-02	3.07E-02	3.06E-02	3.05E-02	3.03E-02	3.02E-02	2.99E-02	2.96E-02	2.94E-02	2.90E-02	2.88E-02
SB125	1.85E-04	1.85E-04	1.86E-04	1.87E-04	1.88E-04	1.89E-04	1.93E-04	1.95E-04	1.97E-04	2.00E-04	2.02E-04
SB126	4.20E-03	4.18E-03	4.18E-03	4.17E-03	4.16E-03	4.14E-03	4.11E-03	4.08E-03	4.05E-03	4.02E-03	4.00E-03
SN127	4.54E+00	3.26E+00	2.34E+00	1.69E+00	1.22E+00	6.27E-01	2.33E-01	8.66E-02	3.21E-02	1.19E-02	4.43E-03
SB127	5.30E-02	1.83E-01	2.02E-01	2.15E-01	2.25E-01	2.34E-01	2.38E-01	2.36E-01	2.32E-01	2.27E-01	2.23E-01
TE127	2.99E-02	3.73E-02	4.53E-02	5.37E-02	6.21E-02	7.79E-02	9.97E-02	1.16E-01	1.30E-01	1.40E-01	1.46E-01
SN128	2.85E+01	1.41E+01	6.96E+00	3.44E+00	1.70E+00	4.15E-01	5.01E-02	6.05E-03	7.29E-04	8.84E-05	1.07E-05
SB128M	1.45E-02	1.60E+01	8.31E+00	4.10E+00	2.03E+00	4.96E-01	5.97E-02	7.21E-03	8.69E-04	1.05E-04	1.27E-05
SB128	1.20E+00	1.16E+00	1.09E+00	1.02E+00	9.52E-01	8.16E-01	6.52E-01	5.17E-01	4.10E-01	3.26E-01	2.59E-01
SN129M	1.66E+01	8.27E+00	4.15E+00	2.08E+00	1.04E+00	2.59E-01	3.25E-02	4.06E-03	5.07E-04	6.34E-05	7.92E-06
SN129	1.11E+02	1.09E+00	1.07E-02	1.06E-04	1.04E-06	1.01E-10	9.60E-17	9.18E-23	8.76E-29	8.34E-35	7.99E-41
SB129	6.23E+00	1.04E+01	9.81E+00	8.76E+00	7.71E+00	5.73E+00	3.57E+00	2.21E+00	1.36E+00	8.41E-01	5.17E-01
TE129M	1.18E-07	1.30E-03	2.69E-03	3.95E-03	5.07E-03	6.87E-03	8.69E-03	9.81E-03	1.05E-02	1.09E-02	1.12E-02
TE129	4.49E+00	6.17E+00	7.22E+00	7.50E+00	7.22E+00	5.98E+00	3.98E+00	2.51E+00	1.56E+00	9.67E-01	6.00E-01
SB130M	5.75E-01	1.08E+00	2.85E-03	7.48E-06	1.97E-08	1.36E-13	2.47E-21	4.50E-29	8.17E-37	1.48E-44	2.70E-52
SB130	9.85E+01	2.98E+01	8.48E+00	2.40E+00	6.79E-01	5.47E-02	1.25E-03	2.84E-05	6.48E-07	1.48E-08	3.37E-10

D-5

TURK  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.374E-13

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	2.74E-02	2.59E-02	2.46E-02	2.32E-02	2.19E-02	1.96E-02	1.66E-02	1.40E-02	1.18E-02	1.00E-02	8.48E-03
SB131	2.13E+02	5.57E+01	9.10E+00	1.49E+00	2.45E-01	6.60E-03	2.91E-05	1.28E-07	5.65E-10	2.49E-12	1.24E-14
TE131M	1.03E-04	5.36E-01	6.12E-01	6.12E-01	6.01E-01	5.74E-01	5.36E-01	5.00E-01	4.66E-01	4.35E-01	4.06E-01
TE131	9.44E+01	1.03E+02	3.34E+01	8.69E+00	2.11E+00	1.98E-01	9.84E-02	9.10E-02	8.49E-02	7.94E-02	7.40E-02
I131	1.37E-02	4.75E-01	6.99E-01	7.67E-01	7.81E-01	7.88E-01	7.88E-01	7.81E-01	7.81E-01	7.74E-01	7.74E-01
TE132	1.06E+00	2.58E+00	2.56E+00	2.54E+00	2.51E+00	2.47E+00	2.40E+00	2.34E+00	2.28E+00	2.22E+00	2.16E+00
I132	2.61E+00	2.60E+00	2.60E+00	2.58E+00	2.57E+00	2.53E+00	2.48E+00	2.41E+00	2.35E+00	2.29E+00	2.23E+00
TE133M	1.28E-01	4.44E+01	1.93E+01	8.42E+00	3.66E+00	6.96E-01	5.72E-02	4.72E-03	3.89E-04	3.21E-05	2.65E-06
TE133	7.20E+02	4.08E+01	4.54E+00	1.50E+00	6.35E-01	1.20E-01	9.95E-03	8.18E-04	6.77E-05	5.57E-06	4.60E-07
I133	1.12E+00	1.20E+01	1.30E+01	1.30E+01	1.28E+01	1.21E+01	1.10E+01	9.95E+00	8.97E+00	8.18E+00	7.38E+00
XE133M	4.75E-08	7.70E-03	6.53E-03	1.04E-02	1.42E-02	2.14E-02	3.09E-02	3.92E-02	4.63E-02	5.23E-02	5.73E-02
XE133	8.30E-07	4.72E-02	1.15E-01	1.83E-01	2.51E-01	3.81E-01	5.58E-01	7.14E-01	8.54E-01	9.76E-01	1.09E+00
TE134	2.23E+02	1.03E+02	3.85E+01	1.43E+01	5.31E+00	7.36E-01	3.76E-02	1.93E-03	9.87E-05	5.07E-06	2.60E-07
I134	1.02E+02	1.37E+02	9.58E+01	5.61E+01	3.01E+01	7.65E+00	8.41E-01	8.59E-02	8.41E-03	8.06E-04	7.65E-05
I135	1.88E+01	3.31E+01	2.99E+01	2.69E+01	2.43E+01	1.97E+01	1.45E+01	1.06E+01	7.78E+00	5.73E+00	4.18E+00
XE135M	2.08E-03	9.56E+00	9.29E+00	8.43E+00	7.56E+00	6.16E+00	4.52E+00	3.31E+00	2.43E+00	1.78E+00	1.31E+00
XE135	2.17E+00	4.28E+00	6.27E+00	7.89E+00	9.18E+00	1.10E+01	1.22E+01	1.23E+01	1.17E+01	1.06E+01	9.51E+00
CS136	9.73E-03	9.70E-03	9.68E-03	9.67E-03	9.64E-03	9.59E-03	9.53E-03	9.46E-03	9.40E-03	9.34E-03	9.28E-03
CS137	9.28E-05	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03
BA137M	1.96E-07	9.33E-04	9.33E-04	9.33E-04	9.33E-04	9.33E-04	9.33E-04	9.33E-04	9.33E-04	9.33E-04	9.33E-04
XE138	7.26E+02	6.25E+01	5.43E+00	4.71E-01	4.08E-02	3.06E-04	1.99E-07	1.29E-10	8.39E-14	5.45E-17	3.54E-20
CS138	1.08E+02	1.82E+02	6.31E+01	1.85E+01	5.19E+00	3.95E-01	8.22E-03	1.71E-04	3.54E-06	7.38E-08	1.53E-09
CS139	6.66E+02	2.13E+01	2.66E-01	3.35E-03	4.20E-05	6.60E-09	1.31E-14	2.59E-20	5.14E-26	1.02E-31	2.01E-37
BA139	1.23E+01	1.37E+02	8.45E+01	5.14E+01	3.11E+01	1.14E+01	2.53E+00	5.62E-01	1.25E-01	2.77E-02	6.15E-03
BA140	1.12E-01	6.96E-01	6.96E-01	6.90E-01	6.90E-01	6.85E-01	6.85E-01	6.80E-01	6.74E-01	6.69E-01	6.64E-01
LA140	2.65E-07	1.19E-02	2.36E-02	3.50E-02	4.62E-02	6.80E-02	9.93E-02	1.29E-01	1.56E-01	1.82E-01	2.07E-01
BA141	1.66E+02	5.03E+01	4.99E+00	4.95E-01	4.92E-02	4.88E-04	4.76E-07	4.64E-10	4.52E-13	4.44E-16	4.32E-19
LA141	1.54E+00	3.26E+01	3.04E+01	2.58E+01	2.16E+01	1.51E+01	8.88E+00	5.19E+00	3.06E+00	1.79E+00	1.05E+00
CE141	1.90E-07	2.12E-02	4.95E-02	7.45E-02	9.55E-02	1.28E-01	1.59E-01	1.77E-01	1.87E-01	1.93E-01	1.96E-01
BA142	3.30E+02	1.31E+01	2.99E-01	6.82E-03	1.55E-04	8.08E-08	9.59E-13	1.14E-17	1.35E-22	1.60E-27	1.90E-32
LA142	7.57E+00	5.25E+01	3.47E+01	2.21E+01	1.40E+01	5.67E+00	1.46E+00	3.77E-01	9.73E-02	2.50E-02	6.46E-03
LA143	1.25E+02	2.44E+01	1.25E+00	6.43E-02	3.30E-03	8.65E-06	1.17E-09	1.57E-13	2.12E-17	2.86E-21	3.86E-25
CE143	5.00E-02	3.18E+00	3.30E+00	3.21E+00	3.16E+00	3.04E+00	2.85E+00	2.67E+00	2.51E+00	2.35E+00	2.21E+00
PR143	1.46E-08	4.88E-03	1.18E-02	1.86E-02	2.53E-02	3.83E-02	5.64E-02	7.36E-02	8.94E-02	1.04E-01	1.18E-01
CE144	2.02E-03	1.45E-02	1.45E-02	1.45E-02	1.45E-02	1.45E-02	1.45E-02	1.45E-02	1.45E-02	1.45E-02	1.45E-02
PR144	5.55E-07	1.32E-02	1.44E-02	1.45E-02	1.45E-02	1.45E-02	1.45E-02	1.45E-02	1.45E-02	1.45E-02	1.45E-02
PR145	8.09E-02	1.19E+01	1.06E+01	9.40E+00	8.39E+00	6.65E+00	4.69E+00	3.31E+00	2.34E+00	1.65E+00	1.17E+00
CE146	2.36E+02	1.21E+01	6.21E-01	3.17E-02	1.63E-03	4.30E-06	5.79E-10	7.81E-14	1.05E-17	1.42E-21	1.91E-25
PR146	4.88E+00	4.25E+01	9.63E+00	1.81E+00	3.26E-01	1.02E-02	5.66E-05	3.12E-07	1.73E-09	9.55E-12	5.21E-14
PR147	2.76E+01	7.99E+00	2.49E-01	7.78E-03	2.44E-04	2.38E-07	7.26E-12	2.22E-16	6.76E-21	2.07E-25	6.30E-30

TURK MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.374E-13

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	9.85E-06	1.85E-01	1.91E-01	1.90E-01	1.90E-01	1.89E-01	1.87E-01	1.86E-01	1.85E-01	1.83E-01	1.82E-01
ND149	1.39E+01	9.46E+00	6.44E+00	4.39E+00	2.97E+00	1.38E+00	4.34E-01	1.37E-01	4.31E-02	1.36E-02	4.28E-03
PM149	1.94E-03	1.51E-01	2.51E-01	3.18E-01	3.60E-01	4.05E-01	4.20E-01	4.13E-01	4.02E-01	3.86E-01	3.73E-01
PM150	1.61E-01	1.24E-01	9.61E-02	7.42E-02	5.73E-02	3.44E-02	1.59E-02	7.37E-03	3.42E-03	1.58E-03	7.31E-04
ND151	5.39E+01	1.68E+00	5.27E-02	1.64E-03	5.15E-05	5.03E-08	1.53E-12	4.69E-17	1.43E-21	4.35E-26	1.33E-30
PM151	3.42E-02	3.99E-01	4.02E-01	3.92E-01	3.82E-01	3.63E-01	3.37E-01	3.13E-01	2.91E-01	2.69E-01	2.50E-01
PM152	8.62E+01	8.43E-02	8.22E-05	8.03E-08	7.84E-11	7.49E-17	6.97E-26	6.50E-35	6.06E-44	5.66E-53	5.26E-62
SM153	1.17E-01	1.16E-01	1.14E-01	1.12E-01	1.11E-01	1.08E-01	1.03E-01	9.84E-02	9.42E-02	9.03E-02	8.63E-02
SM155	8.96E+00	1.47E+00	2.41E-01	3.94E-02	6.47E-03	1.74E-04	7.68E-07	3.38E-09	1.49E-11	6.64E-14	1.63E-16
EU155	6.58E-06	1.88E-04	2.17E-04	2.22E-04	2.23E-04	2.23E-04	2.23E-04	2.23E-04	2.23E-04	2.23E-04	2.23E-04
SM156	1.06E-01	9.87E-02	9.17E-02	8.52E-02	7.91E-02	6.83E-02	5.47E-02	4.39E-02	3.52E-02	2.82E-02	2.25E-02
EU156	3.11E-04	5.07E-04	6.89E-04	8.58E-04	1.01E-03	1.29E-03	1.65E-03	1.90E-03	2.13E-03	2.30E-03	2.42E-03
EU157	1.62E-02	5.37E-02	5.13E-02	4.90E-02	4.67E-02	4.27E-02	3.73E-02	3.25E-02	2.83E-02	2.47E-02	2.15E-02
EU158	5.68E-01	2.30E-01	9.31E-02	3.77E-02	1.53E-02	2.50E-03	1.67E-04	1.10E-05	7.33E-07	4.87E-08	3.23E-09
EU159	7.00E-01	6.96E-02	6.89E-03	6.85E-04	6.79E-05	6.69E-07	6.54E-10	6.38E-13	6.23E-16	6.09E-19	5.95E-22
GD159	3.00E-03	1.31E-02	1.37E-02	1.32E-02	1.28E-02	1.18E-02	1.05E-02	9.38E-03	8.35E-03	7.44E-03	6.63E-03
TB161	4.98E-05	3.58E-04	3.56E-04	3.55E-04	3.54E-04	3.50E-04	3.47E-04	3.42E-04	3.37E-04	3.34E-04	3.29E-04
TOTAL	1.03E+04	2.22E+03	8.87E+02	5.41E+02	3.93E+02	2.60E+02	1.75E+02	1.31E+02	1.04E+02	8.55E+01	7.20E+01

TURK MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.374E-13

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	6.59E-05	6.51E-05	6.42E-05	6.18E-05	5.79E-05	5.08E-05	4.46E-05	3.44E-05	1.80E-05	4.88E-06	1.33E-06
NA 24	1.32E-03	4.36E-04	1.44E-04	5.16E-06	2.02E-08	3.09E-13	4.71E-18	1.10E-27	0.	0.	0.
MN 54	1.37E-05	1.36E-05	1.36E-05	1.33E-05	1.32E-05	1.30E-05	1.27E-05	1.21E-05	1.08E-05	8.60E-06	6.86E-06
FE 55	3.10E-05	3.10E-05	3.10E-05	3.08E-05	3.07E-05	3.06E-05	3.03E-05	2.99E-05	2.87E-05	2.68E-05	2.49E-05
FE 59	6.74E-05	6.64E-05	6.54E-05	6.24E-05	5.78E-05	4.96E-05	4.25E-05	3.12E-05	1.45E-05	3.09E-06	6.64E-07
CO 57	1.60E-06	1.60E-06	1.58E-06	1.58E-06	1.56E-06	1.51E-06	1.48E-06	1.41E-06	1.24E-06	9.59E-07	7.42E-07
CO 58	7.79E-05	7.73E-05	7.64E-05	7.41E-05	7.08E-05	6.42E-05	5.82E-05	4.79E-05	2.95E-05	1.12E-05	4.21E-06
CO 60	5.49E-06	5.49E-06	5.49E-06	5.49E-06	5.46E-06	5.46E-06	5.43E-06	5.40E-06	5.27E-06	5.10E-06	4.91E-06
CU 64	2.50E-01	6.80E-02	1.86E-02	3.77E-04	5.66E-07	1.29E-12	2.91E-18	1.50E-29	0.	0.	0.
CU 67	6.91E-06	5.27E-06	4.02E-06	1.79E-06	4.66E-07	3.14E-08	2.12E-09	9.63E-12	1.35E-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	2.58E-05	1.87E-05	7.17E-06	1.45E-06	5.98E-08	2.45E-09	4.12E-12	4.82E-19	0.	0.	0.
U237	5.30E-02	4.78E-02	4.31E-02	3.17E-02	1.90E-02	6.79E-03	2.44E-03	3.12E-04	1.84E-06	1.98E-10	1.33E-10
U240	1.27E-01	3.92E-02	1.20E-02	3.48E-04	9.56E-07	7.18E-12	5.41E-17	3.05E-27	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP239	1.86E-03	2.83E+00	2.11E+00	8.72E-01	1.99E-01	1.04E-02	5.46E-04	1.50E-06	5.89E-13	1.41E-22	1.41E-22
NP240M	2.01E-04	3.94E-02	1.21E-02	3.51E-04	9.63E-07	7.26E-12	5.45E-17	3.08E-27	0.	0.	0.
AM241	6.26E-09	6.26E-09	6.26E-09	6.26E-09	6.26E-09	6.26E-09	6.26E-09	6.26E-09	6.26E-09	6.26E-09	6.26E-09
CM242	2.34E-06	2.33E-06	2.31E-06	2.29E-06	2.24E-06	2.14E-06	2.06E-06	1.89E-06	1.54E-06	1.00E-06	6.54E-07
GE 77	7.09E-03	4.46E-03	1.02E-03	1.23E-05	7.85E-09	3.18E-15	1.28E-21	2.09E-34	0.	0.	0.
AS 77	7.33E-05	1.08E-02	7.82E-03	2.26E-03	2.65E-04	3.60E-06	4.88E-08	9.01E-12	4.17E-21	8.95E-40	1.92E-58
SE 77M	2.89E-09	3.26E-05	2.34E-05	6.80E-06	7.93E-07	1.08E-08	1.47E-10	2.70E-14	1.25E-23	2.68E-42	5.78E-61
AS 78	1.70E-02	1.51E-04	4.43E-09	3.74E-23	0.	0.	0.	0.	0.	0.	0.
BR 82	5.11E-04	3.19E-04	1.99E-04	4.84E-05	4.58E-06	4.12E-08	3.70E-10	2.99E-14	1.74E-24	5.98E-45	2.04E-65
BR 83	3.94E-01	1.04E-02	1.04E-05	1.06E-14	1.08E-29	0.	0.	0.	0.	0.	0.
KR 83M	2.04E-05	4.54E-02	5.16E-05	4.64E-14	4.76E-29	0.	0.	0.	0.	0.	0.
KR 85M	4.80E-03	2.74E-01	6.25E-03	7.42E-08	4.57E-16	1.74E-32	6.59E-49	0.	0.	0.	0.
KR 85	4.97E-06	1.30E-04	1.33E-04	1.33E-04	1.33E-04	1.33E-04	1.33E-04	1.32E-04	1.31E-04	1.29E-04	1.27E-04
KR 87	7.72E+01	1.52E-04	3.01E-10	2.34E-27	0.	0.	0.	0.	0.	0.	0.
KR 88	4.46E+01	1.17E-01	3.08E-04	5.59E-12	7.04E-25	0.	0.	0.	0.	0.	0.
RB 88	1.13E+01	1.31E-01	3.45E-04	6.25E-12	7.84E-25	0.	0.	0.	0.	0.	0.
SR 89	4.11E-06	1.23E-01	1.21E-01	1.17E-01	1.09E-01	9.56E-02	8.36E-02	6.43E-02	3.29E-02	8.66E-03	2.28E-03
SR 90	8.12E-06	8.34E-04	8.34E-04	8.34E-04	8.34E-04	8.34E-04	8.34E-04	8.34E-04	8.27E-04	8.27E-04	8.19E-04
Y 90	1.20E-11	1.91E-04	3.38E-04	6.07E-04	7.75E-04	8.27E-04	8.34E-04	8.34E-04	8.27E-04	8.27E-04	8.19E-04
SR 91	9.56E-01	3.42E+00	6.13E-01	3.52E-03	6.43E-07	2.18E-14	7.40E-22	8.42E-37	0.	0.	0.

TURK  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.374E-13

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	5.44E-37	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	7.34E-02	4.06E-02	1.25E-02	3.84E-03
SR 92	6.98E+00	8.71E-02	1.88E-04	1.89E-12	8.84E-26	0.	0.	0.	0.	0.	0.
Y 92	3.22E-01	9.13E-01	1.01E-02	7.80E-09	4.55E-19	1.56E-39	5.33E-60	0.	0.	0.	0.
Y 93	3.42E-01	2.31E+00	4.50E-01	3.39E-03	9.74E-07	8.05E-14	6.64E-21	4.53E-35	0.	0.	0.
ZR 95	6.58E-04	8.22E-02	8.14E-02	7.88E-02	7.47E-02	6.69E-02	6.03E-02	4.88E-02	86E-02	9.84E-03	3.38E-03
NB 95M	1.40E-11	2.78E-04	5.08E-04	9.69E-04	1.31E-03	1.38E-03	1.27E-03	1.03E-03	6.06E-04	2.09E-04	7.18E-05
NB 95	7.33E-11	1.59E-03	3.14E-03	7.53E-03	1.40E-02	2.41E-02	3.12E-02	3.87E-02	3.72E-02	1.79E-02	6.87E-03
ZR 97	1.59E+00	2.71E+00	1.02E+00	5.40E-02	4.06E-04	2.28E-08	1.28E-12	4.06E-21	2.29E-42	0.	0.
NB 97M	8.20E-03	2.60E+00	9.79E-01	5.21E-02	3.89E-04	2.19E-08	1.23E-12	3.89E-21	2.20E-42	0.	0.
NB 97	7.98E-01	2.72E+00	1.02E+00	5.43E-02	4.08E-04	2.46E-08	1.38E-12	4.39E-21	2.47E-42	0.	0.
MO 99	4.74E-03	1.54E+00	1.21E+00	5.71E-01	1.65E-01	1.38E-02	1.15E-03	8.04E-06	3.26E-11	5.38E-22	8.85E-33
TC 99M	4.41E-08	1.36E+00	1.14E+00	5.47E-01	1.58E-01	1.32E-02	1.10E-03	7.67E-06	3.11E-11	5.14E-22	8.46E-33
RU103	7.99E-05	1.82E-01	1.79E-01	1.70E-01	1.56E-01	1.31E-01	1.10E-01	7.74E-02	3.22E-02	5.59E-03	9.74E-04
RH103M	5.33E-09	1.82E-01	1.79E-01	1.70E-01	1.56E-01	1.31E-01	1.10E-01	7.74E-02	3.22E-02	5.59E-03	9.74E-04
RU105	5.39E-01	5.15E-01	1.21E-02	1.59E-07	1.16E-15	6.22E-32	3.33E-48	0.	0.	0.	0.
RH105M	3.55E-03	5.15E-01	1.22E-02	1.60E-07	1.17E-15	6.26E-32	3.34E-48	0.	0.	0.	0.
RH105	5.82E-09	1.86E+00	1.22E+00	3.03E-01	2.99E-02	2.90E-04	2.82E-06	2.66E-10	2.31E-20	1.74E-40	1.30E-60
RU106	4.64E-04	8.79E-03	8.75E-03	8.72E-03	8.64E-03	8.49E-03	8.30E-03	7.99E-03	7.27E-03	6.01E-03	4.99E-03
RH106	5.02E-06	8.79E-03	8.75E-03	8.72E-03	8.64E-03	8.49E-03	8.30E-03	7.99E-03	7.27E-03	6.01E-03	4.99E-03
PD109	1.15E-02	2.93E-01	8.54E-02	2.12E-03	4.47E-06	1.99E-11	8.87E-17	1.75E-27	0.	0.	0.
AG109M	6.64E-05	2.93E-01	8.56E-02	2.12E-03	4.49E-06	1.99E-11	8.87E-17	1.76E-27	0.	0.	0.
PD111M	1.58E+00	7.65E-02	3.72E-03	4.27E-07	1.15E-13	8.41E-27	6.18E-40	0.	0.	0.	0.
PD111	5.61E-01	6.18E-02	2.99E-03	3.43E-07	9.30E-14	6.77E-27	4.96E-40	0.	0.	0.	0.
AG111M	4.46E-03	8.06E-02	3.92E-03	4.51E-07	1.22E-13	8.94E-27	6.53E-40	0.	0.	0.	0.
AG111	1.59E-09	4.38E-02	4.21E-02	3.21E-02	2.02E-02	8.00E-03	3.18E-03	5.01E-04	4.92E-06	4.77E-10	4.62E-14
PD112	4.14E-01	1.88E-01	8.52E-02	7.91E-03	1.50E-04	5.46E-08	1.98E-11	2.60E-18	1.64E-35	0.	0.
AG112	1.25E-05	2.19E-01	1.00E-01	9.32E-03	1.78E-04	6.44E-08	2.34E-11	3.08E-18	1.93E-35	0.	0.
AG113	4.94E-03	5.22E-02	2.26E-03	1.83E-07	2.81E-14	6.57E-28	1.53E-41	0.	0.	0.	0.
CD115M	1.54E-08	4.47E-04	4.39E-04	4.18E-04	3.87E-04	3.28E-04	2.80E-04	2.02E-04	9.05E-05	1.80E-05	3.60E-06
CD115	5.96E-06	8.98E-02	6.58E-02	2.59E-02	5.47E-03	2.44E-04	1.09E-05	2.17E-08	3.84E-15	1.20E-28	3.76E-42
IN115M	7.43E-11	9.47E-02	7.18E-02	2.83E-02	5.96E-03	2.67E-04	1.19E-05	2.37E-08	4.20E-15	1.31E-28	4.11E-42
CD117	1.32E-01	2.89E-03	2.81E-06	2.62E-15	2.33E-30	0.	0.	0.	0.	0.	0.
IN117M	6.36E-06	1.20E-02	1.39E-05	1.34E-14	1.19E-29	0.	0.	0.	0.	0.	0.
IN117	2.56E-10	7.90E-03	9.36E-06	9.06E-15	8.04E-30	0.	0.	0.	0.	0.	0.
SN121	2.76E-03	1.57E-01	8.48E-02	1.34E-02	6.13E-04	1.29E-06	2.72E-09	1.21E-14	5.08E-28	0.	0.
SN123	1.31E-05	1.37E-03	1.35E-03	1.33E-03	1.29E-03	1.22E-03	1.16E-03	1.04E-03	7.86E-04	4.52E-04	2.60E-04
SN125	3.07E-02	2.86E-02	2.66E-02	2.13E-02	1.47E-02	7.04E-03	3.36E-03	7.70E-04	1.93E-05	1.21E-08	7.59E-12
SB125	1.85E-04	2.05E-04	2.24E-04	2.74E-04	3.35E-04	4.06E-04	4.37E-04	4.56E-04	4.47E-04	4.17E-04	3.89E-04
SB126	4.20E-03	3.97E-03	3.76E-03	3.18E-03	2.41E-03	1.38E-03	7.97E-04	2.62E-04	1.64E-05	7.97E-08	1.60E-08

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TURK  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.374E-13

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	4.54E+00	1.64E-03	5.97E-07	2.85E-17	1.79E-34	0.	0.	0.	0.	0.	0.	0.
SB127	5.30E-02	2.18E-01	1.82E-01	1.06E-01	4.35E-02	7.27E-03	1.22E-03	3.40E-05	4.43E-09	7.57E-17	1.29E-24	
TE127M	4.29E-10	3.32E-04	6.08E-04	1.18E-03	1.63E-03	1.80E-03	1.73E-03	1.54E-03	1.12E-03	5.92E-04	3.13E-04	
TE127	2.99E-02	1.56E-01	1.53E-01	9.31E-02	3.94E-02	8.08E-03	2.77E-03	1.55E-03	1.11E-03	5.85E-04	3.09E-04	
SB128	1.20E+00	2.05E-01	3.24E-02	1.26E-04	1.22E-08	1.15E-16	1.08E-24	9.52E-41	0.	0.	0.	
SB129	6.23E+00	3.19E-01	6.66E-03	6.06E-08	2.41E-16	3.81E-33	6.01E-50	0.	0.	0.	0.	
TE129M	1.18E-07	1.24E-02	1.24E-02	1.17E-02	1.06E-02	8.62E-03	7.01E-03	4.67E-03	1.68E-03	2.19E-04	2.85E-05	
TE129	4.49E+00	3.74E-01	1.56E-02	7.50E-03	6.77E-03	5.52E-03	4.50E-03	2.99E-03	1.08E-03	1.41E-04	1.83E-05	
I130	2.74E-02	7.17E-03	1.88E-03	3.35E-05	4.10E-08	6.10E-14	9.10E-20	2.03E-31	0.	0.	0.	
TE131M	1.03E-04	3.58E-01	2.06E-01	3.90E-02	2.44E-03	9.51E-06	3.72E-08	5.68E-13	5.16E-25	0.	0.	
TE131	9.44E+01	6.54E-02	3.75E-02	7.13E-03	4.45E-04	1.74E-06	6.78E-09	1.04E-13	9.44E-26	0.	0.	
I131	1.37E-02	7.40E-01	6.99E-01	5.62E-01	3.70E-01	1.56E-01	6.61E-02	1.18E-02	1.60E-04	2.91E-08	5.30E-12	
XE131M	3.72E-11	3.43E-04	6.51E-04	1.36E-03	1.94E-03	1.92E-03	1.43E-03	5.89E-04	3.92E-05	1.17E-07	3.31E-10	
TE132	1.06E+00	2.11E+00	1.70E+00	8.96E-01	3.09E-01	3.66E-02	4.34E-03	6.09E-05	1.42E-09	7.80E-19	4.25E-28	
I132	2.61E+00	2.17E+00	1.75E+00	9.22E-01	3.18E-01	3.77E-02	4.47E-03	6.28E-05	1.47E-09	7.99E-19	4.38E-28	
I133	1.12E+00	6.23E+00	2.81E+00	2.61E-01	4.97E-03	1.80E-06	6.53E-10	8.61E-17	5.41E-34	0.	0.	
XE133M	4.75E-08	5.88E-02	6.96E-02	4.08E-02	9.58E-03	4.50E-04	2.09E-05	4.54E-08	9.95E-15	4.75E-28	2.28E-41	
XE133	8.30E-07	1.13E+00	1.51E+00	1.35E+00	7.38E-01	2.00E-01	5.36E-02	3.86E-03	5.38E-06	1.04E-11	2.03E-17	
I135	1.88E+01	3.07E+00	2.56E-01	1.49E-04	6.05E-10	9.99E-21	1.64E-31	4.46E-53	0.	0.	0.	
XE135M	2.08E-03	9.56E-01	8.00E-02	4.65E-05	1.89E-10	3.11E-21	5.13E-32	1.39E-53	0.	0.	0.	
XE135	2.17E+00	8.27E+00	2.02E+00	1.16E-02	1.42E-06	1.99E-14	2.79E-22	5.51E-38	0.	0.	0.	
CS136	9.73E-03	9.22E-03	8.74E-03	7.45E-03	5.71E-03	3.35E-03	1.97E-03	6.76E-04	4.70E-05	2.27E-07	1.10E-09	
CS137	9.28E-05	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	1.00E-03	9.94E-04	9.89E-04	9.83E-04	
BA137M	1.96E-07	9.33E-04	9.33E-04	9.33E-04	9.33E-04	9.33E-04	9.33E-04	9.33E-04	9.28E-04	9.22E-04	9.17E-04	
BA139	1.23E+01	1.31E-03	7.75E-09	1.59E-24	0.	0.	0.	0.	0.	0.	0.	
BA140	1.12E-01	6.59E-01	6.27E-01	5.31E-01	4.05E-01	2.36E-01	1.37E-01	4.65E-02	3.10E-03	1.38E-05	6.11E-08	
LA140	2.65E-07	2.29E-01	3.69E-01	5.10E-01	4.54E-01	2.71E-01	1.58E-01	5.36E-02	3.56E-03	1.59E-05	7.06E-08	
LA141	1.54E+00	6.10E-01	8.56E-03	2.37E-08	1.30E-17	3.87E-36	1.15E-54	0.	0.	0.	0.	
CE141	1.90E-07	2.11E-01	2.09E-01	1.97E-01	1.76E-01	1.43E-01	1.15E-01	7.49E-02	2.57E-02	3.03E-03	3.57E-04	
LA142	7.57E+00	1.66E-03	3.21E-08	2.36E-22	0.	0.	0.	0.	0.	0.	0.	
CE143	5.00E-02	2.05E+00	1.24E+00	2.73E-01	2.20E-02	1.42E-04	9.20E-07	3.86E-11	4.35E-22	0.	0.	
PR143	1.46E-08	1.31E-01	2.05E-01	2.64E-01	2.26E-01	1.38E-01	8.33E-02	3.01E-02	2.41E-03	1.53E-05	9.70E-08	
CE144	2.02E-03	1.45E-02	1.44E-02	1.43E-02	1.41E-02	1.38E-02	1.35E-02	1.28E-02	1.13E-02	8.88E-03	6.97E-03	
PR144	5.55E-07	1.45E-02	1.44E-02	1.43E-02	1.41E-02	1.38E-02	1.35E-02	1.28E-02	1.13E-02	8.88E-03	6.97E-03	
PR145	8.09E-02	8.27E-01	5.12E-02	1.21E-05	1.11E-11	9.16E-24	7.60E-36	0.	0.	0.	0.	
ND147	9.85E-06	1.66E-01	1.56E-01	1.29E-01	9.45E-02	5.07E-02	2.71E-02	7.78E-03	3.41E-04	6.65E-07	1.29E-09	
PM147	2.73E-14	1.24E-04	2.40E-04	5.48E-04	9.47E-04	1.45E-03	1.71E-03	1.90E-03	1.92E-03	1.79E-03	1.66E-03	
ND149	1.39E+01	1.35E-03	1.30E-07	1.19E-19	1.01E-39	0.	0.	0.	0.	0.	0.	
PM149	1.94E-03	3.57E-01	2.62E-01	1.02E-01	2.13E-02	9.30E-04	4.05E-05	7.70E-08	1.21E-14	3.00E-28	7.46E-42	
PM150	1.61E-01	3.39E-04	7.14E-07	6.70E-15	2.80E-28	0.	0.	0.	0.	0.	0.	

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TURK MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.374E-13

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	3.42E-02	2.33E-01	1.28E-01	2.16E-02	1.11E-03	2.91E-06	7.67E-09	5.29E-14	6.64E-27	0.	0.
SM153	1.17E-01	8.26E-02	5.80E-02	2.00E-02	3.40E-03	9.90E-05	2.88E-06	2.42E-09	4.98E-17	2.12E-32	9.03E-48
SM156	1.06E-01	1.81E-02	3.09E-03	1.52E-05	2.19E-09	4.51E-17	9.31E-25	3.96E-40	0.	0.	0.
EU155	6.58E-06	2.23E-04	2.23E-04	2.23E-04	2.22E-04	2.21E-04	2.20E-04	2.19E-04	2.14E-04	2.06E-04	1.98E-04
EU156	3.11E-04	2.53E-03	2.80E-03	2.51E-03	2.00E-03	1.25E-03	7.91E-04	3.14E-04	3.11E-05	3.06E-07	3.02E-09
EU157	1.62E-02	1.87E-02	6.30E-03	2.36E-04	9.92E-07	1.75E-11	3.10E-16	9.64E-26	0.	0.	0.
GD159	3.00E-03	5.91E-03	2.35E-03	1.47E-04	1.44E-06	1.40E-10	1.35E-14	1.27E-22	1.09E-42	0.	0.
TB161	4.98E-05	3.25E-04	2.94E-04	2.17E-04	1.32E-04	4.82E-05	1.76E-05	2.36E-06	1.56E-08	6.76E-13	2.94E-17
TOTAL	3.21E+02	6.09E+01	2.66E+01	9.74E+00	4.57E+00	1.98E+00	1.22E+00	6.73E-01	2.89E-01	1.01E-01	4.96E-02

TURK  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.374E-13

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	6.59E-05	5.69E-07	5.29E-08	4.91E-09	3.96E-12	3.17E-15	2.37E-19	1.52E-25	0.	0.	0.
MN 54	1.37E-05	5.90E-06	3.89E-06	2.56E-06	7.31E-07	2.08E-07	3.93E-08	3.21E-09	7.54E-13	2.73E-18	9.86E-24
FE 59	6.74E-05	2.43E-07	1.46E-08	8.78E-10	1.91E-13	4.12E-17	5.36E-22	2.51E-29	0.	0.	0.
CO 57	1.60E-06	6.29E-07	3.94E-07	2.47E-07	6.09E-08	1.50E-08	2.32E-10	1.41E-10	1.23E-14	1.01E-20	0.
CO 58	7.79E-05	2.24E-06	3.80E-07	6.43E-08	3.13E-10	1.53E-12	1.26E-15	2.98E-20	1.14E-35	0.	0.
CO 60	5.49E-06	4.81E-06	4.49E-06	4.19E-06	3.45E-06	2.83E-06	2.17E-06	1.47E-06	3.93E-07	5.46E-08	7.54E-09
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	5.30E-02	1.32E-10	1.29E-10	1.25E-10	1.17E-10	1.09E-10	9.90E-11	8.59E-11	5.35E-11	2.62E-11	1.29E-11
AM241	6.26E-09	6.26E-09	6.26E-09	6.26E-09	6.29E-09	6.32E-09	6.32E-09	6.35E-09	6.38E-09	6.32E-09	6.24E-09
CM242	2.34E-06	4.96E-07	2.28E-07	1.05E-07	1.02E-08	9.95E-10	4.46E-11	4.22E-13	1.21E-17	1.13E-17	1.05E-17
KR 85	4.97E-06	1.23E-04	1.20E-04	1.16E-04	1.05E-04	9.53E-05	8.38E-05	6.91E-05	3.65E-05	1.39E-05	5.33E-06
SR 89	4.11E-06	9.62E-04	8.42E-05	7.39E-06	4.98E-09	3.36E-12	1.98E-16	9.02E-23	6.55E-44	0.	0.
SR 90	8.12E-06	8.12E-04	8.04E-04	7.97E-04	7.68E-04	7.38E-04	7.03E-04	6.52E-04	5.10E-04	3.52E-04	2.44E-04
Y 90	1.20E-11	8.12E-04	8.04E-04	7.97E-04	7.68E-04	7.38E-04	7.03E-04	6.52E-04	5.10E-04	3.52E-04	2.44E-04
Y 91	2.63E-08	1.78E-03	2.07E-04	2.41E-05	3.77E-08	5.92E-11	1.08E-14	2.66E-20	5.37E-39	0.	0.
ZR 95	6.58E-04	1.69E-03	2.41E-04	3.43E-05	1.00E-07	2.91E-10	1.21E-13	1.02E-18	1.25E-35	0.	0.
NB 95M	1.40E-11	3.58E-05	5.11E-06	7.30E-07	2.12E-09	6.17E-12	2.56E-15	2.16E-20	2.65E-37	0.	0.
NB 95	7.33E-11	3.64E-03	5.22E-04	7.44E-05	2.16E-07	6.26E-10	2.61E-13	2.21E-18	2.70E-35	0.	0.
RU103	7.99E-05	3.11E-04	1.27E-05	5.23E-07	3.57E-11	2.44E-15	6.87E-21	3.23E-29	0.	0.	0.
RH103M	5.33E-09	3.11E-04	1.27E-05	5.23E-07	3.57E-11	2.44E-15	6.87E-21	3.23E-29	0.	0.	0.
RU106	4.64E-04	4.42E-03	3.13E-03	2.22E-03	7.88E-04	2.80E-04	7.04E-05	8.91E-06	8.98E-09	2.89E-13	9.29E-18
RH106	5.02E-08	4.42E-03	3.13E-03	2.22E-03	7.88E-04	2.80E-04	7.04E-05	8.91E-06	8.98E-09	2.89E-13	9.29E-18
SN123	1.31E-05	1.81E-04	6.57E-05	2.39E-05	1.14E-06	5.49E-08	9.57E-10	2.21E-12	3.54E-21	2.28E-34	1.46E-47
SB125	1.85E-04	3.72E-04	3.27E-04	2.87E-04	1.96E-04	1.33E-04	7.96E-05	3.68E-05	2.83E-06	6.03E-08	1.28E-09
TE125M	4.97E-12	1.52E-04	1.35E-04	1.19E-04	8.10E-05	5.51E-05	3.30E-05	1.52E-05	1.17E-06	2.50E-08	5.31E-10
TE127M	4.29E-10	2.05E-04	6.42E-05	2.01E-05	6.18E-07	1.90E-08	1.83E-10	1.72E-13	1.41E-23	1.06E-38	7.86E-54
TE127	2.99E-02	2.03E-04	6.35E-05	1.99E-05	6.11E-07	1.88E-08	1.80E-10	1.70E-13	1.40E-23	1.04E-38	7.79E-54
CS137	9.28E-05	9.78E-04	9.67E-04	9.55E-04	9.22E-04	8.89E-04	8.50E-04	7.94E-04	6.28E-04	4.46E-04	3.15E-04
BA137M	1.96E-07	9.17E-04	9.05E-04	8.94E-04	8.61E-04	8.33E-04	7.94E-04	7.44E-04	5.89E-04	4.17E-04	2.95E-04
CE141	1.90E-07	8.21E-05	1.65E-06	3.31E-08	2.70E-13	2.20E-18	3.60E-25	2.39E-35	0.	0.	0.
CE144	2.02E-03	5.94E-03	3.82E-03	2.44E-03	6.40E-04	1.68E-04	2.83E-05	1.95E-06	2.63E-10	4.12E-16	6.43E-22
PR144	5.55E-07	5.94E-03	3.82E-03	2.44E-03	6.40E-04	1.68E-04	2.83E-05	1.95E-06	2.63E-10	4.12E-16	6.43E-22
PM147	2.73E-14	1.59E-03	1.39E-03	1.22E-03	8.19E-04	5.51E-04	3.24E-04	1.47E-04	1.04E-05	1.97E-07	3.73E-09
EU155	6.58E-06	1.93E-04	1.79E-04	1.67E-04	1.34E-04	1.06E-04	8.04E-05	5.19E-05	1.21E-05	1.36E-06	1.54E-07
TOTAL	8.67E-02	3.61E-02	2.08E-02	1.49E-02	7.52E-03	5.04E-03	3.85E-03	3.19E-03	2.30E-03	1.58E-03	1.10E-03

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**APPENDIX E**  
**DETAILED RESULTS FOR EVENT HORNET**

HORNET  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.406E-12

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.05E+02	1.03E+04
1.00E+00	3.30E+01	2.18E+03
2.00E+00	1.31E+01	8.73E+02
3.00E+00	7.00E+00	5.38E+02
4.00E+00	4.38E+00	3.96E+02
6.00E+00	2.31E+00	2.67E+02
9.00E+00	1.38E+00	1.85E+02
1.20E+01	1.00E+00	1.41E+02
1.50E+01	7.82E-01	1.13E+02
1.80E+01	6.35E-01	9.32E+01
2.10E+01	5.29E-01	7.87E+01
1.00E+00 DAYS	4.43E-01	6.68E+01
2.00E+00	1.91E-01	2.85E+01
5.00E+00	7.22E-02	9.77E+00
1.00E+01	3.45E-02	4.46E+00
2.00E+01	1.40E-02	1.89E+00
3.00E+01	7.99E-03	1.16E+00
5.00E+01	3.61E-03	6.38E-01
1.00E+02	1.19E-03	2.74E-01
2.00E+02	4.03E-04	9.72E-02
3.00E+02	1.62E-04	4.90E-02
1.00E+00 YEARS	9.91E-05	3.62E-02
1.50E+00	3.85E-05	2.15E-02
2.00E+00	2.55E-05	1.54E-02
3.50E+00	1.52E-05	7.54E-03
5.00E+00	1.15E-05	4.86E-03
7.00E+00	9.43E-06	3.59E-03
1.00E+01	8.00E-06	2.91E-03
2.00E+01	5.76E-06	2.07E-03
3.50E+01	3.99E-06	1.42E-03
5.00E+01	2.80E-06	9.93E-04

HORNET MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.406E-12

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	1.67E-06	1.67E-06	1.67E-06	1.67E-06	1.67E-06	1.67E-06	1.66E-06	1.66E-06	1.66E-06	1.65E-06	1.65E-06
NA 24	2.10E-01	2.00E-01	1.92E-01	1.83E-01	1.74E-01	1.59E-01	1.38E-01	1.21E-01	1.05E-01	9.15E-02	7.93E-02
MN 54	1.49E-04	1.49E-04	1.49E-04	1.49E-04	1.49E-04	1.49E-04	1.49E-04	1.48E-04	1.48E-04	1.48E-04	1.48E-04
FE 55	1.91E-04	1.91E-04	1.91E-04	1.91E-04	1.91E-04	1.91E-04	1.91E-04	1.91E-04	1.91E-04	1.91E-04	1.91E-04
FE 59	1.93E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.92E-04	1.91E-04	1.91E-04	1.91E-04	1.90E-04
CO 57	3.02E-05	3.02E-05	3.02E-05	3.02E-05	3.02E-05	3.02E-05	3.02E-05	3.02E-05	3.02E-05	3.02E-05	3.02E-05
CO 58	6.95E-04	6.95E-04	6.95E-04	6.95E-04	6.94E-04	6.94E-04	6.92E-04	6.92E-04	6.91E-04	6.91E-04	6.89E-04
CO 60	5.51E-05	5.51E-05	5.51E-05	5.51E-05	5.51E-05	5.51E-05	5.51E-05	5.51E-05	5.51E-05	5.51E-05	5.51E-05
CU 64	2.88E+01	2.72E+01	2.58E+01	2.45E+01	2.32E+01	2.08E+01	1.77E+01	1.50E+01	1.28E+01	1.09E+01	9.24E+00
CU 67	6.58E-05	6.52E-05	6.41E-05	6.36E-05	6.30E-05	6.13E-05	5.91E-05	5.74E-05	5.56E-05	5.34E-05	5.19E-05
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	4.88E-04	4.88E-04	4.88E-04	4.88E-04	4.87E-04	4.87E-04	4.87E-04	4.85E-04	4.85E-04	4.84E-04	4.84E-04
W187	2.48E-02	2.40E-02	2.33E-02	2.27E-02	2.21E-02	2.08E-02	1.91E-02	1.75E-02	1.60E-02	1.47E-02	1.34E-02
W188	8.17E-07	8.17E-07	8.17E-07	8.15E-07	8.15E-07	8.15E-07	8.13E-07	8.13E-07	8.11E-07	8.11E-07	8.09E-07
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	1.45E-05	1.43E-05	1.41E-05	1.39E-05	1.37E-05	1.34E-05	1.29E-05	1.24E-05	1.18E-05	1.13E-05	1.09E-05
U237	1.94E-01	1.94E-01	1.93E-01	1.92E-01	1.91E-01	1.89E-01	1.87E-01	1.85E-01	1.82E-01	1.80E-01	1.78E-01
U239	6.95E+02	1.18E+02	2.02E+01	3.44E+00	5.85E-01	1.70E-02	8.45E-05	4.17E-07	2.06E-09	1.02E-11	5.05E-14
U240	6.55E-02	6.24E-02	5.94E-02	5.65E-02	5.38E-02	4.88E-02	4.21E-02	3.63E-02	3.13E-02	2.70E-02	2.33E-02
NP239	2.38E-03	3.98E+00	4.61E+00	4.68E+00	4.64E+00	4.53E+00	4.35E+00	4.20E+00	4.06E+00	3.91E+00	3.77E+00
NP240M	1.04E-04	6.26E-02	5.99E-02	5.70E-02	5.43E-02	4.91E-02	4.24E-02	3.66E-02	3.16E-02	2.72E-02	2.35E-02
NP240	2.62E-12	1.35E-12	7.00E-13	3.61E-13	1.87E-13	5.00E-14	6.89E-15	9.52E-16	1.31E-16	1.81E-17	2.50E-18
AM241	2.21E-08	2.21E-08	2.21E-08	2.21E-08	2.21E-08	2.21E-08	2.21E-08	2.21E-08	2.21E-08	2.21E-08	2.21E-08
CM242	4.45E-07	4.45E-07	4.45E-07	4.45E-07	4.45E-07	4.45E-07	4.43E-07	4.43E-07	4.43E-07	4.43E-07	4.43E-07
GE 75	1.47E-05	7.15E-02	4.31E-02	2.59E-02	1.56E-02	5.66E-03	1.24E-03	2.71E-04	5.91E-05	1.29E-05	2.82E-06
GE 77	7.59E-03	1.95E-02	1.84E-02	1.73E-02	1.63E-02	1.44E-02	1.20E-02	9.95E-03	8.30E-03	6.89E-03	5.74E-03
AS 77	7.85E-05	1.24E-02	1.25E-02	1.26E-02	1.27E-02	1.28E-02	1.28E-02	1.27E-02	1.25E-02	1.23E-02	1.20E-02
SE 77M	3.09E-09	3.71E-05	3.77E-05	3.80E-05	3.80E-05	3.82E-05	3.85E-05	3.82E-05	3.77E-05	3.68E-05	3.57E-05
GE 78	1.03E+00	6.47E-01	4.02E-01	2.52E-01	1.57E-01	6.11E-02	1.48E-02	3.59E-03	8.77E-04	2.13E-04	5.17E-05
AS 78	1.86E-02	3.09E-01	3.81E-01	3.57E-01	2.98E-01	1.76E-01	6.54E-02	2.17E-02	6.72E-03	2.01E-03	5.82E-04
AS 79	1.85E+01	1.82E-01	1.80E-03	1.77E-05	1.74E-07	1.69E-11	1.61E-17	1.53E-23	1.46E-29	1.40E-35	1.34E-41
SE 79M	2.74E-02	3.22E-01	3.17E-03	3.13E-05	3.08E-07	2.98E-11	2.84E-17	2.71E-23	2.59E-29	2.47E-35	2.35E-41
BR 80	1.07E-01	1.01E-02	9.45E-04	8.89E-05	8.37E-06	7.42E-08	6.21E-11	5.18E-14	4.32E-17	3.60E-20	3.01E-23
SE 81M	8.32E-02	3.88E+00	1.87E+00	9.00E-01	4.33E-01	1.01E-01	1.13E-02	1.27E-03	1.42E-04	1.59E-05	1.79E-06
SE 81	1.02E+00	4.59E+00	2.65E+00	1.32E+00	6.43E-01	1.50E-01	1.68E-02	1.88E-03	2.11E-04	2.37E-05	2.65E-06
BR 82	4.73E-04	4.64E-04	4.55E-04	4.46E-04	4.37E-04	4.20E-04	3.96E-04	3.74E-04	3.53E-04	3.32E-04	3.13E-04
SE 83	4.25E+01	8.06E+00	1.53E+00	2.89E-01	5.47E-02	1.97E-03	1.34E-05	9.10E-08	6.22E-10	4.21E-12	2.68E-14
BR 83	3.53E-01	5.27E+00	4.88E+00	3.84E+00	2.91E+00	1.65E+00	6.96E-01	2.93E-01	1.24E-01	5.22E-02	2.20E-02
KR 83M	1.82E-05	1.19E+00	2.44E+00	3.03E+00	3.12E+00	2.61E+00	1.54E+00	7.91E-01	3.81E-01	1.76E-01	7.91E-02

E-3

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HORNET  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.406E-12

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	8.72E-02	1.51E+01	4.07E+00	1.10E+00	2.98E-01	2.18E-02	4.30E-04	8.49E-06	1.68E-07	3.32E-09	6.57E-11
KR 85M	3.98E-03	8.53E+00	7.26E+00	6.20E+00	5.30E+00	3.87E+00	2.41E+00	1.50E+00	9.38E-01	5.83E-01	3.64E-01
KR 87	6.43E+01	3.71E+01	2.15E+01	1.24E+01	7.16E+00	2.40E+00	4.66E-01	9.02E-02	1.75E-02	3.38E-03	6.54E-04
KR 88	3.65E+01	2.85E+01	2.22E+01	1.74E+01	1.36E+01	8.24E+00	3.93E+00	1.87E+00	8.89E-01	4.24E-01	2.02E-01
RB 88	9.28E+00	2.88E+01	2.46E+01	1.94E+01	1.52E+01	9.22E+00	4.40E+00	2.10E+00	9.99E-01	4.75E-01	2.26E-01
RB 89	4.47E+01	4.20E+01	2.82E+00	1.90E-01	1.27E-02	5.76E-05	1.74E-08	5.26E-12	1.60E-15	4.85E-19	1.47E-22
SR 89	4.42E-06	1.20E-01	1.28E-01	1.28E-01	1.28E-01	1.28E-01	1.28E-01	1.28E-01	1.28E-01	1.27E-01	1.27E-01
SR 90	6.74E-06	6.92E-04	6.92E-04	6.92E-04	6.92E-04	6.92E-04	6.92E-04	6.92E-04	6.92E-04	6.92E-04	6.92E-04
SR 91	8.07E-01	1.50E+01	1.40E+01	1.30E+01	1.21E+01	1.05E+01	8.48E+00	6.85E+00	5.53E+00	4.44E+00	3.58E+00
Y 91M	5.43E-05	5.18E+00	7.05E+00	7.56E+00	7.46E+00	6.70E+00	5.48E+00	4.41E+00	3.56E+00	2.87E+00	2.31E+00
Y 91	2.22E-08	4.60E-03	1.06E-02	1.70E-02	2.31E-02	3.47E-02	4.92E-02	6.09E-02	7.05E-02	7.82E-02	8.42E-02
SR 92	5.96E+00	2.66E+01	2.06E+01	1.60E+01	1.24E+01	7.40E+00	3.44E+00	1.60E+00	7.40E-01	3.44E-01	1.60E-01
Y 92	2.75E-01	5.60E+00	8.79E+00	1.05E+01	1.11E+01	1.06E+01	8.10E+00	5.52E+00	3.55E+00	2.18E+00	1.32E+00
SR 93	2.44E+02	4.20E+00	2.32E-02	1.28E-04	7.07E-07	2.16E-11	3.65E-18	6.15E-25	1.04E-31	1.75E-38	2.95E-45
Y 93	2.98E-01	9.63E+00	9.04E+00	8.46E+00	7.90E+00	6.90E+00	5.62E+00	4.59E+00	3.73E+00	3.06E+00	2.49E+00
Y 94	3.57E+01	4.88E+01	6.27E+00	8.09E-01	1.04E-01	1.73E-03	3.72E-06	7.97E-09	1.70E-11	3.72E-14	2.06E-15
Y 95	1.56E+02	1.47E+01	3.23E-01	7.13E-03	1.57E-04	7.62E-08	8.16E-13	8.72E-18	9.31E-23	9.95E-28	1.06E-32
ZR 95	5.85E-04	7.64E-02	7.80E-02	7.80E-02	7.80E-02	7.80E-02	7.80E-02	7.77E-02	7.77E-02	7.75E-02	7.75E-02
NB 95	6.52E-11	4.72E-05	1.10E-04	1.73E-04	2.36E-04	3.62E-04	5.49E-04	7.39E-04	9.24E-04	1.11E-03	1.30E-03
ZR 97	1.45E+00	6.30E+00	6.03E+00	5.80E+00	5.55E+00	5.13E+00	4.53E+00	4.01E+00	3.56E+00	3.14E+00	2.79E+00
NB 97M	7.44E-03	6.05E+00	5.80E+00	5.58E+00	5.35E+00	4.93E+00	4.36E+00	3.86E+00	3.41E+00	3.01E+00	2.66E+00
NB 97	7.25E-01	3.16E+00	4.46E+00	5.08E+00	5.33E+00	5.30E+00	4.83E+00	4.31E+00	3.81E+00	3.36E+00	2.99E+00
NB 98	8.31E+00	3.68E+00	1.63E+00	7.19E-01	3.19E-01	6.24E-02	5.39E-03	4.66E-04	4.06E-05	3.51E-06	3.02E-07
MO 99	4.46E-03	1.84E+00	1.82E+00	1.80E+00	1.78E+00	1.75E+00	1.70E+00	1.64E+00	1.59E+00	1.55E+00	1.50E+00
TC 99M	4.15E-08	1.76E-01	3.30E-01	4.66E-01	5.85E-01	7.81E-01	9.92E-01	1.13E+00	1.21E+00	1.25E+00	1.27E+00
MO 101	1.33E+02	6.01E+01	3.49E+00	2.02E-01	1.17E-02	3.93E-05	7.64E-09	1.49E-12	2.89E-16	5.62E-20	1.10E-23
TC 101	5.62E+00	1.69E+02	1.84E+01	1.51E+00	1.10E+01	4.97E-04	1.24E-07	2.78E-11	5.90E-15	1.21E-18	2.46E-22
MO 102	1.15E+03	2.62E+01	5.96E-01	1.36E-02	3.10E-04	1.61E-07	1.92E-12	2.27E-17	2.69E-22	3.20E-27	3.80E-32
TC 102M	7.38E-01	2.21E+01	5.07E-01	1.16E-02	2.64E-04	1.37E-07	1.62E-12	1.92E-17	2.28E-22	2.70E-27	3.21E-32
TC 102	3.45E+03	1.32E+01	3.01E-01	6.83E-03	1.56E-04	8.14E-08	9.67E-13	1.15E-17	1.36E-22	1.61E-27	1.91E-32
RU 103	8.61E-05	2.00E-01	1.99E-01	1.99E-01	1.99E-01	1.99E-01	1.98E-01	1.98E-01	1.98E-01	1.97E-01	1.96E-01
RH 103M	5.74E-09	1.03E-01	1.53E-01	1.77E-01	1.89E-01	1.96E-01	1.98E-01	1.98E-01	1.98E-01	1.97E-01	1.97E-01
TC 104	7.81E+01	5.61E+01	5.61E+00	5.56E-01	5.50E-02	5.41E-04	5.29E-07	5.17E-10	5.05E-13	4.93E-16	4.81E-19
RU 105	6.87E-01	2.38E+01	2.03E+01	1.74E+01	1.49E+01	1.09E+01	6.82E+00	4.26E+00	2.67E+00	1.67E+00	1.05E+00
RH 105M	4.52E-03	2.38E+01	2.03E+01	1.74E+01	1.49E+01	1.09E+01	6.82E+00	4.27E+00	2.68E+00	1.67E+00	1.05E+00
RH 105	7.42E-09	4.83E-01	8.97E-01	1.24E+00	1.52E+00	1.95E+00	2.33E+00	2.51E+00	2.56E+00	2.53E+00	2.47E+00
RU 106	6.14E-04	1.16E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02
RH 106	6.65E-06	1.16E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02	1.16E-02
RH 107	1.91E-01	2.59E+01	3.93E+00	5.91E-01	8.92E-02	2.03E-03	7.01E-06	2.42E-08	8.32E-11	2.85E-14	2.83E-17
PD 107M	3.96E-04	5.27E+00	7.96E-01	1.20E-01	1.82E-02	4.14E-04	1.43E-06	4.92E-09	1.69E-11	5.84E-14	1.99E-16

HORNET  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.406E-12

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	1.61E-02	1.34E+00	1.27E+00	1.20E+00	1.14E+00	1.03E+00	8.86E-01	7.60E-01	6.51E-01	5.58E-01	4.79E-01	4.79E-01
AG109M	9.28E-05	1.34E+00	1.27E+00	1.21E+00	1.15E+00	1.03E+00	8.86E-01	7.60E-01	6.51E-01	5.58E-01	4.79E-01	4.79E-01
PD111M	2.15E+00	1.90E+00	1.67E+00	1.48E+00	1.30E+00	1.01E+00	6.93E-01	4.75E-01	3.26E-01	2.23E-01	1.53E-01	1.53E-01
PD111	7.67E-01	1.38E+00	1.33E+00	1.18E+00	1.05E+00	8.12E-01	5.57E-01	3.82E-01	2.61E-01	1.79E-01	1.23E-01	1.23E-01
AG111M	6.09E-03	1.87E+00	1.75E+00	1.57E+00	1.38E+00	1.07E+00	7.31E-01	5.01E-01	3.43E-01	2.36E-01	1.61E-01	1.61E-01
AG111	2.17E-09	6.43E-03	1.35E-02	1.99E-02	2.55E-02	3.47E-02	4.46E-02	5.11E-02	5.54E-02	5.80E-02	5.97E-02	5.97E-02
PD112	5.25E-01	5.09E-01	4.92E-01	4.76E-01	4.61E-01	4.31E-01	3.91E-01	3.54E-01	3.20E-01	2.90E-01	2.63E-01	2.63E-01
AG112	1.58E-05	1.01E-01	1.78E-01	2.39E-01	2.83E-01	3.39E-01	3.73E-01	3.71E-01	3.54E-01	3.30E-01	3.04E-01	3.04E-01
AG113	5.87E-03	1.26E+00	1.10E+00	9.67E-01	8.47E-01	6.52E-01	4.41E-01	2.98E-01	2.01E-01	1.36E-01	9.18E-02	9.18E-02
AG115	2.12E+00	2.27E+00	2.82E-01	3.53E-02	4.42E-03	6.91E-05	1.35E-07	2.64E-10	5.11E-13	5.08E-162	4.71E-16	4.71E-16
CD115M	1.73E-08	4.61E-04	5.18E-04	5.25E-04	5.25E-04	5.25E-04	5.23E-04	5.23E-04	5.21E-04	5.19E-04	5.19E-04	5.19E-04
CD115	6.69E-06	1.26E-01	1.36E-01	1.35E-01	1.34E-01	1.30E-01	1.25E-01	1.21E-01	1.16E-01	1.12E-01	1.07E-01	1.07E-01
IN115M	8.34E-11	1.39E-02	3.09E-02	4.59E-02	5.85E-02	7.80E-02	9.63E-02	1.06E-01	1.11E-01	1.12E-01	1.11E-01	1.11E-01
CD117	1.47E-01	2.45E+00	1.85E+00	1.38E+00	1.03E+00	5.80E-01	2.44E-01	1.03E-01	4.32E-02	1.81E-02	7.63E-03	7.63E-03
IN117M	7.08E-06	8.53E-01	1.24E+00	1.34E+00	1.30E+00	1.02E+00	5.84E-01	2.99E-01	1.44E-01	6.65E-02	3.01E-02	3.01E-02
IN117	2.85E-10	1.56E-01	3.77E-01	5.23E-01	5.84E-01	5.37E-01	3.42E-01	1.83E-01	9.10E-02	4.28E-02	1.97E-02	1.97E-02
CD118	9.67E+00	4.14E+00	1.78E+00	7.58E-01	3.25E-01	5.94E-02	4.66E-03	3.64E-04	2.87E-05	2.24E-06	1.76E-07	1.76E-07
IN118	6.41E-01	4.14E+00	1.78E+00	7.60E-01	3.25E-01	5.96E-02	4.66E-03	3.66E-04	2.87E-05	2.24E-06	1.76E-07	1.76E-07
CD119	2.45E+01	3.82E-01	5.96E-03	9.32E-05	1.46E-06	3.56E-10	1.36E-15	5.19E-21	1.97E-26	7.55E-32	2.89E-37	2.89E-37
IN119M	3.69E-02	4.13E+00	4.49E-01	4.53E-02	4.51E-03	4.44E-05	4.33E-08	4.24E-11	4.13E-14	4.04E-17	3.95E-20	3.95E-20
IN119	1.82E+00	2.17E-01	2.52E-02	2.56E-03	2.56E-04	2.50E-06	2.45E-09	2.39E-12	2.34E-15	2.28E-18	2.23E-21	2.23E-21
SN121	3.10E-03	3.19E-01	3.10E-01	3.03E-01	2.95E-01	2.81E-01	2.59E-01	2.41E-01	2.23E-01	2.06E-01	1.92E-01	1.92E-01
SN123M	1.59E+00	2.97E+00	1.05E+00	3.73E-01	1.32E-01	1.64E-02	7.28E-04	3.22E-05	1.43E-06	6.29E-08	2.78E-09	2.78E-09
SN123	1.49E-05	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03	1.56E-03
SN125	3.57E-02	3.56E-02	3.55E-02	3.54E-02	3.52E-02	3.50E-02	3.48E-02	3.44E-02	3.41E-02	3.37E-02	3.35E-02	3.35E-02
SB125	2.14E-04	2.15E-04	2.16E-04	2.17E-04	2.18E-04	2.20E-04	2.24E-04	2.26E-04	2.29E-04	2.32E-04	2.35E-04	2.35E-04
SB126	4.82E-03	4.80E-03	4.80E-03	4.79E-03	4.77E-03	4.75E-03	4.72E-03	4.69E-03	4.65E-03	4.62E-03	4.59E-03	4.59E-03
SN127	4.84E+00	3.48E+00	2.50E+00	1.80E+00	1.30E+00	6.68E-01	2.48E-01	9.24E-02	3.42E-02	1.27E-02	4.73E-03	4.73E-03
SB127	5.65E-02	1.95E-01	2.16E-01	2.30E-01	2.40E-01	2.50E-01	2.54E-01	2.51E-01	2.48E-01	2.42E-01	2.37E-01	2.37E-01
TE127	3.19E-02	3.97E-02	4.83E-02	5.73E-02	6.62E-02	8.30E-02	1.06E-01	1.24E-01	1.38E-01	1.49E-01	1.56E-01	1.56E-01
SN128	2.99E+01	1.48E+01	7.31E+00	3.61E+00	1.79E+00	4.36E-01	5.26E-02	6.35E-03	7.66E-04	9.29E-05	1.12E-05	1.12E-05
SB128M	1.52E-02	1.68E+01	8.73E+00	4.31E+00	2.13E+00	5.21E-01	6.27E-02	7.57E-03	9.13E-04	1.10E-04	1.33E-05	1.33E-05
SB128	1.26E+00	1.21E+00	1.14E+00	1.07E+00	1.00E+00	8.57E-01	6.84E-01	5.43E-01	4.31E-01	3.42E-01	2.71E-01	2.71E-01
SN129M	1.70E+01	8.47E+00	4.25E+00	2.13E+00	1.06E+00	2.66E-01	3.32E-02	4.16E-03	5.19E-04	6.49E-05	8.11E-06	8.11E-06
SN129	1.13E+02	1.11E+00	1.10E-02	1.08E-04	1.06E-06	1.03E-10	9.84E-17	9.41E-23	8.97E-29	8.54E-35	8.19E-41	8.19E-41
SB129	6.38E+00	1.07E+01	1.01E+01	8.97E+00	7.90E+00	5.87E+00	3.65E+00	2.26E+00	1.39E+00	8.62E-01	5.30E-01	5.30E-01
TE129M	1.21E-07	1.34E-03	2.75E-03	4.04E-03	5.19E-03	7.04E-03	8.90E-03	1.01E-02	1.08E-02	1.12E-02	1.15E-02	1.15E-02
TE129	4.60E+00	6.32E+00	7.40E+00	7.68E+00	7.40E+00	6.12E+00	4.08E+00	2.57E+00	1.60E+00	9.91E-01	6.15E-01	6.15E-01
SB130M	5.90E-01	1.11E+00	2.92E-03	7.68E-06	2.02E-08	1.39E-13	2.54E-21	4.62E-29	8.38E-37	1.52E-44	2.77E-52	2.77E-52
SB130	1.01E+02	3.06E+01	8.70E+00	2.46E+00	6.97E-01	5.61E-02	1.28E-03	2.92E-05	6.65E-07	1.52E-08	3.46E-10	3.46E-10

E-5

HORNET  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.406E-12

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	2.81E-02	2.66E-02	2.52E-02	2.38E-02	2.25E-02	2.02E-02	1.70E-02	1.44E-02	1.22E-02	1.03E-02	8.70E-03
SB131	2.14E+02	5.58E+01	9.12E+00	1.50E+00	2.46E-01	6.61E-03	2.91E-05	1.29E-07	5.66E-10	2.50E-12	1.24E-14
TE131M	1.03E-04	5.37E-01	6.13E-01	6.14E-01	6.02E-01	5.76E-01	5.37E-01	5.01E-01	4.67E-01	4.36E-01	4.07E-01
TE131	9.46E+01	1.03E+02	3.35E+01	8.71E+00	2.12E+00	1.99E-01	9.86E-02	9.12E-02	8.50E-02	7.96E-02	7.41E-02
I131	1.37E-02	4.76E-01	7.01E-01	7.69E-01	7.82E-01	7.89E-01	7.89E-01	7.82E-01	7.82E-01	7.76E-01	7.76E-01
TE132	1.01E+00	2.46E+00	2.44E+00	2.42E+00	2.39E+00	2.35E+00	2.29E+00	2.23E+00	2.17E+00	2.11E+00	2.06E+00
I132	2.49E+00	2.48E+00	2.47E+00	2.46E+00	2.44E+00	2.41E+00	2.36E+00	2.30E+00	2.24E+00	2.18E+00	2.12E+00
TE133M	1.21E-01	4.18E+01	1.82E+01	7.92E+00	3.44E+00	6.54E-01	5.39E-02	4.44E-03	3.66E-04	3.02E-05	2.49E-06
TE133	6.77E+02	3.84E+01	4.27E+00	1.41E+00	5.97E-01	1.13E-01	9.36E-03	7.69E-04	6.37E-05	5.24E-06	4.32E-07
I133	1.05E+00	1.13E+01	2.22E+01	1.22E+01	1.20E+01	1.14E+01	1.03E+01	9.36E+00	8.44E+00	7.69E+00	6.95E+00
XE133M	4.47E-08	2.54E-03	6.14E-03	9.82E-03	1.34E-02	2.01E-02	2.91E-02	3.69E-02	4.35E-02	4.92E-02	5.39E-02
XE133	7.81E-07	4.44E-02	1.08E-01	1.72E-01	2.37E-01	3.58E-01	5.25E-01	6.72E-01	8.04E-01	9.19E-01	1.02E+00
TE134	2.11E+02	9.76E+01	3.64E+01	1.35E+01	5.01E+00	6.95E-01	3.55E-02	1.82E-03	9.32E-05	4.79E-06	2.45E-07
I134	9.65E+01	1.29E+02	9.05E+01	5.30E+01	2.85E+01	7.23E+00	7.94E-01	8.11E-02	7.94E-03	7.94E-04	7.23E-05
I135	1.77E+01	3.12E+01	2.82E+01	2.54E+01	2.29E+01	1.86E+01	1.37E+01	9.99E+00	7.34E+00	5.40E+00	3.94E+00
XE135M	1.96E-03	9.02E+00	8.76E+00	7.95E+00	7.13E+00	5.81E+00	4.26E+00	3.12E+00	2.29E+00	1.68E+00	1.23E+00
XE135	2.04E+00	4.04E+00	5.91E+00	7.44E+00	8.66E+00	1.04E+01	1.15E+01	1.16E+01	1.10E+01	1.00E+01	8.97E+00
CS136	1.65E-02	1.64E-02	1.64E-02	1.64E-02	1.63E-02	1.63E-02	1.62E-02	1.61E-02	1.59E-02	1.58E-02	1.57E-02
CS137	8.89E-05	9.58E-04	9.58E-04	9.58E-04	9.58E-04	9.58E-04	9.58E-04	9.58E-04	9.58E-04	9.58E-04	9.58E-04
BA137M	1.87E-07	8.94E-04	8.94E-04	8.94E-04	8.94E-04	8.94E-04	8.94E-04	8.94E-04	8.94E-04	8.94E-04	8.94E-04
XE138	6.50E+02	5.59E+01	4.86E+00	4.21E-01	3.65E-02	2.73E-04	1.78E-07	1.15E-10	7.50E-14	4.87E-17	3.17E-20
CS138	9.67E+01	1.63E+02	5.64E+01	1.66E+01	4.64E+00	3.53E-01	7.35E-03	1.53E-04	3.17E-06	6.60E-08	1.36E-09
CS139	6.49E+02	2.07E+01	2.60E-01	3.26E-03	4.09E-05	6.43E-09	1.28E-14	2.53E-20	5.01E-26	9.93E-32	1.96E-37
BA139	1.20E+01	1.34E+02	8.24E+01	5.01E+01	3.03E+01	1.11E+01	2.47E+00	5.47E-01	1.22E-01	2.70E-02	5.99E-03
BA140	1.01E-01	6.28E-01	6.28E-01	6.23E-01	6.23E-01	6.18E-01	6.18E-01	6.14E-01	6.09E-01	6.04E-01	5.99E-01
LA140	2.39E-07	1.07E-02	2.13E-02	3.16E-02	4.17E-02	6.14E-02	8.97E-02	1.16E-01	1.41E-01	1.64E-01	1.87E-01
BA141	1.53E+02	4.62E+01	4.58E+00	4.54E-01	4.51E-02	4.47E-04	4.36E-07	4.25E-10	4.14E-13	4.07E-16	3.96E-19
LA141	1.41E+00	2.99E+01	2.79E+01	2.36E+01	1.98E+01	1.39E+01	8.14E+00	4.76E+00	2.80E+00	1.64E+00	9.63E-01
CE141	1.74E-07	1.94E-02	4.54E-02	6.83E-02	8.76E-02	1.17E-01	1.46E-01	1.62E-01	1.72E-01	1.77E-01	1.80E-01
BA142	3.04E+02	1.21E+01	2.76E-01	6.29E-03	1.43E-04	7.45E-08	8.85E-13	1.05E-17	1.25E-22	1.48E-27	1.75E-32
LA142	6.99E+00	4.85E+01	3.20E+01	2.04E+01	1.29E+01	5.24E+00	1.35E+00	3.48E-01	8.98E-02	2.31E-02	5.96E-03
LA143	1.12E+02	2.18E+01	1.12E+00	5.76E-02	2.96E-03	7.74E-06	1.04E-09	1.41E-13	1.90E-17	2.56E-21	3.45E-25
CE143	4.47E-02	2.85E+00	2.96E+00	2.88E+00	2.83E+00	2.72E+00	2.55E+00	2.39E+00	2.25E+00	2.11E+00	1.98E+00
PR143	1.31E-08	4.37E-03	1.05E-02	1.67E-02	2.27E-02	3.43E-02	5.05E-02	6.59E-02	8.00E-02	9.34E-02	1.06E-01
CE144	1.77E-03	1.27E-02	1.27E-02	1.27E-02	1.27E-02	1.27E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02	1.26E-02
PR144	4.85E-07	1.15E-02	1.26E-02	1.26E-02	1.27E-02	1.27E-02	1.27E-02	1.27E-02	1.26E-02	1.26E-02	1.26E-02
PR145	7.25E-02	1.07E+01	9.48E+00	8.43E+00	7.53E+00	5.96E+00	4.20E+00	2.97E+00	2.10E+00	1.48E+00	1.05E+00
CE146	2.17E+02	1.11E+01	5.69E-01	2.91E-02	1.50E-03	3.95E-06	5.31E-10	7.16E-14	9.64E-18	1.30E-21	1.75E-25
PR146	4.48E+00	3.90E+01	8.83E+00	1.66E+00	2.99E-01	9.39E-03	5.19E-05	2.86E-07	1.58E-09	8.76E-12	4.78E-14
PR147	2.52E+01	7.29E+00	2.28E-01	7.11E-03	2.23E-04	2.17E-07	6.63E-12	2.03E-16	6.18E-21	1.89E-25	5.75E-30

HORNET MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.406E-12

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	9.00E-06	1.69E-01	1.74E-01	1.74E-01	1.73E-01	1.72E-01	1.71E-01	1.70E-01	1.68E-01	1.67E-01	1.66E-01
ND149	1.33E+01	9.08E+00	6.18E+00	4.21E+00	2.85E+00	1.32E+00	4.16E-01	1.31E-01	4.14E-02	1.30E-02	4.11E-03
PM149	1.86E-03	1.45E-01	2.41E-01	3.05E-01	3.45E-01	3.88E-01	4.03E-01	3.96E-01	3.86E-01	3.71E-01	3.58E-01
PM150	1.60E-01	1.23E-01	9.56E-02	7.38E-02	5.70E-02	3.42E-02	1.58E-02	7.33E-03	3.40E-03	1.57E-03	7.28E-04
ND151	5.67E+01	1.77E+00	5.55E-02	1.73E-03	5.42E-05	5.29E-08	1.62E-12	4.94E-17	1.50E-21	4.58E-26	1.40E-30
PM151	3.60E-02	4.20E-01	4.23E-01	4.13E-01	4.03E-01	3.82E-01	3.55E-01	3.29E-01	3.06E-01	2.84E-01	2.63E-01
PM152	9.30E+01	9.10E-02	8.87E-05	8.67E-08	8.47E-11	8.09E-17	7.53E-26	7.02E-35	6.54E-44	6.11E-53	5.68E-62
SM153	1.30E-01	1.28E-01	1.26E-01	1.24E-01	1.22E-01	1.19E-01	1.14E-01	1.08E-01	1.04E-01	9.95E-02	9.52E-02
SM155	1.01E+01	1.65E+00	2.71E-01	4.43E-02	7.26E-03	1.95E-04	8.62E-07	3.79E-09	1.67E-11	7.46E-14	1.83E-16
EU155	7.39E-06	2.11E-04	2.44E-04	2.49E-04	2.50E-04	2.50E-04	2.50E-04	2.50E-04	2.50E-04	2.50E-04	2.50E-04
SM156	1.55E-01	1.44E-01	1.34E-01	1.24E-01	1.15E-01	9.95E-02	7.98E-02	6.40E-02	5.13E-02	4.11E-02	3.29E-02
EU156	4.53E-04	7.40E-04	1.00E-03	1.25E-03	1.48E-03	1.89E-03	2.40E-03	2.78E-03	3.11E-03	3.36E-03	3.53E-03
EU157	2.40E-02	7.95E-02	7.59E-02	7.25E-02	6.92E-02	6.32E-02	5.52E-02	4.82E-02	4.20E-02	3.65E-02	3.19E-02
EU158	1.00E+00	4.07E-01	1.65E-01	6.67E-02	2.70E-02	4.42E-03	2.94E-04	1.95E-05	1.30E-06	8.60E-08	5.71E-09
EU159	1.20E+00	1.20E-01	1.19E-02	1.18E-03	1.17E-04	1.15E-06	1.13E-09	1.10E-12	1.07E-15	1.05E-18	1.02E-21
GD159	5.16E-03	2.26E-02	2.35E-02	2.28E-02	2.19E-02	2.03E-02	1.81E-02	1.61E-02	1.44E-02	1.28E-02	1.14E-02
TB161	8.96E-05	6.45E-04	6.40E-04	6.38E-04	6.36E-04	6.30E-04	6.23E-04	6.15E-04	6.06E-04	6.00E-04	5.92E-04
TOTAL	1.03E+04	2.18E+03	8.73E+02	5.38E+02	3.96E+02	2.67E+02	1.85E+02	1.41E+02	1.13E+02	9.32E+01	7.87E+01

HORNET MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.406E-12

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	1.67E-06	1.65E-06	1.63E-06	1.57E-06	1.47E-06	1.29E-06	1.13E-06	8.71E-07	4.56E-07	1.24E-07	3.37E-08
NA 24	2.10E-01	6.92E-02	2.28E-02	8.18E-04	3.20E-06	4.89E-11	7.47E-16	1.74E-25	0.	0.	0.
MN 54	1.49E-04	1.48E-04	1.48E-04	1.45E-04	1.44E-04	1.41E-04	1.39E-04	1.32E-04	1.18E-04	9.38E-05	7.48E-05
FE 55	1.91E-04	1.91E-04	1.91E-04	1.90E-04	1.90E-04	1.89E-04	1.87E-04	1.85E-04	1.77E-04	1.65E-04	1.53E-04
FE 59	1.93E-04	1.90E-04	1.87E-04	1.78E-04	1.65E-04	1.42E-04	1.21E-04	8.92E-05	4.14E-05	8.83E-06	1.90E-06
CO 57	3.02E-05	3.02E-05	3.00E-05	3.00E-05	2.95E-05	2.87E-05	2.80E-05	2.66E-05	2.35E-05	1.82E-05	1.41E-05
CO 58	6.95E-04	6.89E-04	6.82E-04	6.61E-04	6.32E-04	5.72E-04	5.19E-04	4.27E-04	2.63E-04	9.96E-05	3.76E-05
CO 60	5.51E-05	5.51E-05	5.51E-05	5.51E-05	5.48E-05	5.48E-05	5.45E-05	5.42E-05	5.28E-05	5.12E-05	4.93E-05
CU 64	2.88E+01	7.84E+00	2.14E+00	4.35E-02	6.52E-05	1.48E-10	3.36E-16	1.73E-27	0.	0.	0.
CU 67	6.58E-05	5.02E-05	3.83E-05	1.70E-05	4.44E-06	2.99E-07	2.02E-08	9.17E-11	1.28E-16	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	4.88E-04	4.83E-04	4.75E-04	4.65E-04	4.45E-04	4.05E-04	3.70E-04	3.07E-04	1.94E-04	7.70E-05	3.06E-05
W187	2.48E-02	1.24E-02	6.13E-03	2.65E-04	2.35E-05	2.24E-08	2.11E-11	1.91E-19	0.	0.	0.
W188	8.17E-07	8.07E-07	7.99E-07	7.76E-07	7.40E-07	6.67E-07	6.04E-07	4.95E-07	3.00E-07	1.11E-07	4.07E-08
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	1.05E-05	7.63E-06	2.93E-06	5.93E-07	2.44E-08	1.00E-09	1.68E-12	1.96E-19	0.	0.	0.
U237	1.94E-01	1.75E-01	1.58E-01	1.16E-01	6.96E-02	2.49E-02	8.94E-03	1.14E-03	6.75E-06	7.26E-10	4.89E-10
U240	6.55E-02	2.02E-02	6.19E-03	1.79E-04	4.92E-07	3.70E-12	2.78E-17	1.57E-27	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP239	2.38E-03	3.63E+00	2.70E+00	1.12E+00	2.55E-01	1.33E-02	6.98E-04	1.92E-06	7.53E-13	1.80E-22	1.80E-22
NP240M	1.04E-04	2.03E-02	6.24E-03	1.81E-04	4.96E-07	3.74E-12	2.81E-17	1.58E-27	0.	0.	0.
*AM241	2.21E-08	2.21E-08	2.21E-08	2.21E-08	2.21E-08	2.21E-08	2.21E-08	2.21E-08	2.21E-08	2.21E-08	2.21E-08
CM242	4.45E-07	4.43E-07	4.40E-07	4.36E-07	4.27E-07	4.08E-07	3.92E-07	3.60E-07	2.93E-07	1.90E-07	1.25E-07
GE 77	7.59E-03	4.78E-03	1.09E-03	1.32E-05	8.41E-09	3.40E-15	1.37E-21	2.24E-34	0.	0.	0.
AS 77	7.85E-05	1.16E-02	8.38E-03	2.42E-03	2.84E-04	3.85E-06	5.23E-08	9.65E-12	4.47E-21	9.59E-40	2.06E-58
SE 77M	3.09E-09	3.49E-05	2.51E-05	7.28E-06	8.49E-07	1.16E-08	1.57E-10	2.90E-14	1.34E-23	2.87E-42	6.19E-61
AS 78	1.86E-02	1.66E-04	4.85E-09	4.10E-23	0.	0.	0.	0.	0.	0.	0.
BR 82	4.73E-04	2.95E-04	1.84E-04	4.48E-05	4.25E-06	3.82E-08	3.43E-10	2.77E-14	1.61E-24	5.54E-45	1.89E-65
BR 83	3.53E-01	9.30E-03	9.35E-06	9.50E-15	9.70E-30	0.	0.	0.	0.	0.	0.
KR 83M	1.82E-05	4.07E-02	4.62E-05	4.15E-14	4.26E-29	0.	0.	0.	0.	0.	0.
KR 85M	3.98E-03	2.27E-01	5.18E-03	6.15E-08	3.79E-16	1.44E-32	5.46E-49	0.	0.	0.	0.
KR 85	4.12E-06	1.08E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.09E-04	1.06E-04	1.05E-04
KR 87	6.43E+01	1.27E-04	2.51E-10	1.94E-27	0.	0.	0.	0.	0.	0.	0.
KR 88	3.65E+01	9.61E-02	2.52E-04	4.58E-12	5.77E-25	0.	0.	0.	0.	0.	0.
RB 88	9.28E+00	1.07E-01	2.82E-04	5.12E-12	6.42E-25	0.	0.	0.	0.	0.	0.
SR 89	3.42E-06	1.03E-01	1.01E-01	9.71E-02	9.11E-02	7.96E-02	6.96E-02	5.36E-02	2.74E-02	7.21E-03	1.90E-03
SR 90	6.74E-06	6.92E-04	6.92E-04	6.92E-04	6.92E-04	6.92E-04	6.92E-04	6.92E-04	6.86E-04	6.86E-04	6.80E-04
Y 90	9.98E-12	1.59E-04	2.81E-04	5.04E-04	6.43E-04	6.86E-04	6.92E-04	6.92E-04	6.86E-04	6.86E-04	6.80E-04
SR 91	8.07E-01	2.89E+00	5.18E-01	2.97E-03	5.43E-07	1.84E-14	6.24E-22	7.11E-37	0.	0.	0.

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HORNET  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.406E-12

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	5.43E-05	1.87E+00	3.34E-01	1.92E-03	3.52E-07	1.19E-14	4.02E-22	4.59E-37	0.	0.	0.	0.
Y 91	2.22E-08	8.88E-02	1.05E-01	1.05E-01	9.90E-02	8.78E-02	7.82E-02	6.19E-02	3.43E-02	1.06E-02	3.24E-03	0.
SR 92	5.96E+00	7.43E-02	1.60E-04	1.61E-12	7.54E-26	0.	0.	0.	0.	0.	0.	0.
Y 92	2.75E-01	7.79E-01	8.65E-03	6.65E-09	3.88E-19	1.33E-39	4.55E-60	0.	0.	0.	0.	0.
Y 93	2.98E-01	2.01E+00	3.92E-01	2.95E-03	8.49E-07	7.01E-14	5.79E-21	3.95E-35	0.	0.	0.	0.
ZR 95	5.85E-04	7.31E-02	7.23E-02	7.00E-02	6.64E-02	5.95E-02	5.36E-02	4.34E-02	2.54E-02	8.75E-03	3.00E-03	0.
NB 95M	1.24E-11	2.48E-04	4.51E-04	8.62E-04	1.16E-03	1.23E-03	1.13E-03	9.18E-04	5.39E-04	1.85E-04	6.39E-05	0.
NB 95	6.52E-11	1.41E-03	2.80E-03	6.70E-03	1.24E-02	2.15E-02	2.77E-02	3.44E-02	3.31E-02	1.59E-02	6.11E-03	0.
ZR 97	1.45E+00	2.46E+00	9.26E-01	4.90E-02	3.68E-04	2.07E-08	1.17E-12	3.68E-21	2.08E-42	0.	0.	0.
NB 97M	7.44E-03	2.37E+00	8.89E-01	4.73E-02	3.54E-04	1.99E-08	1.12E-12	3.54E-21	2.00E-42	0.	0.	0.
NB 97	7.25E-01	2.47E+00	9.29E-01	4.93E-02	3.71E-04	2.23E-08	1.25E-12	3.98E-21	2.24E-42	0.	0.	0.
MO 99	4.46E-03	1.45E+00	1.13E+00	5.37E-01	1.55E-01	1.30E-02	1.08E-03	7.56E-06	3.07E-11	5.06E-22	8.33E-33	0.
TC 99M	4.15E-08	1.28E+00	1.07E+00	5.14E-01	1.48E-01	1.24E-02	1.03E-03	7.22E-06	2.93E-11	4.83E-22	7.96E-33	0.
RU103	8.61E-05	1.96E-01	1.93E-01	1.83E-01	1.68E-01	1.41E-01	1.18E-01	8.33E-02	3.47E-02	6.02E-03	1.05E-03	0.
RH103M	5.74E-09	1.96E-01	1.93E-01	1.83E-01	1.68E-01	1.41E-01	1.18E-01	8.33E-02	3.47E-02	6.02E-03	1.05E-03	0.
RU105	6.87E-01	6.56E-01	1.54E-02	2.03E-07	1.48E-15	7.92E-32	4.24E-48	0.	0.	0.	0.	0.
RH105M	4.52E-03	6.56E-01	1.55E-02	2.03E-07	1.49E-15	7.97E-32	4.25E-48	0.	0.	0.	0.	0.
RH105	7.42E-09	2.37E+00	1.55E+00	3.86E-01	3.80E-02	3.70E-04	3.59E-06	3.39E-10	2.94E-20	2.21E-40	1.66E-60	0.
RU106	6.14E-04	1.16E-02	1.16E-02	1.15E-02	1.14E-02	1.12E-02	1.10E-02	1.06E-02	9.62E-03	7.96E-03	6.60E-03	0.
RH106	6.65E-06	1.16E-02	1.16E-02	1.15E-02	1.14E-02	1.12E-02	1.10E-02	1.06E-02	9.62E-03	7.96E-03	6.60E-03	0.
PD109	1.61E-02	4.10E-01	1.19E-01	2.96E-03	6.24E-06	2.78E-11	1.24E-16	2.45E-27	0.	0.	0.	0.
AG109M	9.28E-05	4.10E-01	1.20E-01	2.97E-03	6.27E-06	2.79E-11	1.24E-16	2.45E-27	0.	0.	0.	0.
PD111M	2.15E+00	1.05E-01	5.08E-03	5.83E-07	1.58E-13	1.15E-26	8.44E-40	0.	0.	0.	0.	0.
PD111	7.67E-01	8.44E-02	4.08E-03	4.69E-07	1.27E-13	9.25E-27	6.78E-40	0.	0.	0.	0.	0.
AG111M	6.09E-03	1.10E-01	5.36E-03	6.17E-07	1.66E-13	1.22E-26	8.92E-40	0.	0.	0.	0.	0.
AG111	2.17E-09	5.99E-02	5.76E-02	4.38E-02	2.76E-02	1.09E-02	4.34E-03	6.84E-04	6.73E-06	6.52E-10	6.32E-14	0.
PD112	5.25E-01	2.39E-01	1.08E-01	1.00E-02	1.91E-04	6.92E-08	2.51E-11	3.30E-18	2.08E-35	0.	0.	0.
AG112	1.58E-05	2.77E-01	1.27E-01	1.18E-02	2.26E-04	8.17E-08	2.96E-11	3.91E-18	2.45E-35	0.	0.	0.
AG113	5.87E-03	6.20E-02	2.68E-03	2.18E-07	3.33E-14	7.80E-28	1.82E-41	0.	0.	0.	0.	0.
CD115M	1.73E-08	5.01E-04	4.93E-04	4.69E-04	4.34E-04	3.68E-04	3.14E-04	2.27E-04	1.02E-04	2.02E-05	4.03E-06	0.
CD115	6.69E-06	1.01E-01	7.38E-02	2.91E-02	6.14E-03	2.74E-04	1.22E-05	2.44E-08	4.30E-15	1.35E-28	4.22E-42	0.
IN115M	8.34E-11	1.06E-01	8.05E-02	3.18E-02	6.69E-03	2.99E-04	1.33E-05	2.66E-08	4.71E-15	1.47E-28	4.61E-42	0.
CD117	1.47E-01	3.21E-03	3.13E-06	2.92E-15	2.59E-30	0.	0.	0.	0.	0.	0.	0.
IN117M	7.08E-06	1.33E-02	1.54E-05	1.49E-14	1.32E-29	0.	0.	0.	0.	0.	0.	0.
IN117	2.85E-10	8.79E-03	1.04E-05	1.01E-14	8.95E-30	0.	0.	0.	0.	0.	0.	0.
SN121	3.10E-03	1.77E-01	9.54E-02	1.50E-02	6.89E-04	1.46E-06	3.06E-09	1.37E-14	5.71E-28	0.	0.	0.
SN123	1.49E-05	1.56E-03	1.55E-03	1.52E-03	1.48E-03	1.40E-03	1.33E-03	1.19E-03	8.99E-04	5.17E-04	2.97E-04	0.
SN125	3.57E-02	3.32E-02	3.09E-02	2.47E-02	1.71E-02	8.17E-03	3.91E-03	8.94E-04	2.24E-05	1.41E-08	8.82E-12	0.
SB125	2.14E-04	2.38E-04	2.60E-04	3.18E-04	3.90E-04	4.72E-04	5.08E-04	5.29E-04	5.19E-04	4.85E-04	4.52E-04	0.
SB126	4.82E-03	4.56E-03	4.32E-03	3.65E-03	2.77E-03	1.59E-03	9.15E-04	3.01E-04	1.88E-05	9.15E-08	1.84E-08	0.

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HORNET  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.406E-12

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	4.84E+00	1.75E-03	6.37E-07	3.04E-17	1.91E-34	0.	0.	0.	0.	0.	0.	0.
SB127	5.65E-02	2.32E-01	1.94E-01	1.13E-01	4.64E-02	7.75E-03	1.30E-03	3.62E-05	4.73E-09	8.07E-17	1.37E-24	0.
TE127M	4.57E-10	3.54E-04	6.48E-04	1.26E-03	1.74E-03	1.92E-03	1.85E-03	1.64E-03	1.20E-03	6.31E-04	3.34E-04	0.
TE127	3.19E-02	1.66E-01	1.63E-01	9.93E-02	4.20E-02	8.61E-03	2.95E-03	1.65E-03	1.18E-03	6.24E-04	3.30E-04	0.
SB128	1.26E+00	2.15E-01	3.40E-02	1.33E-04	1.29E-08	1.21E-16	1.14E-24	1.00E-40	0.	0.	0.	0.
SB129	6.38E+00	3.27E-01	6.82E-03	6.21E-08	2.47E-16	3.90E-33	6.15E-50	0.	0.	0.	0.	0.
TE129M	1.21E-07	1.27E-02	1.27E-02	1.20E-02	1.08E-02	8.83E-03	7.18E-03	4.78E-03	1.72E-03	2.25E-04	2.92E-05	0.
TE129	4.60E+00	3.83E-01	1.59E-02	7.68E-03	6.93E-03	5.65E-03	4.61E-03	3.07E-03	1.11E-03	1.44E-04	1.87E-05	0.
I130	2.81E-02	7.36E-03	1.93E-03	3.44E-05	4.20E-08	6.26E-14	9.34E-20	2.08E-31	0.	0.	0.	0.
TE131M	1.03E-04	3.59E-01	2.06E-01	3.90E-02	2.44E-03	9.52E-06	3.73E-08	5.69E-13	5.17E-25	0.	0.	0.
TE131	9.46E+01	6.55E-02	3.76E-02	7.14E-03	4.46E-04	1.74E-06	6.80E-09	1.04E-13	9.46E-26	0.	0.	0.
I131	1.37E-02	7.41E-01	7.01E-01	5.63E-01	3.71E-01	1.56E-01	6.63E-02	1.18E-02	1.60E-04	2.91E-08	5.31E-12	0.
XE131M	3.73E-11	3.44E-04	6.52E-04	1.36E-03	1.95E-03	1.93E-03	1.43E-03	5.90E-04	3.93E-05	1.18E-07	3.32E-10	0.
TE132	1.01E+00	2.01E+00	1.62E+00	8.54E-01	2.94E-01	3.49E-02	4.13E-03	5.80E-05	1.36E-09	7.43E-19	4.05E-28	0.
I132	2.49E+00	2.07E+00	1.67E+00	8.78E-01	3.03E-01	3.59E-02	4.26E-03	5.98E-05	1.40E-09	7.61E-19	4.18E-28	0.
I133	1.05E+00	5.86E+00	2.64E+00	2.45E-01	4.67E-03	1.69E-06	6.14E-10	8.09E-17	5.09E-34	0.	0.	0.
XE133M	4.47E-08	5.53E-02	6.54E-02	3.84E-02	9.01E-03	4.23E-04	1.97E-05	4.27E-08	9.36E-15	4.47E-28	2.14E-41	0.
XE133	7.81E-07	1.06E+00	1.42E+00	1.27E+00	6.95E-01	1.88E-01	5.05E-02	3.63E-03	5.06E-06	9.82E-12	1.91E-17	0.
I135	1.77E+01	2.89E+00	2.42E-01	1.41E-04	5.71E-10	9.43E-21	1.55E-31	4.21E-53	0.	0.	0.	0.
XE135M	1.96E-03	9.02E-01	7.54E-02	4.39E-05	1.78E-10	2.93E-21	4.84E-32	1.31E-53	0.	0.	0.	0.
XE135	2.04E+00	7.80E+00	1.91E+00	1.09E-02	1.33E-06	1.87E-14	2.63E-22	5.20E-38	0.	0.	0.	0.
CS136	1.65E-02	1.56E-02	1.48E-02	1.26E-02	9.68E-03	5.68E-03	3.34E-03	1.15E-03	7.97E-05	3.84E-07	1.86E-09	0.
CS137	8.89E-05	9.58E-04	9.58E-04	9.58E-04	9.58E-04	9.58E-04	9.58E-04	9.58E-04	9.52E-04	9.47E-04	9.42E-04	0.
BA137M	1.87E-07	8.94E-04	8.94E-04	8.94E-04	8.94E-04	8.94E-04	8.94E-04	8.94E-04	8.89E-04	8.83E-04	8.78E-04	0.
BA139	1.20E+01	1.28E-03	7.55E-09	1.55E-24	0.	0.	0.	0.	0.	0.	0.	0.
BA140	1.01E-01	5.95E-01	5.66E-01	4.79E-01	3.66E-01	2.13E-01	1.24E-01	4.20E-02	2.80E-03	1.25E-05	5.51E-08	0.
LA140	2.39E-07	2.07E-01	3.33E-01	4.61E-01	4.09E-01	2.45E-01	1.42E-01	4.84E-02	3.22E-03	1.43E-05	6.38E-08	0.
LA141	1.41E+00	5.60E-01	7.85E-03	2.17E-08	1.19E-17	3.55E-36	1.06E-54	0.	0.	0.	0.	0.
CE141	1.74E-07	1.93E-01	1.92E-01	1.80E-01	1.62E-01	1.31E-01	1.05E-01	6.87E-02	2.36E-02	2.78E-03	3.27E-04	0.
LA142	6.99E+00	1.53E-03	2.97E-08	2.18E-22	0.	0.	0.	0.	0.	0.	0.	0.
CE143	4.47E-02	1.84E+00	1.11E+00	2.45E-01	1.97E-02	1.27E-04	8.24E-07	3.45E-11	3.90E-22	0.	0.	0.
PR143	1.31E-08	1.18E-01	1.83E-01	2.36E-01	2.03E-01	1.23E-01	7.46E-02	2.69E-02	2.16E-03	1.37E-05	8.68E-08	0.
CE144	1.77E-03	1.26E-02	1.26E-02	1.25E-02	1.24E-02	1.21E-02	1.18E-02	1.12E-02	9.91E-03	7.77E-03	6.10E-03	0.
PR144	4.85E-07	1.26E-02	1.26E-02	1.25E-02	1.24E-02	1.21E-02	1.18E-02	1.12E-02	9.91E-03	7.77E-03	6.10E-03	0.
PR145	7.25E-02	7.42E-01	4.59E-02	1.09E-05	9.92E-12	8.21E-24	6.81E-36	0.	0.	0.	0.	0.
ND147	9.00E-06	1.51E-01	1.42E-01	1.18E-01	8.62E-02	4.63E-02	2.47E-02	7.11E-03	3.11E-04	6.07E-07	1.18E-09	0.
PM147	2.50E-14	1.13E-04	2.19E-04	5.00E-04	8.65E-04	1.32E-03	1.56E-03	1.74E-03	1.75E-03	1.63E-03	1.52E-03	0.
ND149	1.33E+01	1.29E-03	1.25E-07	1.14E-19	9.73E-40	0.	0.	0.	0.	0.	0.	0.
PM149	1.86E-03	3.43E-01	2.51E-01	9.81E-02	2.05E-02	8.93E-04	3.88E-05	7.39E-08	1.17E-14	2.87E-28	7.16E-42	0.
PM150	1.60E-01	3.37E-04	7.10E-07	6.67E-15	2.79E-28	0.	0.	0.	0.	0.	0.	0.

HORNET MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.406E-12

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	3.60E-02	2.45E-01	1.35E-01	2.28E-02	1.17E-03	3.06E-06	8.08E-09	5.57E-14	6.99E-27	0.	0.
SM153	1.30E-01	9.10E-02	6.39E-02	2.21E-02	3.75E-03	1.09E-04	3.17E-06	2.66E-09	5.50E-17	2.34E-32	9.95E-48
SM156	1.55E-01	2.64E-02	4.51E-03	2.22E-05	3.20E-09	6.58E-17	1.36E-24	5.78E-40	0.	0.	0.
EU155	7.39E-06	2.50E-04	2.50E-04	2.50E-04	2.49E-04	2.48E-04	2.47E-04	2.45E-04	2.41E-04	2.31E-04	2.22E-04
EU156	4.53E-04	3.69E-03	4.09E-03	3.67E-03	2.91E-03	1.83E-03	1.15E-03	4.58E-04	4.53E-05	4.47E-07	4.40E-09
EU157	2.40E-02	2.77E-02	9.33E-03	3.50E-04	1.47E-06	2.59E-11	4.59E-16	1.43E-25	0.	0.	0.
GD159	5.16E-03	1.02E-02	4.04E-03	2.52E-04	2.48E-06	2.40E-10	2.33E-14	2.19E-22	1.87E-42	0.	0.
TB161	8.96E-05	5.85E-04	5.28E-04	3.91E-04	2.37E-04	8.66E-05	3.17E-05	4.25E-06	2.81E-08	1.22E-12	5.28E-17
TOTAL	3.24E+02	6.68E+01	2.85E+01	9.77E+00	4.46E+00	1.89E+00	1.16E+00	6.38E-01	2.74E-01	9.72E-02	4.90E-02

HORNET  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.406E-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	1.67E-06	1.44E-08	1.34E-09	1.25E-10	1.00E-13	8.02E-17	6.00E-21	3.85E-27	0.	0.	0.
MN 54	1.49E-04	6.44E-05	4.24E-05	2.79E-05	7.97E-06	2.27E-06	4.28E-07	3.50E-08	8.22E-12	2.97E-17	1.08E-22
FE 59	1.93E-04	6.95E-07	4.17E-08	2.51E-09	5.45E-13	1.18E-16	1.53E-21	7.18E-29	0.	0.	0.
CO 57	3.02E-05	1.19E-05	7.45E-06	4.68E-06	1.15E-06	2.84E-07	4.39E-09	2.66E-09	2.33E-13	1.91E-19	0.
CO 58	6.95E-04	2.00E-05	3.39E-06	5.74E-07	2.80E-09	1.36E-11	1.12E-14	2.66E-19	1.02E-34	0.	0.
CO 60	5.51E-05	4.83E-05	4.50E-05	4.21E-05	3.46E-05	2.84E-05	2.18E-05	1.47E-05	3.95E-06	5.48E-07	7.57E-08
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	4.88E-04	1.68E-05	3.11E-06	5.75E-07	3.66E-09	2.34E-11	2.75E-14	1.12E-18	0.	0.	0.
W188	8.17E-07	2.12E-08	3.44E-09	5.53E-10	2.33E-12	9.77E-15	6.62E-18	1.17E-22	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	1.94E-01	4.85E-10	4.72E-10	4.60E-10	4.30E-10	3.99E-10	3.63E-10	3.15E-10	1.96E-10	9.62E-11	4.72E-11
*AM241	2.21E-08	2.21E-08	2.21E-08	2.21E-08	2.22E-08	2.23E-08	2.23E-08	2.24E-08	2.25E-08	2.23E-08	2.20E-08
CM242	4.45E-07	9.43E-08	4.34E-08	1.99E-08	1.94E-09	1.89E-10	8.49E-12	8.03E-14	2.31E-18	2.15E-18	2.01E-18
KR 85	4.12E-06	1.02E-04	9.91E-05	9.59E-05	8.74E-05	7.89E-05	6.94E-05	5.72E-05	3.03E-05	1.15E-05	4.41E-06
SR 89	3.42E-06	8.01E-04	7.01E-05	6.16E-06	4.14E-09	2.80E-12	1.65E-16	7.51E-23	5.46E-44	0.	0.
SR 90	6.74E-06	6.74E-04	6.68E-04	6.62E-04	6.37E-04	6.13E-04	5.83E-04	5.41E-04	4.23E-04	2.92E-04	2.02E-04
Y 90	9.98E-12	6.74E-04	6.68E-04	6.62E-04	6.37E-04	6.13E-04	5.83E-04	5.41E-04	4.23E-04	2.92E-04	2.02E-04
Y 91	2.22E-08	1.50E-03	1.75E-04	2.03E-05	3.18E-08	4.99E-11	9.14E-15	2.24E-20	4.53E-39	0.	0.
ZR 95	5.85E-04	1.50E-03	2.14E-04	3.05E-05	8.90E-08	2.59E-10	1.07E-13	9.06E-19	1.11E-35	0.	0.
NB 95M	1.24E-11	3.18E-05	4.54E-06	6.49E-07	1.89E-09	5.49E-12	2.27E-15	1.92E-20	2.35E-37	0.	0.
NB 95	6.52E-11	3.23E-03	4.64E-04	6.62E-05	1.92E-07	5.57E-10	2.32E-13	1.96E-18	2.40E-35	0.	0.
RU103	8.61E-05	3.34E-04	1.37E-05	5.63E-07	3.84E-11	2.63E-15	7.40E-21	3.48E-29	0.	0.	0.
RH103M	5.74E-09	3.35E-04	1.37E-05	5.63E-07	3.85E-11	2.64E-15	7.40E-21	3.48E-29	0.	0.	0.
RU106	6.14E-04	5.84E-03	4.13E-03	2.93E-03	1.04E-03	3.70E-04	9.32E-05	1.18E-05	1.19E-08	3.82E-13	1.23E-17
RH106	6.65E-06	5.84E-03	4.13E-03	2.93E-03	1.04E-03	3.70E-04	9.32E-05	1.18E-05	1.19E-08	3.82E-13	1.23E-17
SN123	1.49E-05	2.07E-04	7.51E-05	2.73E-05	1.31E-06	6.28E-08	1.09E-09	2.52E-12	4.04E-21	2.60E-34	1.67E-47
SB125	2.14E-04	4.32E-04	3.79E-04	3.34E-04	2.27E-04	1.55E-04	9.25E-05	4.28E-05	3.29E-06	7.00E-08	1.49E-09
TE125M	5.77E-12	1.76E-04	1.57E-04	1.38E-04	9.41E-05	6.40E-05	3.83E-05	1.77E-05	1.36E-06	2.90E-08	6.17E-10
TE127M	4.57E-10	2.19E-04	6.84E-05	2.14E-05	6.59E-07	2.03E-08	1.95E-10	1.83E-13	1.51E-23	1.13E-38	8.38E-54
TE127	3.19E-02	2.17E-04	6.77E-05	2.12E-05	6.51E-07	2.00E-08	1.92E-10	1.82E-13	1.49E-23	1.11E-38	8.30E-54
CS137	8.89E-05	9.36E-04	9.26E-04	9.15E-04	8.83E-04	8.51E-04	8.14E-04	7.61E-04	6.01E-04	4.27E-04	3.02E-04
BA137M	1.87E-07	8.78E-04	8.67E-04	8.57E-04	8.25E-04	7.98E-04	7.61E-04	7.13E-04	5.64E-04	3.99E-04	2.83E-04
CE141	1.74E-07	7.52E-05	1.51E-06	3.04E-08	2.48E-13	2.01E-18	3.30E-25	2.19E-35	0.	0.	0.
CE144	1.77E-03	5.20E-03	3.34E-03	2.13E-03	5.59E-04	1.47E-04	2.47E-05	1.71E-06	2.30E-10	3.61E-16	5.62E-22
PR144	4.85E-07	5.20E-03	3.34E-03	2.13E-03	5.59E-04	1.47E-04	2.47E-05	1.71E-06	2.30E-10	3.61E-16	5.62E-22
PM147	2.50E-14	1.45E-03	1.27E-03	1.11E-03	7.48E-04	5.03E-04	2.95E-04	1.34E-04	9.53E-06	1.80E-07	3.41E-09
EU155	7.39E-06	2.16E-04	2.01E-04	1.87E-04	1.50E-04	1.21E-04	9.02E-05	5.83E-05	1.36E-05	1.53E-06	1.72E-07
TOTAL	2.31E-01	3.62E-02	2.15E-02	1.54E-02	7.54E-03	4.86E-03	3.59E-03	2.91E-03	2.07E-03	1.42E-03	9.93E-04

**APPENDIX F  
DETAILED RESULTS FOR EVENT BEE**

BEE  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 7.531E-13

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.14E+02	1.06E+04
1.00E+00	3.54E+01	2.20E+03
2.00E+00	1.40E+01	8.80E+02
3.00E+00	7.44E+00	5.38E+02
4.00E+00	4.60E+00	3.90E+02
6.00E+00	2.38E+00	2.56E+02
9.00E+00	1.39E+00	1.73E+02
1.20E+01	1.00E+00	1.30E+02
1.50E+01	7.79E-01	1.03E+02
1.80E+01	6.31E-01	8.43E+01
2.10E+01	5.25E-01	7.09E+01
1.00E+00 DAYS	4.38E-01	5.98E+01
2.00E+00	1.91E-01	2.57E+01
5.00E+00	7.48E-02	9.37E+00
1.00E+01	3.65E-02	4.52E+00
2.00E+01	1.51E-02	2.01E+00
3.00E+01	8.66E-03	1.25E+00
5.00E+01	3.94E-03	6.91E-01
1.00E+02	1.30E-03	2.97E-01
2.00E+02	4.37E-04	1.05E-01
3.00E+02	1.75E-04	5.31E-02
1.00E+00 YEARS	1.06E-04	3.92E-02
1.50E+00	3.99E-05	2.32E-02
2.00E+00	2.59E-05	1.66E-02
3.50E+00	1.50E-05	8.02E-03
5.00E+00	1.13E-05	5.12E-03
7.00E+00	9.42E-06	3.77E-03
1.00E+01	8.24E-06	3.09E-03
2.00E+01	6.20E-06	2.23E-03
3.50E+01	4.35E-06	1.54E-03
5.00E+01	3.06E-06	1.07E-03

BEE MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 7.531E-13

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	1.59E-06	1.59E-06	1.59E-06	1.59E-06	1.59E-06	1.59E-06	1.58E-06	1.58E-06	1.58E-06	1.57E-06	1.57E-06
NA 24	1.69E-01	1.62E-01	1.55E-01	1.47E-01	1.41E-01	1.28E-01	1.12E-01	9.74E-02	8.48E-02	7.39E-02	6.40E-02
MN 54	2.06E-04	2.06E-04	2.06E-04	2.06E-04	2.06E-04	2.06E-04	2.06E-04	2.04E-04	2.04E-04	2.04E-04	2.04E-04
FE 55	3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04	3.11E-04
FE 59	1.72E-04	1.72E-04	1.72E-04	1.72E-04	1.72E-04	1.72E-04	1.72E-04	1.71E-04	1.71E-04	1.70E-04	1.70E-04
CO 57	6.51E-05	6.51E-05	6.51E-05	6.51E-05	6.51E-05	6.51E-05	6.51E-05	6.51E-05	6.51E-05	6.51E-05	6.51E-05
CO 58	8.89E-04	8.89E-04	8.89E-04	8.89E-04	8.87E-04	8.87E-04	8.85E-04	8.85E-04	8.84E-04	8.84E-04	8.82E-04
CO 60	2.91E-05	2.91E-05	2.91E-05	2.91E-05	2.91E-05	2.91E-05	2.91E-05	2.91E-05	2.91E-05	2.91E-05	2.91E-05
CU 64	1.05E+00	9.94E-01	9.42E-01	8.93E-01	8.45E-01	7.99E-01	6.44E-01	5.48E-01	4.66E-01	3.96E-01	3.37E-01
CU 67	3.88E-05	3.84E-05	3.78E-05	3.74E-05	3.71E-05	3.61E-05	3.48E-05	3.38E-05	3.27E-05	3.15E-05	3.06E-05
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	4.23E-04	4.23E-04	4.23E-04	4.23E-04	4.22E-04	4.22E-04	4.22E-04	4.21E-04	4.21E-04	4.20E-04	4.20E-04
W187	2.04E-02	1.98E-02	1.92E-02	1.86E-02	1.81E-02	1.71E-02	1.57E-02	1.44E-02	1.32E-02	1.21E-02	1.11E-02
W188	2.57E-06	2.57E-06	2.57E-06	2.57E-06	2.57E-06	2.57E-06	2.56E-06	2.56E-06	2.55E-06	2.55E-06	2.55E-06
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-01	1.21E-01	1.19E-01	1.17E-01	1.16E-01	1.13E-01	1.09E-01	1.04E-01	1.00E-01	9.58E-02	9.24E-02
U237	8.06E-02	8.02E-02	7.99E-02	7.95E-02	7.92E-02	7.85E-02	7.74E-02	7.65E-02	7.55E-02	7.44E-02	7.36E-02
U239	1.49E+02	2.54E+01	4.33E+00	7.38E-01	1.25E-01	3.65E-03	1.81E-05	8.93E-08	4.42E-10	2.19E-12	1.08E-14
U240	1.91E-02	1.82E-02	1.74E-02	1.65E-02	1.57E-02	1.42E-02	1.23E-02	1.06E-02	9.15E-03	7.88E-03	6.80E-03
NP239	5.09E-04	8.54E-01	9.87E-01	1.00E+00	9.95E-01	9.71E-01	9.32E-01	9.01E-01	8.69E-01	8.38E-01	8.07E-01
NP240M	3.03E-05	1.83E-02	1.75E-02	1.67E-02	1.59E-02	1.44E-02	1.24E-02	1.07E-02	9.22E-03	7.95E-03	6.87E-03
NP240	7.66E-13	3.94E-13	2.05E-13	1.06E-13	5.46E-14	1.46E-14	2.01E-15	2.78E-16	3.83E-17	5.28E-18	7.30E-19
*AM241	2.87E-08	2.87E-08	2.87E-08	2.87E-08	2.87E-08	2.87E-08	2.87E-08	2.87E-08	2.87E-08	2.87E-08	2.87E-08
CM242	5.12E-07	5.12E-07	5.12E-07	5.12E-07	5.12E-07	5.12E-07	5.09E-07	5.09E-07	5.09E-07	5.09E-07	5.09E-07
GE 75	8.26E-06	4.00E-02	2.41E-02	1.45E-02	8.74E-03	3.17E-03	6.92E-04	1.52E-04	3.31E-05	7.21E-06	1.58E-06
GE 77	5.90E-03	1.52E-02	1.43E-02	1.34E-02	1.26E-02	1.12E-02	9.30E-03	7.73E-03	6.44E-03	5.35E-03	4.45E-03
AS 77	6.09E-05	9.63E-03	9.74E-03	9.80E-03	9.87E-03	9.94E-03	9.94E-03	9.87E-03	9.72E-03	9.52E-03	9.28E-03
SE 77M	2.40E-09	2.88E-05	2.93E-05	2.95E-05	2.95E-05	2.97E-05	2.99E-05	2.97E-05	2.93E-05	2.86E-05	2.77E-05
GE 78	9.37E-01	5.85E-01	3.64E-01	2.28E-01	1.42E-01	5.53E-02	1.34E-02	3.25E-03	7.94E-04	1.93E-04	4.68E-05
AS 78	1.68E-02	2.80E-01	3.45E-01	3.23E-01	2.70E-01	1.59E-01	5.92E-02	1.96E-02	6.08E-03	1.82E-03	5.27E-04
AS 79	1.77E+01	1.74E-01	1.72E-03	1.69E-05	1.67E-07	1.61E-11	1.54E-17	1.47E-23	1.40E-29	1.34E-35	1.28E-41
SE 79M	2.62E-02	3.08E-01	3.04E-03	2.99E-05	2.94E-07	2.85E-11	2.71E-17	2.59E-23	2.47E-29	2.36E-35	2.25E-41
BR 80	1.05E-01	9.92E-03	9.33E-04	8.77E-05	8.26E-06	7.33E-08	6.13E-11	5.11E-14	4.26E-17	3.56E-20	2.97E-23
SE 81M	8.39E-02	3.91E+00	1.89E+00	9.08E-01	4.37E-01	1.02E-01	1.14E-02	1.28E-03	1.44E-04	1.61E-05	1.80E-06
SE 81	1.02E+00	4.63E+00	2.68E+00	1.34E+00	6.49E-01	1.51E-01	1.69E-02	1.90E-03	2.13E-04	2.39E-05	2.67E-06
BR 82	4.85E-04	4.76E-04	4.66E-04	4.58E-04	4.48E-04	4.31E-04	4.07E-04	3.83E-04	3.62E-04	3.41E-04	3.21E-04
SE 83	4.34E+01	8.23E+00	1.56E+00	2.96E-01	5.59E-02	2.01E-03	1.37E-05	9.29E-08	6.35E-10	4.30E-12	2.73E-14
BR 83	3.61E-01	5.38E+00	4.98E+00	3.92E+00	2.98E+00	1.68E+00	7.11E-01	2.99E-01	1.26E-01	5.33E-02	2.25E-02
KR 83M	1.86E-05	1.22E+00	2.49E+00	3.09E+00	3.19E+00	2.66E+00	1.57E+00	8.08E-01	3.89E-01	1.80E-01	8.08E-02

BEE MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 7.531E-13

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	8.93E-02	1.54E+01	4.16E+00	1.13E+00	3.04E-01	2.23E-02	4.40E-04	8.69E-06	1.72E-07	3.40E-09	6.72E-11
KR 85M	4.03E-03	8.63E+00	7.35E+00	6.27E+00	5.36E+00	3.91E+00	2.44E+00	1.52E+00	9.49E-01	5.90E-01	3.68E-01
KR 87	6.77E+01	3.91E+01	2.26E+01	1.31E+01	7.54E+00	2.53E+00	4.91E-01	9.51E-02	1.84E-02	3.56E-03	6.89E-04
KR 88	3.78E+01	2.95E+01	2.30E+01	1.80E+01	1.40E+01	8.52E+00	4.07E+00	1.94E+00	9.20E-01	4.39E-01	2.09E-01
RB 88	9.60E+00	2.98E+01	2.55E+01	2.01E+01	1.57E+01	9.54E+00	4.56E+00	2.17E+00	1.03E+00	4.91E-01	2.34E-01
RB 89	4.68E+01	4.40E+01	2.96E+01	1.99E-01	1.33E-02	6.03E-05	1.82E-08	5.50E-12	1.68E-15	5.08E-19	1.54E-22
SR 89	3.58E-06	1.26E-01	1.34E-01	1.34E-01	1.34E-01	1.34E-01	1.34E-01	1.34E-01	1.34E-01	1.33E-01	1.33E-01
SR 90	7.18E-06	7.38E-04	7.38E-04	7.38E-04	7.38E-04	7.38E-04	7.38E-04	7.38E-04	7.38E-04	7.38E-04	7.38E-04
SR 91	8.60E-01	1.60E+01	1.49E+01	1.39E+01	1.29E+01	1.12E+01	9.03E+00	7.30E+00	5.89E+00	4.73E+00	3.82E+00
Y 91M	5.79E-05	5.51E+00	7.52E+00	8.06E+00	7.95E+00	7.14E+00	5.84E+00	4.70E+00	3.79E+00	3.05E+00	2.47E+00
Y 91	2.37E-08	4.90E-03	1.13E-02	1.81E-02	2.47E-02	3.69E-02	5.24E-02	6.49E-02	7.52E-02	8.33E-02	8.98E-02
SR 92	6.36E+00	2.84E+01	2.20E+01	1.70E+01	1.32E+01	7.90E+00	3.67E+00	1.70E+00	7.90E-01	3.67E-01	1.71E-01
Y 92	2.93E-01	5.98E+00	9.38E+00	1.12E+01	1.18E+01	1.13E+01	8.64E+00	5.89E+00	3.79E+00	2.33E+00	1.41E+00
SR 93	2.63E+02	4.53E+00	2.50E-02	1.38E-04	7.62E-07	2.33E-11	3.63E-18	6.63E-25	1.12E-31	1.89E-38	3.18E-45
Y 93	3.21E-01	1.04E+01	9.74E+00	9.12E+00	8.52E+00	7.44E+00	6.06E+00	4.95E+00	4.02E+00	3.30E+00	2.68E+00
Y 94	3.85E+01	5.26E+01	6.76E+00	8.72E-01	1.13E-01	1.87E-03	4.01E-06	8.59E-09	1.84E-11	4.01E-14	2.22E-15
Y 95	1.69E+02	1.59E+01	3.50E-01	7.72E-03	1.70E-04	8.25E-08	8.84E-13	9.45E-18	1.01E-22	1.08E-27	1.15E-32
ZR 95	6.33E-04	8.28E-02	8.45E-02	8.45E-02	8.45E-02	8.45E-02	8.45E-02	8.42E-02	8.42E-02	8.39E-02	8.39E-02
NB 95	7.06E-11	5.11E-05	1.19E-04	1.87E-04	2.56E-04	3.92E-04	5.95E-04	8.00E-04	1.00E-03	1.20E-03	1.40E-03
ZR 97	1.56E+00	6.81E+00	6.51E+00	6.27E+00	6.00E+00	5.55E+00	4.90E+00	4.33E+00	3.85E+00	3.39E+00	3.02E+00
NB 97M	8.05E-03	6.54E+00	6.27E+00	6.03E+00	5.79E+00	5.33E+00	4.71E+00	4.17E+00	3.69E+00	3.26E+00	2.88E+00
NB 97	7.83E-01	3.42E+00	4.82E+00	5.49E+00	5.76E+00	5.73E+00	5.22E+00	4.66E+00	4.12E+00	3.63E+00	3.23E+00
NB 98	9.01E+00	3.99E+00	1.76E+00	7.80E-01	3.45E-01	6.76E-02	5.85E-03	5.05E-04	4.40E-05	3.81E-06	3.28E-07
MO 99	4.87E-03	2.01E+00	1.99E+00	1.97E+00	1.95E+00	1.91E+00	1.85E+00	1.79E+00	1.74E+00	1.69E+00	1.63E+00
TC 99M	4.52E-08	1.92E-01	3.60E-01	5.08E-01	6.38E-01	8.52E-01	1.08E+00	1.23E+00	1.32E+00	1.37E+00	1.39E+00
MO 101	1.47E+02	6.63E+01	3.85E+00	2.23E-01	1.30E-02	4.34E-05	8.43E-09	1.64E-12	3.19E-16	6.20E-20	1.21E-23
TC 101	6.20E+00	1.86E+02	2.03E+01	1.67E+00	1.22E-01	5.48E-04	1.37E-07	3.07E-11	6.51E-15	1.34E-18	2.71E-22
MO 102	1.27E+03	2.90E+01	6.59E-01	1.51E-02	3.43E-04	1.78E-07	2.12E-12	2.52E-17	2.98E-22	3.54E-27	4.20E-32
TC 102M	8.16E-01	2.45E+01	5.61E-01	1.28E-02	2.92E-04	1.51E-07	1.80E-12	2.13E-17	2.52E-22	2.99E-27	3.56E-32
TC 102	3.82E+03	1.46E+01	3.33E-01	7.56E-03	1.73E-04	9.01E-08	1.07E-12	1.27E-17	1.51E-22	1.78E-27	2.12E-32
RU 103	9.62E-05	2.23E-01	2.23E-01	2.23E-01	2.23E-01	2.22E-01	2.21E-01	2.21E-01	2.21E-01	2.20E-01	2.20E-01
RH 103M	6.42E-09	1.15E-01	1.71E-01	1.98E-01	2.11E-01	2.20E-01	2.21E-01	2.21E-01	2.21E-01	2.20E-01	2.20E-01
TC 104	8.77E+01	6.30E+01	6.30E+00	6.24E-01	6.17E-02	6.08E-04	5.94E-07	5.80E-10	5.67E-13	5.54E-16	5.41E-19
RU 105	7.72E-01	2.67E+01	2.28E+01	1.96E+01	1.67E+01	1.22E+01	7.67E+00	4.79E+00	3.00E+00	1.88E+00	1.18E+00
RH 105M	5.08E-03	2.68E+01	2.29E+01	1.96E+01	1.67E+01	1.23E+01	7.67E+00	4.81E+00	3.01E+00	1.88E+00	1.18E+00
RH 105	8.34E-09	5.43E-01	1.01E+00	1.39E+00	1.71E+00	2.19E+00	2.62E+00	2.82E+00	2.88E+00	2.85E+00	2.77E+00
RU 106	6.94E-04	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02
RH 106	7.51E-06	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02	1.31E-02
RH 107	1.99E-01	2.70E+01	4.10E+00	6.16E-01	9.30E-02	2.12E-03	7.30E-06	2.52E-08	8.67E-11	2.97E-14	2.95E-17
PD 107M	4.13E-04	5.50E+00	8.30E-01	1.25E-01	1.89E-02	4.32E-04	1.49E-06	5.13E-09	1.76E-11	6.09E-14	2.08E-16



BEE MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 7.531E-13

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	1.14E-02	9.48E-01	9.01E-01	8.54E-01	8.11E-01	7.32E-01	6.29E-01	5.39E-01	4.62E-01	3.96E-01	3.40E-01	3.40E-01
AG109M	6.59E-05	9.48E-01	9.01E-01	8.56E-01	8.13E-01	7.34E-01	6.29E-01	5.39E-01	4.62E-01	3.96E-01	3.40E-01	3.40E-01
PD111M	1.39E+00	1.22E+00	1.08E+00	9.52E-01	8.38E-01	6.52E-01	4.46E-01	3.06E-01	2.10E-01	1.43E-01	9.83E-02	7.92E-02
PD111	4.94E-01	8.90E-01	8.54E-01	7.61E-01	6.73E-01	5.23E-01	3.59E-01	2.46E-01	1.68E-01	1.15E-01	7.92E-02	7.92E-02
AG111M	3.92E-03	1.20E+00	1.13E+00	1.01E+00	8.90E-01	6.88E-01	4.70E-01	3.22E-01	2.21E-01	1.52E-01	1.03E-01	1.03E-01
AG111	1.40E-09	4.14E-03	8.69E-03	1.28E-02	1.64E-02	2.24E-02	2.87E-02	3.29E-02	3.57E-02	3.74E-02	3.84E-02	3.84E-02
PD112	2.55E-01	2.47E-01	2.38E-01	2.31E-01	2.24E-01	2.09E-01	1.90E-01	1.72E-01	1.55E-01	1.41E-01	1.27E-01	1.27E-01
AG112	7.67E-06	4.89E-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	1.48E-01
AG113	2.13E-03	4.55E-01	3.99E-01	3.50E-01	3.07E-01	2.36E-01	1.60E-01	1.08E-01	7.29E-02	4.92E-02	3.33E-02	3.33E-02
AG115	6.87E-01	7.36E-01	9.15E-02	1.14E-02	1.43E-03	2.24E-05	4.38E-08	8.56E-11	1.66E-13	1.65E-16	1.53E-16	1.53E-16
CD115M	5.61E-09	1.49E-04	1.68E-04	1.70E-04	1.70E-04	1.70E-04	1.69E-04	1.69E-04	1.69E-04	1.68E-04	1.68E-04	1.68E-04
CD115	2.17E-06	4.09E-02	4.40E-02	4.39E-02	4.33E-02	4.22E-02	4.07E-02	3.91E-02	3.76E-02	3.62E-02	3.48E-02	3.48E-02
IN115M	2.70E-11	4.51E-03	1.00E-02	1.49E-02	1.90E-02	2.53E-02	3.12E-02	3.44E-02	3.59E-02	3.62E-02	3.59E-02	3.59E-02
CD117	4.79E-02	7.98E-01	6.01E-01	4.49E-01	3.37E-01	1.89E-01	7.92E-02	3.34E-02	1.40E-02	5.90E-03	2.48E-03	2.48E-03
IN117M	2.30E-06	2.78E-01	4.02E-01	4.36E-01	4.21E-01	3.32E-01	1.90E-01	9.72E-02	4.67E-02	2.16E-02	9.77E-03	9.77E-03
IN117	9.27E-11	5.06E-02	1.22E-01	1.70E-01	1.90E-01	1.75E-01	1.11E-01	5.95E-02	2.96E-02	1.39E-02	6.40E-03	6.40E-03
CD118	3.15E+00	1.35E+00	5.79E-01	2.47E-01	1.06E-01	1.93E-02	1.52E-03	1.19E-04	9.33E-06	7.31E-07	5.73E-08	5.73E-08
IN118	2.09E-01	1.35E+00	5.79E-01	2.47E-01	1.06E-01	1.94E-02	1.52E-03	1.19E-04	9.33E-06	7.31E-07	5.73E-08	5.73E-08
CD119	7.87E+00	1.23E-01	1.91E-03	2.99E-05	4.68E-07	1.14E-10	4.36E-16	1.67E-21	6.34E-27	2.42E-32	9.28E-38	9.28E-38
IN119M	1.19E-02	1.33E+00	1.44E-01	1.46E-02	1.45E-03	1.43E-05	1.39E-08	1.36E-11	1.33E-14	1.30E-17	1.27E-20	1.27E-20
IN119	5.85E-01	6.99E-02	8.10E-03	8.22E-04	8.22E-05	8.04E-07	7.87E-10	7.69E-13	7.51E-16	7.34E-19	7.16E-22	7.16E-22
SN121	9.81E-04	1.01E-01	9.81E-02	9.58E-02	9.35E-02	8.89E-02	8.19E-02	7.62E-02	7.04E-02	6.52E-02	6.06E-02	6.06E-02
SN123M	5.72E-01	1.07E+00	3.79E-01	1.34E-01	4.74E-02	5.92E-03	2.62E-04	1.16E-05	5.13E-07	2.26E-08	1.00E-09	1.00E-09
SN123	5.37E-06	5.62E-04	5.62E-04	5.62E-04	5.62E-04	5.62E-04	5.62E-04	5.62E-04	5.62E-04	5.62E-04	5.62E-04	5.62E-04
SN125	1.54E-02	1.54E-02	1.53E-02	1.53E-02	1.52E-02	1.51E-02	1.50E-02	1.49E-02	1.47E-02	1.46E-02	1.45E-02	1.45E-02
SB125	9.26E-05	9.30E-05	9.34E-05	9.38E-05	9.42E-05	9.50E-05	9.66E-05	9.78E-05	9.90E-05	1.00E-04	1.01E-04	1.01E-04
SB126	2.85E-03	2.84E-03	2.84E-03	2.83E-03	2.83E-03	2.81E-03	2.79E-03	2.78E-03	2.75E-03	2.74E-03	2.72E-03	2.72E-03
SN127	3.66E+00	2.63E+00	1.89E+00	1.36E+00	9.79E-01	5.05E-01	1.88E-01	6.97E-02	2.58E-02	9.61E-03	3.57E-03	3.57E-03
SB127	4.27E-02	1.47E-01	1.63E-01	1.73E-01	1.81E-01	1.89E-01	1.92E-01	1.90E-01	1.87E-01	1.83E-01	1.79E-01	1.79E-01
TE127	2.41E-02	3.00E-02	3.65E-02	4.33E-02	5.00E-02	6.27E-02	8.03E-02	9.38E-02	1.04E-01	1.13E-01	1.18E-01	1.18E-01
SN128	2.46E+01	1.22E+01	6.02E+00	2.97E+00	1.47E+00	3.59E-01	4.33E-02	5.23E-03	6.31E-04	7.65E-05	9.21E-06	9.21E-06
SB128M	1.25E-02	1.39E+01	7.19E+00	3.55E+00	1.75E+00	4.29E-01	5.16E-02	6.23E-03	7.52E-04	9.08E-05	1.10E-05	1.10E-05
SB128	1.04E+00	1.00E+00	9.41E-01	8.82E-01	8.23E-01	7.06E-01	5.63E-01	4.47E-01	3.55E-01	2.82E-01	2.24E-01	2.24E-01
SN129M	1.54E+01	7.65E+00	3.84E+00	1.92E+00	9.60E-01	2.40E-01	3.00E-02	3.76E-03	4.69E-04	5.86E-05	7.33E-06	7.33E-06
SN129	1.02E+02	1.01E+00	9.92E-03	9.80E-05	9.60E-07	9.34E-11	8.89E-17	8.50E-23	8.11E-29	7.72E-35	7.39E-41	7.39E-41
SB129	5.77E+00	9.67E+00	9.08E+00	8.11E+00	7.14E+00	5.30E+00	3.30E+00	2.04E+00	1.26E+00	7.78E-01	4.79E-01	4.79E-01
TE129M	1.09E-07	1.21E-03	2.48E-03	3.65E-03	4.69E-03	6.36E-03	8.04E-03	9.08E-03	9.73E-03	1.01E-02	1.04E-02	1.04E-02
TE129	4.15E+00	5.71E+00	6.68E+00	6.94E+00	6.68E+00	5.53E+00	3.68E+00	2.32E+00	1.45E+00	8.95E-01	5.55E-01	5.55E-01
SB130M	5.82E-01	1.10E+00	2.88E-03	7.57E-06	1.99E-08	1.37E-13	2.50E-21	4.55E-29	8.26E-37	1.50E-44	2.73E-52	2.73E-52
SB130	9.97E+01	3.01E+01	8.58E+00	2.43E+00	6.87E-01	5.53E-02	1.26E-03	2.88E-05	6.56E-07	1.49E-08	3.41E-10	3.41E-10

BEE MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 7.531E-13

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	2.78E-02	2.62E-02	2.49E-02	2.35E-02	2.22E-02	1.99E-02	1.68E-02	1.42E-02	1.20E-02	1.02E-02	8.58E-03
SB131	2.25E+02	5.87E+01	9.59E+00	1.57E+00	2.58E-01	6.96E-03	3.06E-05	1.35E-07	5.95E-10	2.63E-12	1.31E-14
TE131M	1.08E-04	5.65E-01	6.45E-01	6.45E-01	6.33E-01	6.05E-01	5.65E-01	5.27E-01	4.92E-01	4.59E-01	4.28E-01
TE131	9.95E+01	1.08E+02	3.52E+01	9.16E+00	2.23E+01	2.09E-01	1.04E-01	9.59E-02	8.95E-02	8.37E-02	7.80E-02
I131	1.45E-02	5.01E-01	7.37E-01	8.09E-01	8.23E-01	8.30E-01	8.30E-01	8.23E-01	8.23E-01	8.16E-01	8.16E-01
TE132	1.10E+00	2.67E+00	2.64E+00	2.62E+00	2.59E+00	2.55E+00	2.48E+00	2.41E+00	2.35E+00	2.29E+00	2.23E+00
I132	2.69E+00	2.69E+00	2.68E+00	2.67E+00	2.65E+00	2.61E+00	2.55E+00	2.49E+00	2.42E+00	2.36E+00	2.30E+00
TE133M	1.32E-01	4.59E+01	2.00E+01	8.70E+00	3.78E+00	7.19E-01	5.91E-02	4.88E-03	4.02E-04	3.32E-05	2.74E-06
TE133	7.44E+02	4.22E+01	4.69E+00	1.55E+00	6.56E-01	1.24E-01	1.03E-02	8.45E-04	7.00E-05	5.76E-06	4.75E-07
I133	1.15E+00	1.24E+01	1.34E+01	1.34E+01	1.32E+01	1.25E+01	1.13E+01	1.03E+01	9.27E+00	8.45E+00	7.63E+00
XE133M	4.91E-08	2.79E-03	6.75E-03	1.08E-02	1.47E-02	2.21E-02	3.20E-02	4.05E-02	4.78E-02	5.40E-02	5.92E-02
XE133	8.57E-07	4.88E-02	1.19E-01	1.89E-01	2.60E-01	3.93E-01	5.77E-01	7.38E-01	8.83E-01	1.01E+00	1.12E+00
TE134	2.36E+02	1.09E+02	4.07E+01	1.51E+01	5.62E+00	7.79E-01	3.98E-02	2.04E-03	1.04E-04	5.36E-06	2.75E-07
I134	1.08E+02	1.45E+02	1.01E+02	5.94E+01	3.19E+01	8.10E+00	8.90E-01	9.08E-02	8.90E-03	8.53E-04	8.10E-05
I135	1.95E+01	3.43E+01	3.10E+01	2.79E+01	2.52E+01	2.04E+01	1.50E+01	1.10E+01	8.06E+00	5.93E+00	4.33E+00
XE135M	2.16E-03	9.91E+00	9.63E+00	8.73E+00	7.84E+00	6.38E+00	4.69E+00	3.43E+00	2.52E+00	1.85E+00	1.35E+00
XE135	2.25E+00	4.44E+00	6.49E+00	8.17E+00	9.52E+00	1.14E+01	1.27E+01	1.27E+01	1.21E+01	1.10E+01	9.85E+00
CS136	1.06E-02	1.06E-02	1.06E-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
CS137	9.72E-05	1.05E-03	1.05E-03	1.05E-03	1.05E-03	1.05E-03	1.05E-03	1.05E-03	1.05E-03	1.05E-03	1.05E-03
BA137M	2.05E-07	9.78E-04	9.78E-04	9.78E-04	9.78E-04	9.78E-04	9.78E-04	9.78E-04	9.78E-04	9.78E-04	9.78E-04
XE138	7.06E+02	6.07E+01	5.28E+00	4.57E-01	3.96E-02	2.97E-04	1.93E-07	1.25E-10	8.15E-14	5.29E-17	3.44E-20
CS138	1.05E+02	1.77E+02	6.13E+01	1.80E+01	5.04E+00	3.84E-01	7.99E-03	1.66E-04	3.44E-06	7.17E-08	1.48E-09
CS139	7.24E+02	2.31E+01	2.90E-01	3.64E-03	4.57E-05	7.17E-09	1.43E-14	2.82E-20	5.58E-26	1.11E-31	2.19E-37
BA139	1.34E+01	1.49E+02	9.19E+01	5.58E+01	3.38E+01	1.24E+01	2.75E+00	6.11E-01	1.36E-01	3.01E-02	6.68E-03
BA140	1.11E-01	6.90E-01	6.90E-01	6.84E-01	6.84E-01	6.79E-01	6.79E-01	6.74E-01	6.69E-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	1.81E-01	2.05E-01
BA141	1.67E+02	5.05E+01	5.01E+00	4.97E-01	4.93E-02	4.89E-04	4.77E-07	4.66E-10	4.54E-13	4.46E-16	4.34E-19
LA141	1.54E+00	3.27E+01	3.05E+01	2.59E+01	2.17E+01	1.52E+01	8.91E+00	5.21E+00	3.07E+00	1.80E+00	1.05E+00
CE141	1.91E-07	2.12E-02	4.97E-02	7.48E-02	9.59E-02	1.29E-01	1.60E-01	1.77E-01	1.88E-01	1.94E-01	1.97E-01
BA142	3.37E+02	1.34E+01	3.06E-01	6.97E-03	1.59E-04	8.25E-08	9.80E-13	1.16E-17	1.38E-22	1.64E-27	1.94E-32
LA142	7.74E+00	5.37E+01	3.54E+01	2.25E+01	1.43E+01	5.80E+00	1.50E+00	3.86E-01	9.94E-02	2.56E-02	6.60E-03
LA143	1.24E+02	2.41E+01	1.24E+00	6.36E-02	3.27E-03	8.56E-06	1.15E-09	1.56E-13	2.10E-17	2.83E-21	3.82E-25
CE143	4.94E-02	3.15E+00	3.27E+00	3.18E+00	3.12E+00	3.01E+00	2.82E+00	2.64E+00	2.48E+00	2.33E+00	2.19E+00
FR143	1.45E-08	4.83E-03	1.16E-02	1.84E-02	2.50E-02	3.79E-02	5.58E-02	7.28E-02	8.85E-02	1.03E-01	1.17E-01
CE144	1.94E-03	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02
PR144	5.32E-07	1.26E-02	1.38E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02	1.39E-02
PR145	7.97E-02	1.17E+01	1.04E+01	9.26E+00	8.27E+00	6.55E+00	4.62E+00	3.26E+00	2.31E+00	1.63E+00	1.15E+00
CE146	2.38E+02	1.22E+01	6.26E-01	3.20E-02	1.65E-03	4.34E-06	5.85E-10	7.88E-14	1.06E-17	1.43E-21	1.93E-25
PR146	4.93E+00	4.29E+01	9.72E+00	1.83E+00	3.29E-01	1.03E-02	5.71E-05	3.15E-07	1.74E-09	9.63E-12	5.26E-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

BEE  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 7.531E-13

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	1.48E+01	1.01E+01	6.84E+00	4.67E+00	3.16E+00	1.47E+00	4.61E-01	1.46E-01	4.58E-02	1.44E-02	4.55E-03
PM149	2.06E-03	1.61E-01	2.67E-01	3.38E-01	3.83E-01	4.30E-01	4.47E-01	4.39E-01	4.27E-01	4.11E-01	3.97E-01
PM150	1.75E-01	1.35E-01	1.05E-01	8.08E-02	6.24E-02	3.75E-02	1.73E-02	8.02E-03	3.72E-03	1.72E-03	7.96E-04
ND151	6.25E+01	1.95E+00	6.11E-02	1.91E-03	5.97E-05	5.83E-08	1.78E-12	5.44E-17	1.66E-21	5.05E-26	1.55E-30
PM151	3.96E-02	4.63E-01	4.66E-01	4.55E-01	4.44E-01	4.22E-01	3.91E-01	3.63E-01	3.38E-01	3.13E-01	2.90E-01
PM152	1.02E+02	1.00E-01	9.77E-05	9.54E-08	9.32E-11	8.90E-17	8.29E-26	7.73E-35	7.20E-44	6.72E-53	6.25E-62
SM153	1.39E-01	1.37E-01	1.35E-01	1.33E-01	1.31E-01	1.27E-01	1.22E-01	1.17E-01	1.12E-01	1.07E-01	1.02E-01
SM155	8.67E+00	1.42E+00	2.33E-01	3.82E-02	6.26E-03	1.69E-04	7.44E-07	3.27E-09	1.44E-11	6.43E-14	1.58E-16
EU155	6.37E-06	1.82E-04	2.10E-04	2.15E-04	2.16E-04	2.16E-04	2.16E-04	2.16E-04	2.16E-04	2.16E-04	2.16E-04
SM156	1.62E-01	1.50E-01	1.40E-01	1.30E-01	1.20E-01	1.04E-01	8.32E-02	6.68E-02	5.35E-02	4.29E-02	3.43E-02
EU156	4.73E-04	7.72E-04	1.05E-03	1.31E-03	1.54E-03	1.97E-03	2.50E-03	2.90E-03	3.25E-03	3.50E-03	3.69E-03
EU157	2.64E-02	8.76E-02	8.36E-02	7.99E-02	7.62E-02	6.96E-02	6.08E-02	5.31E-02	4.62E-02	4.02E-02	3.51E-02
EU158	1.07E+00	4.34E-01	1.75E-01	7.11E-02	2.88E-02	4.71E-03	3.14E-04	2.08E-05	1.38E-06	9.17E-08	6.09E-09
EU159	1.29E+00	1.28E-01	1.27E-02	1.26E-03	1.25E-04	1.23E-06	1.20E-09	1.17E-12	1.14E-15	1.12E-18	1.09E-21
GD159	5.51E-03	2.41E-02	2.51E-02	2.43E-02	2.34E-02	2.17E-02	1.93E-02	1.72E-02	1.53E-02	1.37E-02	1.22E-02
TB161	7.34E-05	5.28E-04	5.25E-04	5.23E-04	5.21E-04	5.16E-04	5.11E-04	5.04E-04	4.97E-04	4.92E-04	4.85E-04
TOTAL	1.06E+04	2.20E+03	8.80E+02	5.38E+02	3.90E+02	2.56E+02	1.73E+02	1.30E+02	1.03E+02	8.43E+01	7.09E+01

BEE MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 7.531E-13

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	1.59E-06	1.57E-06	1.55E-06	1.49E-06	1.40E-06	1.23E-06	1.08E-06	8.29E-07	4.34E-07	1.18E-07	3.21E-08	
NA 24	1.69E-01	5.58E-02	1.84E-02	6.60E-04	2.58E-06	3.95E-11	6.03E-16	1.40E-25	0.	0.	0.	0.
MN 54	2.06E-04	2.04E-04	2.04E-04	2.00E-04	1.99E-04	1.95E-04	1.91E-04	1.82E-04	1.63E-04	1.29E-04	1.03E-04	
FE 55	3.11E-04	3.11E-04	3.11E-04	3.09E-04	3.09E-04	3.07E-04	3.04E-04	3.00E-04	2.88E-04	2.69E-04	2.49E-04	
FE 59	1.72E-04	1.70E-04	1.67E-04	1.60E-04	1.48E-04	1.27E-04	1.09E-04	7.98E-05	3.70E-05	7.90E-06	1.70E-06	
CO 57	6.51E-05	6.51E-05	6.46E-05	6.46E-05	6.36E-05	6.17E-05	6.03E-05	5.74E-05	5.06E-05	3.91E-05	3.03E-05	
CO 58	8.89E-04	8.82E-04	8.72E-04	8.46E-04	8.08E-04	7.32E-04	6.64E-04	5.47E-04	3.37E-04	1.27E-04	4.81E-05	
CO 60	2.91E-05	2.91E-05	2.91E-05	2.91E-05	2.89E-05	2.89E-05	2.87E-05	2.86E-05	2.79E-05	2.70E-05	2.60E-05	
CU 64	1.05E+00	2.86E-01	7.80E-02	1.59E-03	2.38E-06	5.41E-12	1.22E-17	6.30E-29	0.	0.	0.	
CU 67	3.88E-05	2.96E-05	2.26E-05	1.00E-05	2.61E-06	1.76E-07	1.19E-08	5.40E-11	7.56E-17	0.	0.	
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
W185	4.23E-04	4.19E-04	4.12E-04	4.04E-04	3.86E-04	3.51E-04	3.21E-04	2.66E-04	1.68E-04	6.68E-05	2.65E-05	
W187	2.04E-02	1.02E-02	5.04E-03	6.29E-04	1.93E-05	1.84E-08	1.74E-11	1.57E-19	0.	0.	0.	
W188	2.57E-06	2.54E-06	2.52E-06	2.45E-06	2.33E-06	2.10E-06	1.90E-06	1.56E-06	9.46E-07	3.49E-07	1.28E-07	
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	8.90E-02	6.45E-02	2.47E-02	5.01E-03	2.06E-04	8.45E-06	1.42E-08	1.66E-15	0.	0.	0.	
U237	8.06E-02	7.27E-02	6.55E-02	4.82E-02	2.88E-02	1.03E-02	3.70E-03	4.74E-04	2.80E-06	3.01E-10	2.03E-10	
U240	1.91E-02	5.89E-03	1.81E-03	5.24E-05	1.44E-07	1.08E-12	8.13E-18	4.59E-28	0.	0.	0.	
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
NP239	5.09E-04	7.77E-01	5.79E-01	2.39E-01	5.47E-02	2.86E-03	1.50E-04	4.10E-07	1.61E-13	3.85E-23	3.85E-23	
NP240M	3.03E-05	5.93E-03	1.82E-03	5.28E-05	1.45E-07	1.09E-12	8.21E-18	4.63E-28	0.	0.	0.	
*AM241	2.87E-08	2.87E-08	2.87E-08	2.87E-08	2.87E-08	2.87E-08	2.87E-08	2.87E-08	2.87E-08	2.87E-08	2.87E-08	
CM242	5.12E-07	5.09E-07	5.06E-07	5.01E-07	4.90E-07	4.69E-07	4.51E-07	4.14E-07	3.37E-07	2.19E-07	1.43E-07	
GE 77	5.90E-03	3.71E-03	8.49E-04	1.03E-05	6.53E-09	2.64E-15	1.07E-21	1.74E-34	0.	0.	0.	
AS 77	6.09E-05	9.00E-03	6.51E-03	1.88E-03	2.21E-04	2.99E-06	4.06E-08	7.49E-12	3.47E-21	7.45E-40	1.60E-58	
SE 77M	2.40E-09	2.71E-05	1.95E-05	5.66E-06	6.59E-07	8.97E-09	1.22E-10	2.25E-14	1.04E-23	2.23E-42	4.80E-61	
AS 78	1.68E-02	1.50E-04	4.39E-09	3.71E-23	0.	0.	0.	0.	0.	0.	0.	
BR 82	4.85E-04	3.03E-04	1.89E-04	4.60E-05	4.36E-06	3.91E-08	3.51E-10	2.84E-14	1.66E-24	5.68E-45	1.94E-65	
BR 83	3.61E-01	9.50E-03	9.55E-06	9.70E-15	9.90E-30	0.	0.	0.	0.	0.	0.	
KR 83M	1.86E-05	4.15E-02	4.72E-05	4.24E-14	4.35E-29	0.	0.	0.	0.	0.	0.	
KR 85M	4.03E-03	2.30E-01	5.24E-03	6.22E-08	3.83E-16	1.46E-32	5.52E-49	0.	0.	0.	0.	
KR 85	4.17E-06	1.09E-04	1.12E-04	1.12E-04	1.12E-04	1.12E-04	1.12E-04	1.11E-04	1.10E-04	1.08E-04	1.06E-04	
KR 87	6.77E+01	1.34E-04	2.64E-10	2.05E-27	0.	0.	0.	0.	0.	0.	0.	
KR 88	3.78E+01	9.94E-02	2.61E-04	4.74E-12	5.97E-25	0.	0.	0.	0.	0.	0.	
RB 88	9.60E+00	1.11E-01	2.92E-04	5.30E-12	6.65E-25	0.	0.	0.	0.	0.	0.	
SR 89	3.58E-06	1.07E-01	1.06E-01	1.02E-01	9.54E-02	8.33E-02	7.29E-02	5.61E-02	2.87E-02	7.55E-03	1.99E-03	
SR 90	7.18E-06	7.38E-04	7.38E-04	7.38E-04	7.38E-04	7.38E-04	7.38E-04	7.38E-04	7.31E-04	7.31E-04	7.25E-04	
Y 90	1.06E-11	1.69E-04	2.99E-04	5.37E-04	6.86E-04	7.31E-04	7.38E-04	7.38E-04	7.31E-04	7.31E-04	7.25E-04	
SR 91	8.60E-01	3.08E+00	5.51E-01	3.16E-03	5.79E-07	1.96E-14	6.65E-22	7.57E-37	0.	0.	0.	

BEE MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 7.531E-13

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO	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	5.79E-05	1.99E+00	3.56E-01	2.04E-03	3.75E-07	1.27E-14	4.28E-22	4.89E-37	0.	0.	0.
Y 91	2.37E-08	9.46E-02	1.12E-01	1.12E-01	1.05E-01	9.35E-02	8.33E-02	6.60E-02	3.65E-02	1.12E-02	3.45E-03
SR 92	6.36E+00	7.93E-02	1.71E-04	1.72E-12	8.05E-26	0.	0.	0.	0.	0.	0.
Y 92	2.93E-01	8.32E-01	9.23E-03	7.10E-09	4.14E-19	1.42E-39	4.85E-60	0.	0.	0.	0.
Y 93	3.21E-01	2.17E+00	4.23E-01	3.18E-03	9.14E-07	7.56E-14	6.24E-21	4.26E-35	0.	0.	0.
ZR 95	6.33E-04	7.92E-02	7.84E-02	7.59E-02	7.20E-02	6.45E-02	5.81E-02	4.70E-02	2.75E-02	9.47E-03	3.25E-03
NB 95M	1.35E-11	2.68E-04	4.89E-04	9.34E-04	1.26E-03	1.33E-03	1.23E-03	9.95E-04	5.83E-04	2.01E-04	6.92E-05
NB 95	7.06E-11	1.53E-03	3.03E-03	7.25E-03	1.35E-02	2.33E-02	3.00E-02	3.72E-02	3.58E-02	1.72E-02	6.61E-03
ZR 97	1.56E+00	2.66E+00	1.00E+00	5.30E-02	3.98E-04	2.24E-08	1.26E-12	3.98E-21	2.25E-42	0.	0.
NB 97M	8.05E-03	2.56E+00	9.61E-01	5.12E-02	3.82E-04	2.15E-08	1.21E-12	3.82E-21	2.16E-42	0.	0.
NB 97	7.83E-01	2.67E+00	1.00E+00	5.33E-02	4.01E-04	2.41E-08	1.36E-12	4.31E-21	2.42E-42	0.	0.
MO 99	4.87E-03	1.58E+00	1.24E+00	5.86E-01	1.70E-01	1.42E-02	1.18E-03	8.24E-06	3.35E-11	5.52E-22	9.08E-33
TC 99M	4.52E-08	1.39E+00	1.17E+00	5.61E-01	1.62E-01	1.35E-02	1.13E-03	7.87E-06	3.19E-11	5.27E-22	8.68E-33
RU103	9.62E-05	2.20E-01	2.15E-01	2.04E-01	1.88E-01	1.57E-01	1.32E-01	9.31E-02	3.87E-02	6.72E-03	1.17E-03
RH103M	6.42E-09	2.20E-01	2.16E-01	2.05E-01	1.88E-01	1.57E-01	1.32E-01	9.31E-02	3.88E-02	6.72E-03	1.17E-03
RU105	7.72E-01	7.39E-01	1.74E-02	2.28E-07	1.67E-15	8.91E-32	4.78E-48	0.	0.	0.	0.
RH105M	5.08E-03	7.39E-01	1.74E-02	2.29E-07	1.67E-15	8.96E-32	4.79E-48	0.	0.	0.	0.
RH105	8.34E-09	2.67E+00	1.74E+00	4.34E-01	4.28E-02	4.16E-04	4.04E-06	3.82E-10	3.31E-20	2.49E-40	1.87E-60
RU106	6.94E-04	1.31E-02	1.31E-02	1.30E-02	1.29E-02	1.27E-02	1.24E-02	1.20E-02	1.09E-02	8.99E-03	7.46E-03
RH106	7.51E-06	1.31E-02	1.31E-02	1.30E-02	1.29E-02	1.27E-02	1.24E-02	1.20E-02	1.09E-02	8.99E-03	7.46E-03
PD109	1.14E-02	2.91E-01	8.48E-02	2.10E-03	4.43E-06	1.98E-11	8.80E-17	1.74E-27	0.	0.	0.
AG109M	6.59E-05	2.91E-01	8.50E-02	2.11E-03	4.45E-06	1.98E-11	8.80E-17	1.74E-27	0.	0.	0.
PD111M	1.39E+00	6.73E-02	3.27E-03	3.75E-07	1.01E-13	7.40E-27	5.43E-40	0.	0.	0.	0.
PD111	4.94E-01	5.43E-02	2.63E-03	3.02E-07	8.18E-14	5.95E-27	4.36E-40	0.	0.	0.	0.
AG111M	3.92E-03	7.09E-02	3.45E-03	3.97E-07	1.07E-13	7.87E-27	5.74E-40	0.	0.	0.	0.
AG111	1.40E-09	3.86E-02	3.71E-02	2.82E-02	1.77E-02	7.04E-03	2.79E-03	4.40E-04	4.33E-06	4.20E-10	4.07E-14
PD112	2.55E-01	1.16E-01	5.24E-02	4.86E-03	9.24E-05	3.36E-08	1.22E-11	1.60E-18	1.01E-35	0.	0.
AG112	7.67E-06	1.34E-01	6.17E-02	5.73E-03	1.10E-04	3.96E-08	1.44E-11	1.90E-18	1.19E-35	0.	0.
AG113	2.13E-03	2.25E-02	9.72E-04	7.90E-08	1.21E-14	2.83E-28	6.61E-42	0.	0.	0.	0.
CD115M	5.61E-09	1.62E-04	1.60E-04	1.52E-04	1.41E-04	1.19E-04	1.02E-04	7.36E-05	3.29E-05	6.54E-06	1.31E-06
CD115	2.17E-06	3.26E-02	2.39E-02	9.43E-03	1.99E-03	8.88E-05	3.96E-06	7.90E-09	1.39E-15	4.37E-29	1.37E-42
IN115M	2.70E-11	3.44E-02	2.61E-02	1.03E-02	2.17E-03	9.70E-05	4.32E-06	8.61E-09	1.53E-15	4.77E-29	1.49E-42
CD117	4.79E-02	1.04E-03	1.02E-06	9.49E-16	8.43E-31	0.	0.	0.	0.	0.	0.
IN117M	2.30E-06	4.34E-03	5.02E-06	4.84E-15	4.30E-30	0.	0.	0.	0.	0.	0.
IN117	9.27E-11	2.86E-03	3.39E-06	3.28E-15	2.91E-30	0.	0.	0.	0.	0.	0.
SN121	9.81E-04	5.59E-02	3.02E-02	4.75E-03	2.18E-04	4.60E-07	9.69E-10	4.32E-15	1.81E-28	0.	0.
SN123	5.37E-06	5.62E-04	5.57E-04	5.47E-04	5.32E-04	5.03E-04	4.77E-04	4.27E-04	3.23E-04	1.86E-04	1.07E-04
SN125	1.54E-02	1.43E-02	1.33E-02	1.07E-02	7.37E-03	3.53E-03	1.69E-03	3.86E-04	9.66E-06	6.08E-09	3.81E-12
SB125	9.26E-05	1.03E-04	1.12E-04	1.37E-04	1.68E-04	2.04E-04	2.19E-04	2.29E-04	2.24E-04	2.09E-04	1.95E-04
SB126	2.85E-03	2.70E-03	2.55E-03	2.16E-03	1.64E-03	9.39E-04	5.42E-04	1.78E-04	1.11E-05	5.42E-08	1.09E-08

BEE MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 7.531E-13

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	3.66E+00	1.32E-03	4.81E-07	2.30E-17	1.44E-34	0.	0.	0.	0.	0.	0.	0.
SB127	4.27E-02	1.75E-01	1.47E-01	8.56E-02	3.50E-02	5.85E-03	9.79E-04	2.74E-05	3.57E-09	6.09E-17	1.04E-24	
TE127M	3.45E-10	2.67E-04	4.89E-04	9.49E-04	1.31E-03	1.45E-03	1.39E-03	1.24E-03	9.03E-04	4.76E-04	2.52E-04	
TE127	2.41E-02	1.25E-01	1.23E-01	7.50E-02	3.17E-02	6.51E-03	2.23E-03	1.25E-03	8.91E-04	4.71E-04	2.49E-04	
SB128	1.04E+00	1.77E-01	2.80E-02	1.09E-04	1.06E-08	9.93E-17	9.35E-25	8.23E-41	0.	0.	0.	
SB129	5.77E+00	2.95E-01	6.16E-03	5.61E-08	2.23E-16	3.52E-33	5.56E-50	0.	0.	0.	0.	
TE129M	1.09E-07	1.15E-02	1.15E-02	1.08E-02	9.80E-03	7.98E-03	6.49E-03	4.32E-03	1.56E-03	2.03E-04	2.64E-05	
TE129	4.15E+00	3.46E-01	1.44E-02	6.94E-03	6.26E-03	5.11E-03	4.16E-03	2.77E-03	9.99E-04	1.30E-04	1.69E-05	
I130	2.78E-02	7.25E-03	1.90E-03	3.39E-05	4.14E-08	6.17E-14	9.21E-20	2.05E-31	0.	0.	0.	
TE131M	1.08E-04	3.78E-01	2.17E-01	4.11E-02	2.57E-03	1.00E-05	3.92E-08	5.98E-13	5.44E-25	0.	0.	
TE131	9.95E+01	6.89E-02	3.96E-02	7.51E-03	4.69E-04	1.83E-06	7.15E-09	1.09E-13	9.95E-26	0.	0.	
I131	1.45E-02	7.80E-01	7.37E-01	5.93E-01	3.90E-01	1.63E-01	6.97E-02	1.25E-02	1.68E-04	3.06E-08	5.58E-12	
XE131M	3.92E-11	3.61E-04	6.86E-04	1.43E-03	2.05E-03	2.03E-03	1.50E-03	6.20E-04	4.14E-05	1.24E-07	3.49E-10	
TE132	1.10E+00	2.17E+00	1.76E+00	9.24E-01	3.18E-01	3.78E-02	4.47E-03	6.28E-05	1.47E-09	8.04E-19	4.39E-28	
I132	2.69E+00	2.24E+00	1.81E+00	9.51E-01	3.28E-01	3.89E-02	4.61E-03	6.48E-05	1.52E-09	8.24E-19	4.52E-28	
I133	1.15E+00	6.43E+00	2.90E+00	2.69E-01	5.13E-03	1.86E-06	6.75E-10	8.89E-17	5.59E-34	0.	0.	
XE133M	4.91E-08	6.07E-02	7.19E-02	4.22E-02	9.90E-03	4.63E-04	2.16E-05	4.69E-08	1.03E-14	4.91E-28	2.35E-41	
XE133	8.57E-07	1.17E+00	1.56E+00	1.40E+00	7.63E-01	2.06E-01	5.54E-02	3.99E-03	5.56E-06	1.08E-11	2.09E-17	
I135	1.95E+01	3.18E+00	2.65E-01	1.55E-04	6.27E-10	1.04E-20	1.70E-31	4.62E-53	0.	0.	0.	
XE135M	2.16E-03	9.91E-01	8.29E-02	4.82E-05	1.96E-10	3.22E-21	5.31E-32	1.44E-53	0.	0.	0.	
XE135	2.25E+00	8.57E+00	2.09E+00	1.20E-02	1.47E-06	2.06E-14	2.89E-22	5.71E-38	0.	0.	0.	
C136	1.06E-02	1.00E-02	9.52E-03	8.12E-03	6.22E-03	3.65E-03	2.15E-03	7.37E-04	5.12E-05	2.47E-07	1.20E-09	
C137	9.72E-05	1.05E-03	1.05E-03	1.05E-03	1.05E-03	1.05E-03	1.05E-03	1.05E-03	1.04E-03	1.04E-03	1.03E-03	
B137M	2.05E-07	9.78E-04	9.78E-04	9.78E-04	9.78E-04	9.78E-04	9.78E-04	9.78E-04	9.72E-04	9.66E-04	9.60E-04	
BA139	1.34E+01	1.43E-03	8.42E-09	1.73E-24	0.	0.	0.	0.	0.	0.	0.	
BA140	1.11E-01	6.53E-01	6.21E-01	5.26E-01	4.02E-01	3.4E-01	1.36E-01	4.61E-02	3.07E-03	1.37E-05	6.05E-08	
LA140	2.63E-07	2.27E-01	3.66E-01	5.06E-01	4.50E-01	2.69E-01	1.56E-01	5.32E-02	3.53E-03	1.57E-05	7.00E-08	
LA141	1.54E+00	6.13E-01	8.59E-03	2.38E-08	1.30E-17	3.88E-36	1.16E-54	0.	0.	0.	0.	
CE141	1.91E-07	2.12E-01	2.10E-01	1.97E-01	1.77E-01	1.43E-01	1.15E-01	7.52E-02	2.58E-02	3.04E-03	3.58E-04	
LA142	7.74E+00	1.70E-03	3.28E-08	2.42E-22	0.	0.	0.	0.	0.	0.	0.	
CE143	4.94E-02	2.03E+00	1.23E+00	2.71E-01	2.18E-02	1.41E-04	9.11E-07	3.82E-11	4.31E-22	0.	0.	
PR143	1.45E-08	1.30E-01	2.02E-01	2.61E-01	2.24E-01	1.36E-01	8.24E-02	2.98E-02	2.38E-03	1.51E-05	9.60E-08	
C144	1.94E-03	1.39E-02	1.38E-02	1.37E-02	1.35E-02	1.32E-02	1.29E-02	1.23E-02	1.09E-02	8.51E-03	6.68E-03	
CF144	5.32E-07	1.39E-02	1.38E-02	1.37E-02	1.35E-02	1.32E-02	1.29E-02	1.23E-02	1.09E-02	8.51E-03	6.68E-03	
PR145	7.97E-02	8.15E-01	5.04E-02	1.19E-05	1.09E-11	9.02E-24	7.48E-36	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	
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	
ND149	1.48E+01	1.43E-03	1.39E-07	1.26E-19	1.08E-39	0.	0.	0.	0.	0.	0.	
PM149	2.06E-03	3.80E-01	2.78E-01	1.09E-01	2.27E-02	9.89E-04	4.30E-05	8.19E-08	1.29E-14	3.18E-28	7.93E-42	
PM150	1.75E-01	3.69E-04	7.77E-07	7.30E-15	3.05E-28	0.	0.	0.	0.	0.	0.	

BEE MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 7.531E-13

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	3.96E-02	2.70E-01	1.49E-01	2.51E-02	1.29E-03	3.38E-06	8.91E-09	6.14E-14	7.71E-17	0.	0.	0.
SM153	1.39E-01	6.78E-02	6.87E-02	2.37E-02	4.03E-03	1.17E-04	3.41E-06	2.86E-09	5.91E-14	2.52E-17	0.	0.
SM156	1.62E-01	2.76E-02	4.71E-03	2.32E-05	3.34E-09	6.86E-17	1.42E-24	6.03E-40	0.	0.	0.	0.
EU155	6.37E-06	2.16E-04	2.16E-04	2.16E-04	2.15E-04	2.14E-04	2.13E-04	2.12E-04	2.08E-04	1.99E-04	1.99E-04	1.92E-04
EU156	4.73E-04	3.85E-03	4.27E-03	3.82E-03	3.04E-03	1.91E-03	1.20E-03	4.78E-04	4.73E-05	4.66E-07	4.59E-09	0.
EU157	2.64E-02	3.05E-02	1.03E-02	3.85E-04	1.62E-06	2.85E-11	5.05E-16	1.57E-25	0.	0.	0.	0.
GD159	5.51E-03	1.08E-02	4.32E-03	2.69E-04	2.65E-06	2.57E-10	2.49E-14	2.33E-22	1.99E-42	0.	0.	0.
TB161	7.34E-05	4.80E-04	4.33E-04	3.20E-04	1.94E-04	7.10E-05	2.60E-05	3.48E-06	2.30E-08	9.96E-13	4.33E-17	0.
TOTAL	3.09E+02	5.98E+01	2.57E+01	9.37E+00	4.52E+00	2.01E+00	1.25E+00	6.91E-01	2.97E-01	1.05E-01	5.31E-02	0.

BEE  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 7.531E-13

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	1.59E-06	1.37E-08	1.28E-09	1.19E-10	9.54E-14	7.64E-17	5.71E-21	3.66E-27	0.	0.	0.	0.
MN 54	2.06E-04	8.88E-05	5.85E-05	3.85E-05	1.10E-05	3.13E-06	5.91E-07	4.83E-08	1.13E-11	4.10E-17	1.48E-22	0.
FE 59	1.72E-04	6.22E-07	3.73E-08	2.24E-09	4.87E-13	1.05E-16	1.37E-21	6.43E-29	0.	0.	0.	0.
CO 57	6.51E-05	2.56E-05	1.61E-05	1.01E-05	2.48E-06	6.12E-07	9.45E-09	5.74E-09	5.01E-13	4.12E-19	0.	0.
CO 58	8.89E-04	2.55E-05	4.33E-06	7.34E-07	3.58E-09	1.74E-11	1.44E-14	3.41E-19	1.30E-34	0.	0.	0.
CO 60	2.91E-05	2.55E-05	2.37E-05	2.22E-05	1.82E-05	1.50E-05	1.15E-05	7.76E-06	2.08E-06	2.89E-07	3.99E-08	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	4.23E-04	1.45E-05	2.69E-06	4.99E-07	3.18E-09	2.03E-11	2.39E-14	9.68E-19	0.	0.	0.	0.
W188	2.57E-06	6.69E-08	1.08E-08	1.74E-09	7.35E-12	3.08E-14	2.08E-17	3.69E-22	0.	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	8.06E-02	2.01E-10	1.96E-10	1.90E-10	1.78E-10	1.65E-10	1.50E-10	1.31E-10	8.12E-11	3.98E-11	1.96E-11	0.
* AM241	2.87E-08	2.87E-08	2.87E-08	2.87E-08	2.89E-08	2.90E-08	2.90E-08	2.91E-08	2.93E-08	2.90E-08	2.86E-08	0.
CM242	5.12E-07	1.08E-07	4.98E-08	2.29E-08	2.23E-09	2.18E-10	9.76E-12	9.23E-14	2.65E-18	2.47E-18	2.31E-18	0.
KR 85	4.17E-06	1.03E-04	1.00E-04	9.71E-05	8.85E-05	7.99E-05	7.02E-05	5.79E-05	3.06E-05	1.17E-05	4.47E-06	0.
SR 89	3.58E-06	8.39E-04	7.34E-05	6.45E-06	4.34E-09	2.93E-12	1.73E-16	7.86E-23	5.71E-44	0.	0.	0.
SR 90	7.18E-06	7.18E-04	7.12E-04	7.05E-04	6.79E-04	6.53E-04	6.22E-04	5.77E-04	4.51E-04	3.11E-04	2.15E-04	0.
Y 90	1.06E-11	7.18E-04	7.12E-04	7.05E-04	6.79E-04	6.53E-04	6.22E-04	5.77E-04	4.51E-04	3.11E-04	2.15E-04	0.
Y 91	2.37E-08	1.60E-03	1.86E-04	2.16E-05	3.39E-08	5.32E-11	9.73E-15	2.39E-20	4.83E-39	0.	0.	0.
ZR 95	6.33E-04	1.63E-03	2.32E-04	3.31E-05	9.64E-08	2.81E-10	1.16E-13	9.81E-19	1.20E-35	0.	0.	0.
NB 95M	1.35E-11	3.45E-05	4.92E-06	7.03E-07	2.04E-09	5.95E-12	2.46E-15	2.08E-20	2.55E-37	0.	0.	0.
NB 95	7.06E-11	3.50E-03	5.03E-04	7.17E-05	2.08E-07	6.03E-10	2.52E-13	2.13E-18	2.60E-35	0.	0.	0.
RU103	9.62E-05	3.74E-04	1.53E-05	6.29E-07	4.29E-11	2.94E-15	8.27E-21	3.89E-29	0.	0.	0.	0.
RH103M	6.42E-09	3.74E-04	1.53E-05	6.29E-07	4.30E-11	2.95E-15	8.27E-21	3.89E-29	0.	0.	0.	0.
RU106	6.94E-04	6.60E-03	4.67E-03	3.31E-03	1.18E-03	4.18E-04	1.05E-04	1.33E-05	1.34E-08	4.32E-13	1.39E-17	0.
RH106	7.51E-06	6.60E-03	4.67E-03	3.31E-03	1.18E-03	4.18E-04	1.05E-04	1.33E-05	1.34E-08	4.32E-13	1.39E-17	0.
SN123	5.37E-06	7.45E-05	2.70E-05	9.81E-06	4.71E-07	2.26E-08	3.93E-10	9.07E-13	1.45E-21	9.37E-35	6.02E-48	0.
SB125	9.26E-05	1.86E-04	1.64E-04	1.44E-04	9.82E-05	6.68E-05	3.99E-05	1.85E-05	1.42E-06	3.02E-08	6.44E-10	0.
TE125M	2.49E-12	7.61E-05	6.76E-05	5.96E-05	4.07E-05	2.77E-05	1.65E-05	7.65E-06	5.88E-07	1.25E-08	2.67E-10	0.
TE127M	3.45E-10	1.65E-04	5.17E-05	1.62E-05	4.98E-07	1.53E-08	1.47E-10	1.38E-13	1.14E-23	8.50E-39	6.33E-54	0.
TE127	2.41E-02	1.64E-04	5.11E-05	1.60E-05	4.92E-07	1.51E-08	1.45E-10	1.37E-13	1.13E-23	8.38E-39	6.27E-54	0.
CS137	9.72E-05	1.02E-03	1.01E-03	1.00E-03	9.66E-04	9.31E-04	8.91E-04	8.32E-04	6.58E-04	4.67E-04	3.30E-04	0.
BA137M	2.05E-07	9.60E-04	9.49E-04	9.37E-04	9.02E-04	8.73E-04	8.32E-04	7.80E-04	6.17E-04	4.37E-04	3.09E-04	0.
CE141	1.91E-07	8.24E-05	1.66E-06	3.33E-08	2.71E-13	2.20E-18	3.62E-25	2.40E-35	0.	0.	0.	0.
CE144	1.94E-03	5.69E-03	3.66E-03	2.34E-03	6.13E-04	1.61E-04	2.71E-05	1.87E-06	2.52E-10	3.95E-16	6.16E-22	0.
PR144	5.32E-07	5.69E-03	3.66E-03	2.34E-03	6.13E-04	1.61E-04	2.71E-05	1.87E-06	2.52E-10	3.95E-16	6.16E-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	6.37E-06	1.87E-04	1.73E-04	1.61E-04	1.30E-04	1.04E-04	7.78E-05	5.03E-05	1.17E-05	1.32E-06	1.49E-07	0.
TOTAL	1.10E-01	3.92E-02	2.32E-02	1.66E-02	8.02E-03	5.12E-03	3.77E-03	3.09E-03	2.23E-03	1.54E-03	1.07E-03	0.



**APPENDIX G**  
**DETAILED RESULTS FOR EVENT ESS**

ESS  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.400  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.685E-12

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	9.14E+01	2.29E+04
1.00E+00	2.89E+01	4.37E+03
2.00E+00	1.13E+01	1.22E+03
3.00E+00	5.97E+00	5.88E+02
4.00E+00	3.75E+00	4.10E+02
6.00E+00	2.05E+00	2.92E+02
9.00E+00	1.30E+00	2.25E+02
1.20E+01	1.00E+00	1.89E+02
1.50E+01	8.26E-01	1.66E+02
1.80E+01	7.06E-01	1.49E+02
2.10E+01	6.17E-01	1.36E+02
1.00E+00 DAYS	5.44E-01	1.25E+02
2.00E+00	2.99E-01	7.90E+01
5.00E+00	1.21E-01	3.19E+01
1.00E+01	4.29E-02	9.18E+00
2.00E+01	1.24E-02	1.83E+00
3.00E+01	6.61E-03	9.50E-01
5.00E+01	2.86E-03	5.03E-01
1.00E+02	8.77E-04	2.11E-01
2.00E+02	2.91E-04	7.15E-02
3.00E+02	1.14E-04	3.36E-02
1.00E+00 YEARS	6.73E-05	2.37E-02
1.50E+00	2.37E-05	1.34E-02
2.00E+00	1.57E-05	9.70E-03
3.50E+00	1.07E-05	5.26E-03
5.00E+00	8.95E-06	3.79E-03
7.00E+00	7.80E-06	3.07E-03
1.00E+01	6.81E-06	2.64E-03
2.00E+01	4.91E-06	1.96E-03
3.50E+01	3.36E-06	1.35E-03
5.00E+01	2.36E-06	9.40E-04

ESS MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.400  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.685E-12

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	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NA 24	2.24E-01	2.14E-01	2.04E-01	1.95E-01	1.86E-01	1.70E-01	1.48E-01	1.29E-01	1.12E-01	9.76E-02	8.45E-02	
MN 54	2.69E-05	2.69E-05	2.69E-05	2.69E-05	2.69E-05	2.69E-05	2.69E-05	2.67E-05	2.67E-05	2.67E-05	2.67E-05	
FE 55	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	2.37E-04	
FE 59	1.06E-04	1.06E-04	1.06E-04	1.06E-04	1.06E-04	1.06E-04	1.05E-04	1.05E-04	1.05E-04	1.05E-04	1.05E-04	
CO 57	3.54E-07	3.54E-07	3.54E-07	3.54E-07	3.54E-07	3.54E-07	3.54E-07	3.54E-07	3.54E-07	3.54E-07	3.54E-07	
CO 58	5.55E-05	5.55E-05	5.55E-05	5.55E-05	5.54E-05	5.54E-05	5.52E-05	5.52E-05	5.51E-05	5.51E-05	5.50E-05	
CO 60	7.92E-05	7.92E-05	7.92E-05	7.92E-05	7.92E-05	7.92E-05	7.92E-05	7.92E-05	7.92E-05	7.92E-05	7.92E-05	
CU 64	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
CU 67	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.	
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	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
* U237	4.32E-01	4.30E-01	4.28E-01	4.26E-01	4.24E-01	4.21E-01	4.15E-01	4.10E-01	4.05E-01	3.99E-01	3.94E-01	
U239	1.57E+04	2.67E+03	4.56E+02	7.77E+01	1.32E+01	3.84E-01	1.90E-03	9.40E-06	4.65E-08	2.30E-10	1.14E-12	
U240	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
* NP239	5.36E-02	8.99E+01	1.04E+02	1.06E+02	1.05E+02	1.02E+02	9.81E+01	9.48E+01	9.15E+01	8.82E+01	8.49E+01	
NP240M	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
NP240	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
AM241	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
CM242	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
GE 75	6.12E-06	2.97E-02	1.79E-02	1.08E-02	6.48E-03	2.35E-03	5.13E-04	1.12E-04	2.45E-05	5.35E-06	1.17E-06	
GE 77	3.67E-03	9.44E-03	8.88E-03	8.35E-03	7.86E-03	6.95E-03	5.79E-03	4.81E-03	4.01E-03	3.33E-03	2.77E-03	
AS 77	3.79E-05	5.99E-03	6.06E-03	6.10E-03	6.14E-03	6.18E-03	6.18E-03	6.14E-03	6.04E-03	5.92E-03	5.77E-03	
SE 77M	1.49E-09	1.79E-05	1.82E-05	1.83E-05	1.83E-05	1.85E-05	1.86E-05	1.85E-05	1.82E-05	1.78E-05	1.72E-05	
GE 78	5.47E-01	3.42E-01	2.13E-01	1.33E-01	8.31E-02	3.23E-02	7.85E-03	1.90E-03	4.64E-04	1.13E-04	2.74E-05	
AS 78	9.84E-03	1.63E-01	2.01E-01	1.89E-01	1.58E-01	9.31E-02	3.46E-02	1.15E-02	3.55E-03	1.06E-03	3.08E-04	
AS 79	1.14E+01	1.13E-01	1.11E-03	1.09E-05	1.08E-07	1.04E-11	9.93E-18	9.48E-24	9.04E-30	8.63E-36	8.25E-42	
SE 79M	1.69E-02	1.99E-01	1.96E-03	1.93E-05	1.90E-07	1.84E-11	1.75E-17	1.67E-23	1.60E-29	1.52E-35	1.45E-41	
BR 80	7.55E-02	7.12E-03	6.69E-04	6.29E-05	5.93E-06	5.26E-08	4.40E-11	3.67E-14	3.06E-17	2.55E-20	2.13E-23	
SE 81M	6.39E-02	2.98E+00	1.44E+00	6.92E-01	3.33E-01	7.78E-02	8.70E-03	9.75E-04	1.09E-04	1.23E-05	1.37E-06	
SE 81	7.81E-01	3.53E+00	2.04E+00	1.02E+00	4.94E-01	1.15E-01	1.29E-02	1.45E-03	1.62E-04	1.82E-05	2.04E-06	
BR 82	4.09E-04	4.01E-04	3.93E-04	3.86E-04	3.78E-04	3.64E-04	3.43E-04	3.23E-04	3.05E-04	2.87E-04	2.71E-04	
SE 83	3.83E+01	7.26E+00	1.37E+00	2.61E-01	4.93E-02	1.77E-03	1.20E-05	8.20E-08	5.60E-10	3.79E-12	2.41E-14	
BR 83	3.18E-01	4.75E+00	4.39E+00	3.46E+00	2.62E+00	1.48E+00	6.27E-01	2.64E-01	1.72E-01	4.70E-02	1.98E-02	
KR 83M	1.64E-05	1.07E+00	2.19E+00	2.73E+00	2.81E+00	2.35E+00	1.38E+00	7.12E-01	3.43E-01	1.59E-01	7.12E-02	

G-3

ESS  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.400  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.685E-12

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	8.23E-02	1.42E+01	3.84E+00	1.04E+00	2.81E-01	2.05E-02	4.06E-04	8.01E-06	1.58E-07	3.13E-09	6.19E-11	
KR 85M	4.12E-03	8.83E+00	7.52E+00	6.42E+00	5.49E+00	4.00E+00	2.50E+00	1.56E+00	9.71E-01	6.03E-01	3.77E-01	
KR 87	6.93E+01	4.00E+01	2.31E+01	1.34E+01	7.72E+00	2.59E+00	5.02E-01	9.72E-02	1.88E-02	3.65E-03	7.05E-04	
KR 88	4.00E+01	3.12E+01	2.44E+01	1.90E+01	1.49E+01	9.03E+00	4.31E+00	2.05E+00	9.75E-01	4.64E-01	2.21E-01	
RB 88	1.02E+01	3.16E+01	2.70E+01	2.12E+01	1.66E+01	1.01E+01	4.83E+00	2.30E+00	1.10E+00	5.20E-01	2.47E-01	
RB 89	4.79E+01	4.50E+01	3.02E+00	2.03E-01	1.36E-02	6.17E-05	1.87E-08	5.63E-12	1.72E-15	5.20E-19	1.58E-22	
SR 89	3.67E-06	1.29E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01	
SR 90	7.41E-06	7.61E-04	7.61E-04	7.61E-04	7.61E-04	7.61E-04	7.61E-04	7.61E-04	7.61E-04	7.61E-04	7.61E-04	
SR 91	8.36E-01	1.56E+01	1.45E+01	1.35E+01	1.26E+01	1.09E+01	8.78E+00	7.10E+00	5.73E+00	4.60E+00	3.71E+00	
Y 91M	5.62E-05	5.36E+00	7.31E+00	7.83E+00	7.73E+00	6.94E+00	5.68E+00	4.57E+00	3.69E+00	2.97E+00	2.40E+00	
SR 92	2.30E-08	4.77E-03	1.10E-02	1.76E-02	2.40E-02	3.59E-02	5.10E-02	6.31E-02	7.31E-02	8.10E-02	8.73E-02	
Y 92	4.96E+00	2.22E+01	1.72E+01	1.33E+01	1.03E+01	6.16E+00	2.86E+00	1.33E+00	6.16E-01	2.86E-01	1.33E-01	
SR 93	2.29E-01	4.66E+00	7.32E+00	8.70E+00	9.23E+00	8.79E+00	6.74E+00	4.59E+00	2.95E+00	1.82E+00	1.10E+00	
Y 93	1.95E+02	3.35E+00	1.85E-02	1.02E-04	5.64E-07	1.73E-11	2.91E-18	4.91E-25	8.29E-32	1.40E-38	2.35E-45	
Y 94	2.38E-01	7.69E+00	7.22E+00	6.75E+00	6.31E+00	5.51E+00	4.49E+00	3.67E+00	2.98E+00	2.44E+00	1.99E+00	
Y 95	2.82E+01	3.85E+01	4.95E+00	6.39E-01	8.24E-02	1.37E-03	2.94E-06	6.29E-09	1.35E-11	2.94E-14	1.63E-15	
ZR 95	1.20E+02	1.13E+01	2.49E-01	5.50E-03	1.21E-04	5.87E-08	6.29E-13	6.72E-18	7.18E-23	7.67E-28	8.20E-33	
ZR 95	4.51E-04	5.89E-02	6.01E-02	6.01E-02	6.01E-02	6.01E-02	6.01E-02	5.99E-02	5.99E-02	5.97E-02	5.97E-02	
NB 95	5.02E-11	3.64E-05	8.48E-05	1.33E-04	1.82E-04	2.79E-04	4.23E-04	5.69E-04	7.12E-04	8.56E-04	9.98E-04	
ZR 97	1.06E+00	4.61E+00	4.41E+00	4.24E+00	4.06E+00	3.75E+00	3.32E+00	2.93E+00	2.60E+00	2.30E+00	2.04E+00	
NB 97M	5.45E-03	4.43E+00	4.24E+00	4.08E+00	3.92E+00	3.61E+00	3.19E+00	2.82E+00	2.50E+00	2.20E+00	1.95E+00	
NB 97	5.30E-01	2.31E+00	3.26E+00	3.72E+00	3.90E+00	3.88E+00	3.53E+00	3.15E+00	2.79E+00	2.46E+00	2.19E+00	
NB 98	5.92E+00	2.62E+00	1.16E+00	5.12E-01	2.27E-01	4.44E-02	3.84E-03	3.32E-04	2.89E-05	2.50E-06	2.15E-07	
MC 99	3.07E-03	1.27E+00	1.25E+00	1.24E+00	1.23E+00	1.20E+00	1.17E+00	1.13E+00	1.10E+00	1.06E+00	1.03E+00	
TC 99M	2.86E-08	1.21E-01	2.27E-01	3.21E-01	4.03E-01	5.38E-01	6.83E-01	7.75E-01	8.32E-01	8.63E-01	8.77E-01	
MC101	1.04E+02	4.69E+01	2.72E+00	1.58E-01	9.16E-03	3.07E-05	5.96E-09	1.16E-12	2.26E-16	4.38E-20	8.55E-24	
TC101	4.38E+00	1.32E+02	1.44E+01	1.18E+00	8.59E-02	3.88E-04	9.69E-08	2.17E-11	4.60E-15	9.47E-19	1.92E-22	
MC102	8.13E+02	1.86E+01	4.22E-01	9.64E-03	2.20E-04	1.14E-07	1.36E-12	1.61E-17	1.91E-22	2.27E-27	2.69E-32	
TC102M	5.23E-01	1.57E+01	3.59E-01	8.21E-03	1.87E-04	9.68E-08	1.15E-12	1.36E-17	1.62E-22	1.92E-27	2.28E-32	
TC102	2.45E+03	9.33E+00	2.13E-01	4.84E-03	1.11E-04	5.77E-08	6.86E-13	8.13E-18	9.64E-23	1.14E-27	1.36E-32	
RU103	5.37E-05	1.25E-01	1.24E-01	1.24E-01	1.24E-01	1.24E-01	1.24E-01	1.24E-01	1.24E-01	1.23E-01	1.23E-01	
RH103M	3.58E-09	6.43E-02	9.53E-02	1.10E-01	1.18E-01	1.23E-01	1.24E-01	1.24E-01	1.24E-01	1.23E-01	1.23E-01	
TC104	4.28E+01	3.07E+01	3.07E+00	3.04E-01	3.01E-02	2.96E-04	2.89E-07	2.83E-10	2.76E-13	2.70E-16	2.64E-19	
RU105	2.91E-01	1.01E+01	8.60E+00	7.37E+00	6.31E+00	4.61E+00	2.89E+00	1.81E+00	1.13E+00	7.07E-01	4.44E-01	
RH105M	1.91E-03	1.01E+01	8.62E+00	7.39E+00	6.31E+00	4.63E+00	2.89E+00	1.81E+00	1.13E+00	7.09E-01	4.44E-01	
RH105	3.14E-09	2.05E-01	3.80E-01	5.25E-01	6.46E-01	8.26E-01	9.88E-01	1.06E+00	1.08E+00	1.07E+00	1.04E+00	
RU106	2.24E-04	4.25E-03	4.25E-03	4.25E-03	4.25E-03	4.25E-03	4.25E-03	4.25E-03	4.25E-03	4.25E-03	4.25E-03	
RH106	2.43E-06	4.25E-03	4.25E-03	4.25E-03	4.25E-03	4.25E-03	4.25E-03	4.25E-03	4.25E-03	4.25E-03	4.25E-03	
RH107	2.95E-02	4.01E+00	6.08E-01	9.15E-02	1.38E-02	3.15E-04	1.08E-06	3.74E-09	1.29E-11	4.41E-14	4.38E-18	
PD107M	6.14E-05	8.16E-01	1.23E-01	1.86E-02	2.81E-03	6.41E-05	2.21E-07	7.62E-10	2.62E-12	9.04E-15	3.08E-17	

ESS  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.400  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.685E-12

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	1.85E-03	1.54E-01	1.46E-01	1.38E-01	1.31E-01	1.19E-01	1.02E-01	8.74E-02	7.49E-02	6.42E-02	5.51E-02	
AG109M	1.07E-05	1.54E-01	1.46E-01	1.39E-01	1.32E-01	1.19E-01	1.02E-01	8.74E-02	7.49E-02	6.42E-02	5.51E-02	
PD111M	2.57E-01	2.27E-01	2.00E-01	1.77E-01	1.55E-01	1.21E-01	8.27E-02	5.67E-02	3.89E-02	2.66E-02	1.82E-02	
PD111	9.16E-02	1.65E-01	1.58E-01	1.41E-01	1.25E-01	9.69E-02	6.65E-02	4.56E-02	3.12E-02	2.14E-02	1.47E-02	
AG111M	7.27E-04	2.23E-01	2.09E-01	1.87E-01	1.65E-01	1.28E-01	8.72E-02	5.98E-02	4.10E-02	2.81E-02	1.92E-02	
AG111	2.59E-10	7.68E-04	1.61E-03	2.37E-03	3.04E-03	4.15E-03	5.33E-03	6.10E-03	6.61E-03	6.93E-03	7.12E-03	
PD112	5.77E-02	5.59E-02	5.40E-02	5.22E-02	5.07E-02	4.73E-02	4.29E-02	3.89E-02	3.52E-02	3.18E-02	2.88E-02	
AG112	1.74E-06	1.11E-02	1.95E-02	2.62E-02	3.11E-02	3.73E-02	4.10E-02	4.08E-02	3.89E-02	3.62E-02	3.34E-02	
AG113	7.48E-04	1.60E-01	1.40E-01	1.23E-01	1.08E-01	8.31E-02	5.63E-02	3.80E-02	2.57E-02	1.73E-02	1.17E-02	
AG115	3.28E-01	3.51E-01	4.37E-02	5.46E-03	6.84E-04	1.07E-05	2.09E-08	4.08E-11	7.91E-14	7.85E-16	7.28E-17	
CD115M	2.68E-09	7.13E-05	8.01E-05	8.11E-05	8.11E-05	8.11E-05	8.09E-05	8.09E-05	8.06E-05	8.04E-05	8.04E-05	
CD115	1.04E-06	1.95E-02	2.10E-02	2.09E-02	2.07E-02	2.02E-02	1.94E-02	1.86E-02	1.79E-02	1.73E-02	1.66E-02	
IN115M	1.29E-11	2.15E-03	4.79E-03	7.10E-03	9.05E-03	1.21E-02	1.49E-02	1.64E-02	1.71E-02	1.73E-02	1.71E-02	
CD117	2.33E-02	3.88E-01	2.92E-01	2.18E-01	1.64E-01	9.17E-02	3.85E-02	1.62E-02	6.83E-03	2.87E-03	1.21E-03	
IN117M	1.12E-06	1.35E-01	1.95E-01	2.12E-01	2.05E-01	1.61E-01	9.23E-02	4.72E-02	2.27E-02	1.05E-02	4.75E-03	
IN117	4.50E-11	2.46E-02	5.95E-02	8.27E-02	9.23E-02	8.49E-02	5.41E-02	2.89E-02	1.44E-02	6.77E-03	3.11E-03	
CD118	1.56E+00	6.68E-01	2.87E-01	1.22E-01	5.23E-02	9.58E-03	7.52E-04	5.87E-05	4.62E-06	3.62E-07	2.84E-08	
IN118	1.03E-01	6.68E-01	2.87E-01	1.22E-01	5.23E-02	9.60E-03	7.52E-04	5.90E-05	4.62E-06	3.62E-07	2.84E-08	
CD119	3.87E+00	6.03E-02	9.41E-04	1.47E-05	2.30E-07	5.63E-11	2.15E-16	8.20E-22	3.12E-27	1.19E-32	4.56E-38	
IN119M	5.83E-03	6.53E-01	7.10E-02	7.16E-03	7.13E-04	7.02E-06	6.84E-09	6.70E-12	6.53E-15	6.38E-18	6.24E-21	
IN119	2.88E-01	3.44E-02	3.98E-03	4.04E-04	4.04E-05	3.96E-07	3.87E-10	3.78E-13	3.70E-16	3.61E-19	3.52E-22	
SN121	4.70E-04	4.84E-02	4.70E-02	4.59E-02	4.48E-02	4.26E-02	3.93E-02	3.65E-02	3.37E-02	3.13E-02	2.90E-02	
SN123M	2.58E-01	4.82E-01	1.71E-01	6.05E-02	2.14E-02	2.67E-03	1.18E-04	5.22E-06	2.31E-07	1.02E-08	4.51E-10	
SN123	2.42E-06	2.53E-04	2.53E-04	2.53E-04	2.53E-04	2.53E-04	2.53E-04	2.53E-04	2.53E-04	2.53E-04	2.53E-04	
SN125	6.75E-03	6.73E-03	6.72E-03	6.70E-03	6.66E-03	6.63E-03	6.57E-03	6.50E-03	6.45E-03	6.38E-03	6.33E-03	
SB125	4.05E-05	4.07E-05	4.09E-05	4.11E-05	4.12E-05	4.16E-05	4.23E-05	4.28E-05	4.34E-05	4.39E-05	4.44E-05	
SB126	1.32E-03	1.32E-03	1.31E-03	1.31E-03	1.31E-03	1.30E-03	1.29E-03	1.28E-03	1.27E-03	1.26E-03	1.26E-03	
SN127	2.36E+00	1.70E+00	1.22E+00	8.78E-01	6.32E-01	3.26E-01	1.21E-01	4.51E-02	1.67E-02	6.21E-03	2.31E-03	
SB127	2.76E-02	9.50E-02	1.05E-01	1.12E-01	1.17E-01	1.22E-01	1.24E-01	1.23E-01	1.21E-01	1.18E-01	1.16E-01	
TE127	1.56E-02	1.94E-02	2.35E-02	2.79E-02	3.23E-02	4.05E-02	5.19E-02	6.06E-02	6.74E-02	7.27E-02	7.61E-02	
SN128	1.58E+01	7.78E+00	3.85E+00	1.90E+00	9.41E-01	2.30E-01	2.77E-02	3.35E-03	4.04E-04	4.89E-05	5.90E-06	
SB128M	8.03E-03	8.86E+00	4.60E+00	2.27E+00	1.12E+00	2.74E-01	3.30E-02	3.99E-03	4.81E-04	5.81E-05	7.02E-06	
SB128	6.65E-01	6.40E-01	6.02E-01	5.64E-01	5.27E-01	4.52E-01	3.60E-01	2.86E-01	2.27E-01	1.80E-01	1.43E-01	
SN129M	1.04E+01	5.20E+00	2.61E+00	1.30E+00	6.52E-01	1.63E-01	2.04E-02	2.55E-03	3.18E-04	3.98E-05	4.98E-06	
SN129	6.96E+01	6.83E-01	6.74E-03	6.65E-05	6.52E-07	6.34E-11	6.03E-17	5.77E-23	5.51E-29	5.24E-35	5.02E-41	
SB129	3.92E+00	6.56E+00	6.17E+00	5.51E+00	4.85E+00	3.60E+00	2.24E+00	1.39E+00	8.55E-01	5.29E-01	3.25E-01	
TE129M	7.40E-08	8.19E-04	1.69E-03	2.48E-03	3.18E-03	4.32E-03	5.46E-03	6.17E-03	6.61E-03	6.87E-03	7.05E-03	
TE129	2.82E+00	3.88E+00	4.54E+00	4.71E+00	4.54E+00	3.76E+00	2.50E+00	1.58E+00	9.82E-01	6.08E-01	3.77E-01	
SB130M	3.89E-01	7.34E-01	1.93E-03	5.06E-06	1.33E-08	9.20E-14	1.68E-21	3.05E-29	5.53E-37	1.00E-44	1.83E-52	
SB130	6.67E+01	2.02E+01	5.74E+00	1.62E+00	4.60E-01	3.70E-02	8.44E-04	1.92E-05	4.39E-07	1.00E-08	2.28E-10	

G-5

ESS MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.400  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.685E-12

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	1.86E-02	1.76E-02	1.66E-02	1.57E-02	1.49E-02	1.33E-02	1.12E-02	9.49E-03	8.02E-03	6.79E-03	5.74E-03
SB131	1.58E+02	4.13E+01	6.75E+00	1.11E+00	1.82E-01	4.89E-03	2.15E-05	9.52E-08	4.19E-10	1.85E-12	9.21E-15
TE131M	7.60E-05	3.98E-01	4.54E-01	4.54E-01	4.46E-01	4.26E-01	3.97E-01	3.71E-01	3.46E-01	3.23E-01	3.01E-01
TE131	7.00E+01	7.60E+01	2.48E+01	6.44E+00	1.57E+00	1.47E-01	7.30E-02	6.75E-02	6.29E-02	5.89E-02	5.49E-02
I131	1.02E-02	3.52E-01	5.19E-01	5.69E-01	5.79E-01	5.84E-01	5.84E-01	5.79E-01	5.79E-01	5.74E-01	5.74E-01
TE132	8.54E-01	2.08E+00	2.05E+00	2.04E+00	2.02E+00	1.98E+00	1.93E+00	1.88E+00	1.83E+00	1.78E+00	1.73E+00
I132	2.10E+00	2.09E+00	2.09E+00	2.08E+00	2.06E+00	2.03E+00	1.99E+00	1.94E+00	1.88E+00	1.84E+00	1.79E+00
TE133M	1.05E-01	3.63E+01	1.58E+01	6.89E+00	2.99E+00	5.69E-01	4.68E-02	3.86E-03	3.18E-04	2.63E-05	2.17E-06
TE133	5.89E+02	3.34E+01	3.71E+00	1.23E+00	5.19E-01	9.83E-02	8.14E-03	6.69E-04	5.54E-05	4.56E-06	3.76E-07
I133	9.13E-01	9.83E+00	1.06E+01	1.06E+01	1.04E+01	9.88E+00	8.98E+00	8.14E+00	7.34E+00	6.69E+00	6.04E+00
XE133M	3.89E-08	2.21E-03	5.34E-03	8.53E-03	1.16E-02	1.75E-02	2.53E-02	3.21E-02	3.78E-02	4.28E-02	4.69E-02
XE133	6.79E-07	3.86E-02	9.38E-02	1.50E-01	2.06E-01	3.11E-01	4.57E-01	5.84E-01	6.99E-01	7.99E-01	8.88E-01
TE134	1.83E+02	8.49E+01	3.16E+01	1.18E+01	4.36E+00	6.04E-01	3.09E-02	1.58E-03	8.11E-05	4.16E-06	2.13E-07
I134	8.39E+01	1.12E+02	7.87E+01	4.61E+01	2.48E+01	6.28E+00	6.91E-01	7.05E-02	6.91E-03	6.62E-04	6.28E-05
I135	1.55E+01	2.73E+01	2.46E+01	2.22E+01	2.00E+01	1.62E+01	1.19E+01	8.72E+00	6.41E+00	4.72E+00	3.44E+00
XE135M	1.71E-03	7.87E+00	7.65E+00	6.94E+00	6.23E+00	5.07E+00	3.72E+00	2.73E+00	2.00E+00	1.47E+00	1.08E+00
XE135	1.78E+00	3.53E+00	5.16E+00	6.50E+00	7.56E+00	9.08E+00	1.01E+01	1.01E+01	9.61E+00	8.76E+00	7.83E+00
CS136	1.35E-03	1.34E-03	1.34E-03	1.34E-03	1.33E-03	1.33E-03	1.32E-03	1.31E-03	1.30E-03	1.29E-03	1.28E-03
CS137	7.46E-05	8.05E-04	8.05E-04	8.05E-04	8.05E-04	8.05E-04	8.05E-04	8.05E-04	8.05E-04	8.05E-04	8.05E-04
BA137M	1.57E-07	7.51E-04	7.51E-04	7.51E-04	7.51E-04	7.51E-04	7.51E-04	7.51E-04	7.51E-04	7.51E-04	7.51E-04
XE138	6.18E+02	5.31E+01	4.62E+00	4.00E-01	3.47E-02	2.60E-04	1.69E-07	1.10E-10	7.13E-14	4.63E-17	3.01E-20
CS138	9.19E+01	1.55E+02	5.36E+01	1.57E+01	4.41E+00	3.36E-01	6.99E-03	1.45E-04	3.01E-06	6.27E-08	1.30E-09
CS139	5.41E+02	1.73E+01	2.16E-01	2.72E-03	3.41E-05	5.35E-09	1.07E-14	2.11E-20	4.17E-26	8.26E-32	1.63E-37
BA139	9.98E+00	1.11E+02	6.86E+01	4.17E+01	2.52E+01	9.25E+00	2.05E+00	4.56E-01	1.01E-01	2.25E-02	4.99E-03
BA140	9.06E-02	5.65E-01	5.65E-01	5.61E-01	5.61E-01	5.56E-01	5.56E-01	5.52E-01	5.48E-01	5.43E-01	5.39E-01
LA140	2.15E-07	9.66E-03	1.91E-02	2.84E-02	3.75E-02	5.52E-02	8.06E-02	1.04E-01	1.27E-01	1.48E-01	1.68E-01
BA141	1.26E+02	3.81E+01	3.78E+00	3.75E-01	3.72E-02	3.69E-04	3.60E-07	3.51E-10	3.42E-13	3.36E-16	3.27E-19
LA141	1.16E+00	2.46E+01	2.30E+01	1.95E+01	1.63E+01	1.14E+01	6.71E+00	3.93E+00	2.31E+00	1.35E+00	7.94E-01
CE141	1.44E-07	1.60E-02	3.75E-02	5.63E-02	7.22E-02	9.68E-02	1.20E-01	1.34E-01	1.41E-01	1.46E-01	1.48E-01
BA142	2.22E+02	8.83E+00	2.02E-01	4.60E-03	1.05E-04	5.44E-08	6.46E-13	7.67E-18	9.10E-23	1.08E-27	1.28E-32
LA142	5.10E+00	3.54E+01	2.34E+01	1.49E+01	9.46E+00	3.82E+00	9.87E-01	2.54E-01	6.55E-02	1.69E-02	4.35E-03
LA143	8.67E+01	1.69E+01	8.67E-01	4.45E-02	2.29E-03	5.99E-06	8.08E-10	1.09E-13	1.47E-17	1.98E-21	2.67E-25
CE143	3.46E-02	2.21E+00	2.29E+00	2.23E+00	2.19E+00	2.11E+00	1.97E+00	1.85E+00	1.74E+00	1.63E+00	1.53E+00
PR143	1.01E-08	3.38E-03	8.16E-03	1.29E-02	1.75E-02	2.65E-02	3.91E-02	5.10E-02	6.20E-02	7.23E-02	8.18E-02
CE144	1.41E-03	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02
PR144	3.86E-07	9.17E-03	1.00E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.01E-02
PR145	5.48E-02	8.06E+00	7.17E+00	6.38E+00	5.69E+00	4.51E+00	3.18E+00	2.24E+00	1.59E+00	1.12E+00	7.93E-01
CE146	1.55E+02	7.95E+00	4.08E-01	2.08E-02	1.07E-03	2.83E-06	3.80E-10	5.13E-14	6.90E-18	9.31E-22	1.26E-25
PR146	3.21E+00	2.79E+01	6.32E+00	1.19E+00	2.14E-01	6.72E-03	3.71E-05	2.05E-07	1.13E-09	6.27E-12	3.42E-14
PR147	1.81E+01	5.24E+00	1.63E-01	5.10E-03	1.60E-04	1.56E-07	4.76E-12	1.45E-16	4.43E-21	1.35E-25	4.13E-30

ESS MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.400  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.685E-12

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	6.46E-06	1.22E-01	1.25E-01	1.25E-01	1.24E-01	1.24E-01	1.23E-01	1.22E-01	1.21E-01	1.20E-01
ND149	8.56E+00	5.83E+00	3.96E+00	2.70E+00	1.83E+00	8.50E-01	2.67E-01	8.43E-02	2.65E-02	8.35E-03
PM149	1.19E-03	9.32E-02	1.55E-01	1.96E-01	2.22E-01	2.49E-01	2.59E-01	2.54E-01	2.48E-01	2.38E-01
PM150	9.47E-02	7.32E-02	5.67E-02	4.38E-02	3.38E-02	2.03E-02	9.40E-03	4.35E-03	2.01E-03	9.32E-04
ND151	2.91E+01	9.10E-01	2.85E-02	8.90E-04	2.78E-05	2.72E-08	8.30E-13	2.54E-17	7.73E-22	2.35E-26
PM151	1.85E-02	2.16E-01	2.17E-01	2.12E-01	2.07E-01	1.96E-01	1.82E-01	1.69E-01	1.57E-01	1.46E-01
PM152	4.54E+01	4.44E-02	4.33E-05	4.23E-08	4.13E-11	3.95E-17	3.68E-26	3.43E-35	3.19E-44	2.98E-53
SM153	5.81E-02	5.73E-02	5.65E-02	5.56E-02	5.49E-02	5.33E-02	5.10E-02	4.87E-02	4.66E-02	4.47E-02
SM155	2.47E+00	4.06E-01	6.65E-02	1.09E-02	1.78E-03	4.80E-05	2.12E-07	9.32E-10	4.11E-12	1.83E-14
EU155	1.82E-06	5.18E-05	6.00E-05	6.13E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05	6.15E-05
SM156	3.08E-02	2.86E-02	2.65E-02	2.46E-02	2.29E-02	1.97E-02	1.58E-02	1.27E-02	1.02E-02	8.15E-03
EU156	8.99E-05	1.47E-04	1.99E-04	2.48E-04	2.93E-04	3.74E-04	4.76E-04	5.51E-04	6.17E-04	6.65E-04
EU157	5.35E-03	1.77E-02	1.69E-02	1.62E-02	1.54E-02	1.41E-02	1.23E-02	1.07E-02	9.36E-03	8.15E-03
EU158	1.01E-01	4.10E-02	1.66E-02	6.71E-03	2.72E-03	4.45E-04	2.96E-05	1.96E-06	1.30E-07	8.66E-09
EU159	1.30E-01	1.29E-02	1.28E-03	1.27E-04	1.26E-05	1.25E-07	1.22E-10	1.19E-13	1.16E-16	1.13E-19
GD159	5.58E-04	2.45E-03	2.54E-03	2.47E-03	2.37E-03	2.20E-03	1.96E-03	1.75E-03	1.55E-03	1.38E-03
TB161	3.88E-06	2.79E-05	2.77E-05	2.76E-05	2.76E-05	2.73E-05	2.70E-05	2.66E-05	2.63E-05	2.60E-05
TOTAL	2.29E+04	4.37E+03	1.22E+03	5.88E+02	4.10E+02	2.92E+02	2.25E+02	1.89E+02	1.66E+02	1.49E+02

ESS  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.400  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.685E-12

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	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NA 24	2.24E-01	7.38E-02	2.43E-02	8.72E-04	3.41E-06	5.22E-11	7.96E-16	1.85E-25	0.	0.	0.	0.
MN 54	2.69E-05	2.67E-05	2.67E-05	2.62E-05	2.59E-05	2.55E-05	2.50E-05	2.38E-05	2.13E-05	1.69E-05	1.35E-05	1.35E-05
FE 55	2.37E-04	2.37E-04	2.37E-04	2.36E-04	2.35E-04	2.34E-04	2.32E-04	2.29E-04	2.20E-04	2.05E-04	1.90E-04	1.90E-04
FE 59	1.06E-04	1.04E-04	1.03E-04	9.81E-05	9.08E-05	7.79E-05	6.67E-05	4.91E-05	2.28E-05	4.86E-06	1.04E-06	1.04E-06
CO 57	3.54E-07	3.54E-07	3.52E-07	3.52E-07	3.46E-07	3.36E-07	3.28E-07	3.12E-07	2.75E-07	2.13E-07	1.65E-07	1.65E-07
CO 58	5.55E-05	5.50E-05	5.44E-05	5.28E-05	5.04E-05	4.57E-05	4.14E-05	3.41E-05	2.10E-05	7.94E-06	3.00E-06	3.00E-06
CO 60	7.92E-05	7.92E-05	7.92E-05	7.92E-05	7.87E-05	7.87E-05	7.82E-05	7.78E-05	7.59E-05	7.35E-05	7.07E-05	7.07E-05
CU 64	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CU 67	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.
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	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
* U237	4.32E-01	3.90E-01	3.51E-01	2.59E-01	1.55E-01	5.54E-02	1.99E-02	2.54E-03	1.50E-05	1.61E-09	1.09E-09	1.09E-09
U240	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
* NP239	5.36E-02	8.18E+01	6.09E+01	2.51E+01	5.75E+00	3.01E-01	1.57E-02	4.32E-05	1.70E-11	4.06E-21	4.06E-21	4.06E-21
NP240M	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AM241	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CM242	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
GE 77	3.67E-03	2.31E-03	5.28E-04	6.38E-06	4.06E-09	1.64E-15	6.63E-22	1.08E-34	0.	0.	0.	0.
AS 77	3.79E-05	5.60E-03	4.05E-03	1.17E-03	1.37E-04	1.86E-06	2.53E-08	4.66E-12	2.16E-21	4.63E-40	9.94E-59	9.94E-59
SE 77M	1.49E-09	1.68E-05	1.21E-05	3.52E-06	4.10E-07	5.58E-09	7.58E-11	1.40E-14	6.48E-24	1.39E-42	2.99E-61	2.99E-61
AS 78	9.84E-03	8.76E-05	2.57E-09	2.17E-23	0.	0.	0.	0.	0.	0.	0.	0.
BR 82	4.09E-04	2.55E-04	1.60E-04	3.88E-05	3.67E-06	3.30E-08	2.96E-10	2.39E-14	1.40E-24	4.79E-45	1.63E-65	1.63E-65
BR 83	3.18E-01	8.37E-03	8.42E-06	8.55E-15	8.73E-30	0.	0.	0.	0.	0.	0.	0.
KR 83M	1.64E-05	3.66E-02	4.16E-05	3.74E-14	3.84E-29	0.	0.	0.	0.	0.	0.	0.
KR 85M	4.12E-03	2.35E-01	5.36E-03	6.36E-08	3.92E-16	1.49E-32	5.65E-49	0.	0.	0.	0.	0.
KR 85	4.26E-06	1.12E-04	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.14E-04	1.12E-04	1.10E-04	1.09E-04	1.09E-04
KR 87	6.93E+01	1.37E-04	2.70E-10	2.10E-27	0.	0.	0.	0.	0.	0.	0.	0.
KR 88	4.00E+01	1.05E-01	2.76E-04	5.02E-12	6.32E-25	0.	0.	0.	0.	0.	0.	0.
RB 88	1.02E+01	1.17E-01	3.09E-04	5.61E-12	7.04E-25	0.	0.	0.	0.	0.	0.	0.
SR 89	3.67E-06	1.10E-01	1.08E-01	1.04E-01	9.76E-02	8.53E-02	7.45E-02	5.74E-02	2.93E-02	7.72E-03	2.04E-03	2.04E-03
SR 90	7.41E-06	7.61E-04	7.61E-04	7.61E-04	7.61E-04	7.61E-04	7.61E-04	7.61E-04	7.54E-04	7.54E-04	7.48E-04	7.48E-04
Y 90	1.10E-11	1.74E-04	3.08E-04	5.54E-04	7.07E-04	7.54E-04	7.61E-04	7.61E-04	7.54E-04	7.54E-04	7.48E-04	7.48E-04
SR 91	8.36E-01	2.99E+00	5.36E-01	3.03E-03	5.62E-07	1.91E-14	6.47E-22	7.36E-37	0.	0.	0.	0.

G-8



ESS  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.400  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.685E-12

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	5.62E-05	1.93E+00	3.46E-01	1.99E-03	3.65E-07	1.23E-14	4.16E-22	4.75E-37	0.	0.	0.	0.
Y 91	2.30E-08	9.20E-02	1.09E-01	1.09E-01	1.03E-01	9.09E-02	8.10E-02	6.41E-02	3.55E-02	1.09E-02	3.36E-03	0.
SR 92	4.96E+00	6.18E-02	1.33E-04	1.34E-12	6.28E-26	0.	0.	0.	0.	0.	0.	0.
Y 92	2.29E-01	6.48E-01	7.20E-03	5.54E-09	3.23E-19	1.11E-39	3.78E-60	0.	0.	0.	0.	0.
Y 93	2.38E-01	1.61E+00	3.13E-01	2.35E-03	6.77E-07	5.60E-14	4.62E-21	3.15E-35	0.	0.	0.	0.
ZR 95	4.51E-04	5.63E-02	5.57E-02	5.40E-02	5.12E-02	4.59E-02	4.13E-02	3.34E-02	1.96E-02	6.74E-03	2.31E-03	0.
NB 95M	9.59E-12	1.91E-04	3.48E-04	6.64E-04	8.95E-04	9.45E-04	8.72E-04	7.09E-04	4.15E-04	1.43E-04	4.92E-05	0.
NB 95	5.02E-11	1.09E-03	2.15E-03	5.16E-03	9.59E-03	1.65E-02	2.13E-02	2.65E-02	2.55E-02	1.23E-02	4.70E-03	0.
ZR 97	1.06E+00	1.80E+00	6.78E-01	3.59E-02	2.70E-04	1.52E-08	8.52E-13	2.70E-21	1.52E-42	0.	0.	0.
NB 97M	5.45E-03	1.73E+00	6.50E-01	3.46E-02	2.59E-04	1.46E-08	8.20E-13	2.59E-21	1.46E-42	0.	0.	0.
NB 97	3.30E-01	1.81E+00	6.79E-01	3.61E-02	2.71E-04	1.63E-08	9.18E-13	2.91E-21	1.64E-42	0.	0.	0.
MO 99	3.07E-03	1.00E+00	7.81E-01	3.70E-01	1.07E-01	8.94E-03	7.46E-04	5.21E-06	2.11E-11	3.48E-22	5.73E-33	0.
TC 99M	2.86E-08	8.79E-01	7.40E-01	3.54E-01	1.02E-01	8.53E-03	7.12E-04	4.97E-06	2.02E-11	3.33E-22	5.48E-33	0.
RH103	5.37E-05	1.23E-01	1.20E-01	1.14E-01	1.05E-01	8.77E-02	7.36E-02	5.20E-02	2.16E-02	3.75E-03	6.54E-04	0.
RH103M	3.58E-09	1.23E-01	1.20E-01	1.14E-01	1.05E-01	8.77E-02	7.36E-02	5.20E-02	2.16E-02	3.75E-03	6.54E-04	0.
RU105	2.91E-01	2.78E-01	6.54E-03	8.60E-08	6.29E-16	3.36E-32	1.80E-48	0.	0.	0.	0.	0.
RH105M	1.91E-03	2.78E-01	6.56E-03	8.62E-08	6.31E-16	3.38E-32	1.80E-48	0.	0.	0.	0.	0.
RH105	3.14E-09	1.00E+00	6.56E-01	1.64E-01	1.61E-02	1.57E-04	1.52E-06	1.44E-10	1.25E-20	9.37E-41	7.03E-61	0.
RU106	2.24E-04	4.25E-03	4.23E-03	4.21E-03	4.17E-03	4.10E-03	4.01E-03	3.86E-03	3.51E-03	2.90E-03	2.41E-03	0.
RH106	2.43E-06	4.25E-03	4.23E-03	4.21E-03	4.17E-03	4.10E-03	4.01E-03	3.86E-03	3.51E-03	2.90E-03	2.41E-03	0.
PD109	1.85E-03	4.72E-02	1.37E-02	3.41E-04	7.18E-07	3.20E-12	1.43E-17	2.82E-28	0.	0.	0.	0.
AG109M	1.07E-05	4.72E-02	1.38E-02	3.41E-04	7.21E-07	3.20E-12	1.43E-17	2.82E-28	0.	0.	0.	0.
PD111M	2.57E-01	1.25E-02	6.07E-04	6.96E-08	1.88E-14	1.37E-27	1.01E-40	0.	0.	0.	0.	0.
PD111	9.16E-02	1.01E-02	4.88E-04	5.60E-08	1.52E-14	1.10E-27	8.09E-41	0.	0.	0.	0.	0.
AG111M	7.27E-04	1.31E-02	6.40E-04	7.36E-08	1.99E-14	1.46E-27	1.07E-40	0.	0.	0.	0.	0.
AG111	2.59E-10	7.15E-03	6.87E-03	5.23E-03	3.29E-03	1.31E-03	5.18E-04	8.17E-05	8.03E-07	7.78E-11	7.54E-15	0.
PD112	5.77E-02	2.62E-02	1.19E-02	1.10E-03	2.09E-05	7.60E-09	2.76E-12	3.62E-19	2.29E-36	0.	0.	0.
AG112	1.74E-06	3.04E-02	1.40E-02	1.30E-03	2.48E-05	8.97E-09	3.25E-12	4.29E-19	2.69E-36	0.	0.	0.
AG113	7.48E-04	7.91E-03	3.42E-04	2.78E-08	4.25E-15	9.95E-29	2.33E-42	0.	0.	0.	0.	0.
CD115M	2.68E-09	7.75E-05	7.62E-05	7.26E-05	6.71E-05	5.70E-05	4.86E-05	3.51E-05	1.57E-05	3.12E-06	6.24E-07	0.
CD115	1.04E-06	1.56E-02	1.14E-02	4.50E-03	9.49E-04	4.24E-05	1.89E-06	3.77E-09	6.66E-16	2.09E-29	6.53E-43	0.
IN115M	1.29E-11	1.64E-02	1.25E-02	4.92E-03	1.04E-03	4.63E-05	2.06E-06	4.11E-09	7.28E-16	2.28E-29	7.13E-43	0.
CD117	2.33E-02	5.08E-04	4.94E-07	4.61E-16	4.10E-31	0.	0.	0.	0.	0.	0.	0.
IN117M	1.12E-06	2.11E-03	2.44E-06	2.35E-15	2.09E-30	0.	0.	0.	0.	0.	0.	0.
IN117	4.50E-11	1.39E-03	1.65E-06	1.59E-15	1.41E-30	0.	0.	0.	0.	0.	0.	0.
SN121	4.70E-04	2.68E-02	1.45E-02	2.28E-03	1.05E-04	2.21E-07	4.65E-10	2.07E-15	8.66E-29	0.	0.	0.
SN123	2.42E-06	2.53E-04	2.51E-04	2.47E-04	2.40E-04	2.27E-04	2.15E-04	1.92E-04	1.46E-04	8.38E-05	4.82E-05	0.
SN125	6.75E-03	6.27E-03	5.83E-03	4.67E-03	3.23E-03	1.55E-03	7.39E-04	1.69E-04	4.23E-06	2.66E-09	1.67E-12	0.
SB125	4.05E-05	4.49E-05	4.92E-05	6.01E-05	7.37E-05	8.92E-05	9.61E-05	1.00E-04	9.82E-05	9.17E-05	8.55E-05	0.
SB126	1.32E-03	1.25E-03	1.18E-03	1.00E-03	7.58E-04	4.34E-04	2.50E-04	8.25E-05	5.16E-06	2.50E-08	5.03E-09	0.

ESS MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.400  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.685E-12

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	2.36E+00	8.56E-04	3.11E-07	1.48E-17	9.31E-35	0.	0.	0.	0.	0.	0.	0.
SB127	2.76E-02	1.13E-01	9.47E-02	5.53E-02	2.26E-02	3.78E-03	6.32E-04	1.77E-05	2.31E-09	3.94E-17	6.70E-25	
TE127M	2.23E-10	1.73E-04	3.16E-04	6.13E-04	8.48E-04	9.35E-04	9.01E-04	7.99E-04	5.83E-04	3.08E-04	1.63E-04	
TE127	1.56E-02	8.10E-02	7.95E-02	4.85E-02	2.05E-02	4.20E-03	1.44E-03	8.06E-04	5.75E-04	3.04E-04	1.61E-04	
SB128	6.65E-01	1.13E-01	1.79E-02	6.98E-05	6.77E-09	6.36E-17	5.98E-25	5.27E-41	0.	0.	0.	0.
SB129	3.92E+00	2.00E-01	4.18E-03	3.81E-08	1.52E-16	2.39E-33	3.78E-50	0.	0.	0.	0.	0.
TE129M	7.40E+08	7.80E-03	7.80E-03	7.36E-03	6.65E-03	5.42E-03	4.40E-03	2.93E-03	1.06E-03	1.38E-04	1.79E-05	
TE129	2.82E+00	2.35E-01	9.78E-03	4.71E-03	4.25E-03	3.47E-03	2.83E-03	1.88E-03	6.78E-04	8.85E-05	1.15E-05	
I130	1.86E-02	4.85E-03	1.27E-03	2.27E-05	2.77E-08	4.13E-14	6.16E-20	1.37E-31	0.	0.	0.	0.
TE131M	7.60E-05	2.66E-01	1.53E-01	2.89E-02	1.81E-03	7.05E-06	2.76E-08	4.21E-13	3.83E-25	0.	0.	0.
TE131	7.00E+01	4.85E-02	2.78E-02	5.29E-03	3.30E-04	1.29E-06	5.03E-09	7.70E-14	7.00E-26	0.	0.	0.
I131	1.02E-02	5.49E-01	5.19E-01	4.17E-01	2.74E-01	1.16E-01	4.90E-02	8.76E-03	1.18E-04	2.15E-08	3.93E-12	
XE131M	2.76E-11	2.54E-04	4.83E-04	1.01E-03	1.44E-03	1.42E-03	1.06E-03	4.37E-04	2.91E-05	8.71E-08	2.46E-10	
TE132	8.54E-01	1.69E+00	1.37E+00	7.19E-01	2.48E-01	2.94E-02	3.48E-03	4.89E-05	1.14E-09	6.26E-19	3.42E-28	
I132	2.10E+00	1.74E+00	1.41E+00	7.40E-01	2.56E-01	3.03E-02	3.59E-03	5.04E-05	1.18E-09	6.42E-19	3.52E-28	
I133	9.13E-01	5.09E+00	2.30E+00	2.13E-01	4.06E-03	1.47E-06	5.34E-10	7.04E-17	4.42E-34	0.	0.	0.
XE133M	3.89E-08	4.81E-02	5.69E-02	3.34E-02	7.84E-03	3.68E-04	1.71E-05	3.71E-08	8.14E-15	3.89E-28	1.86E-41	
XE133	6.79E-07	9.23E-01	1.24E+00	1.11E+00	6.04E-01	1.63E-01	4.39E-02	3.16E-03	4.40E-06	8.53E-12	1.66E-17	
I135	1.55E+01	2.53E+00	2.11E-01	1.23E-04	4.98E-10	8.23E-21	1.35E-31	3.67E-53	0.	0.	0.	0.
XE135M	1.71E-03	7.87E-01	6.58E-02	3.83E-05	1.56E-10	2.56E-21	4.22E-32	1.15E-53	0.	0.	0.	0.
XE135	1.78E+00	6.81E+00	1.66E+00	9.52E-03	1.17E-06	1.64E-14	2.30E-22	4.54E-38	0.	0.	0.	0.
CS136	1.35E-03	1.28E-03	1.21E-03	1.03E-03	7.90E-04	4.64E-04	2.73E-04	9.36E-05	6.51E-06	3.14E-08	1.52E-10	
CS137	7.46E-05	8.05E-04	8.05E-04	8.05E-04	8.05E-04	8.05E-04	8.05E-04	8.05E-04	8.00E-04	7.96E-04	7.91E-04	
BA137M	1.57E-07	7.51E-04	7.51E-04	7.51E-04	7.51E-04	7.51E-04	7.51E-04	7.51E-04	7.46E-04	7.42E-04	7.37E-04	
BA139	9.98E+00	1.07E-03	6.29E-09	1.29E-24	0.	0.	0.	0.	0.	0.	0.	0.
BA140	9.06E-02	5.35E-01	5.09E-01	4.31E-01	3.29E-01	1.91E-01	1.11E-01	3.77E-02	2.52E-03	1.12E-05	4.96E-08	
LA140	2.15E+00	1.86E-01	3.00E-01	4.14E-01	3.68E-01	2.20E-01	1.28E-01	4.36E-02	2.89E-03	1.29E-05	5.74E-08	
LA141	1.16E+00	4.62E-01	6.47E-03	1.79E-08	9.80E-18	2.93E-36	8.72E-55	0.	0.	0.	0.	0.
CE141	1.44E-07	1.59E-01	1.58E-01	1.49E-01	1.33E-01	1.08E-01	8.69E-02	5.66E-02	1.95E-02	2.29E-03	2.70E-04	
LA142	5.10E+00	1.12E-03	2.17E-08	1.59E-22	0.	0.	0.	0.	0.	0.	0.	0.
CE143	3.46E-02	1.42E+00	8.61E-01	1.90E-01	1.52E-02	9.86E-05	6.38E-07	2.67E-11	3.02E-22	0.	0.	0.
PR143	1.01E-08	9.11E-02	1.42E-01	1.83E-01	1.57E-01	9.56E-02	5.77E-02	2.09E-02	1.67E-03	1.06E-05	6.72E-08	
CE144	1.41E-03	1.01E-02	1.00E-02	9.95E-03	9.83E-03	9.59E-03	9.36E-03	8.92E-03	7.89E-03	6.18E-03	4.85E-03	
PR144	3.86E-07	1.01E-02	1.00E-02	9.95E-03	9.83E-03	9.59E-03	9.36E-03	8.92E-03	7.89E-03	6.18E-03	4.85E-03	
PR145	5.48E-02	5.61E-01	3.47E-02	8.23E-06	7.50E-12	6.21E-24	5.15E-36	0.	0.	0.	0.	0.
ND147	6.46E-06	1.09E-01	1.02E-01	8.46E-02	6.19E-02	3.32E-02	1.78E-02	5.10E-03	2.24E-04	4.36E-07	8.45E-10	
PM147	1.79E-14	8.12E-05	1.57E-04	3.59E-04	6.21E-04	9.48E-04	1.12E-03	1.25E-03	1.26E-03	1.17E-03	1.09E-03	
ND149	8.56E+00	8.29E-04	8.03E-08	7.32E-20	6.25E-40	0.	0.	0.	0.	0.	0.	0.
PM149	1.19E-03	2.20E-01	1.61E-01	6.30E-02	1.31E-02	5.73E-04	2.49E-05	4.74E-08	7.48E-15	1.84E-28	4.60E-42	
PM150	9.47E-02	2.00E-04	4.21E-07	3.95E-15	1.65E-28	0.	0.	0.	0.	0.	0.	0.

ESS MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.400  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.685E-12

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	1.85E-02	1.26E-01	6.95E-02	1.17E-02	6.00E-04	1.57E-06	4.15E-09	2.86E-14	3.59E-27	0.	0.
SM153	5.81E-02	4.09E-02	2.87E-02	9.91E-03	1.68E-03	4.90E-05	1.42E-06	1.20E-09	2.47E-17	1.05E-32	4.47E-48
SM156	3.08E-02	5.24E-03	8.95E-04	4.41E-06	6.35E-10	1.30E-17	2.69E-25	1.15E-40	0.	0.	0.
EU155	1.82E-06	6.15E-05	6.14E-05	6.14E-05	6.13E-05	6.10E-05	6.08E-05	6.03E-05	5.91E-05	5.68E-05	5.46E-05
EU156	8.99E-05	7.31E-04	8.11E-04	7.27E-04	5.77E-04	3.63E-04	2.29E-04	9.08E-05	8.99E-06	8.86E-08	8.72E-10
EU157	5.35E-03	6.18E-03	2.08E-03	7.80E-05	3.28E-07	5.78E-12	1.02E-16	3.18E-26	0.	0.	0.
GD159	5.58E-04	1.10E-03	4.37E-04	2.73E-05	2.68E-07	2.60E-11	2.52E-15	2.36E-23	2.02E-43	0.	0.
TB161	3.88E-06	2.54E-05	2.29E-05	1.69E-05	1.03E-05	3.75E-06	1.37E-06	1.84E-07	1.22E-09	5.26E-14	2.29E-18
TOTAL	2.55E+02	1.25E+02	7.90E+01	3.19E+01	9.18E+00	1.83E+00	9.50E-01	5.03E-01	2.11E-01	7.15E-02	3.36E-02

ESS MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.400  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.685E-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	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MN 54	2.69E-05	1.16E-05	7.64E-06	5.02E-06	1.43E-06	4.09E-07	7.71E-08	6.31E-09	1.48E-12	5.35E-18	1.94E-23	0.
FE 59	1.06E-04	3.82E-07	2.29E-08	1.38E-09	2.99E-13	6.47E-17	8.43E-22	3.95E-29	0.	0.	0.	0.
CO 57	3.54E-07	1.40E-07	8.74E-08	5.48E-08	1.35E-08	3.33E-09	5.14E-11	3.12E-11	2.73E-15	2.24E-21	0.	0.
CO 58	5.55E-05	1.59E-06	2.70E-07	4.58E-08	2.23E-10	1.09E-12	8.96E-16	2.12E-20	8.12E-36	0.	0.	0.
CO 60	7.92E-05	6.93E-05	6.46E-05	6.04E-05	4.97E-05	4.08E-05	3.13E-05	2.11E-05	5.67E-06	7.87E-07	1.09E-07	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	4.32E-01	1.08E-09	1.05E-09	1.02E-09	9.56E-10	8.87E-10	8.07E-10	7.00E-10	4.36E-10	2.14E-10	1.05E-10	0.
AM241	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CM242	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
KR 85	4.26E-06	1.06E-04	1.03E-04	9.93E-05	9.05E-05	8.17E-05	7.19E-05	5.92E-05	3.13E-05	1.20E-05	4.57E-06	0.
SR 89	3.67E-06	8.58E-04	7.51E-05	6.60E-06	4.44E-09	3.00E-12	1.77E-16	8.04E-23	5.84E-44	0.	0.	0.
SR 90	7.41E-06	7.41E-04	7.34E-04	7.27E-04	7.00E-04	6.73E-04	6.41E-04	5.95E-04	4.65E-04	3.21E-04	2.22E-04	0.
Y 90	1.10E-11	7.41E-04	7.34E-04	7.27E-04	7.00E-04	6.73E-04	6.41E-04	5.95E-04	4.65E-04	3.21E-04	2.22E-04	0.
Y 91	2.30E-08	1.56E-03	1.81E-04	2.10E-05	3.30E-08	5.17E-11	9.46E-15	2.32E-20	4.69E-39	0.	0.	0.
ZR 95	4.51E-04	1.16E-03	1.65E-04	2.35E-05	6.86E-08	2.00E-10	8.26E-14	6.98E-19	8.54E-36	0.	0.	0.
NB 95M	9.59E-12	2.45E-05	3.50E-06	5.00E-07	1.45E-09	4.23E-12	1.75E-15	1.48E-20	1.81E-37	0.	0.	0.
NB 95	5.02E-11	2.49E-03	3.58E-04	5.10E-05	1.48E-07	4.29E-10	1.79E-13	1.51E-18	1.85E-35	0.	0.	0.
RU103	5.37E-05	2.09E-04	8.53E-06	3.51E-07	2.40E-11	1.64E-15	4.61E-21	2.17E-29	0.	0.	0.	0.
RH103M	3.58E-09	2.09E-04	8.53E-06	3.51E-07	2.40E-11	1.64E-15	4.61E-21	2.17E-29	0.	0.	0.	0.
RU106	2.24E-04	2.13E-03	1.51E-03	1.07E-03	3.81E-04	1.35E-04	3.40E-05	4.30E-06	4.34E-09	1.40E-13	4.49E-18	0.
RH106	2.43E-06	2.13E-03	1.51E-03	1.07E-03	3.81E-04	1.35E-04	3.40E-05	4.30E-06	4.34E-09	1.40E-13	4.49E-18	0.
SN123	2.42E-06	3.36E-05	1.22E-05	4.42E-06	2.12E-07	1.02E-08	1.77E-10	4.09E-13	6.56E-22	4.22E-35	2.71E-48	0.
SB125	4.05E-05	8.16E-05	7.17E-05	6.31E-05	4.30E-05	2.93E-05	1.75E-05	8.09E-06	6.22E-07	1.32E-08	2.82E-10	0.
TE125M	1.09E-12	3.33E-05	2.96E-05	2.61E-05	1.78E-05	1.21E-05	7.24E-06	3.35E-06	2.57E-07	5.48E-09	1.17E-10	0.
TE127M	2.23E-10	1.07E-04	3.34E-05	1.04E-05	3.21E-07	9.88E-09	9.50E-11	8.94E-14	7.34E-24	5.49E-39	4.09E-54	0.
TE127	1.56E-02	1.06E-04	3.30E-05	1.03E-05	3.18E-07	9.77E-09	9.39E-11	8.86E-14	7.27E-24	5.41E-39	4.05E-54	0.
CS137	7.46E-05	7.87E-04	7.78E-04	7.69E-04	7.42E-04	7.15E-04	6.84E-04	6.39E-04	5.05E-04	3.59E-04	2.53E-04	0.
BA137M	1.57E-07	7.37E-04	7.29E-04	7.20E-04	6.93E-04	6.70E-04	6.39E-04	5.99E-04	4.74E-04	3.35E-04	2.37E-04	0.
CE141	1.44E-07	6.20E-05	1.25E-06	2.51E-08	2.04E-13	1.66E-18	2.72E-25	1.81E-35	0.	0.	0.	0.
CE144	1.41E-03	4.13E-03	2.66E-03	1.70E-03	4.45E-04	1.17E-04	1.97E-05	1.36E-06	1.83E-10	2.87E-16	4.47E-22	0.
PR144	3.86E-07	4.13E-03	2.66E-03	1.70E-03	4.45E-04	1.17E-04	1.97E-05	1.36E-06	1.83E-10	2.87E-16	4.47E-22	0.
PM147	1.79E-14	1.04E-03	9.11E-04	7.99E-04	5.37E-04	3.61E-04	2.12E-04	9.63E-05	6.84E-06	1.29E-07	2.45E-09	0.
EU155	1.82E-06	5.32E-05	4.94E-05	4.60E-05	3.70E-05	2.97E-05	2.22E-05	1.43E-05	3.35E-06	3.76E-07	4.24E-08	0.
TOTAL	4.50E-01	2.37E-02	1.34E-02	9.70E-03	5.26E-03	3.79E-03	3.07E-03	2.64E-03	1.96E-03	1.35E-03	9.40E-04	0.

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**APPENDIX H**  
**DETAILED RESULTS FOR EVENT APPLE I**

APPLE I  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.193E-13

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.07E+02	1.04E+04
1.00E+00	3.47E+01	2.25E+03
2.00E+00	1.38E+01	8.91E+02
3.00E+00	7.37E+00	5.41E+02
4.00E+00	4.56E+00	3.93E+02
6.00E+00	2.37E+00	2.59E+02
9.00E+00	1.38E+00	1.75E+02
1.20E+01	1.00E+00	1.32E+02
1.50E+01	7.81E-01	1.05E+02
1.80E+01	6.34E-01	8.67E+01
2.10E+01	5.29E-01	7.32E+01
1.00E+00 DAYS	4.43E-01	6.21E+01
2.00E+00	1.93E-01	2.73E+01
5.00E+00	7.56E-02	1.00E+01
1.00E+01	3.64E-02	4.63E+00
2.00E+01	1.50E-02	1.97E+00
3.00E+01	8.55E-03	1.22E+00
5.00E+01	3.85E-03	6.72E-01
1.00E+02	1.27E-03	2.88E-01
2.00E+02	4.31E-04	1.01E-01
3.00E+02	1.68E-04	4.89E-02
1.00E+00 YEARS	9.82E-05	3.52E-02
1.50E+00	3.27E-05	2.01E-02
2.00E+00	2.03E-05	1.43E-02
3.50E+00	1.26E-05	7.27E-03
5.00E+00	1.01E-05	4.94E-03
7.00E+00	8.80E-06	3.83E-03
1.00E+01	7.85E-06	3.23E-03
2.00E+01	5.99E-06	2.36E-03
3.50E+01	4.22E-06	1.63E-03
5.00E+01	2.97E-06	1.14E-03

H-2

APPLE I MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.193E-13

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	1.94E-06	1.93E-06	1.93E-06	1.93E-06	1.93E-06	1.93E-06	1.93E-06	1.92E-06	1.92E-06	1.92E-06	1.91E-06
NA 24	4.67E-03	4.46E-03	4.26E-03	4.07E-03	3.88E-03	3.54E-03	3.08E-03	2.69E-03	2.34E-03	2.04E-03	1.77E-03
MN 54	2.62E-05	2.62E-05	2.62E-05	2.62E-05	2.62E-05	2.62E-05	2.62E-05	2.62E-05	2.60E-05	2.60E-05	2.60E-05
FE 55	1.51E-04	1.51E-04	1.51E-04	1.51E-04	1.51E-04	1.51E-04	1.51E-04	1.51E-04	1.51E-04	1.51E-04	1.51E-04
FE 59	2.17E-04	2.16E-04	2.16E-04	2.16E-04	2.16E-04	2.16E-04	2.16E-04	2.15E-04	2.15E-04	2.14E-04	2.14E-04
CO 57	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07
CO 58	9.80E-05	9.80E-05	9.80E-05	9.80E-05	9.77E-05	9.77E-05	9.75E-05	9.75E-05	9.73E-05	9.73E-05	9.71E-05
CO 60	2.08E-05	2.08E-05	2.08E-05	2.08E-05	2.08E-05	2.08E-05	2.08E-05	2.08E-05	2.08E-05	2.08E-05	2.08E-05
CU 64	4.14E-01	3.92E-01	3.71E-01	3.52E-01	3.33E-01	2.99E-01	2.54E-01	2.16E-01	1.83E-01	1.56E-01	1.33E-01
CU 67	6.87E-06	6.81E-06	6.69E-06	6.63E-06	6.58E-06	6.40E-06	6.16E-06	5.99E-06	5.80E-06	5.58E-06	5.42E-06
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	2.42E-06	2.42E-06	2.42E-06	2.42E-06	2.42E-06	2.42E-06	2.42E-06	2.41E-06	2.41E-06	2.41E-06	2.41E-06
W187	3.35E-03	3.25E-03	3.16E-03	3.07E-03	2.99E-03	2.81E-03	2.58E-03	2.37E-03	2.16E-03	2.00E-03	1.82E-03
W188	2.51E-08	2.51E-08	2.51E-08	2.50E-08	2.50E-08	2.50E-08	2.50E-08	2.50E-08	2.49E-08	2.49E-08	2.48E-08
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	8.23E-05	8.11E-05	8.00E-05	7.88E-05	7.77E-05	7.59E-05	7.31E-05	7.02E-05	6.73E-05	6.44E-05	6.21E-05
U237	5.14E-02	5.12E-02	5.10E-02	5.08E-02	5.05E-02	5.01E-02	4.94E-02	4.89E-02	4.82E-02	4.75E-02	4.70E-02
U239	7.81E+02	1.33E+02	2.27E+01	3.87E+00	6.58E-01	1.92E-02	9.49E-05	4.68E-07	2.32E-09	1.15E-11	5.67E-14
U240	8.70E-01	8.28E-01	7.89E-01	7.51E-01	7.15E-01	6.48E-01	5.59E-01	4.82E-01	4.16E-01	3.58E-01	3.09E-01
NP239	2.67E-03	4.48E+00	5.18E+00	5.26E+00	5.22E+00	5.10E+00	4.89E+00	4.73E+00	4.56E+00	4.40E+00	4.23E+00
NP240M	1.38E-03	8.32E-01	7.96E-01	7.58E-01	7.22E-01	6.53E-01	5.64E-01	4.87E-01	4.19E-01	3.62E-01	3.12E-01
NP240	3.48E-11	1.79E-11	9.30E-12	4.80E-12	2.48E-12	6.64E-13	9.16E-14	1.26E-14	1.74E-15	2.40E-16	3.32E-17
AM241	1.12E-08	1.12E-08	1.12E-08	1.12E-08	1.12E-08	1.12E-08	1.12E-08	1.12E-08	1.12E-08	1.12E-08	1.12E-08
CM242	1.59E-06	1.59E-06	1.59E-06	1.59E-06	1.59E-06	1.59E-06	1.58E-06	1.58E-06	1.58E-06	1.58E-06	1.58E-06
GE 75	7.93E-06	3.84E-02	2.32E-02	1.39E-02	8.39E-03	3.04E-03	6.65E-04	1.46E-04	3.18E-05	6.92E-06	1.52E-06
GE 77	3.09E-03	1.31E-02	1.23E-02	1.16E-02	1.09E-02	9.65E-03	8.03E-03	6.67E-03	5.56E-03	4.62E-03	3.84E-03
AS 77	5.26E-05	8.31E-03	8.41E-03	8.46E-03	8.52E-03	8.57E-03	8.57E-03	8.52E-03	8.39E-03	8.22E-03	8.01E-03
SE 77M	2.07E-09	2.49E-05	2.53E-05	2.54E-05	2.54E-05	2.56E-05	2.58E-05	2.56E-05	2.53E-05	2.47E-05	2.39E-05
GE 78	7.82E-01	4.89E-01	3.04E-01	1.90E-01	1.19E-01	4.61E-02	1.12E-02	2.71E-03	6.62E-04	1.61E-04	3.91E-05
AS 78	1.41E-02	2.33E-01	2.88E-01	2.69E-01	2.25E-01	1.33E-01	4.94E-02	1.64E-02	5.08E-03	1.52E-03	4.40E-04
AS 79	1.56E+01	1.54E-01	1.51E-03	1.49E-05	1.47E-07	1.42E-11	1.36E-17	1.29E-23	1.23E-29	1.18E-35	1.13E-41
SE 79M	2.31E-02	2.71E-01	2.68E-03	2.64E-05	2.59E-07	2.51E-11	2.39E-17	2.29E-23	2.18E-29	2.08E-35	1.99E-41
BR 80	9.65E-02	9.29E-03	8.73E-04	8.21E-05	7.73E-06	6.86E-08	5.74E-11	4.78E-14	3.99E-17	3.33E-20	2.78E-23
SE 81M	8.11E-02	3.78E+00	1.83E+00	8.78E-01	4.22E-01	9.86E-02	1.10E-02	1.24E-03	1.39E-04	1.55E-05	1.74E-06
SE 81	9.91E-01	4.47E+00	2.59E+00	1.29E+00	6.27E-01	1.46E-01	1.64E-02	1.83E-03	2.06E-04	2.31E-05	2.58E-06
BR 82	5.01E-04	4.91E-04	4.81E-04	4.72E-04	4.63E-04	4.45E-04	4.20E-04	3.96E-04	3.73E-04	3.52E-04	3.32E-04
SE 83	4.60E+01	8.71E+00	1.65E+00	3.13E-01	5.91E-02	2.13E-03	1.45E-05	9.84E-08	6.72E-10	4.55E-12	2.89E-14
BR 83	3.82E-01	5.70E+00	5.27E+00	4.15E+00	3.15E+00	1.78E+00	7.53E-01	3.17E-01	1.34E-01	5.65E-02	2.38E-02
KR 83M	1.97E-05	1.29E+00	2.63E+00	3.27E+00	3.38E+00	2.82E+00	1.66E+00	8.55E-01	4.12E-01	1.90E-01	8.55E-02

3-H

APPLE I MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.193E-13

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	9.74E-02	1.68E+01	4.54E+00	1.23E+00	3.32E-01	2.43E-02	4.81E-04	9.49E-06	1.88E-07	3.71E-09	7.33E-11	
KR 85M	4.73E-03	1.01E+01	8.63E+00	7.37E+00	6.30E+00	4.60E+00	2.87E+00	1.79E+00	1.11E+00	6.93E-01	4.33E-01	
KR 87	8.02E+01	4.63E+01	2.68E+01	1.55E+01	8.93E+00	3.00E+00	5.81E-01	1.13E-01	2.18E-02	4.22E-03	8.16E-04	
KR 88	4.57E+01	3.57E+01	2.78E+01	2.17E+01	1.70E+01	1.03E+01	4.92E+00	2.34E+00	1.11E+00	5.30E-01	2.52E-01	
RB 88	1.16E+01	3.61E+01	3.08E+01	2.43E+01	1.90E+01	1.15E+01	5.51E+00	2.62E+00	1.25E+00	5.94E-01	2.82E-01	
RB 89	5.52E+01	5.19E+01	3.49E+00	2.34E-01	1.57E-02	7.11E-05	2.15E-08	6.49E-12	1.98E-15	5.99E-19	1.82E-22	
SR 89	4.23E-06	1.48E-01	1.58E-01	1.58E-01	1.58E-01	1.58E-01	1.58E-01	1.58E-01	1.58E-01	1.57E-01	1.57E-01	
SR 90	8.53E-06	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	
SR 91	9.99E-01	1.86E+01	1.73E+01	1.61E+01	1.50E+01	1.30E+01	1.05E+01	8.48E+00	6.85E+00	5.50E+00	4.44E+00	
Y 91M	6.72E-05	6.41E+00	8.73E+00	9.36E+00	9.24E+00	8.29E+00	6.79E+00	5.46E+00	4.40E+00	3.55E+00	2.87E+00	
Y 91	2.75E-08	5.70E-03	1.31E-02	2.10E-02	2.87E-02	4.29E-02	6.09E-02	7.54E-02	8.73E-02	9.68E-02	1.04E-01	
SR 92	7.26E+00	3.24E+01	2.51E+01	1.94E+01	1.51E+01	9.01E+00	4.18E+00	1.94E+00	9.01E-01	4.18E-01	1.95E-01	
Y 92	3.34E-01	6.82E+00	1.07E+01	1.27E+01	1.35E+01	1.29E+01	9.85E+00	6.72E+00	4.32E+00	2.66E+00	1.60E+00	
SR 93	2.88E+02	4.97E+00	2.74E-02	1.52E-04	8.36E-07	2.56E-11	4.31E-18	7.27E-25	1.23E-31	2.07E-38	3.49E-45	
Y 93	3.52E-01	1.14E+01	1.07E+01	1.00E+01	9.34E+00	8.16E+00	6.64E+00	5.43E+00	4.41E+00	3.62E+00	2.94E+00	
Y 94	4.18E+01	5.72E+01	7.36E+00	9.48E-01	1.22E-01	2.03E-03	4.36E-06	9.34E-09	2.00E-11	4.36E-14	2.42E-15	
Y 95	1.80E+02	1.69E+01	3.73E-01	8.23E-03	1.81E-04	8.80E-08	9.42E-13	1.01E-17	1.08E-22	1.15E-27	1.23E-32	
ZR 95	6.75E-04	8.83E-02	9.00E-02	9.00E-02	9.00E-02	9.00E-02	9.00E-02	8.97E-02	8.97E-02	8.94E-02	8.94E-02	
NB 95	7.52E-11	5.45E-05	1.27E-04	2.00E-04	2.72E-04	4.18E-04	6.34E-04	8.53E-04	1.07E-03	1.28E-03	1.50E-03	
ZR 97	1.61E+00	7.00E+00	6.69E+00	6.44E+00	6.17E+00	5.70E+00	5.03E+00	4.45E+00	3.96E+00	3.49E+00	3.10E+00	
NB 97M	8.27E-03	6.72E+00	6.44E+00	6.20E+00	5.95E+00	5.48E+00	4.84E+00	4.29E+00	3.79E+00	3.35E+00	2.96E+00	
NB 97	8.05E-01	3.51E+00	4.95E+00	5.64E+00	5.92E+00	5.89E+00	5.37E+00	4.79E+00	4.23E+00	3.73E+00	3.32E+00	
NB 98	9.08E+00	4.02E+00	1.78E+00	7.86E-01	3.48E-01	6.82E-02	5.89E-03	5.09E-04	4.43E-05	3.84E-06	3.30E-07	
MO 99	4.78E-03	1.97E+00	1.95E+00	1.93E+00	1.91E+00	1.87E+00	1.82E+00	1.76E+00	1.71E+00	1.66E+00	1.60E+00	
TC 99M	4.45E-08	1.88E-01	3.53E-01	4.99E-01	6.27E-01	8.37E-01	1.06E+00	1.21E+00	1.29E+00	1.34E+00	1.36E+00	
MO 101	1.34E+02	6.06E+01	3.52E+00	2.04E-01	1.18E-02	3.97E-05	7.71E-09	1.50E-12	2.92E-16	5.67E-20	1.10E-23	
TC 101	5.67E+00	1.70E+02	1.86E+01	1.52E+00	1.11E-01	5.01E-04	1.25E-07	2.80E-11	5.95E-15	1.22E-18	2.48E-22	
MO 102	1.09E+03	2.48E+01	5.64E-01	1.29E-02	2.94E-04	1.53E-07	1.82E-12	2.15E-17	2.55E-22	3.03E-27	3.59E-32	
TC 102M	6.98E-01	2.09E+01	4.80E-01	1.10E-02	2.50E-04	1.29E-07	1.54E-12	1.82E-17	2.16E-22	2.56E-27	3.04E-32	
TC 102	3.27E+03	1.25E+01	2.84E-01	6.46E-03	1.48E-04	7.71E-08	9.15E-13	1.09E-17	1.29E-22	1.53E-27	1.81E-32	
RU 103	7.53E-05	1.75E-01	1.74E-01	1.74E-01	1.74E-01	1.74E-01	1.73E-01	1.73E-01	1.73E-01	1.72E-01	1.72E-01	
RH 103M	5.02E-09	9.03E-02	1.34E-01	1.55E-01	1.65E-01	1.72E-01	1.73E-01	1.73E-01	1.73E-01	1.72E-01	1.72E-01	
TC 104	6.41E+01	4.60E+01	4.60E+00	4.56E-01	4.51E-02	4.44E-04	4.33E-07	4.24E-10	4.14E-13	4.04E-16	3.95E-19	
RU 105	4.97E-01	1.72E+01	1.47E+01	1.26E+01	1.08E+01	7.88E+00	4.94E+00	3.09E+00	1.93E+00	1.21E+00	7.59E-01	
RH 105M	3.27E-03	1.72E+01	1.47E+01	1.26E+01	1.08E+01	7.91E+00	4.94E+00	3.10E+00	1.94E+00	1.21E+00	7.59E-01	
RH 105	5.37E-09	3.50E-01	6.50E-01	8.97E-01	1.10E+00	1.41E+00	1.69E+00	1.81E+00	1.85E+00	1.83E+00	1.79E+00	
RU 106	4.15E-04	7.86E-03	7.86E-03	7.86E-03	7.86E-03	7.86E-03	7.86E-03	7.86E-03	7.86E-03	7.86E-03	7.86E-03	
RH 106	4.49E-06	7.86E-03	7.86E-03	7.86E-03	7.86E-03	7.86E-03	7.86E-03	7.86E-03	7.86E-03	7.86E-03	7.86E-03	
RH 107	9.21E-02	1.25E+01	1.90E+00	2.85E-01	4.30E-02	9.82E-04	3.38E-06	1.17E-08	4.01E-11	1.37E-14	1.37E-17	
PD 107M	1.91E-04	2.55E+00	3.84E-01	5.81E-02	8.76E-03	2.00E-04	6.88E-07	2.37E-09	8.16E-12	2.82E-14	9.62E-17	



APPLE I MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.193E-13

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	5.40E-03	4.48E-01	4.26E-01	4.03E-01	3.83E-01	3.46E-01	2.97E-01	2.55E-01	2.18E-01	1.87E-01	1.61E-01	1.61E-01
AG109M	3.11E-05	4.48E-01	4.26E-01	4.04E-01	3.84E-01	3.47E-01	2.97E-01	2.55E-01	2.18E-01	1.87E-01	1.61E-01	1.61E-01
PD111M	7.00E-01	6.16E-01	5.43E-01	4.81E-01	4.23E-01	3.29E-01	2.25E-01	1.54E-01	1.06E-01	7.23E-02	4.96E-02	4.96E-02
PD111	2.49E-01	4.49E-01	4.31E-01	3.84E-01	3.39E-01	2.64E-01	1.81E-01	1.24E-01	8.49E-02	5.82E-02	4.00E-02	4.00E-02
AG111M	1.98E-03	6.06E-01	5.69E-01	5.09E-01	4.49E-01	3.47E-01	2.37E-01	1.63E-01	1.12E-01	7.65E-02	5.22E-02	5.22E-02
AG111	7.05E-10	2.09E-03	4.39E-03	6.45E-03	8.28E-03	1.13E-02	1.45E-02	1.66E-02	1.80E-02	1.89E-02	1.94E-02	1.94E-02
PD112	1.35E-01	1.31E-01	1.26E-01	1.22E-01	1.19E-01	1.11E-01	1.01E-01	9.10E-02	8.24E-02	7.46E-02	6.75E-02	6.75E-02
AG112	4.07E-06	2.59E-02	4.57E-02	6.14E-02	7.29E-02	8.73E-02	9.60E-02	9.56E-02	9.10E-02	8.48E-02	7.83E-02	7.83E-02
AG113	1.35E-03	2.88E-01	2.53E-01	2.22E-01	1.95E-01	1.50E-01	1.01E-01	6.85E-02	4.62E-02	3.12E-02	2.11E-02	2.11E-02
AG115	5.08E-01	5.44E-01	6.77E-02	8.46E-03	1.06E-03	1.66E-05	3.24E-08	6.33E-11	1.23E-13	1.22E-16	1.13E-16	1.13E-16
CD115M	4.15E-09	1.10E-04	1.24E-04	1.26E-04	1.26E-04	1.26E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04
CD115	1.60E-06	3.02E-02	3.25E-02	3.24E-02	3.20E-02	3.12E-02	3.01E-02	2.89E-02	2.78E-02	2.68E-02	2.57E-02	2.57E-02
IN115M	2.00E-11	3.34E-03	7.42E-03	1.10E-02	1.40E-02	1.87E-02	2.31E-02	2.54E-02	2.65E-02	2.68E-02	2.66E-02	2.66E-02
CD117	3.58E-02	5.96E-01	4.49E-01	3.35E-01	2.51E-01	1.41E-01	5.91E-02	2.49E-02	1.05E-02	4.40E-03	1.85E-03	1.85E-03
IN117M	1.72E-06	2.07E-01	3.00E-01	3.25E-01	3.15E-01	2.48E-01	1.42E-01	7.26E-02	3.49E-02	1.61E-02	7.30E-03	7.30E-03
IN117	6.92E-11	3.78E-02	9.14E-02	1.27E-01	1.42E-01	1.30E-01	8.30E-02	4.45E-02	2.21E-02	1.04E-02	4.78E-03	4.78E-03
CD118	2.37E+00	1.02E+00	4.37E-01	1.86E-01	7.97E-02	1.46E-02	1.14E-03	8.94E-05	7.04E-06	5.51E-07	4.32E-08	4.32E-08
IN118	1.57E-01	1.02E+00	4.37E-01	1.86E-01	7.97E-02	1.46E-02	1.14E-03	8.99E-05	7.04E-06	5.51E-07	4.32E-08	4.32E-08
CD119	5.91E+00	9.22E-02	1.44E-03	2.25E-05	3.52E-07	8.60E-11	3.28E-16	1.25E-21	4.77E-27	1.82E-32	6.97E-38	6.97E-38
IN119M	8.91E-03	9.97E-01	1.09E-01	1.09E-02	1.09E-03	1.07E-05	1.05E-08	1.02E-11	9.97E-15	9.75E-18	9.53E-21	9.53E-21
IN119	4.39E-01	5.25E-02	6.09E-03	6.18E-04	6.18E-05	6.04E-07	5.91E-10	5.78E-13	5.65E-16	5.52E-19	5.38E-22	5.38E-22
SN121	7.28E-04	7.49E-02	7.28E-02	7.11E-02	6.94E-02	6.59E-02	6.08E-02	5.65E-02	5.22E-02	4.84E-02	4.50E-02	4.50E-02
SN123M	4.12E-01	7.71E-01	2.73E-01	9.66E-02	3.41E-02	4.26E-03	1.89E-04	8.34E-06	3.69E-07	1.63E-08	7.21E-10	7.21E-10
SN123	3.87E-06	4.05E-04	4.05E-04	4.05E-04	4.05E-04	4.05E-04	4.05E-04	4.05E-04	4.05E-04	4.05E-04	4.05E-04	4.05E-04
SN125	1.10E-02	1.10E-02	1.09E-02	1.09E-02	1.08E-02	1.08E-02	1.07E-02	1.06E-02	1.05E-02	1.04E-02	1.03E-02	1.03E-02
SB125	6.59E-05	6.62E-05	6.65E-05	6.68E-05	6.71E-05	6.77E-05	6.88E-05	6.97E-05	7.05E-05	7.14E-05	7.23E-05	7.23E-05
SB126	2.10E-03	2.10E-03	2.09E-03	2.09E-03	2.08E-03	2.07E-03	2.06E-03	2.05E-03	2.03E-03	2.02E-03	2.00E-03	2.00E-03
SN127	3.26E+00	2.34E+00	1.68E+00	1.21E+00	8.72E-01	4.50E-01	1.67E-01	6.21E-02	2.30E-02	8.56E-03	3.18E-03	3.18E-03
SB127	3.80E-02	1.31E-01	1.45E-01	1.55E-01	1.61E-01	1.68E-01	1.71E-01	1.69E-01	1.67E-01	1.63E-01	1.60E-01	1.60E-01
TE127	2.15E-02	2.67E-02	3.25E-02	3.85E-02	4.45E-02	5.59E-02	7.15E-02	8.36E-02	9.30E-02	1.00E-01	1.05E-01	1.05E-01
SN128	2.18E+01	1.08E+01	5.33E+00	2.63E+00	1.30E+00	3.17E-01	3.83E-02	4.63E-03	5.58E-04	6.77E-05	8.15E-06	8.15E-06
SB128M	1.11E-02	1.23E+01	6.36E+00	3.14E+00	1.55E+00	3.79E-01	4.57E-02	5.52E-03	6.65E-04	8.04E-05	9.72E-06	9.72E-06
SB128	9.20E-01	8.85E-01	8.33E-01	7.81E-01	7.29E-01	6.25E-01	4.99E-01	3.96E-01	3.14E-01	2.49E-01	1.98E-01	1.98E-01
SN129M	1.40E+01	6.99E+00	3.51E+00	1.75E+00	8.77E-01	2.19E-01	2.74E-02	3.43E-03	4.28E-04	5.35E-05	6.69E-06	6.69E-06
SN129	9.36E+01	9.18E-01	9.06E-03	8.94E-05	8.77E-07	8.53E-11	8.11E-17	7.76E-23	7.40E-29	7.05E-35	6.75E-41	6.75E-41
SB129	5.27E+00	8.83E+00	8.29E+00	7.40E+00	6.52E+00	4.84E+00	3.01E+00	1.87E+00	1.15E+00	7.11E-01	4.37E-01	4.37E-01
TE129M	9.95E-08	1.10E-03	2.27E-03	3.33E-03	4.28E-03	5.80E-03	7.34E-03	8.29E-03	8.88E-03	9.24E-03	9.48E-03	9.48E-03
TE129	3.79E+00	5.21E+00	6.10E+00	6.34E+00	6.10E+00	5.05E+00	3.36E+00	2.12E+00	1.32E+00	8.17E-01	5.07E-01	5.07E-01
SB130M	5.22E-01	9.84E-01	2.59E-03	6.79E-06	1.79E-08	1.23E-13	2.25E-21	4.08E-29	7.41E-37	1.35E-44	2.45E-52	2.45E-52
SB130	8.94E+01	2.70E+01	7.69E+00	2.18E+00	6.17E-01	4.96E-02	1.13E-03	2.58E-05	5.88E-07	1.34E-08	3.06E-10	3.06E-10

H-5

APPLE I MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.193E-13

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	2.49E-02	2.35E-02	2.23E-02	2.10E-02	1.99E-02	1.78E-02	1.50E-02	1.27E-02	1.07E-02	9.11E-03	7.69E-03
SB131	2.06E+02	5.39E+01	8.80E+00	1.44E+00	2.37E-01	6.38E-03	2.81E-05	1.24E-07	5.46E-10	2.41E-12	1.20E-14
TE131M	9.92E-05	5.19E-01	5.92E-01	5.92E-01	5.81E-01	5.56E-01	5.18E-01	4.83E-01	4.51E-01	4.21E-01	3.93E-01
TE131	9.13E+01	9.92E+01	3.23E+01	8.41E+00	2.04E+00	1.92E-01	9.52E-02	8.80E-02	8.21E-02	7.68E-02	7.16E-02
I131	1.33E-02	4.60E-01	6.77E-01	7.42E-01	7.55E-01	7.62E-01	7.62E-01	7.55E-01	7.55E-01	7.49E-01	7.49E-01
TE132	1.07E+00	2.60E+00	2.57E+00	2.55E+00	2.53E+00	2.48E+00	2.42E+00	2.35E+00	2.29E+00	2.23E+00	2.17E+00
I132	2.62E+00	2.62E+00	2.61E+00	2.60E+00	2.58E+00	2.55E+00	2.49E+00	2.42E+00	2.36E+00	2.30E+00	2.24E+00
TE133M	1.31E-01	4.54E+01	1.98E+01	8.60E+00	3.74E+00	7.11E-01	5.85E-02	4.82E-03	3.98E-04	3.28E-05	2.71E-06
TE133	7.36E+02	4.17E+01	4.64E+00	1.53E+00	6.48E-01	1.23E-01	1.02E-02	8.35E-04	6.92E-05	5.69E-06	4.69E-07
I133	1.14E+00	1.23E+01	1.33E+01	1.33E+01	1.30E+01	1.23E+01	1.12E+01	1.02E+01	9.16E+00	8.35E+00	7.54E+00
XE133M	4.86E-08	2.76E-03	6.67E-03	1.07E-02	1.45E-02	2.18E-02	3.16E-02	4.01E-02	4.72E-02	5.34E-02	5.85E-02
XE133	8.48E-07	4.82E-02	1.17E-01	1.87E-01	2.57E-01	3.89E-01	5.70E-01	7.29E-01	8.73E-01	9.97E-01	1.11E+00
TE134	2.30E+02	1.06E+02	3.96E+01	1.47E+01	5.47E+00	7.58E-01	3.87E-02	1.98E-03	1.02E-04	5.22E-06	2.68E-07
I134	1.05E+02	1.41E+02	9.86E+01	5.78E+01	3.10E+01	7.88E+00	8.66E-01	8.84E-02	8.66E-03	8.30E-04	7.88E-05
I135	1.93E+01	3.39E+01	3.06E+01	2.76E+01	2.49E+01	2.02E+01	1.48E+01	1.09E+01	7.97E+00	5.87E+00	4.29E+00
XE135M	2.13E-03	9.80E+00	9.52E+00	8.64E+00	7.75E+00	6.31E+00	4.63E+00	3.39E+00	2.49E+00	1.83E+00	1.34E+00
XE135	2.22E+00	4.39E+00	6.42E+00	8.08E+00	9.41E+00	1.13E+01	1.25E+01	1.26E+01	1.20E+01	1.09E+01	9.75E+00
CS136	5.00E-03	4.99E-03	4.98E-03	4.97E-03	4.96E-03	4.93E-03	4.90E-03	4.87E-03	4.84E-03	4.80E-03	4.77E-03
CS137	9.43E-05	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03
BA137M	1.99E-07	9.49E-04	9.49E-04	9.49E-04	9.49E-04	9.49E-04	9.49E-04	9.49E-04	9.49E-04	9.49E-04	9.49E-04
XE138	7.42E+02	6.39E+01	5.55E+00	4.81E-01	4.17E-02	3.12E-04	2.03E-07	1.32E-10	8.57E-14	5.57E-17	3.62E-20
CS138	1.10E+02	1.86E+02	6.44E+01	1.89E+01	5.30E+00	4.04E-01	8.40E-03	1.74E-04	3.62E-06	7.54E-08	1.56E-09
CS139	6.92E+02	2.21E+01	2.77E-01	3.48E-03	4.36E-05	6.85E-09	1.36E-14	2.69E-20	5.33E-26	1.06E-31	2.09E-37
BA139	1.28E+01	1.42E+02	8.78E+01	5.33E+01	3.23E+01	1.18E+01	2.63E+00	5.83E-01	1.30E-01	2.87E-02	6.39E-03
BA140	1.14E-01	7.10E-01	7.10E-01	7.04E-01	7.04E-01	6.99E-01	6.99E-01	6.93E-01	6.88E-01	6.82E-01	6.77E-01
LA140	2.70E-07	1.21E-02	2.40E-02	3.57E-02	4.71E-02	6.93E-02	1.01E-01	1.31E-01	1.59E-01	1.86E-01	2.11E-01
BA141	1.71E+02	5.18E+01	5.14E+00	5.10E-01	5.06E-02	5.02E-04	4.89E-07	4.77E-10	4.65E-13	4.57E-16	4.45E-19
LA141	1.58E+00	3.35E+01	3.13E+01	2.65E+01	2.22E+01	1.56E+01	9.14E+00	5.34E+00	3.14E+00	1.84E+00	1.08E+00
CE141	1.96E-07	2.18E-02	5.10E-02	7.67E-02	9.83E-02	1.32E-01	1.64E-01	1.82E-01	1.92E-01	1.99E-01	2.02E-01
BA142	3.42E+02	1.36E+01	3.10E-01	7.07E-03	1.61E-04	8.37E-08	9.94E-13	1.18E-17	1.40E-22	1.66E-27	1.97E-32
LA142	7.85E+00	5.45E+01	3.59E+01	2.29E+01	1.45E+01	5.88E+00	1.52E+00	3.91E-01	1.01E-01	2.60E-02	6.69E-03
LA143	1.31E+02	2.55E+01	1.31E+00	6.71E-02	3.45E-03	9.03E-06	1.22E-09	1.64E-13	2.21E-17	2.98E-21	4.03E-25
CE143	5.22E-02	3.33E+00	3.45E+00	3.36E+00	3.30E+00	3.17E+00	2.97E+00	2.79E+00	2.62E+00	2.46E+00	2.31E+00
PR143	1.53E-08	5.10E-03	1.23E-02	1.94E-02	2.64E-02	4.00E-02	5.89E-02	7.69E-02	9.34E-02	1.09E-01	1.23E-01
CE144	2.09E-03	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02
PR144	5.72E-07	1.36E-02	1.48E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02
PR145	8.27E-02	1.22E+01	1.08E+01	9.62E+00	8.58E+00	6.80E+00	4.79E+00	3.38E+00	2.40E+00	1.69E+00	1.20E+00
CE146	2.37E+02	1.22E+01	6.24E-01	3.19E-02	1.64E-03	4.32E-06	5.82E-10	7.85E-14	1.06E-17	1.42E-21	1.92E-25
PR146	4.91E+00	4.27E+01	9.67E+00	1.82E+00	3.27E-01	1.03E-02	5.68E-05	3.13E-07	1.74E-09	9.59E-12	5.24E-14
PR147	2.76E+01	7.98E+00	2.49E-01	7.78E-03	2.44E-04	2.38E-07	7.26E-12	2.22E-16	6.76E-21	2.07E-25	6.29E-30

APPLE I MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.193E-13

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	9.85E-06	1.85E-01	1.91E-01	1.90E-01	1.90E-01	1.89E-01	1.87E-01	1.86E-01	1.84E-01	1.83E-01	1.82E-01	
ND149	1.35E+01	9.20E+00	6.26E+00	4.27E+00	2.89E+00	1.34E+00	4.22E-01	1.33E-01	4.19E-02	1.32E-02	4.16E-03	
PM149	1.88E-03	1.47E-01	2.44E-01	3.09E-01	3.50E-01	3.93E-01	4.09E-01	4.01E-01	3.91E-01	3.76E-01	3.63E-01	
PM150	1.54E-01	1.19E-01	9.20E-02	7.10E-02	5.49E-02	3.30E-02	1.53E-02	7.06E-03	3.27E-03	1.51E-03	7.01E-04	
ND151	5.00E+01	1.56E+00	4.89E-02	1.53E-03	4.77E-05	4.66E-08	1.42E-12	4.35E-17	1.33E-21	4.04E-26	1.24E-30	
PM151	3.17E-02	3.70E-01	3.73E-01	3.64E-01	3.55E-01	3.37E-01	3.12E-01	2.90E-01	2.70E-01	2.50E-01	2.32E-01	
PM152	7.97E+01	7.79E-02	7.60E-05	7.42E-08	7.25E-11	6.93E-17	6.45E-26	6.01E-35	5.60E-44	5.23E-53	4.86E-62	
SM153	1.04E-01	1.03E-01	1.01E-01	9.98E-02	9.84E-02	9.55E-02	9.14E-02	8.73E-02	8.36E-02	8.01E-02	7.66E-02	
SM155	5.47E+00	8.99E-01	1.47E-01	2.41E-02	3.95E-03	1.06E-04	4.69E-07	2.07E-09	9.12E-12	4.06E-14	9.97E-17	
EU155	4.02E-06	1.15E-04	1.33E-04	1.36E-04	1.36E-04	1.36E-04	1.36E-04	1.36E-04	1.36E-04	1.36E-04	1.36E-04	
SM156	8.63E-02	8.01E-02	7.44E-02	6.91E-02	6.42E-02	5.54E-02	4.44E-02	3.56E-02	2.86E-02	2.29E-02	1.83E-02	
EU156	2.52E-04	4.12E-04	5.59E-04	6.96E-04	8.24E-04	1.05E-03	1.34E-03	1.55E-03	1.73E-03	1.87E-03	1.97E-03	
EU157	1.47E-02	4.87E-02	4.65E-02	4.45E-02	4.24E-02	3.87E-02	3.38E-02	2.95E-02	2.57E-02	2.24E-02	1.95E-02	
EU158	4.86E-01	1.97E-01	7.96E-02	3.22E-02	1.31E-02	2.14E-03	1.42E-04	9.44E-06	6.27E-07	4.16E-08	2.76E-09	
EU159	5.90E-01	5.87E-02	5.81E-03	5.77E-04	5.72E-05	5.64E-07	5.51E-10	5.38E-13	5.25E-16	5.14E-19	5.02E-22	
GD159	2.53E-03	1.11E-02	1.15E-02	1.12E-02	1.08E-02	9.96E-03	8.88E-03	7.91E-03	7.04E-03	6.27E-03	5.59E-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	1.04E+04	2.25E+03	8.91E+02	5.41E+02	3.93E+02	2.59E+02	1.75E+02	1.32E+02	1.05E+02	8.67E+01	7.32E+01	

APPLE I MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.193E-13

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	1.94E-06	1.91E-06	1.89E-06	1.82E-06	1.70E-06	1.49E-06	1.31E-06	1.01E-06	5.28E-07	1.44E-07	3.90E-08
NA 24	4.67E-03	1.54E-03	5.08E-04	1.82E-05	7.13E-08	1.09E-12	1.66E-17	3.87E-27	0.	0.	0.
MN 54	2.62E-05	2.60E-05	2.60E-05	2.55E-05	2.53E-05	2.48E-05	2.43E-05	2.32E-05	2.07E-05	1.65E-05	1.31E-05
FE 55	1.51E-04	1.51E-04	1.51E-04	1.51E-04	1.50E-04	1.50E-04	1.48E-04	1.46E-04	1.40E-04	1.31E-04	1.22E-04
FE 59	2.17E-04	2.13E-04	2.10E-04	2.01E-04	1.86E-04	1.59E-04	1.37E-04	1.00E-04	4.66E-05	9.94E-06	2.13E-06
CO 57	1.19E-07	1.19E-07	1.18E-07	1.18E-07	1.16E-07	1.13E-07	1.10E-07	1.05E-07	9.25E-08	7.14E-08	5.53E-08
CO 58	9.80E-05	9.71E-05	9.61E-05	9.32E-05	8.90E-05	8.07E-05	7.32E-05	6.02E-05	3.71E-05	1.40E-05	5.29E-06
CO 60	2.08E-05	2.08E-05	2.08E-05	2.08E-05	2.07E-05	2.07E-05	2.06E-05	2.05E-05	2.00E-05	1.94E-05	1.86E-05
CU 64	4.14E-01	1.13E-01	3.07E-02	6.25E-04	9.37E-07	2.13E-12	4.82E-18	2.48E-29	0.	0.	0.
CU 67	6.87E-06	5.24E-06	4.00E-06	1.78E-06	4.63E-07	3.12E-08	2.11E-09	9.57E-12	1.34E-17	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	2.42E-06	2.40E-06	2.36E-06	2.31E-06	2.21E-06	2.01E-06	1.84E-06	1.53E-06	9.63E-07	3.83E-07	1.52E-07
W187	3.35E-03	1.67E-03	8.29E-04	1.03E-04	3.18E-06	3.03E-09	2.86E-12	2.58E-20	0.	0.	0.
W188	2.51E-08	2.48E-08	2.45E-08	2.38E-08	2.27E-08	2.05E-08	1.86E-08	1.52E-08	9.22E-09	3.40E-09	1.25E-09
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	5.98E-05	4.34E-05	1.66E-05	3.37E-06	1.39E-07	5.68E-09	9.55E-12	1.12E-18	0.	0.	0.
U237	5.14E-02	4.64E-02	4.18E-02	3.08E-02	1.84E-02	6.59E-03	2.36E-03	3.02E-04	1.78E-06	1.92E-10	1.29E-10
U240	8.70E-01	2.68E-01	8.22E-02	3.38E-03	6.54E-06	4.92E-11	3.70E-16	2.09E-26	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP239	2.67E-03	4.08E+00	3.04E+00	1.25E+00	2.87E-01	1.50E-02	7.85E-04	2.15E-06	8.47E-13	2.02E-22	2.02E-22
NP240M	1.38E-03	2.70E-01	8.28E-02	2.40E-03	6.59E-06	4.96E-11	3.73E-16	2.10E-26	0.	0.	0.
AM241	1.12E-08	1.12E-08	1.12E-08	1.12E-08	1.12E-08	1.12E-08	1.12E-08	1.12E-08	1.12E-08	1.12E-08	1.12E-08
CM242	1.59E-06	1.58E-06	1.57E-06	1.55E-06	1.52E-06	1.45E-06	1.40E-06	1.28E-06	1.04E-06	6.79E-07	4.44E-07
GE 77	5.09E-03	3.20E-03	7.33E-04	8.86E-06	5.63E-09	2.28E-15	9.20E-22	1.50E-34	0.	0.	0.
AS 77	5.26E-05	7.76E-03	5.62E-03	1.62E-03	1.90E-04	2.58E-06	3.51E-08	6.46E-12	3.00E-21	6.43E-40	1.38E-58
SE 77M	2.07E-09	2.34E-05	1.68E-05	4.88E-06	5.69E-07	7.75E-09	1.05E-10	1.94E-14	8.99E-24	1.92E-42	4.15E-61
AS 78	1.41E-02	1.25E-04	3.66E-09	3.09E-23	0.	0.	0.	0.	0.	0.	0.
BR 82	5.01E-04	3.13E-04	1.95E-04	4.74E-05	4.50E-06	4.04E-08	3.63E-10	2.93E-14	1.71E-24	5.87E-45	2.00E-65
BR 83	3.82E-01	1.01E-02	1.01E-05	1.03E-14	1.05E-29	0.	0.	0.	0.	0.	0.
KR 83M	1.97E-05	4.40E-02	4.99E-05	4.49E-14	4.61E-29	0.	0.	0.	0.	0.	0.
KR 85M	4.73E-03	2.70E-01	6.15E-03	7.30E-08	4.50E-16	1.71E-32	6.49E-49	0.	0.	0.	0.
KR 85	4.89E-06	1.28E-04	1.31E-04	1.31E-04	1.31E-04	1.31E-04	1.31E-04	1.30E-04	1.29E-04	1.27E-04	1.25E-04
KR 87	8.02E+01	1.58E-04	3.13E-10	2.43E-27	0.	0.	0.	0.	0.	0.	0.
KR 88	4.57E+01	1.20E-01	3.15E-04	5.73E-12	7.22E-25	0.	0.	0.	0.	0.	0.
RD 88	1.16E+01	1.34E-01	3.53E-04	6.41E-12	8.04E-25	0.	0.	0.	0.	0.	0.
SR 89	4.23E-06	1.27E-01	1.25E-01	1.20E-01	1.13E-01	9.83E-02	8.59E-02	6.62E-02	3.38E-02	8.90E-03	2.35E-03
SR 90	8.53E-06	8.76E-04	8.76E-04	8.76E-04	8.76E-04	8.76E-04	8.76E-04	8.76E-04	8.68E-04	8.68E-04	8.60E-04
Y 90	1.26E-11	2.01E-04	3.55E-04	6.38E-04	8.14E-04	8.68E-04	8.76E-04	8.76E-04	8.68E-04	8.68E-04	8.60E-04
SR 91	9.99E-01	3.58E+00	6.41E-01	3.68E-03	6.72E-07	2.28E-14	7.73E-22	8.80E-37	0.	0.	0.

APPLE 1 MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.193E-13

DEBRIS DECAY FROM 1 TO 300 DAYS

H-6

	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	6.72E-05	2.31E+00	4.13E-01	2.37E-03	4.36E-07	1.47E-14	4.98E-22	5.68E-37	0.	0.	0.
Y 91	2.75E-08	1.10E-01	1.30E-01	1.30E-01	1.23E-01	1.09E-01	9.68E-02	7.67E-02	4.24E-02	1.31E-02	4.01E-03
SR 92	7.26E+00	9.04E-02	1.95E-04	1.96E-12	9.18E-26	0.	0.	0.	0.	0.	0.
Y 92	3.34E-01	9.48E-01	1.05E-02	8.10E-09	4.72E-19	1.62E-39	5.53E-60	0.	0.	0.	0.
Y 93	3.52E-01	2.38E+00	4.64E-01	3.49E-03	1.00E-06	8.29E-14	6.84E-21	4.67E-35	0.	0.	0.
ZR 95	6.75E-04	8.44E-02	8.35E-02	8.09E-02	7.67E-02	6.87E-02	6.19E-02	5.01E-02	2.93E-02	1.01E-02	3.47E-03
NB 95M	1.44E-11	2.86E-04	5.21E-04	9.95E-04	1.34E-03	1.42E-03	1.31E-03	1.06E-03	6.22E-04	2.14E-04	7.37E-05
NB 95	7.52E-11	1.63E-03	3.23E-03	7.73E-03	1.44E-02	2.48E-02	3.20E-02	3.97E-02	3.82E-02	1.84E-02	7.05E-03
ZR 97	1.61E+00	2.74E+00	1.03E+00	5.45E-02	4.09E-04	2.30E-08	1.29E-12	4.09E-21	2.31E-42	0.	0.
NB 97M	8.27E-03	2.63E+00	9.87E-01	5.26E-02	3.93E-04	2.21E-08	1.24E-12	3.93E-21	2.22E-42	0.	0.
NB 97	8.05E-01	2.75E+00	1.03E+00	5.48E-02	4.12E-04	2.48E-08	1.39E-12	4.43E-21	2.49E-42	0.	0.
MO 99	4.78E-03	1.56E+00	1.21E+00	5.76E-01	1.67E-01	1.39E-02	1.16E-03	8.10E-06	3.29E-11	5.42E-22	8.92E-33
TC 99M	4.45E-08	1.37E+00	1.15E+00	5.51E-01	1.59E-01	1.33E-02	1.11E-03	7.73E-06	3.14E-11	5.18E-22	8.53E-33
RU103	7.53E-05	1.72E-01	1.68E-01	1.60E-01	1.47E-01	1.23E-01	1.03E-01	7.29E-02	3.03E-02	5.26E-03	9.17E-04
RH103M	5.02E-09	1.72E-01	1.69E-01	1.60E-01	1.47E-01	1.23E-01	1.03E-01	7.29E-02	3.04E-02	5.26E-03	9.17E-04
RU105	4.97E-01	4.75E-01	1.12E-02	1.47E-07	1.07E-15	5.73E-32	3.07E-48	0.	0.	0.	0.
RH105M	3.27E-03	4.75E-01	1.12E-02	1.47E-07	1.08E-15	5.77E-32	3.08E-48	0.	0.	0.	0.
RH105	5.37E-09	1.72E+00	1.12E+00	2.79E-01	2.75E-02	2.68E-04	2.60E-06	2.46E-10	2.13E-20	1.60E-40	1.20E-60
RU106	4.15E-04	7.86E-03	7.83E-03	7.79E-03	7.73E-03	7.59E-03	7.42E-03	7.15E-03	6.50E-03	5.38E-03	4.46E-03
RH106	4.49E-06	7.86E-03	7.83E-03	7.79E-03	7.73E-03	7.59E-03	7.42E-03	7.15E-03	6.50E-03	5.38E-03	4.46E-03
PD109	5.40E-03	1.37E-01	4.00E-02	9.94E-04	2.09E-06	9.33E-12	4.16E-17	8.22E-28	0.	0.	0.
AG109M	3.11E-05	1.37E-01	4.01E-02	9.95E-04	2.10E-06	9.34E-12	4.16E-17	8.23E-28	0.	0.	0.
PD111M	7.00E-01	3.39E-02	1.65E-03	1.89E-07	5.12E-14	3.73E-27	2.74E-40	0.	0.	0.	0.
PD111	2.49E-01	2.74E-02	1.33E-03	1.52E-07	4.13E-14	3.00E-27	2.20E-40	0.	0.	0.	0.
AG111M	1.98E-03	3.58E-02	1.74E-03	2.00E-07	5.41E-14	3.97E-27	2.90E-40	0.	0.	0.	0.
AG111	7.05E-10	1.95E-02	1.87E-02	1.42E-02	8.96E-03	3.55E-03	1.41E-03	2.22E-04	2.19E-06	2.12E-10	2.05E-14
PD112	1.35E-01	6.14E-02	2.78E-02	2.58E-03	4.90E-05	1.78E-08	6.47E-12	8.48E-19	5.35E-36	0.	0.
AG112	4.07E-06	7.13E-02	3.27E-02	3.04E-03	5.81E-05	2.10E-08	7.62E-12	1.01E-18	6.30E-36	0.	0.
AG113	1.35E-03	1.42E-02	6.16E-04	5.01E-08	7.66E-15	1.79E-28	4.19E-42	0.	0.	0.	0.
CD115M	4.15E-09	1.20E-04	1.18E-04	1.12E-04	1.04E-04	8.83E-05	7.54E-05	5.44E-05	2.43E-05	4.84E-06	9.67E-07
CD115	1.60E-06	2.41E-02	1.77E-02	6.97E-03	1.47E-03	6.57E-05	2.93E-06	5.84E-09	1.03E-15	3.23E-29	1.01E-42
IN115M	2.00E-11	2.55E-02	1.93E-02	7.62E-03	1.60E-03	7.17E-05	3.20E-06	6.37E-09	1.13E-15	3.53E-29	1.10E-42
CD117	3.58E-02	7.80E-04	7.59E-07	7.09E-16	6.29E-31	0.	0.	0.	0.	0.	0.
IN117M	1.72E-06	3.24E-03	3.75E-06	3.62E-15	3.21E-30	0.	0.	0.	0.	0.	0.
IN117	6.92E-11	2.13E-03	2.53E-06	2.45E-15	2.17E-30	0.	0.	0.	0.	0.	0.
SN121	7.28E-04	4.15E-02	2.24E-02	3.53E-03	1.62E-04	3.42E-07	7.19E-10	3.21E-15	1.34E-28	0.	0.
SN123	3.87E-06	4.05E-04	4.01E-04	3.94E-04	3.84E-04	3.62E-04	3.44E-04	3.08E-04	2.33E-04	1.34E-04	7.71E-05
SN125	1.10E-02	1.02E-02	9.49E-03	7.60E-03	5.25E-03	2.51E-03	1.20E-03	2.75E-04	6.88E-06	4.33E-09	2.71E-12
SB125	6.59E-05	7.31E-05	8.00E-05	9.78E-05	1.20E-04	1.45E-04	1.56E-04	1.63E-04	1.60E-04	1.49E-04	1.39E-04
SB126	2.10E-03	1.99E-03	1.88E-03	1.59E-03	1.21E-03	6.92E-04	3.99E-04	1.31E-04	8.22E-06	3.99E-08	8.02E-09

APPLE I MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.193E-13

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	3.26E+00	1.18E-03	4.29E-07	2.05E-17	1.28E-34	0.	0.	0.	0.	0.	0.
SB127	3.80E-02	1.56E-01	1.31E-01	7.62E-02	3.12E-02	5.22E-03	8.72E-04	2.44E-05	3.18E-09	5.43E-17	9.24E-25
TE127M	3.08E-10	2.38E-04	4.36E-04	8.46E-04	1.17E-03	1.29E-03	1.24E-03	1.10E-03	8.04E-04	4.25E-04	2.25E-04
TE127	2.15E-02	1.12E-01	1.10E-01	6.68E-02	2.83E-02	5.80E-03	1.98E-03	1.11E-03	7.94E-04	4.20E-04	2.22E-04
SB128	9.20E-01	1.57E-01	2.48E-02	9.66E-05	9.37E-09	8.79E-17	8.27E-25	7.29E-41	0.	0.	0.
SB129	5.27E+00	2.69E-01	5.63E-03	5.12E-08	2.04E-16	3.22E-33	5.08E-50	0.	0.	0.	0.
TE129M	9.95E-08	1.05E-02	1.05E-02	9.89E-03	8.94E-03	7.29E-03	5.92E-03	3.94E-03	1.42E-03	1.85E-04	2.41E-05
TE129	3.79E+00	3.16E-01	1.31E-02	6.34E-03	5.72E-03	4.66E-03	3.80E-03	2.53E-03	9.12E-04	1.19E-04	1.55E-05
I130	2.49E-02	6.51E-03	1.70E-03	3.04E-05	3.72E-08	5.54E-14	8.26E-20	1.84E-31	0.	0.	0.
TE131M	9.92E-05	3.47E-01	1.99E-01	3.77E-02	2.36E-03	9.20E-06	3.60E-08	5.49E-13	4.99E-25	0.	0.
TE131	9.13E+01	6.33E-02	3.63E-02	6.90E-03	4.30E-04	1.68E-06	6.56E-09	1.00E-13	9.13E-26	0.	0.
I131	1.33E-02	7.16E-01	6.77E-01	5.44E-01	3.58E-01	1.51E-01	6.40E-02	1.14E-02	1.54E-04	2.81E-08	5.12E-12
XE131M	3.60E-11	3.32E-04	6.30E-04	1.31E-03	1.88E-03	1.86E-03	1.38E-03	5.69E-04	3.80E-05	1.14E-07	3.21E-10
TE132	1.07E+00	2.12E+00	1.71E+00	9.00E-01	3.10E-01	3.68E-02	4.36E-03	6.12E-05	1.43E-09	7.84E-19	4.28E-28
I132	2.62E+00	2.18E+00	1.76E+00	9.26E-01	3.20E-01	3.79E-02	4.49E-03	6.31E-05	1.48E-09	8.03E-19	4.41E-28
I133	1.14E+00	6.36E+00	2.87E+00	2.66E-01	5.07E-03	1.84E-06	6.67E-10	8.79E-17	5.52E-34	0.	0.
XE133M	4.86E-08	6.00E-02	7.11E-02	4.17E-02	9.79E-03	4.59E-04	2.14E-05	4.64E-08	1.02E-14	4.86E-28	2.33E-41
XE133	8.48E-07	1.15E+00	1.55E+00	1.38E+00	7.54E-01	2.04E-01	5.48E-02	3.95E-03	5.50E-06	1.07E-11	2.07E-17
I135	1.93E+01	3.15E+00	2.62E-01	1.53E-04	6.20E-10	1.02E-20	1.68E-31	4.57E-53	0.	0.	0.
XE135M	2.13E-03	9.80E-01	8.20E-02	4.77E-05	1.94E-10	3.19E-21	5.25E-32	1.43E-53	0.	0.	0.
XE135	2.22E+00	8.47E+00	2.07E+00	1.18E-02	1.45E-06	2.04E-14	2.86E-22	5.65E-38	0.	0.	0.
CS136	5.00E-03	4.74E-03	4.49E-03	3.83E-03	2.94E-03	1.72E-03	1.01E-03	3.48E-04	2.42E-05	1.17E-07	5.65E-10
CS137	9.43E-05	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.01E-03	1.01E-03	9.99E-04
BA137M	1.99E-07	9.49E-04	9.49E-04	9.49E-04	9.49E-04	9.49E-04	9.49E-04	9.49E-04	9.43E-04	9.37E-04	9.32E-04
BA139	1.28E+01	1.36E-03	8.05E-09	1.66E-24	0.	0.	0.	0.	0.	0.	0.
BA140	1.14E-01	6.72E-01	6.39E-01	5.42E-01	4.13E-01	2.40E-01	1.40E-01	4.74E-02	3.16E-03	1.41E-05	6.23E-08
LA140	2.70E-07	2.34E-01	3.76E-01	5.21E-01	4.63E-01	2.77E-01	1.61E-01	5.47E-02	3.63E-03	1.62E-05	7.20E-08
LA141	1.58E+00	6.28E-01	8.81E-03	2.44E-08	1.33E-17	3.98E-36	1.19E-54	0.	0.	0.	0.
CE141	1.96E-07	2.17E-01	2.15E-01	2.02E-01	1.81E-01	1.47E-01	1.18E-01	7.71E-02	2.65E-02	3.12E-03	3.67E-04
LA142	7.85E+00	1.72E-03	3.33E-08	2.45E-22	0.	0.	0.	0.	0.	0.	0.
CE143	5.22E-02	2.15E+00	1.30E+00	2.86E-01	2.30E-02	1.49E-04	9.61E-07	4.03E-11	4.55E-22	0.	0.
PR143	1.53E-08	1.37E-01	2.14E-01	2.76E-01	2.36E-01	1.44E-01	8.70E-02	3.14E-02	2.51E-03	1.60E-05	1.01E-07
CE144	2.09E-03	1.49E-02	1.48E-02	1.48E-02	1.46E-02	1.42E-02	1.39E-02	1.32E-02	1.17E-02	9.16E-03	7.19E-03
PR144	5.72E-07	1.49E-02	1.48E-02	1.48E-02	1.46E-02	1.42E-02	1.39E-02	1.32E-02	1.17E-02	9.16E-03	7.19E-03
PR145	8.27E-02	8.46E-01	5.23E-02	1.24E-05	1.13E-11	9.37E-24	7.77E-36	0.	0.	0.	0.
ND147	9.85E-06	1.66E-01	1.56E-01	1.29E-01	9.44E-02	5.07E-02	2.71E-02	7.78E-03	3.41E-04	6.64E-07	1.29E-09
PM147	2.73E-14	1.24E-04	2.40E-04	5.48E-04	9.47E-04	1.45E-03	1.71E-03	1.90E-03	1.92E-03	1.79E-03	1.66E-03
ND149	1.35E+01	1.31E-03	1.27E-07	1.15E-19	9.86E-40	0.	0.	0.	0.	0.	0.
PM149	1.88E-03	3.48E-01	2.54E-01	9.94E-02	2.07E-02	9.05E-04	3.93E-05	7.49E-08	1.18E-14	2.91E-28	7.26E-42
PM150	1.54E-01	3.25E-04	6.84E-07	6.42E-15	2.69E-28	0.	0.	0.	0.	0.	0.

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APPLE I MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.193E-13

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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	3.17E-02	2.16E-01	1.19E-01	2.01E-02	1.03E-03	2.70E-06	7.12E-09	4.91E-14	6.16E-27	0.	0.
SM153	1.04E-01	7.33E-02	5.15E-02	1.78E-02	3.02E-03	8.79E-05	2.55E-06	2.14E-09	4.43E-17	1.89E-32	8.01E-48
SM156	8.63E-02	1.47E-02	2.51E-03	1.24E-05	1.78E-09	3.66E-17	7.56E-25	3.21E-40	0.	0.	0.
EU155	4.02E-06	1.36E-04	1.36E-04	1.36E-04	1.36E-04	1.35E-04	1.35E-04	1.34E-04	1.31E-04	1.26E-04	1.21E-04
EU156	2.52E-04	2.05E-03	2.28E-03	2.04E-03	1.62E-03	1.02E-03	6.42E-04	2.55E-04	2.52E-05	2.49E-07	2.45E-09
EU157	1.47E-02	1.70E-02	5.72E-03	2.14E-04	9.00E-07	1.59E-11	2.81E-16	8.75E-26	0.	0.	0.
GD159	2.53E-03	4.98E-03	1.98E-03	1.24E-04	1.22E-06	1.18E-10	1.14E-14	1.07E-22	9.15E-43	0.	0.
TB161	3.04E-05	1.99E-04	1.79E-04	1.33E-04	8.03E-05	2.94E-05	1.08E-05	1.44E-06	9.54E-09	4.12E-13	1.79E-17
TOTAL	3.20E+02	6.21E+01	2.73E+01	1.00E+01	4.63E+00	1.97E+00	1.22E+00	6.72E-01	2.88E-01	1.01E-01	4.89E-02

APPLE I MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 4.193E-13

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	1.94E-06	1.67E-08	1.56E-09	1.44E-10	1.16E-13	9.31E-17	6.96E-21	4.46E-27	0.	0.	0.
MN 54	2.62E-05	1.13E-05	7.44E-06	4.89E-06	1.40E-06	3.99E-07	7.51E-08	6.15E-09	1.44E-12	5.22E-18	1.89E-23
FE 59	2.17E-04	7.82E-07	4.69E-08	2.82E-09	6.13E-13	1.32E-16	1.72E-21	8.08E-29	0.	0.	0.
CO 57	1.19E-07	4.68E-08	2.93E-09	1.84E-08	4.54E-09	1.12E-09	1.73E-11	1.05E-11	9.16E-16	7.52E-22	0.
CO 58	9.80E-05	2.81E-06	4.77E-07	8.09E-08	3.94E-10	1.92E-12	1.58E-15	3.75E-20	1.43E-35	0.	0.
CO 60	2.08E-05	1.82E-05	1.70E-05	1.59E-05	1.31E-05	1.07E-05	8.25E-06	5.56E-06	1.49E-06	2.07E-07	2.86E-08
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	2.42E-06	8.34E-08	1.54E-08	2.86E-09	1.82E-11	1.16E-13	1.37E-16	5.55E-21	0.	0.	0.
W188	2.51E-08	6.52E-10	1.06E-10	1.70E-11	7.16E-14	3.00E-16	2.03E-19	3.59E-24	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	5.14E-02	1.28E-10	1.25E-10	1.22E-10	1.14E-10	1.06E-10	9.60E-11	8.33E-11	5.19E-11	2.54E-11	1.25E-11
AM241	1.12E-08	1.12E-08	1.12E-08	1.12E-08	1.13E-08	1.13E-08	1.13E-08	1.14E-08	1.14E-08	1.13E-08	1.11E-08
CM242	1.59E-06	3.36E-07	1.55E-07	7.11E-08	6.93E-09	6.75E-10	3.02E-11	2.86E-13	8.22E-18	7.66E-18	7.15E-18
KR 85	4.89E-06	1.22E-04	1.18E-04	1.14E-04	1.04E-04	9.38E-05	8.25E-05	6.80E-05	3.60E-05	1.37E-05	5.25E-06
SR 89	4.23E-06	9.89E-04	8.66E-05	7.60E-06	5.12E-09	3.46E-12	2.04E-16	9.27E-23	6.74E-44	0.	0.
SR 90	8.53E-06	8.53E-04	8.45E-04	8.37E-04	8.06E-04	7.75E-04	7.38E-04	6.85E-04	5.36E-04	3.70E-04	2.56E-04
Y 90	1.26E-11	8.53E-04	8.45E-04	8.37E-04	8.06E-04	7.75E-04	7.38E-04	6.85E-04	5.36E-04	3.70E-04	2.56E-04
Y 91	2.75E-08	1.86E-03	2.16E-04	2.51E-05	3.94E-08	6.18E-11	1.13E-14	2.78E-20	5.61E-39	0.	0.
ZR 95	6.75E-04	1.74E-03	2.48E-04	3.52E-05	1.03E-07	2.99E-10	1.24E-13	1.05E-18	1.28E-35	0.	0.
NB 95M	1.44E-11	3.67E-05	5.24E-06	7.49E-07	2.18E-09	6.34E-12	2.62E-15	2.22E-20	2.72E-37	0.	0.
NB 95	7.52E-11	3.73E-03	5.36E-04	7.64E-05	2.22E-07	6.43E-10	2.68E-13	2.27E-18	2.78E-35	0.	0.
RU103	7.53E-05	2.93E-04	1.20E-05	4.92E-07	3.36E-11	2.30E-15	6.47E-21	3.04E-29	0.	0.	0.
RH103M	5.02E-09	2.93E-04	1.20E-05	4.92E-07	3.36E-11	2.31E-15	6.47E-21	3.05E-29	0.	0.	0.
RU106	4.15E-04	3.95E-03	2.79E-03	1.98E-03	7.04E-04	2.50E-04	6.30E-05	7.96E-06	8.03E-09	2.58E-13	8.30E-18
RH106	4.49E-06	3.95E-03	2.79E-03	1.98E-03	7.04E-04	2.50E-04	6.30E-05	7.96E-06	8.03E-09	2.58E-13	8.30E-18
SN123	3.87E-06	5.36E-05	1.95E-05	7.07E-06	3.39E-07	1.63E-08	2.83E-10	6.53E-13	1.05E-21	6.75E-35	4.33E-48
SB125	6.59E-05	1.33E-04	1.17E-04	1.03E-04	7.00E-05	4.76E-05	2.84E-05	1.32E-05	1.01E-06	2.15E-08	4.59E-10
TE125M	1.77E-12	5.42E-05	4.82E-05	4.24E-05	2.90E-05	1.97E-05	1.18E-05	5.45E-06	4.19E-07	8.92E-09	1.90E-10
TE127M	3.08E-10	1.47E-04	4.61E-05	1.44E-05	4.43E-07	1.36E-08	1.31E-10	1.23E-13	1.01E-23	7.57E-39	5.64E-54
TE127	2.15E-02	1.46E-04	4.55E-05	1.43E-05	4.38E-07	1.35E-08	1.30E-10	1.22E-13	1.00E-23	7.47E-39	5.59E-54
CS137	9.43E-05	9.94E-04	9.82E-04	9.71E-04	9.37E-04	9.03E-04	8.64E-04	8.07E-04	6.38E-04	4.53E-04	3.20E-04
BA137M	1.99E-07	9.32E-04	9.20E-04	9.09E-04	8.75E-04	8.47E-04	8.07E-04	7.57E-04	5.98E-04	4.23E-04	3.00E-04
CE141	1.96E-07	8.44E-05	1.70E-06	3.41E-08	2.78E-13	2.26E-18	3.71E-25	2.46E-35	0.	0.	0.
CE144	2.09E-03	6.13E-03	3.94E-03	2.51E-03	6.60E-04	1.73E-04	2.92E-05	2.01E-06	2.71E-10	4.25E-16	6.63E-22
PR144	5.72E-07	6.13E-03	3.94E-03	2.51E-03	6.60E-04	1.73E-04	2.92E-05	2.01E-06	2.71E-10	4.25E-16	6.63E-22
PM147	2.73E-14	1.59E-03	1.39E-03	1.22E-03	8.19E-04	5.51E-04	3.23E-04	1.47E-04	1.04E-05	1.97E-07	3.73E-09
EU155	4.02E-06	1.18E-04	1.09E-04	1.02E-04	8.19E-05	6.58E-05	4.91E-05	3.17E-05	7.41E-06	8.34E-07	9.39E-08
TOTAL	7.67E-02	3.52E-02	2.01E-02	1.43E-02	7.27E-03	4.94E-03	3.83E-03	3.23E-03	2.36E-03	1.63E-03	1.14E-03

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**APPENDIX I**  
**DETAILED RESULTS FOR EVENT WASP PRIME**

WASP PRIME  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.605E-12

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.08E+02	9.54E+03
1.00E+00	3.27E+01	2.08E+03
2.00E+00	1.32E+01	8.45E+02
3.00E+00	7.22E+00	5.34E+02
4.00E+00	4.59E+00	3.98E+02
6.00E+00	2.44E+00	2.70E+02
9.00E+00	1.41E+00	1.85E+02
1.20E+01	1.00E+00	1.39E+02
1.50E+01	7.74E-01	1.11E+02
1.80E+01	6.28E-01	9.06E+01
2.10E+01	5.23E-01	7.62E+01
1.00E+00 DAYS	4.38E-01	6.44E+01
2.00E+00	1.88E-01	2.77E+01
5.00E+00	6.82E-02	9.62E+00
1.00E+01	3.35E-02	4.51E+00
2.00E+01	1.47E-02	2.03E+00
3.00E+01	8.78E-03	1.29E+00
5.00E+01	4.34E-03	7.30E-01
1.00E+02	1.72E-03	3.29E-01
2.00E+02	6.30E-04	1.24E-01
3.00E+02	2.43E-04	6.27E-02
1.00E+00 YEARS	1.38E-04	4.56E-02
1.50E+00	3.87E-05	2.55E-02
2.00E+00	2.09E-05	1.76E-02
3.50E+00	1.14E-05	7.96E-03
5.00E+00	8.71E-06	4.85E-03
7.00E+00	7.34E-06	3.44E-03
1.00E+01	6.48E-06	2.71E-03
2.00E+01	4.93E-06	1.88E-03
3.50E+01	3.47E-06	1.29E-03
5.00E+01	2.44E-06	8.96E-04

WASP PRIME MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.605E-12

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	1.27E-06	1.27E-06	1.27E-06	1.27E-06	1.27E-06	1.27E-06	1.27E-06	1.26E-06	1.26E-06	1.26E-06	1.26E-06
NA 24	2.80E-02	2.68E-02	2.56E-02	2.44E-02	2.33E-02	2.12E-02	1.85E-02	1.61E-02	1.40E-02	1.22E-02	1.06E-02
MN 54	3.65E-05	3.65E-05	3.65E-05	3.65E-05	3.65E-05	3.65E-05	3.65E-05	3.61E-05	3.61E-05	3.61E-05	3.61E-05
FE 55	2.41E-05	2.41E-05	2.41E-05	2.41E-05	2.41E-05	2.41E-05	2.41E-05	2.41E-05	2.41E-05	2.41E-05	2.41E-05
FE 59	4.55E-05	4.54E-05	4.54E-05	4.54E-05	4.54E-05	4.53E-05	4.53E-05	4.52E-05	4.51E-05	4.50E-05	4.49E-05
CO 57	1.46E-06	1.46E-06	1.46E-06	1.46E-06	1.46E-06	1.46E-06	1.46E-06	1.46E-06	1.46E-06	1.46E-06	1.46E-06
CO 58	1.58E-04	1.58E-04	1.58E-04	1.58E-04	1.58E-04	1.58E-04	1.57E-04	1.57E-04	1.57E-04	1.57E-04	1.57E-04
CO 60	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05
CU 64	1.61E+00	1.52E+00	1.44E+00	1.37E+00	1.29E+00	1.16E+00	9.86E-01	8.39E-01	7.13E-01	6.07E-01	5.16E-01
CU 67	3.15E-05	3.13E-05	3.07E-05	3.05E-05	3.02E-05	2.94E-05	2.83E-05	2.75E-05	2.66E-05	2.56E-05	2.49E-05
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	9.94E-07	9.94E-07	9.94E-07	9.94E-07	9.92E-07	9.92E-07	9.92E-07	9.90E-07	9.90E-07	9.87E-07	9.87E-07
W187	3.34E-04	3.24E-04	3.15E-04	3.06E-04	2.98E-04	2.80E-04	2.58E-04	2.36E-04	2.16E-04	1.99E-04	1.82E-04
W188	1.44E-07	1.44E-07	1.44E-07	1.44E-07	1.44E-07	1.44E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07
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	1.79E-05	1.77E-05	1.74E-05	1.72E-05	1.69E-05	1.65E-05	1.59E-05	1.53E-05	1.46E-05	1.40E-05	1.35E-05
U237	2.66E-02	2.65E-02	2.64E-02	2.63E-02	2.62E-02	2.59E-02	2.56E-02	2.53E-02	2.50E-02	2.46E-02	2.43E-02
U239	2.10E+02	3.59E+01	6.12E+00	1.04E+00	1.77E-01	5.16E-03	2.56E-05	1.26E-07	6.25E-10	3.09E-12	1.53E-14
U240	9.17E-03	8.74E-03	8.32E-03	7.92E-03	7.54E-03	6.83E-03	5.89E-03	5.08E-03	4.39E-03	3.78E-03	3.26E-03
NP239	7.20E-04	1.21E+00	1.40E+00	1.42E+00	1.41E+00	1.37E+00	1.32E+00	1.27E+00	1.23E+00	1.19E+00	1.14E+00
NP240M	1.45E-05	8.77E-03	8.39E-03	7.99E-03	7.61E-03	6.88E-03	5.95E-03	5.13E-03	4.42E-03	3.81E-03	3.29E-03
NP240	3.67E-13	1.89E-13	9.81E-14	5.06E-14	2.62E-14	7.00E-15	9.66E-16	1.33E-16	1.84E-17	2.53E-18	3.50E-19
*AM241	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07
*CM242	1.02E-06	1.02E-06	1.02E-06	1.02E-06	1.02E-06	1.02E-06	1.02E-06	1.02E-06	1.02E-06	1.02E-06	1.02E-06
GE 75	6.55E-06	3.18E-02	1.91E-02	1.15E-02	6.93E-03	2.51E-03	5.49E-04	1.20E-04	2.63E-05	5.72E-06	1.25E-06
GE 77	4.44E-03	1.14E-02	1.08E-02	1.01E-02	9.53E-03	8.42E-03	7.01E-03	5.82E-03	4.85E-03	4.03E-03	3.36E-03
AS 77	4.59E-05	7.26E-03	7.34E-03	7.39E-03	7.44E-03	7.49E-03	7.49E-03	7.44E-03	7.32E-03	7.17E-03	6.99E-03
SE 77M	1.81E-09	2.17E-05	2.20E-05	2.22E-05	2.22E-05	2.24E-05	2.25E-05	2.24E-05	2.20E-05	2.16E-05	2.09E-05
GE 78	6.95E-01	4.34E-01	2.70E-01	1.69E-01	1.05E-01	4.10E-02	9.96E-03	2.41E-03	5.89E-04	1.43E-04	3.47E-05
AS 78	1.25E-02	2.07E-01	2.56E-01	2.40E-01	2.00E-01	1.18E-01	4.39E-02	1.46E-02	4.51E-03	1.35E-03	3.91E-04
AS 79	1.35E+01	1.33E-01	1.31E-03	1.29E-05	1.27E-07	1.23E-11	1.17E-17	1.12E-23	1.07E-29	1.02E-35	9.72E-42
SE 79M	2.00E-02	2.34E-01	2.31E-03	2.28E-05	2.24E-07	2.17E-11	2.07E-17	1.97E-23	1.88E-29	1.80E-35	1.71E-41
BR 80	8.24E-02	7.78E-03	7.31E-04	6.87E-05	6.47E-06	5.74E-08	4.81E-11	4.00E-14	3.34E-17	2.79E-20	2.33E-23
SE 81M	6.68E-02	3.11E+00	1.50E+00	7.23E-01	3.48E-01	8.12E-02	9.09E-03	1.02E-03	1.14E-04	1.28E-05	1.44E-06
SE 81	8.16E-01	3.68E+00	2.13E+00	1.06E+00	5.16E-01	1.20E-01	1.35E-02	1.51E-03	1.69E-04	1.90E-05	2.13E-06
BR 82	3.99E-04	3.92E-04	3.84E-04	3.77E-04	3.69E-04	3.55E-04	3.35E-04	3.15E-04	2.98E-04	2.80E-04	2.64E-04
SE 83	3.62E+01	6.86E+00	1.30E+00	2.46E-01	4.66E-02	1.68E-03	1.14E-05	7.75E-08	5.29E-10	3.59E-12	2.28E-14
BR 83	3.01E-01	4.49E+00	4.15E+00	3.27E+00	2.48E+00	1.40E+00	5.93E-01	2.49E-01	1.05E-01	4.45E-02	1.88E-02
KR 83M	1.55E-05	1.02E+00	2.07E+00	2.58E+00	2.66E+00	2.22E+00	1.31E+00	6.73E-01	3.24E-01	1.50E-01	6.73E-02

WASP PRIME MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.605E-12

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	7.56E-02	1.31E+01	3.53E+00	9.55E-01	2.58E-01	1.89E-02	3.73E-04	7.36E-06	1.46E-07	2.88E-09	5.69E-11
KR 85M	3.55E-03	7.61E+00	6.47E+00	5.53E+00	4.72E+00	3.45E+00	2.15E+00	1.34E+00	8.36E-01	5.20E-01	3.25E-01
KR 87	5.99E+01	3.46E+01	2.00E+01	1.16E+01	6.68E+00	2.24E+00	4.34E-01	8.41E-02	1.63E-02	3.15E-03	6.10E-04
KR 88	3.38E+01	2.64E+01	2.06E+01	1.61E+01	1.26E+01	7.63E+00	3.64E+00	1.74E+00	8.24E-01	3.93E-01	1.87E-01
RB 88	8.60E+00	2.67E+01	2.28E+01	1.80E+01	1.40E+01	8.55E+00	4.08E+00	1.94E+00	9.26E-01	4.40E-01	2.09E-01
RB 89	4.13E+01	3.88E+01	2.61E+00	1.75E-01	1.18E-02	5.32E-05	1.61E-08	4.86E-12	1.48E-15	4.49E-19	1.36E-22
SR 89	3.17E-06	1.11E-01	1.19E-01	1.19E-01	1.19E-01	1.19E-01	1.19E-01	1.18E-01	1.18E-01	1.18E-01	1.18E-01
SR 90	6.37E-06	6.54E-04	6.54E-04	6.54E-04	6.54E-04	6.54E-04	6.54E-04	6.54E-04	6.54E-04	6.54E-04	6.54E-04
SR 91	8.61E-01	1.60E+01	1.49E+01	1.39E+01	1.29E+01	1.12E+01	9.04E+00	7.31E+00	5.90E+00	4.74E+00	3.82E+00
Y 91M	5.79E-05	5.52E+00	7.53E+00	8.07E+00	7.96E+00	7.15E+00	5.85E+00	4.70E+00	3.80E+00	3.06E+00	2.47E+00
Y 91	2.37E-08	4.91E-03	1.13E-02	1.81E-02	2.47E-02	3.70E-02	5.25E-02	6.50E-02	7.53E-02	8.34E-02	8.99E-02
SR 92	1.10E+01	4.93E+01	3.82E+01	2.96E+01	2.29E+01	1.37E+01	6.37E+00	2.96E+00	1.37E+00	6.37E-01	2.96E-01
Y 92	5.09E-01	1.04E+01	1.63E+01	1.94E+01	2.05E+01	1.96E+01	1.50E+01	1.02E+01	6.57E+00	4.04E+00	2.44E+00
SR 93	4.47E+02	7.69E+00	4.25E-02	2.35E-04	1.29E-06	3.96E-11	6.67E-18	1.13E-24	1.90E-31	3.20E-38	5.40E-45
Y 93	5.45E-01	1.76E+01	1.66E+01	1.55E+01	1.45E+01	1.26E+01	1.03E+01	8.41E+00	6.83E+00	5.60E+00	4.55E+00
Y 94	6.51E+01	8.89E+01	1.14E+01	1.47E+00	1.90E-01	3.16E-03	6.78E-06	1.45E-08	3.11E-11	6.78E-14	3.76E-15
Y 95	2.82E+02	2.66E+01	5.86E-01	1.29E-02	2.85E-04	1.38E-07	1.48E-12	1.58E-17	1.69E-22	1.80E-27	1.93E-32
ZR 95	1.06E-03	1.39E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.40E-01	1.40E-01
NB 95	1.18E-10	8.56E-05	1.99E-04	3.13E-04	4.28E-04	6.56E-04	9.95E-04	1.34E-03	1.67E-03	2.01E-03	2.35E-03
ZR 97	2.57E+00	1.12E+01	1.07E+01	1.03E+01	9.86E+00	9.11E+00	8.04E+00	7.12E+00	6.32E+00	5.57E+00	4.95E+00
NB 97M	1.32E-02	1.07E+01	1.03E+01	9.90E+00	9.50E+00	8.75E+00	7.74E+00	6.85E+00	6.06E+00	5.35E+00	4.73E+00
NB 97	1.29E+00	5.61E+00	7.91E+00	9.02E+00	9.46E+00	9.41E+00	8.58E+00	7.65E+00	6.76E+00	5.97E+00	5.30E+00
NB 98	1.46E+01	6.48E+00	2.87E+00	1.27E+00	5.62E-01	1.10E-01	9.51E-03	8.21E-04	7.15E-05	6.19E-06	5.33E-07
MO 99	7.81E-03	3.22E+00	3.19E+00	3.16E+00	3.12E+00	3.06E+00	2.97E+00	2.88E+00	2.79E+00	2.71E+00	2.62E+00
TC 99M	7.26E-08	3.07E-01	5.77E-01	8.16E-01	1.02E+00	1.37E+00	1.74E+00	1.97E+00	2.11E+00	2.19E+00	2.23E+00
MO 101	1.14E+02	5.14E+01	2.98E+00	1.73E-01	1.00E-02	3.36E-05	6.53E-09	1.27E-12	2.47E-16	4.80E-20	9.36E-24
TC 101	4.80E+00	1.44E+02	1.57E+01	1.29E+00	9.41E-02	4.24E-04	1.06E-07	2.38E-11	5.04E-15	1.04E-18	2.10E-22
MO 102	9.53E+02	2.17E+01	4.95E-01	1.13E-02	2.58E-04	1.34E-07	1.59E-12	1.89E-17	2.24E-22	2.65E-27	3.15E-32
TC 102M	6.13E-01	1.84E+01	4.21E-01	9.62E-03	2.19E-04	1.13E-07	1.35E-12	1.60E-17	1.89E-22	2.25E-27	2.67E-32
TC 102	2.87E+03	1.09E+01	2.50E-01	5.67E-03	1.30E-04	6.76E-08	8.03E-13	9.53E-18	1.13E-22	1.34E-27	1.59E-32
RU 103	6.93E-05	1.61E-01	1.60E-01	1.60E-01	1.60E-01	1.60E-01	1.60E-01	1.60E-01	1.59E-01	1.59E-01	1.58E-01
RH 103M	4.62E-09	8.31E-02	1.23E-01	1.43E-01	1.52E-01	1.58E-01	1.60E-01	1.60E-01	1.59E-01	1.59E-01	1.59E-01
TC 104	6.13E+01	4.41E+01	4.41E+00	4.36E-01	4.31E-02	4.25E-04	4.15E-07	4.06E-10	3.96E-13	3.87E-16	3.78E-19
RU 105	5.13E-01	1.77E+01	1.52E+01	1.30E+01	1.11E+01	8.12E+00	5.09E+00	3.18E+00	1.99E+00	1.25E+00	7.82E-01
RH 105M	3.37E-03	1.78E+01	1.52E+01	1.30E+01	1.11E+01	8.16E+00	5.09E+00	3.19E+00	2.00E+00	1.25E+00	7.82E-01
RH 105	5.54E-09	3.61E-01	6.70E-01	9.24E-01	1.14E+00	1.46E+00	1.74E+00	1.87E+00	1.91E+00	1.89E+00	1.84E+00
RU 106	4.48E-04	8.48E-03	8.48E-03	8.48E-03	8.48E-03	8.48E-03	8.48E-03	8.48E-03	8.48E-03	8.48E-03	8.48E-03
RH 106	4.84E-06	8.48E-03	8.48E-03	8.48E-03	8.48E-03	8.48E-03	8.48E-03	8.48E-03	8.48E-03	8.48E-03	8.48E-03
RH 107	1.17E-01	1.59E+01	2.41E+00	3.63E-01	5.48E-02	1.25E-03	4.31E-06	1.49E-08	5.11E-11	1.75E-14	1.74E-17
PD 107M	2.44E-04	3.24E+00	4.89E-01	7.39E-02	1.12E-02	2.54E-04	8.76E-07	3.02E-09	1.04E-11	3.59E-14	1.22E-16

WASP PRIME MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.605E-12

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	6.78E-03	5.63E-01	5.35E-01	5.07E-01	4.81E-01	4.34E-01	3.73E-01	3.20E-01	2.74E-01	2.35E-01	2.02E-01
AG109M	3.91E-05	5.63E-01	5.35E-01	5.08E-01	4.83E-01	4.36E-01	3.73E-01	3.20E-01	2.74E-01	2.35E-01	2.02E-01
PD111M	8.41E-01	7.41E-01	6.53E-01	5.78E-01	5.08E-01	3.95E-01	2.71E-01	1.85E-01	1.27E-01	8.69E-02	5.96E-02
PD111	2.99E-01	5.40E-01	5.18E-01	4.61E-01	4.08E-01	3.17E-01	2.18E-01	1.49E-01	1.02E-01	7.00E-02	4.80E-02
AG111M	2.38E-03	7.28E-01	6.84E-01	6.12E-01	5.40E-01	4.17E-01	2.85E-01	1.96E-01	1.34E-01	9.20E-02	6.28E-02
AG111	8.47E-10	2.51E-03	5.27E-03	7.75E-03	9.95E-03	1.36E-02	1.74E-02	2.00E-02	2.16E-02	2.27E-02	2.33E-02
PD112	1.57E-01	1.52E-01	1.47E-01	1.42E-01	1.38E-01	1.29E-01	1.17E-01	1.06E-01	9.59E-02	8.67E-02	7.86E-02
AG112	4.74E-06	3.01E-02	5.32E-02	7.14E-02	8.48E-02	1.02E-01	1.12E-01	1.11E-01	1.06E-01	9.87E-02	9.11E-02
AG113	1.40E-03	3.00E-01	2.63E-01	2.31E-01	2.03E-01	1.56E-01	1.06E-01	7.12E-02	4.81E-02	3.25E-02	2.20E-02
AG115	4.83E-01	5.17E-01	6.43E-02	8.04E-03	1.01E-03	1.57E-05	3.08E-08	6.01E-11	1.16E-13	1.16E-16	1.07E-16
CD115M	3.95E-09	1.05E-04	1.18E-04	1.20E-04	1.20E-04	1.20E-04	1.19E-04	1.19E-04	1.19E-04	1.18E-04	1.18E-04
CD115	1.52E-06	2.87E-02	3.09E-02	3.08E-02	3.05E-02	2.97E-02	2.86E-02	2.75E-02	2.64E-02	2.54E-02	2.44E-02
IN115M	1.90E-11	3.17E-03	7.05E-03	1.05E-02	1.33E-02	1.78E-02	2.19E-02	2.42E-02	2.52E-02	2.54E-02	2.52E-02
CD117	3.38E-02	5.63E-01	4.24E-01	3.17E-01	2.37E-01	1.33E-01	5.59E-02	2.35E-02	9.91E-03	4.16E-03	1.75E-03
IN117M	1.63E-06	1.96E-01	2.83E-01	3.08E-01	2.97E-01	2.34E-01	1.34E-01	6.86E-02	3.29E-02	1.53E-02	6.90E-03
IN117	6.54E-11	3.57E-02	8.64E-02	1.20E-01	1.34E-01	1.23E-01	7.85E-02	4.20E-02	2.09E-02	9.83E-03	4.52E-03
CD118	2.23E+00	9.56E-01	4.10E-01	1.75E-01	7.49E-02	1.37E-02	1.08E-03	8.41E-05	6.61E-06	5.18E-07	4.06E-08
IN118	1.48E-01	9.56E-01	4.10E-01	1.75E-01	7.49E-02	1.37E-02	1.08E-03	8.45E-05	6.61E-06	5.18E-07	4.06E-08
CD119	5.57E+00	8.68E-02	1.35E-03	2.12E-05	3.31E-07	8.10E-11	3.09E-16	1.18E-21	4.49E-27	1.72E-32	6.57E-38
IN119M	8.39E-03	9.39E-01	1.02E-01	1.03E-02	1.03E-03	1.01E-05	9.85E-09	9.64E-12	9.39E-15	9.18E-18	8.98E-21
IN119	4.14E-01	4.94E-02	5.73E-03	5.82E-04	5.82E-05	5.69E-07	5.57E-10	5.44E-13	5.32E-16	5.19E-19	5.07E-22
SN121	6.90E-04	7.11E-02	6.90E-02	6.74E-02	6.58E-02	6.25E-02	5.77E-02	5.36E-02	4.95E-02	4.59E-02	4.26E-02
SN123M	3.97E-01	7.44E-01	2.63E-01	9.32E-02	3.29E-02	4.11E-03	1.82E-04	8.05E-06	3.56E-07	1.57E-08	6.96E-10
SN123	3.73E-06	3.91E-04	3.91E-04	3.91E-04	3.91E-04	3.91E-04	3.91E-04	3.91E-04	3.91E-04	3.91E-04	3.91E-04
SN125	1.07E-02	1.06E-02	1.06E-02	1.06E-02	1.05E-02	1.05E-02	1.04E-02	1.03E-02	1.02E-02	1.01E-02	1.00E-02
SB125	6.40E-05	6.43E-05	6.46E-05	6.49E-05	6.52E-05	6.57E-05	6.68E-05	6.77E-05	6.85E-05	6.93E-05	7.02E-05
SB126	2.00E-03	2.00E-03	1.99E-03	1.99E-03	1.98E-03	1.97E-03	1.96E-03	1.95E-03	1.93E-03	1.92E-03	1.91E-03
SN127	2.80E+00	2.01E+00	1.44E+00	1.04E+00	7.49E-01	3.86E-01	1.43E-01	5.34E-02	1.98E-02	7.35E-03	2.73E-03
SB127	3.26E-02	1.13E-01	1.25E-01	1.33E-01	1.39E-01	1.44E-01	1.47E-01	1.45E-01	1.43E-01	1.40E-01	1.37E-01
TE127	1.84E-02	2.30E-02	2.79E-02	3.31E-02	3.82E-02	4.80E-02	6.14E-02	7.17E-02	7.98E-02	8.61E-02	9.01E-02
SN128	1.88E+01	9.27E+00	4.59E+00	2.27E+00	1.12E+00	2.74E-01	3.30E-02	3.99E-03	4.81E-04	5.83E-05	7.03E-06
SB128M	9.57E-03	1.06E+01	5.48E+00	2.71E+00	1.34E+00	3.27E-01	3.94E-02	4.75E-03	5.73E-04	6.93E-05	8.37E-06
SB128	7.92E-01	7.62E-01	7.18E-01	6.73E-01	6.28E-01	5.38E-01	4.30E-01	3.41E-01	2.71E-01	2.15E-01	1.70E-01
SN129M	1.19E+01	5.92E+00	2.97E+00	1.49E+00	7.43E-01	1.86E-01	2.32E-02	2.91E-03	3.63E-04	4.54E-05	5.67E-06
SN129	7.93E+01	7.78E-01	7.68E-03	7.58E-05	7.43E-07	7.23E-11	6.88E-17	6.58E-23	6.28E-29	5.97E-35	5.72E-41
SB129	4.46E+00	7.48E+00	7.03E+00	6.28E+00	5.52E+00	4.10E+00	2.56E+00	1.58E+00	9.74E-01	6.03E-01	3.71E-01
TE129M	8.44E-08	9.34E-04	1.92E-03	2.83E-03	3.63E-03	4.92E-03	6.23E-03	7.03E-03	7.53E-03	7.83E-03	8.03E-03
TE129	3.21E+00	4.42E+00	5.17E+00	5.37E+00	5.17E+00	4.28E+00	2.85E+00	1.80E+00	1.12E+00	6.93E-01	4.30E-01
SB130M	4.46E-01	8.42E-01	2.21E-03	5.81E-06	1.53E-08	1.06E-13	1.92E-21	3.49E-29	6.34E-37	1.15E-44	2.10E-52
SB130	7.65E+01	2.31E+01	6.58E+00	1.86E+00	5.28E-01	4.25E-02	9.68E-04	2.21E-05	5.03E-07	1.15E-08	2.62E-10

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WASP PRIME MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.605E-12

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	2.13E-02	2.01E-02	1.91E-02	1.80E-02	1.70E-02	1.52E-02	1.29E-02	1.09E-02	9.20E-03	7.79E-03	6.58E-03
SB131	1.74E+02	4.55E+01	7.44E+00	1.22E+00	2.00E-01	5.40E-03	2.38E-05	1.05E-07	4.62E-10	2.04E-12	1.02E-14
TE131M	8.38E-05	4.39E-01	5.00E-01	5.01E-01	4.91E-01	4.70E-01	4.38E-01	4.09E-01	3.81E-01	3.56E-01	3.32E-01
TE131	7.72E+01	8.38E+01	2.73E+01	7.11E+00	1.73E+00	1.62E-01	8.05E-02	7.44E-02	6.94E-02	6.50E-02	6.05E-02
I131	1.12E-02	3.89E-01	5.72E-01	6.27E-01	6.39E-01	6.44E-01	6.44E-01	6.39E-01	6.39E-01	6.33E-01	6.33E-01
TE132	8.77E-01	2.13E+00	2.11E+00	2.09E+00	2.07E+00	2.03E+00	1.98E+00	1.93E+00	1.88E+00	1.83E+00	1.78E+00
I132	2.15E+00	2.15E+00	2.14E+00	2.13E+00	2.11E+00	2.09E+00	2.04E+00	1.99E+00	1.93E+00	1.89E+00	1.84E+00
TE133M	1.07E-01	3.69E+01	1.61E+01	7.00E+00	3.05E+00	5.79E-01	4.76E-02	3.93E-03	3.24E-04	2.67E-05	2.20E-06
TE133	5.99E+02	3.40E+01	3.78E+00	1.25E+00	5.28E-01	1.00E-01	8.27E-03	6.80E-04	5.63E-05	4.63E-06	3.82E-07
I133	9.29E-01	1.00E+01	1.08E+01	1.08E+01	1.06E+01	1.00E+01	9.14E+00	8.27E+00	7.46E+00	6.80E+00	6.14E+00
XE133M	3.95E-08	2.25E-03	5.43E-03	8.68E-03	1.18E-02	1.78E-02	2.57E-02	3.26E-02	3.85E-02	4.35E-02	4.77E-02
XE133	6.90E-07	3.93E-02	9.54E-02	1.52E-01	2.09E-01	3.17E-01	4.64E-01	5.94E-01	7.11E-01	8.12E-01	9.03E-01
TE134	1.89E+02	8.74E+01	3.25E+01	1.21E+01	4.49E+00	6.22E-01	3.18E-02	1.63E-03	8.34E-05	4.28E-06	2.20E-07
I134	8.64E+01	1.16E+02	8.10E+01	4.74E+01	2.55E+01	6.47E+00	7.11E-01	7.26E-02	7.11E-03	6.81E-04	6.47E-05
I135	1.57E+01	2.76E+01	2.49E+01	2.24E+01	2.03E+01	1.65E+01	1.21E+01	8.84E+00	6.49E+00	4.78E+00	3.49E+00
XE135M	1.74E-03	7.98E+00	7.75E+00	7.03E+00	6.31E+00	5.14E+00	3.77E+00	2.76E+00	2.03E+00	1.49E+00	1.09E+00
XE135	1.81E+00	3.57E+00	5.23E+00	6.58E+00	7.66E+00	9.20E+00	1.02E+01	1.02E+01	9.74E+00	8.88E+00	7.93E+00
CS136	6.29E-03	6.27E-03	6.26E-03	6.25E-03	6.23E-03	6.20E-03	6.16E-03	6.12E-03	6.08E-03	6.04E-03	6.00E-03
CS137	7.75E-05	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04
BA137M	1.63E-07	7.80E-04	7.80E-04	7.80E-04	7.80E-04	7.80E-04	7.80E-04	7.80E-04	7.80E-04	7.80E-04	7.80E-04
XE138	5.86E+02	5.04E+01	4.39E+00	3.80E-01	3.29E-02	2.47E-04	1.60E-07	1.04E-10	6.77E-14	4.40E-17	2.86E-20
CS138	8.73E+01	1.47E+02	5.09E+01	1.50E+01	4.19E+00	3.19E-01	6.64E-03	1.38E-04	2.86E-06	5.95E-08	1.23E-09
CS139	5.73E+02	1.83E+01	2.29E-01	2.88E-03	3.61E-05	5.68E-09	1.13E-14	2.23E-20	4.42E-26	8.76E-32	1.73E-37
BA139	1.06E+01	1.18E+02	7.27E+01	4.42E+01	2.67E+01	9.81E+00	2.18E+00	4.83E-01	1.07E-01	2.38E-02	5.29E-03
BA140	1.07E-01	6.67E-01	6.67E-01	6.61E-01	6.61E-01	6.56E-01	6.56E-01	6.51E-01	6.46E-01	6.41E-01	6.36E-01
LA140	2.54E-07	1.14E-02	2.26E-02	3.35E-02	4.43E-02	6.51E-02	9.51E-02	1.23E-01	1.50E-01	1.75E-01	1.98E-01
BA141	2.06E+02	6.23E+01	6.18E+00	6.13E-01	6.08E-02	6.03E-04	5.89E-07	5.74E-10	5.59E-13	5.49E-16	5.35E-19
LA141	1.90E+00	4.03E+01	3.76E+01	3.19E+01	2.67E+01	1.87E+01	1.10E+01	6.43E+00	3.78E+00	2.22E+00	1.30E+00
CE141	2.35E-07	2.62E-02	6.13E-02	9.22E-02	1.18E-01	1.58E-01	1.97E-01	2.19E-01	2.32E-01	2.39E-01	2.43E-01
BA142	5.50E+02	2.18E+01	4.98E-01	1.14E-02	2.59E-04	1.35E-07	1.60E-12	1.90E-17	2.25E-22	2.67E-27	3.17E-32
LA142	1.26E+01	8.76E+01	5.78E+01	3.68E+01	2.34E+01	9.46E+00	2.44E+00	6.29E-01	1.62E-01	4.17E-02	1.08E-02
LA143	2.06E+02	4.02E+01	2.06E+00	1.06E-01	5.44E-03	1.42E-05	1.92E-09	2.59E-13	3.49E-17	4.71E-21	6.35E-25
CE143	8.23E-02	5.25E+00	5.44E+00	5.29E+00	5.20E+00	5.01E+00	4.69E+00	4.40E+00	4.13E+00	3.88E+00	3.64E+00
PR143	2.41E-08	8.04E-03	1.94E-02	3.07E-02	4.17E-02	6.30E-02	9.29E-02	1.21E-01	1.47E-01	1.72E-01	1.94E-01
CE144	3.26E-03	2.34E-02	2.34E-02	2.34E-02	2.34E-02	2.34E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02
PR144	8.94E-07	2.12E-02	2.32E-02	2.33E-02	2.34E-02	2.34E-02	2.34E-02	2.34E-02	2.33E-02	2.33E-02	2.33E-02
PR145	1.31E-01	1.93E+01	1.72E+01	1.53E+01	1.36E+01	1.08E+01	7.62E+00	5.38E+00	3.81E+00	2.69E+00	1.90E+00
CE146	3.85E+02	1.97E+01	1.01E+00	5.17E-02	2.66E-03	7.02E-06	9.45E-10	1.27E-13	1.71E-17	2.31E-21	3.12E-25
PR146	7.96E+00	6.93E+01	1.57E+01	2.95E+00	5.31E-01	1.67E-02	9.22E-05	5.08E-07	2.82E-09	1.56E-11	8.50E-14
PR147	4.46E+01	1.29E+01	4.03E-01	1.26E-02	3.94E-04	3.85E-07	1.17E-11	3.59E-16	1.09E-20	3.34E-25	1.02E-29

WASP PRIME MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.605E-12

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	1.59E-05	3.00E-01	3.08E-01	3.08E-01	3.07E-01	3.06E-01	3.03E-01	3.01E-01	2.98E-01	2.96E-01	2.94E-01	2.94E-01
ND149	2.29E+01	1.56E+01	1.06E+01	7.23E+00	4.89E+00	2.27E+00	7.14E-01	2.26E-01	7.10E-02	2.23E-02	7.06E-03	7.06E-03
PM149	3.19E-03	2.49E-01	4.14E-01	5.24E-01	5.93E-01	6.67E-01	6.93E-01	6.80E-01	6.62E-01	6.36E-01	6.15E-01	6.15E-01
PM150	2.66E-01	2.06E-01	1.59E-01	1.23E-01	9.50E-02	5.70E-02	2.64E-02	1.22E-02	5.66E-03	2.62E-03	1.21E-03	1.21E-03
ND151	9.10E+01	2.84E+00	8.89E-02	2.78E-03	8.69E-05	8.49E-08	2.59E-12	7.92E-17	2.41E-21	7.35E-26	2.25E-30	2.25E-30
PM151	5.77E-02	6.74E-01	6.78E-01	6.62E-01	6.46E-01	6.13E-01	5.69E-01	5.28E-01	4.91E-01	4.55E-01	4.22E-01	4.22E-01
PM152	1.47E+02	1.44E-01	1.40E-04	1.37E-07	1.34E-10	1.28E-16	1.19E-25	1.11E-34	1.03E-43	9.67E-53	8.98E-62	8.98E-62
SM153	1.97E-01	1.94E-01	1.91E-01	1.88E-01	1.86E-01	1.80E-01	1.72E-01	1.65E-01	1.58E-01	1.51E-01	1.45E-01	1.45E-01
SM155	1.14E+01	1.88E+00	3.07E-01	5.03E-02	8.24E-03	2.22E-04	9.79E-07	4.31E-09	1.90E-11	8.47E-14	2.08E-16	2.08E-16
EU155	8.40E-06	2.39E-04	2.77E-04	2.83E-04	2.84E-04	2.84E-04	2.84E-04	2.84E-04	2.84E-04	2.84E-04	2.84E-04	2.84E-04
SM156	2.00E-01	1.86E-01	1.73E-01	1.60E-01	1.49E-01	1.28E-01	1.03E-01	8.26E-02	6.62E-02	5.30E-02	4.24E-02	4.24E-02
EU156	5.85E-04	9.55E-04	1.30E-03	1.61E-03	1.91E-03	2.43E-03	3.10E-03	3.58E-03	4.01E-03	4.33E-03	4.56E-03	4.56E-03
EU157	3.32E-02	1.10E-01	1.05E-01	1.00E-01	9.57E-02	8.74E-02	7.63E-02	6.66E-02	5.80E-02	5.05E-02	4.41E-02	4.41E-02
EU158	1.25E+00	5.08E-01	2.05E-01	8.33E-02	3.37E-02	5.51E-03	3.68E-04	2.44E-05	1.62E-06	1.07E-07	7.14E-09	7.14E-09
EU159	1.51E+00	1.50E-01	1.49E-02	1.48E-03	1.47E-04	1.45E-06	1.41E-09	1.38E-12	1.35E-15	1.32E-18	1.29E-21	1.29E-21
GD159	6.48E-03	2.84E-02	2.95E-02	2.86E-02	2.75E-02	2.55E-02	2.27E-02	2.03E-02	1.80E-02	1.61E-02	1.43E-02	1.43E-02
TB161	8.36E-05	6.02E-04	5.98E-04	5.96E-04	5.94E-04	5.88E-04	5.82E-04	5.74E-04	5.66E-04	5.60E-04	5.52E-04	5.52E-04
TOTAL	9.54E+03	2.08E+03	8.45E+02	5.34E+02	3.98E+02	2.70E+02	1.85E+02	1.39E+02	1.11E+02	9.06E+01	7.62E+01	7.62E+01

WASP PRIME MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.605E-12

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	1.27E-06	1.26E-06	1.24E-06	1.19E-06	1.12E-06	9.80E-07	8.61E-07	6.63E-07	3.47E-07	9.42E-08	2.56E-08	
NA 24	2.80E-02	9.24E-03	3.05E-03	1.09E-04	4.28E-07	6.54E-12	9.97E-17	2.32E-26	0.	0.	0.	0.
MN 54	3.65E-05	3.61E-05	3.61E-05	3.55E-05	3.52E-05	3.45E-05	3.39E-05	3.23E-05	2.88E-05	2.29E-05	1.83E-05	
FE 55	2.41E-05	2.41E-05	2.41E-05	2.40E-05	2.39E-05	2.38E-05	2.35E-05	2.32E-05	2.23E-05	2.08E-05	1.93E-05	
FE 59	4.55E-05	4.48E-05	4.41E-05	4.21E-05	3.90E-05	3.34E-05	2.86E-05	2.11E-05	9.78E-06	2.09E-06	4.48E-07	
CO 57	1.46E-06	1.46E-06	1.45E-06	1.45E-06	1.43E-06	1.39E-06	1.35E-06	1.29E-06	1.14E-06	8.79E-07	6.80E-07	
CO 58	1.58E-04	1.57E-04	1.55E-04	1.50E-04	1.44E-04	1.30E-04	1.18E-04	9.71E-05	5.98E-05	2.26E-05	8.54E-06	
CO 60	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.41E-05	1.40E-05	1.37E-05	1.32E-05	1.27E-05	
CU 64	1.61E+00	4.38E-01	1.19E-01	2.43E-03	3.64E-06	8.28E-12	1.87E-17	9.64E-29	0.	0.	0.	0.
CU 67	3.15E-05	2.41E-05	1.84E-05	8.17E-06	2.13E-06	1.43E-07	9.68E-09	4.40E-11	6.15E-17	0.	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	9.94E-07	9.85E-07	9.68E-07	9.49E-07	9.08E-07	8.26E-07	7.54E-07	6.26E-07	3.95E-07	1.57E-07	6.24E-08	
W187	3.34E-04	1.67E-04	8.27E-05	1.03E-05	3.17E-07	3.02E-10	2.85E-13	2.58E-21	0.	0.	0.	0.
W188	1.44E-07	1.42E-07	1.41E-07	1.37E-07	1.30E-07	1.18E-07	1.07E-07	8.73E-08	5.29E-08	1.95E-08	7.18E-09	
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	1.30E-05	9.44E-06	3.62E-06	7.34E-07	3.02E-08	1.24E-09	2.08E-12	2.43E-19	0.	0.	0.	0.
U237	2.66E-02	2.40E-02	2.17E-02	1.59E-02	9.53E-03	3.41E-03	1.22E-03	1.57E-04	9.25E-07	9.94E-11	6.70E-11	
U240	9.17E-03	2.83E-03	8.67E-04	2.51E-05	6.90E-08	5.18E-13	3.90E-18	2.20E-28	0.	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP239	7.20E-04	1.10E+00	8.18E-01	3.38E-01	7.73E-02	4.04E-03	2.12E-04	5.80E-07	2.28E-13	5.45E-23	5.45E-23	
NP240M	1.45E-05	2.84E-03	8.74E-04	2.53E-05	6.95E-08	5.24E-13	3.93E-18	2.22E-28	0.	0.	0.	0.
*AM241	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07
*CM242	1.02E-06	1.02E-06	1.01E-06	1.00E-06	9.80E-07	9.38E-07	9.00E-07	8.26E-07	6.73E-07	4.38E-07	2.86E-07	
GE 77	4.44E-03	2.80E-03	6.40E-04	7.73E-06	4.92E-09	1.99E-15	8.03E-22	1.31E-34	0.	0.	0.	0.
AS 77	4.59E-05	6.78E-03	4.90E-03	1.42E-03	1.66E-04	2.25E-06	3.06E-08	5.64E-12	2.62E-21	5.61E-40	1.20E-58	
SE 77M	1.81E-09	2.04E-05	1.47E-05	4.26E-06	4.97E-07	6.76E-09	9.18E-11	1.69E-14	7.85E-24	1.68E-42	3.62E-61	
AS 78	1.25E-02	1.11E-04	3.26E-09	2.75E-23	0.	0.	0.	0.	0.	0.	0.	0.
BR 82	3.99E-04	2.49E-04	1.56E-04	3.78E-05	3.58E-06	3.22E-08	2.89E-10	2.33E-14	1.36E-24	4.68E-45	1.59E-65	
BR 83	3.01E-01	7.92E-03	7.96E-06	8.09E-15	8.26E-30	0.	0.	0.	0.	0.	0.	0.
KR 83M	1.55E-05	3.46E-02	3.93E-05	3.54E-14	3.63E-29	0.	0.	0.	0.	0.	0.	0.
KR 85M	3.55E-03	2.03E-01	4.62E-03	5.48E-08	3.38E-16	1.29E-32	4.87E-49	0.	0.	0.	0.	0.
KR 85	3.67E-06	9.64E-05	9.83E-05	9.83E-05	9.83E-05	9.83E-05	9.83E-05	9.78E-05	9.69E-05	9.50E-05	9.36E-05	
KR 87	5.99E+01	1.18E-04	2.34E-10	1.81E-27	0.	0.	0.	0.	0.	0.	0.	0.
KR 88	3.38E+01	8.90E-02	2.34E-04	4.24E-12	5.34E-25	0.	0.	0.	0.	0.	0.	0.
RB 88	8.60E+00	9.92E-02	2.62E-04	4.75E-12	5.95E-25	0.	0.	0.	0.	0.	0.	0.
SR 89	3.17E-06	9.49E-02	9.35E-02	8.98E-02	8.43E-02	7.36E-02	6.44E-02	4.95E-02	2.53E-02	6.67E-03	1.76E-03	
SR 90	6.37E-06	6.54E-04	6.54E-04	6.54E-04	6.54E-04	6.54E-04	6.54E-04	6.54E-04	6.48E-04	6.48E-04	6.42E-04	
Y 90	9.43E-12	1.50E-04	2.65E-04	4.76E-04	6.08E-04	6.48E-04	6.54E-04	6.54E-04	6.48E-04	6.48E-04	6.42E-04	
SR 91	8.61E-01	3.08E+00	5.52E-01	3.17E-03	5.79E-07	1.97E-14	6.66E-22	7.58E-37	0.	0.	0.	0.

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WASP PRIME MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.605E-12

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	5.79E-05	1.99E+00	3.56E-01	2.05E-03	3.76E-07	1.27E-14	4.29E-22	4.89E-37	0.	0.	0.
Y 91	2.37E-08	9.47E-02	1.12E-01	1.12E-01	1.06E-01	9.37E-02	8.34E-02	6.60E-02	3.65E-02	1.13E-02	3.46E-03
SR 92	1.10E+01	1.38E-01	2.97E-04	2.98E-12	1.40E-25	0.	0.	0.	0.	0.	0.
Y 92	5.09E-01	1.44E+00	1.60E-02	1.23E-08	7.19E-19	2.46E-39	8.42E-60	0.	0.	0.	0.
Y 93	5.45E-01	3.68E+00	7.18E-01	5.40E-03	1.55E-06	1.28E-13	1.06E-20	7.23E-35	0.	0.	0.
ZR 95	1.06E-03	1.33E-01	1.31E-01	1.27E-01	1.20E-01	1.08E-01	9.72E-02	7.86E-02	4.60E-02	1.59E-02	5.44E-03
NB 95M	2.26E-11	4.49E-04	8.18E-04	1.56E-03	2.11E-03	2.22E-03	2.05E-03	1.66E-03	9.76E-04	3.36E-04	1.16E-04
NB 95	1.18E-10	2.56E-03	5.07E-03	1.21E-02	2.26E-02	3.89E-02	5.02E-02	6.23E-02	6.00E-02	2.88E-02	1.11E-02
ZR 97	2.57E+00	4.37E+00	1.64E+00	8.71E-02	6.54E-04	3.68E-08	2.07E-12	6.54E-21	3.69E-42	0.	0.
NB 97M	1.32E-02	4.20E+00	1.58E+00	8.40E-02	6.28E-04	3.54E-08	1.99E-12	6.28E-21	3.55E-42	0.	0.
NB 97	1.29E+00	4.39E+00	1.65E+00	8.75E-02	6.59E-04	3.96E-08	2.23E-12	7.07E-21	3.98E-42	0.	0.
MO 99	7.81E-03	2.54E+00	1.98E+00	9.40E-01	2.72E-01	2.27E-02	1.90E-03	1.32E-05	5.37E-11	8.85E-22	1.46E-32
TC 99M	7.26E-08	2.23E+00	1.88E+00	9.00E-01	2.60E-01	2.17E-02	1.81E-03	1.26E-05	5.12E-11	8.46E-22	1.39E-32
RU103	6.93E-05	1.58E-01	1.55E-01	1.47E-01	1.35E-01	1.13E-01	9.51E-02	6.71E-02	2.79E-02	4.84E-03	8.44E-04
RH103M	4.62E-09	1.58E-01	1.56E-01	1.48E-01	1.35E-01	1.13E-01	9.51E-02	6.71E-02	2.80E-02	4.84E-03	8.44E-04
RU105	5.13E-01	4.90E-01	1.15E-02	1.52E-07	1.11E-15	5.91E-32	3.17E-48	0.	0.	0.	0.
RH105M	3.37E-03	4.90E-01	1.16E-02	1.52E-07	1.11E-15	5.95E-32	3.18E-48	0.	0.	0.	0.
RH105	5.54E-09	1.77E+00	1.16E+00	2.88E-01	2.84E-02	2.76E-04	2.68E-06	2.53E-10	2.20E-20	1.65E-40	1.24E-60
RU106	4.48E-04	8.48E-03	8.44E-03	8.40E-03	8.33E-03	8.18E-03	8.00E-03	7.71E-03	7.01E-03	5.80E-03	4.81E-03
RH106	4.84E-06	8.48E-03	8.44E-03	8.40E-03	8.33E-03	8.18E-03	8.00E-03	7.71E-03	7.01E-03	5.80E-03	4.81E-03
PD109	6.78E-03	1.73E-01	5.03E-02	1.25E-03	2.63E-06	1.17E-11	5.22E-17	1.03E-27	0.	0.	0.
AG109M	3.91E-05	1.73E-01	5.04E-02	1.25E-03	2.64E-06	1.17E-11	5.22E-17	1.03E-27	0.	0.	0.
PD111M	8.41E-01	4.08E-02	1.98E-03	2.28E-07	6.15E-14	4.49E-27	3.30E-40	0.	0.	0.	0.
PD111	2.99E-01	3.30E-02	1.59E-03	1.83E-07	4.96E-14	3.61E-27	2.65E-40	0.	0.	0.	0.
AG111M	2.38E-03	4.30E-02	2.09E-03	2.41E-07	6.50E-14	4.77E-27	3.48E-40	0.	0.	0.	0.
AG111	8.47E-10	2.34E-02	2.25E-02	1.71E-02	1.08E-02	4.27E-03	1.69E-03	2.67E-04	2.63E-06	2.55E-10	2.47E-14
PD112	1.57E-01	7.14E-02	3.23E-02	3.00E-03	5.70E-05	2.07E-08	7.52E-12	9.87E-19	6.23E-36	0.	0.
AG112	4.74E-06	8.29E-02	3.81E-02	3.54E-03	6.76E-05	2.44E-08	8.87E-12	1.17E-18	7.33E-36	0.	0.
AG113	1.40E-03	1.48E-02	6.41E-04	5.21E-08	7.97E-15	1.87E-28	4.36E-42	0.	0.	0.	0.
CD115M	3.95E-09	1.14E-04	1.12E-04	1.07E-04	9.88E-05	8.39E-05	7.16E-05	5.17E-05	2.31E-05	4.60E-06	9.19E-07
CD115	1.52E-06	2.29E-02	1.68E-02	6.63E-03	1.40E-03	6.24E-05	2.78E-06	5.55E-09	9.81E-16	3.07E-29	9.61E-43
IN115M	1.90E-11	2.42E-02	1.83E-02	7.24E-03	1.52E-03	6.82E-05	3.04E-06	6.05E-09	1.07E-15	3.36E-29	1.05E-42
CD117	3.38E-02	7.37E-04	7.18E-07	6.70E-16	5.95E-31	0.	0.	0.	0.	0.	0.
IN117M	1.63E-06	3.06E-03	3.54E-06	3.42E-15	3.04E-30	0.	0.	0.	0.	0.	0.
IN117	6.54E-11	2.02E-03	2.39E-06	2.32E-15	2.05E-30	0.	0.	0.	0.	0.	0.
SN121	6.90E-04	3.94E-02	2.12E-02	3.35E-03	1.54E-04	3.24E-07	6.82E-10	3.04E-15	1.27E-28	0.	0.
SN123	3.73E-06	3.91E-04	3.87E-04	3.80E-04	3.70E-04	3.49E-04	3.32E-04	2.97E-04	2.25E-04	1.29E-04	7.44E-05
SN125	1.07E-02	9.91E-03	9.22E-03	7.38E-03	5.10E-03	2.44E-03	1.17E-03	2.67E-04	6.68E-06	4.20E-09	2.63E-12
SB125	6.40E-05	7.10E-05	7.77E-05	9.50E-05	1.16E-04	1.41E-04	1.52E-04	1.58E-04	1.55E-04	1.45E-04	1.35E-04
SB126	2.00E-03	1.89E-03	1.79E-03	1.52E-03	1.15E-03	6.59E-04	3.80E-04	1.25E-04	7.83E-06	3.80E-08	7.64E-09

WASP PRIME MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.605E-12

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	2.80E+00	1.01E-03	3.68E-07	1.76E-17	1.10E-34	0.	0.	0.	0.	0.	0.	0.
SB127	3.26E-02	1.34E-01	1.12E-01	6.55E-02	2.68E-02	4.48E-03	7.49E-04	2.09E-05	2.73E-09	4.66E-17	7.94E-25	
TE127M	2.64E-10	2.04E-04	3.74E-04	7.26E-04	1.00E-03	1.11E-03	1.07E-03	9.46E-04	6.90E-04	3.64E-04	1.93E-04	
TE127	1.84E-02	9.59E-02	9.41E-02	5.74E-02	2.43E-02	4.98E-03	1.70E-03	9.55E-04	6.81E-04	3.60E-04	1.91E-04	
SB128	7.92E-01	1.35E-01	2.13E-02	8.32E-05	8.07E-09	7.57E-17	7.13E-25	6.28E-41	0.	0.	0.	
SB129	4.46E+00	2.28E-01	4.77E-03	4.34E-08	1.73E-16	2.73E-33	4.30E-50	0.	0.	0.	0.	
TE129M	8.44E-08	8.89E-03	8.89E-03	8.38E-03	7.58E-03	6.18E-03	5.02E-03	3.34E-03	1.21E-03	1.57E-04	2.04E-05	
TE129	3.21E+00	2.68E-01	1.11E-02	5.37E-03	4.85E-03	3.95E-03	3.22E-03	2.14E-03	7.73E-04	1.01E-04	1.31E-05	
I130	2.13E-02	5.57E-03	1.46E-03	2.60E-05	3.18E-08	4.74E-14	7.07E-20	1.57E-31	0.	0.	0.	
TE131M	8.38E-05	2.93E-01	1.68E-01	3.19E-02	1.99E-03	7.77E-06	3.04E-08	4.64E-13	4.22E-25	0.	0.	
TE131	7.72E+01	5.35E-02	3.07E-02	5.83E-03	3.64E-04	1.42E-06	5.55E-09	8.50E-14	7.72E-26	0.	0.	
I131	1.12E-02	6.05E-01	5.72E-01	4.60E-01	3.03E-01	1.28E-01	5.41E-02	9.66E-03	1.30E-04	2.38E-08	4.33E-12	
XE131M	3.04E-11	2.80E-04	5.33E-04	1.11E-03	1.59E-03	1.57E-03	1.17E-03	4.81E-04	3.21E-05	9.61E-08	2.71E-10	
TE132	8.77E-01	1.74E+00	1.40E+00	7.39E-01	2.55E-01	3.02E-02	3.58E-03	5.02E-05	1.17E-09	6.43E-19	3.51E-28	
I132	2.15E+00	1.79E+00	1.45E+00	7.60E-01	2.62E-01	3.11E-02	3.68E-03	5.18E-05	1.21E-09	6.59E-19	3.61E-28	
I133	9.29E-01	5.18E+00	2.33E+00	2.17E-01	4.13E-03	1.50E-06	5.43E-10	7.16E-17	4.50E-34	0.	0.	
XE133M	3.95E-08	4.89E-02	5.79E-02	3.40E-02	7.97E-03	3.74E-04	1.74E-05	3.78E-08	8.27E-15	3.95E-28	1.89E-41	
XE133	6.90E-07	9.39E-01	1.26E+00	1.13E+00	6.14E-01	1.66E-01	4.46E-02	3.21E-03	4.48E-06	8.68E-12	1.69E-17	
I135	1.57E+01	2.56E+00	2.14E-01	1.24E-04	5.05E-10	8.34E-21	1.37E-31	3.72E-53	0.	0.	0.	
XE135M	1.74E+03	7.98E-01	6.67E-02	3.88E-05	1.58E-10	2.60E-21	4.28E-32	1.16E-53	0.	0.	0.	
XE135	1.81E+00	6.90E+00	1.69E+00	9.65E-03	1.18E-06	1.66E-14	2.33E-22	4.60E-38	0.	0.	0.	
CS136	6.29E-03	5.96E-03	5.65E-03	4.81E-03	3.69E-03	2.17E-03	1.27E-03	4.37E-04	3.04E-05	1.46E-07	7.10E-10	
CS137	7.75E-05	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.31E-04	8.26E-04	8.22E-04	
BA137M	1.63E-07	7.80E-04	7.80E-04	7.80E-04	7.80E-04	7.80E-04	7.80E-04	7.80E-04	7.75E-04	7.70E-04	7.66E-04	
BA139	1.06E+01	1.13E-03	6.67E-09	1.37E-24	0.	0.	0.	0.	0.	0.	0.	
BA140	1.07E-01	6.31E-01	6.00E-01	5.09E-01	3.88E-01	2.26E-01	1.31E-01	4.45E-02	2.97E-03	1.32E-05	5.85E-08	
LA140	2.54E-07	2.20E-01	3.54E-01	4.89E-01	4.35E-01	2.60E-01	1.51E-01	5.14E-02	3.41E-03	1.52E-05	6.77E-08	
LA141	1.90E+00	7.56E-01	1.06E-02	2.93E-08	1.60E-17	4.79E-36	1.43E-54	0.	0.	0.	0.	
CE141	2.35E-07	2.61E-01	2.59E-01	2.43E-01	2.18E-01	1.77E-01	1.42E-01	9.27E-02	3.18E-02	3.75E-03	4.42E-04	
LA142	1.26E+01	2.77E-03	5.36E-08	3.94E-22	0.	0.	0.	0.	0.	0.	0.	
CE143	8.23E-02	3.38E+00	2.05E+00	4.50E-01	3.62E-02	2.34E-04	1.52E-06	6.35E-11	7.17E-22	0.	0.	
PR143	2.41E-08	2.17E-01	3.37E-01	4.35E-01	3.73E-01	2.27E-01	1.37E-01	4.96E-02	3.97E-03	2.52E-05	1.60E-07	
CE144	3.26E-03	2.33E-02	2.32E-02	2.31E-02	2.28E-02	2.22E-02	2.17E-02	2.07E-02	1.83E-02	1.43E-02	1.12E-02	
PR144	8.94E-07	2.33E-02	2.32E-02	2.31E-02	2.28E-02	2.22E-02	2.17E-02	2.07E-02	1.83E-02	1.43E-02	1.12E-02	
PR145	1.31E-01	1.34E+00	8.32E-02	1.97E-05	1.80E-11	1.49E-23	1.24E-35	0.	0.	0.	0.	
ND147	1.59E-05	2.68E-01	2.52E-01	2.09E-01	1.53E-01	8.20E-02	4.38E-02	1.26E-02	5.52E-04	1.07E-06	2.08E-09	
PM147	4.42E-14	2.00E-04	3.88E-04	8.86E-04	1.53E-03	2.34E-03	2.76E-03	3.08E-03	3.11E-03	2.89E-03	2.69E-03	
ND149	2.29E+01	2.22E-03	2.15E-07	1.96E-19	1.67E-39	0.	0.	0.	0.	0.	0.	
PM149	3.19E-03	5.89E-01	4.31E-01	1.68E-01	3.51E-02	1.53E-03	6.67E-05	1.27E-07	2.00E-14	4.93E-28	1.23E-41	
PM150	2.66E-01	5.61E-04	1.18E-06	1.11E-14	4.64E-28	0.	0.	0.	0.	0.	0.	

WASP PRIME MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.605E-12

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	5.77E-02	3.93E-01	2.17E-01	3.65E-02	1.87E-03	4.91E-06	1.30E-08	8.93E-14	1.12E-26	0.	0.
SM153	1.97E-01	1.38E-01	9.71E-02	3.35E-02	5.70E-03	1.66E-04	4.82E-06	4.05E-09	8.35E-17	3.56E-32	1.51E-47
SM156	2.00E-01	3.41E-02	5.82E-03	2.87E-05	4.13E-09	8.49E-17	1.75E-24	7.45E-40	0.	0.	0.
EU155	8.40E-06	2.84E-04	2.84E-04	2.84E-04	2.83E-04	2.82E-04	2.81E-04	2.79E-04	2.73E-04	2.62E-04	2.52E-04
EU156	5.85E-04	4.76E-03	5.27E-03	4.73E-03	3.76E-03	2.36E-03	1.49E-03	5.91E-04	5.85E-05	5.76E-07	5.68E-09
EU157	3.32E-02	3.83E-02	1.29E-02	4.84E-04	2.03E-06	3.58E-11	6.34E-16	1.97E-25	0.	0.	0.
GD159	6.48E-03	1.28E-02	5.07E-03	3.16E-04	3.11E-06	3.02E-10	2.92E-14	2.74E-22	2.34E-42	0.	0.
TB161	8.36E-05	5.46E-04	4.93E-04	3.65E-04	2.21E-04	8.09E-05	2.96E-05	3.96E-06	2.62E-08	1.13E-12	4.93E-17
TOTAL	2.82E+02	6.44E+01	2.77E+01	9.62E+00	4.51E+00	2.03E+00	1.29E+00	7.30E-01	3.29E-01	1.24E-01	6.27E-02

WASP PRIME MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.605E-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	1.27E-06	1.10E-08	1.02E-09	9.48E-11	7.63E-14	6.11E-17	4.56E-21	2.93E-27	0.	0.	0.	0.
MN 54	3.65E-05	1.57E-05	1.04E-05	6.81E-06	1.95E-06	5.55E-07	1.05E-07	8.55E-09	2.01E-12	7.26E-18	2.63E-23	0.
FE 59	4.55E-05	1.64E-07	9.85E-09	5.92E-10	1.29E-13	2.78E-17	3.62E-22	1.70E-29	0.	0.	0.	0.
CO 57	1.46E-06	5.76E-07	3.61E-07	2.26E-07	5.58E-08	1.38E-08	2.12E-10	1.29E-10	1.13E-14	9.25E-21	0.	0.
CO 58	1.58E-04	4.54E-06	7.70E-07	1.30E-07	6.35E-10	3.09E-12	2.55E-15	6.05E-20	2.31E-35	0.	0.	0.
CO 60	1.42E-05	1.25E-05	1.16E-05	1.09E-05	8.93E-06	7.34E-06	5.64E-06	3.80E-06	1.02E-06	1.42E-07	1.95E-08	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	9.94E-07	3.42E-08	6.33E-09	1.17E-09	7.46E-12	4.77E-14	5.61E-17	2.28E-21	0.	0.	0.	0.
W188	1.44E-07	3.74E-09	6.07E-10	9.74E-11	4.11E-13	1.72E-15	1.17E-18	2.06E-23	0.	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	2.66E-02	6.64E-11	6.47E-11	6.30E-11	5.89E-11	5.47E-11	4.98E-11	4.32E-11	2.69E-11	1.32E-11	6.47E-12	0.
*AM241	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.44E-07	1.44E-07	1.44E-07	1.45E-07	1.46E-07	1.44E-07	1.42E-07	0.
*CM242	1.02E-06	2.17E-07	9.96E-08	4.58E-08	4.47E-09	4.35E-10	1.95E-11	1.84E-13	5.30E-18	4.94E-18	4.61E-18	0.
KR 85	3.07E-06	9.12E-05	8.84E-05	8.55E-05	7.80E-05	7.40E-05	6.19E-05	5.10E-05	2.70E-05	1.03E-05	3.94E-06	0.
SR 89	3.17E-06	7.41E-04	6.48E-05	5.69E-06	3.83E-09	2.59E-12	1.53E-16	6.94E-23	5.05E-44	0.	0.	0.
SR 90	6.37E-06	6.37E-04	6.31E-04	6.25E-04	6.02E-04	5.79E-04	5.51E-04	5.12E-04	4.00E-04	2.76E-04	1.91E-04	0.
Y 90	9.43E-12	6.37E-04	6.31E-04	6.25E-04	6.02E-04	5.79E-04	5.51E-04	5.12E-04	4.00E-04	2.76E-04	1.91E-04	0.
Y 91	2.37E-08	1.60E-03	1.86E-04	2.17E-05	3.39E-08	5.33E-11	9.74E-15	2.39E-20	4.83E-39	0.	0.	0.
ZR 95	1.06E-03	2.72E-03	3.89E-04	5.53E-05	1.61E-07	4.70E-10	1.94E-13	1.64E-18	2.01E-35	0.	0.	0.
NB 95M	2.26E-11	5.77E-05	8.23E-06	1.18E-06	3.42E-09	9.95E-12	4.12E-15	3.48E-20	4.26E-37	0.	0.	0.
NB 95	1.18E-10	5.86E-03	8.42E-04	1.20E-04	3.48E-07	1.01E-09	4.21E-13	3.56E-18	4.36E-35	0.	0.	0.
RU103	6.93E-05	2.69E-04	1.10E-05	4.53E-07	3.09E-11	2.12E-15	5.96E-21	2.80E-29	0.	0.	0.	0.
RH103M	4.62E-09	2.70E-04	1.10E-05	4.53E-07	3.10E-11	2.12E-15	5.96E-21	2.80E-29	0.	0.	0.	0.
RH106	4.48E-04	4.26E-03	3.01E-03	2.14E-03	7.60E-04	2.70E-04	6.79E-05	8.59E-06	8.66E-09	2.79E-13	8.96E-18	0.
RH106	4.84E-06	4.26E-03	3.01E-03	2.14E-03	7.60E-04	2.70E-04	6.79E-05	8.59E-06	8.66E-09	2.79E-13	8.96E-18	0.
SN123	3.73E-06	5.17E-05	1.88E-05	6.82E-06	3.27E-07	1.57E-08	2.73E-10	6.30E-13	1.01E-21	6.31E-35	4.18E-48	0.
SB125	6.40E-05	1.29E-04	1.13E-04	9.97E-05	6.79E-05	4.62E-05	2.76E-05	1.28E-05	9.83E-07	2.09E-08	4.46E-10	0.
TE125M	1.72E-12	5.26E-05	4.68E-05	4.12E-05	2.81E-05	1.91E-05	1.14E-05	5.29E-06	4.07E-07	8.66E-09	1.84E-10	0.
TE127M	2.64E-10	1.26E-04	3.95E-05	1.24E-05	3.81E-07	1.17E-08	1.13E-10	1.06E-13	8.70E-24	6.50E-39	4.84E-54	0.
TE127	1.84E-02	1.25E-04	3.91E-05	1.22E-05	3.76E-07	1.16E-08	1.11E-10	1.05E-13	8.61E-24	6.41E-39	4.80E-54	0.
CS137	7.75E-05	8.17E-04	8.08E-04	7.98E-04	7.70E-04	7.43E-04	7.10E-04	6.64E-04	5.24E-04	3.73E-04	2.63E-04	0.
BA137M	1.63E-07	7.66E-04	7.57E-04	7.47E-04	7.19E-04	6.96E-04	6.64E-04	6.22E-04	4.92E-04	3.48E-04	2.46E-04	0.
CE141	2.35E-07	1.02E-04	2.04E-06	4.10E-08	3.34E-13	2.72E-18	4.46E-25	2.96E-35	0.	0.	0.	0.
CE144	3.26E-03	9.57E-03	6.16E-03	3.93E-03	1.03E-03	2.71E-04	4.56E-05	3.15E-06	4.24E-10	6.64E-16	1.04E-21	0.
PR144	8.94E-07	9.57E-03	6.16E-03	3.93E-03	1.03E-03	2.71E-04	4.56E-05	3.15E-06	4.24E-10	6.64E-16	1.04E-21	0.
PM147	4.42E-14	2.57E-03	2.25E-03	1.97E-03	1.32E-03	8.91E-04	5.23E-04	2.38E-04	1.69E-05	3.19E-07	6.03E-09	0.
EU155	8.40E-06	2.46E-04	2.28E-04	2.13E-04	1.71E-04	1.37E-04	1.02E-04	6.62E-05	1.55E-05	1.74E-06	1.96E-07	0.
TOTAL	5.03E-02	4.56E-02	2.55E-02	1.76E-02	7.96E-03	4.85E-03	3.44E-03	2.71E-03	1.88E-03	1.29E-03	8.96E-04	0.

**APPENDIX J**  
**DETAILED RESULTS FOR EVENT HA**

HA  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.603E-12

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.08E+02	9.52E+03
1.00E+00	3.27E+01	2.08E+03
2.00E+00	1.31E+01	8.44E+02
3.00E+00	7.21E+00	5.34E+02
4.00E+00	4.59E+00	3.99E+02
6.00E+00	2.43E+00	2.70E+02
9.00E+00	1.41E+00	1.85E+02
1.20E+01	1.00E+00	1.40E+02
1.50E+01	7.75E-01	1.11E+02
1.80E+01	6.28E-01	9.07E+01
2.10E+01	5.23E-01	7.63E+01
1.00E+00 DAYS	4.38E-01	6.45E+01
2.00E+00	1.88E-01	2.77E+01
5.00E+00	6.81E-02	9.60E+00
1.00E+01	3.35E-02	4.50E+00
2.00E+01	1.46E-02	2.02E+00
3.00E+01	8.78E-03	1.29E+00
5.00E+01	4.34E-03	7.29E-01
1.00E+02	1.72E-03	3.28E-01
2.00E+02	6.31E-04	1.24E-01
3.00E+02	2.44E-04	6.26E-02
1.00E+00 YEARS	1.39E-04	4.55E-02
1.50E+00	3.93E-05	2.55E-02
2.00E+00	2.15E-05	1.76E-02
3.50E+00	1.19E-05	7.96E-03
5.00E+00	9.12E-06	4.86E-03
7.00E+00	7.66E-06	3.44E-03
1.00E+01	6.69E-06	2.71E-03
2.00E+01	4.98E-06	1.88E-03
3.50E+01	3.47E-06	1.28E-03
5.00E+01	2.44E-06	8.95E-04

HA  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.603E-12

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	3.17E-07	3.17E-07	3.17E-07	3.17E-07	3.17E-07	3.17E-07	3.17E-07	3.16E-07	3.15E-07	3.15E-07	3.14E-07	3.14E-07
NA 24	2.89E-02	2.76E-02	2.64E-02	2.52E-02	2.40E-02	2.19E-02	1.91E-02	1.66E-02	1.45E-02	1.26E-02	1.09E-02	1.09E-02
MN 54	1.47E-05	1.47E-05	1.47E-05	1.47E-05	1.47E-05	1.47E-05	1.47E-05	1.46E-05	1.46E-05	1.46E-05	1.46E-05	1.46E-05
FE 55	6.27E-05	6.27E-05	6.27E-05	6.27E-05	6.27E-05	6.27E-05	6.27E-05	6.27E-05	6.27E-05	6.27E-05	6.27E-05	6.27E-05
FE 59	1.41E-04	1.41E-04	1.41E-04	1.41E-04	1.41E-04	1.41E-04	1.40E-04	1.40E-04	1.39E-04	1.39E-04	1.39E-04	1.39E-04
CO 57	1.95E-06	1.95E-06	1.95E-06	1.95E-06	1.95E-06	1.95E-06	1.95E-06	1.95E-06	1.95E-06	1.95E-06	1.95E-06	1.95E-06
CO 58	3.10E-04	3.10E-04	3.10E-04	3.10E-04	3.09E-04	3.09E-04	3.08E-04	3.08E-04	3.08E-04	3.08E-04	3.07E-04	3.07E-04
CO 60	3.59E-05	3.59E-05	3.59E-05	3.59E-05	3.59E-05	3.59E-05	3.59E-05	3.59E-05	3.59E-05	3.59E-05	3.59E-05	3.59E-05
CU 64	2.28E+00	2.16E+00	2.05E+00	1.94E+00	1.84E+00	1.65E+00	1.40E+00	1.19E+00	1.01E+00	8.62E-01	7.33E-01	7.33E-01
CU 67	2.81E-05	2.79E-05	2.74E-05	2.72E-05	2.69E-05	2.62E-05	2.53E-05	2.45E-05	2.38E-05	2.28E-05	2.22E-05	2.22E-05
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	1.59E-06	1.59E-06	1.59E-06	1.59E-06	1.59E-06	1.59E-06	1.59E-06	1.58E-06	1.58E-06	1.58E-06	1.58E-06	1.58E-06
W187	2.00E-04	1.94E-04	1.88E-04	1.83E-04	1.78E-04	1.68E-04	1.54E-04	1.41E-04	1.29E-04	1.19E-04	1.09E-04	1.09E-04
W188	4.11E-08	4.11E-08	4.11E-08	4.10E-08	4.10E-08	4.10E-08	4.09E-08	4.09E-08	4.08E-08	4.08E-08	4.07E-08	4.07E-08
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	1.11E-05	1.10E-05	1.08E-05	1.07E-05	1.05E-05	1.03E-05	9.90E-06	9.51E-06	9.12E-06	8.73E-06	8.42E-06	8.42E-06
U237	2.88E-02	2.87E-02	2.86E-02	2.85E-02	2.83E-02	2.81E-02	2.77E-02	2.74E-02	2.70E-02	2.66E-02	2.63E-02	2.63E-02
U239	2.01E+02	3.43E+01	5.85E+00	9.97E-01	1.69E-01	4.93E-03	2.44E-05	1.21E-07	5.97E-10	2.95E-12	1.46E-14	1.46E-14
U240	8.65E-03	8.24E-03	7.85E-03	7.47E-03	7.11E-03	6.44E-03	5.56E-03	4.79E-03	4.14E-03	3.57E-03	3.07E-03	3.07E-03
NP239	6.88E-04	1.15E+00	1.33E+00	1.35E+00	1.34E+00	1.31E+00	1.26E+00	1.22E+00	1.17E+00	1.13E+00	1.09E+00	1.09E+00
NP240M	1.37E-05	8.28E-03	7.92E-03	7.54E-03	7.18E-03	6.49E-03	5.61E-03	4.84E-03	4.17E-03	3.60E-03	3.11E-03	3.11E-03
NP240	3.47E-13	1.78E-13	9.26E-14	4.78E-14	2.47E-14	6.61E-15	9.11E-16	1.26E-16	1.73E-17	2.39E-18	3.30E-19	3.30E-19
*AM241	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07
*CM242	4.08E-07	4.08E-07	4.08E-07	4.08E-07	4.08E-07	4.08E-07	4.06E-07	4.06E-07	4.06E-07	4.06E-07	4.06E-07	4.06E-07
GE 75	6.55E-06	3.17E-02	1.91E-02	1.15E-02	6.93E-03	2.51E-03	5.49E-04	1.20E-04	2.62E-05	5.72E-06	1.25E-06	1.25E-06
GE 77	4.44E-03	1.14E-02	1.08E-02	1.01E-02	9.52E-03	8.42E-03	7.00E-03	5.82E-03	4.85E-03	4.03E-03	3.35E-03	3.35E-03
AS 77	4.59E-05	7.25E-03	7.33E-03	7.38E-03	7.43E-03	7.48E-03	7.48E-03	7.43E-03	7.31E-03	7.17E-03	6.99E-03	6.99E-03
SE 77M	1.81E-09	2.17E-05	2.20E-05	2.22E-05	2.22E-05	2.24E-05	2.25E-05	2.24E-05	2.20E-05	2.15E-05	2.09E-05	2.09E-05
GE 78	6.94E-01	4.34E-01	2.70E-01	1.69E-01	1.05E-01	4.10E-02	9.95E-03	2.41E-03	5.88E-04	1.43E-04	3.47E-05	3.47E-05
AS 78	1.25E-02	2.07E-01	2.55E-01	2.39E-01	2.00E-01	1.18E-01	4.39E-02	1.46E-02	4.51E-03	1.35E-03	3.90E-04	3.90E-04
AS 79	1.35E+01	1.33E-01	1.31E-03	1.29E-05	1.27E-07	1.23E-11	1.17E-17	1.12E-23	1.06E-29	1.02E-35	9.71E-42	9.71E-42
SE 79M	1.99E-02	2.34E-01	2.31E-03	2.27E-05	2.24E-07	2.16E-11	2.06E-17	1.97E-23	1.88E-29	1.79E-35	1.71E-41	1.71E-41
BR 80	8.23E-02	7.77E-03	7.30E-04	6.87E-05	6.47E-06	5.73E-08	4.80E-11	4.00E-14	3.33E-17	2.78E-20	2.32E-23	2.32E-23
SE 81M	6.67E-02	3.11E+00	1.50E+00	7.22E-01	3.47E-01	8.11E-02	9.08E-03	1.02E-03	1.14E-04	1.28E-05	1.43E-06	1.43E-06
SE 81	8.15E-01	3.68E+00	2.13E+00	1.06E+00	5.16E-01	1.20E-01	1.35E-02	1.51E-03	1.69E-04	1.90E-05	2.12E-06	2.12E-06
BR 82	3.99E-04	3.91E-04	3.83E-04	3.76E-04	3.69E-04	3.54E-04	3.34E-04	3.15E-04	2.97E-04	2.80E-04	2.64E-04	2.64E-04
SE 83	3.62E+01	6.85E+00	1.30E+00	2.46E-01	4.65E-02	1.68E-03	1.14E-05	7.74E-08	5.29E-10	3.58E-12	2.28E-14	2.28E-14
BR 83	3.00E-01	4.48E+00	4.15E+00	3.27E+00	2.48E+00	1.40E+00	5.92E-01	2.49E-01	1.05E-01	4.44E-02	1.87E-02	1.87E-02
KR 83M	1.55E-05	1.02E+00	2.07E+00	2.58E+00	2.66E+00	2.22E+00	1.31E+00	6.73E-01	3.24E-01	1.50E-01	6.73E-02	6.73E-02

J-3

HA MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.603E-12

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	7.56E-02	1.30E+01	3.52E+00	9.54E-01	2.58E-01	1.88E-02	3.73E-04	7.36E-06	1.46E-07	2.88E-09	5.69E-11	
KR 85M	3.54E-03	7.60E+00	6.47E+00	5.52E+00	4.72E+00	3.45E+00	2.15E+00	1.34E+00	8.35E-01	5.19E-01	3.24E-01	
KR 87	5.99E+01	3.46E+01	2.00E+01	1.16E+01	6.67E+00	2.24E+00	4.34E-01	8.40E-02	1.63E-02	3.15E-03	6.09E-04	
KR 88	3.38E+01	2.64E+01	2.06E+01	1.61E+01	1.26E+01	7.62E+00	3.64E+00	1.73E+00	8.23E-01	3.92E-01	1.87E-01	
RB 88	8.59E+00	2.67E+01	2.28E+01	1.79E+01	1.40E+01	8.54E+00	4.08E+00	1.94E+00	9.25E-01	4.40E-01	2.09E-01	
RB 89	4.13E+01	3.88E+01	2.61E+00	1.75E-01	1.17E-02	5.32E-05	1.61E-08	4.86E-12	1.48E-15	4.48E-19	1.36E-22	
SR 89	3.16E-06	1.11E-01	1.18E-01	1.18E-01	1.18E-01	1.18E-01	1.18E-01	1.18E-01	1.18E-01	1.17E-01	1.17E-01	
SR 90	6.36E-06	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	
SR 91	8.60E-01	1.60E+01	1.49E+01	1.39E+01	1.29E+01	1.12E+01	9.03E+00	7.30E+00	5.90E+00	4.73E+00	3.82E+00	
Y 91M	5.79E-05	5.52E+00	7.52E+00	8.06E+00	7.95E+00	7.14E+00	5.84E+00	4.70E+00	3.79E+00	3.06E+00	2.47E+00	
Y 91	2.37E-08	4.91E-03	1.13E-02	1.81E-02	2.47E-02	3.69E-02	5.25E-02	6.49E-02	7.52E-02	8.33E-02	8.98E-02	
SR 92	1.10E+01	4.92E+01	3.82E+01	2.95E+01	2.29E+01	1.37E+01	6.36E+00	2.95E+00	1.37E+00	6.36E-01	2.96E-01	
SR 92	5.08E+01	1.04E+01	1.63E+01	1.93E+01	2.05E+01	1.95E+01	1.50E+01	1.02E+01	6.56E+00	4.04E+00	2.44E+00	
SR 93	4.46E+02	7.68E+00	4.24E-02	2.35E-04	1.29E-06	3.95E-11	6.67E-18	1.12E-24	1.90E-31	3.20E-38	5.39E-45	
Y 93	5.45E-01	1.76E+01	1.65E+01	1.55E+01	1.45E+01	1.26E+01	1.03E+01	8.40E+00	6.82E+00	5.60E+00	4.55E+00	
Y 94	6.50E+01	8.88E+01	1.14E+01	1.47E+00	1.90E-01	3.16E-03	6.77E-06	1.45E-08	3.10E-11	6.77E-14	3.75E-15	
Y 95	2.82E+02	2.66E+01	5.85E-01	1.29E-02	2.84E-04	1.38E-07	1.48E-12	1.58E-17	1.69E-22	1.80E-27	1.93E-32	
ZR 95	1.06E-03	1.38E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.41E-01	1.40E-01	1.40E-01	
NB 95	1.18E-10	8.55E-05	1.99E-04	3.13E-04	4.27E-04	6.55E-04	9.94E-04	1.34E-03	1.67E-03	2.01E-03	2.35E-03	
ZR 97	2.57E+00	1.12E+01	1.07E+01	1.03E+01	9.85E+00	9.10E+00	8.04E+00	7.11E+00	6.31E+00	5.56E+00	4.95E+00	
NB 97M	1.32E-02	1.07E+01	1.03E+01	9.89E+00	9.49E+00	8.74E+00	7.73E+00	6.84E+00	6.05E+00	5.34E+00	4.72E+00	
NB 97	1.28E+00	5.61E+00	7.90E+00	9.01E+00	9.45E+00	9.41E+00	8.57E+00	7.64E+00	6.76E+00	5.96E+00	5.30E+00	
NB 98	1.46E+01	6.47E+00	2.86E+00	1.27E+00	5.61E-01	1.10E-01	9.50E-03	8.20E-04	7.15E-05	6.19E-06	5.32E-07	
MO 99	7.80E-03	3.22E+00	3.19E+00	3.16E+00	3.12E+00	3.06E+00	2.97E+00	2.87E+00	2.79E+00	2.70E+00	2.62E+00	
TC 99M	7.26E-08	3.07E-01	5.76E-01	8.15E-01	1.02E+00	1.37E+00	1.73E+00	1.97E+00	2.11E+00	2.19E+00	2.23E+00	
MO101	1.14E+02	5.13E+01	2.98E+00	1.73E-01	1.00E-02	3.36E-05	6.52E-09	1.27E-12	2.47E-16	4.80E-20	9.35E-24	
TC101	4.80E+00	1.44E+02	1.57E+01	1.29E+00	9.40E-02	4.24E-04	1.06E-07	2.37E-11	5.04E-15	1.04E-18	2.10E-22	
MO102	9.52E+02	2.17E+01	4.94E-01	1.13E-02	2.57E-04	1.34E-07	1.59E-12	1.89E-17	2.23E-22	2.65E-27	3.15E-32	
TC102M	6.12E-01	1.84E+01	4.21E-01	9.61E-03	2.19E-04	1.13E-07	1.35E-12	1.60E-17	1.89E-22	2.24E-27	2.67E-32	
TC102	2.86E+03	1.09E+01	2.49E-01	5.67E-03	1.30E-04	6.75E-08	8.02E-13	9.52E-18	1.13E-22	1.34E-27	1.59E-32	
RU103	6.93E-05	1.61E-01	1.60E-01	1.60E-01	1.60E-01	1.60E-01	1.59E-01	1.59E-01	1.59E-01	1.59E-01	1.58E-01	
RH103M	4.62E-09	8.30E-02	1.23E-01	1.43E-01	1.52E-01	1.58E-01	1.59E-01	1.59E-01	1.59E-01	1.59E-01	1.59E-01	
TC104	6.13E+01	4.40E+01	4.40E+00	4.36E-01	4.31E-02	4.25E-04	4.15E-07	4.05E-10	3.96E-13	3.87E-16	3.78E-19	
RU105	5.12E-01	1.77E+01	1.51E+01	1.30E+01	1.11E+01	8.11E+00	5.08E+00	3.18E+00	1.99E+00	1.24E+00	7.81E-01	
RH105M	3.37E-03	1.78E+01	1.52E+01	1.30E+01	1.11E+01	8.15E+00	5.08E+00	3.19E+00	2.00E+00	1.25E+00	7.81E-01	
RH105	5.53E-09	3.60E-01	6.69E-01	9.23E-01	1.14E+00	1.45E+00	1.74E+00	1.87E+00	1.91E+00	1.89E+00	1.84E+00	
RU106	4.47E-04	8.47E-03	8.47E-03	8.47E-03	8.47E-03	8.47E-03	8.47E-03	8.47E-03	8.47E-03	8.47E-03	8.47E-03	
RH106	4.84E-06	8.47E-03	8.47E-03	8.47E-03	8.47E-03	8.47E-03	8.47E-03	8.47E-03	8.47E-03	8.47E-03	8.47E-03	
RH107	1.17E-01	1.59E+01	2.41E+00	3.63E-01	5.47E-02	1.25E-03	4.30E-06	1.48E-08	5.11E-11	1.75E-146	1.74E-17	
PD107M	2.43E-04	3.24E+00	4.89E-01	7.39E-02	1.11E-02	2.54E-04	8.76E-07	3.02E-09	1.04E-11	3.58E-14	1.22E-16	



HA MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.603E-12

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	6.78E-03	5.62E-01	5.34E-01	5.06E-01	4.81E-01	4.34E-01	3.73E-01	3.20E-01	2.74E-01	2.35E-01	2.02E-01
AG109M	3.91E-05	5.62E-01	5.34E-01	5.08E-01	4.82E-01	4.35E-01	3.73E-01	3.20E-01	2.74E-01	2.35E-01	2.02E-01
PD111M	8.40E-01	7.40E-01	6.52E-01	5.77E-01	5.08E-01	3.95E-01	2.70E-01	1.85E-01	1.27E-01	8.69E-02	5.96E-02
PD111	2.99E-01	5.39E-01	5.17E-01	4.61E-01	4.08E-01	3.17E-01	2.17E-01	1.49E-01	1.02E-01	6.99E-02	4.80E-02
AG111M	2.38E-03	7.27E-01	6.84E-01	6.11E-01	5.39E-01	4.17E-01	2.85E-01	1.95E-01	1.34E-01	9.19E-02	6.27E-02
AG111	8.47E-10	2.51E-03	5.27E-03	7.74E-03	9.94E-03	1.35E-02	1.74E-02	1.99E-02	2.16E-02	2.26E-02	2.33E-02
PD112	1.57E-01	1.52E-01	1.47E-01	1.42E-01	1.38E-01	1.29E-01	1.17E-01	1.06E-01	9.58E-02	8.67E-02	7.85E-02
AG112	4.73E-06	3.01E-02	5.31E-02	7.13E-02	8.47E-02	1.02E-01	1.12E-01	1.11E-01	1.06E-01	9.86E-02	9.10E-02
AG113	1.40E-03	3.00E-01	2.63E-01	2.31E-01	2.02E-01	1.56E-01	1.05E-01	7.12E-02	4.80E-02	3.24E-02	2.19E-02
AG115	4.82E-01	5.17E-01	6.43E-02	8.04E-03	1.01E-03	1.57E-05	3.07E-08	6.01E-11	1.16E-13	1.16E-16	1.07E-16
CD115M	3.94E-09	1.05E-04	1.18E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.19E-04	1.18E-04	1.18E-04	1.18E-04
CD115	1.52E-06	2.87E-02	3.09E-02	3.08E-02	3.04E-02	2.97E-02	2.85E-02	2.74E-02	2.64E-02	2.54E-02	2.44E-02
IN115M	1.90E-11	3.17E-03	7.04E-03	1.04E-02	1.33E-02	1.78E-02	2.19E-02	2.41E-02	2.52E-02	2.54E-02	2.52E-02
CD117	3.38E-02	5.62E-01	4.24E-01	3.16E-01	2.37E-01	1.33E-01	5.58E-02	2.35E-02	9.90E-03	4.16E-03	1.75E-03
IN117M	1.62E-06	1.96E-01	2.83E-01	3.07E-01	2.97E-01	2.34E-01	1.34E-01	6.85E-02	3.29E-02	1.52E-02	6.89E-03
IN117	6.53E-11	3.57E-02	8.63E-02	1.20E-01	1.34E-01	1.23E-01	7.84E-02	4.20E-02	2.09E-02	9.82E-03	4.52E-03
CD118	2.23E+00	9.55E-01	4.10E-01	1.75E-01	7.48E-02	1.37E-02	1.07E-03	8.40E-05	6.61E-06	5.17E-07	4.06E-08
IN118	1.48E-01	9.55E-01	4.10E-01	1.75E-01	7.48E-02	1.37E-02	1.07E-03	8.44E-05	6.61E-06	5.17E-07	4.06E-08
CD119	5.56E+00	8.68E-02	1.35E-03	2.12E-05	3.31E-07	8.09E-11	3.08E-16	1.18E-21	4.48E-27	1.71E-32	6.56E-38
IN119M	8.38E-03	9.38E-01	1.02E-01	1.03E-02	1.03E-03	1.01E-05	9.84E-09	9.63E-12	9.38E-15	9.17E-18	8.97E-21
IN119	4.13E-01	4.94E-02	5.73E-03	5.81E-04	5.81E-05	5.69E-07	5.56E-10	5.44E-13	5.31E-16	5.19E-19	5.06E-22
SN121	6.90E-04	7.10E-02	6.90E-02	6.74E-02	6.57E-02	6.25E-02	5.76E-02	5.36E-02	4.95E-02	4.58E-02	4.26E-02
SN123M	3.97E-01	7.43E-01	2.63E-01	9.31E-02	3.29E-02	4.11E-03	1.82E-04	8.04E-06	3.56E-07	1.57E-08	6.95E-10
SN123	3.73E-06	3.90E-04	3.90E-04	3.90E-04	3.90E-04	3.90E-04	3.90E-04	3.90E-04	3.90E-04	3.90E-04	3.90E-04
SN125	1.07E-02	1.06E-02	1.06E-02	1.06E-02	1.05E-02	1.05E-02	1.04E-02	1.03E-02	1.02E-02	1.01E-02	9.99E-03
SB125	6.40E-05	6.43E-05	6.45E-05	6.48E-05	6.51E-05	6.56E-05	6.68E-05	6.76E-05	6.84E-05	6.93E-05	7.01E-05
SB126	2.00E-03	1.99E-03	1.99E-03	1.99E-03	1.98E-03	1.97E-03	1.96E-03	1.95E-03	1.93E-03	1.92E-03	1.91E-03
SN127	2.79E+00	2.01E+00	1.44E+00	1.04E+00	7.48E-01	3.86E-01	1.43E-01	5.33E-02	1.98E-02	7.35E-03	2.73E-03
SB127	3.26E-02	1.12E-01	1.25E-01	1.33E-01	1.38E-01	1.44E-01	1.46E-01	1.45E-01	1.43E-01	1.40E-01	1.37E-01
TE127	1.84E-02	2.29E-02	2.79E-02	3.31E-02	3.82E-02	4.79E-02	6.14E-02	7.17E-02	7.97E-02	8.60E-02	9.00E-02
SN128	1.88E+01	9.26E+00	4.58E+00	2.26E+00	1.12E+00	2.73E-01	3.30E-02	3.98E-03	4.80E-04	5.82E-05	7.02E-06
SB128M	9.56E-03	1.06E+01	5.48E+00	2.70E+00	1.33E+00	3.27E-01	3.93E-02	4.75E-03	5.72E-04	6.92E-05	8.36E-06
SB128	7.91E-01	7.62E-01	7.17E-01	6.72E-01	6.27E-01	5.38E-01	4.29E-01	3.40E-01	2.70E-01	2.15E-01	1.70E-01
SN129M	1.19E+01	5.92E+00	2.97E+00	1.48E+00	7.42E-01	1.86E-01	2.32E-02	2.90E-03	3.63E-04	4.53E-05	5.67E-06
SN129	7.93E+01	7.77E-01	7.67E-03	7.57E-05	7.42E-07	7.22E-11	6.87E-17	6.57E-23	6.27E-29	5.97E-35	5.72E-41
SB129	4.46E+00	7.47E+00	7.02E+00	6.27E+00	5.52E+00	4.10E+00	2.55E+00	1.58E+00	9.73E-01	6.02E-01	3.70E-01
TE129M	8.43E-08	9.33E-04	1.92E-03	2.82E-03	3.63E-03	4.92E-03	6.22E-03	7.02E-03	7.52E-03	7.82E-03	8.03E-03
TE129	3.21E+00	4.41E+00	5.17E+00	5.37E+00	5.17E+00	4.28E+00	2.85E+00	1.80E+00	1.12E+00	6.92E-01	4.29E-01
SB130M	4.46E-01	8.41E-01	2.21E-03	5.80E-06	1.53E-08	1.05E-13	1.92E-21	3.49E-29	6.33E-37	1.15E-44	2.09E-52
SB130	7.64E+01	2.31E+01	6.58E+00	1.86E+00	5.27E-01	4.24E-02	9.67E-04	2.21E-05	5.03E-07	1.15E-08	2.62E-10

HA MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.603E-12

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	2.13E-02	2.01E-02	1.91E-02	1.80E-02	1.70E-02	1.52E-02	1.29E-02	1.09E-02	9.19E-03	7.79E-03	6.58E-03
SB131	1.74E+02	4.55E+01	7.43E+00	1.22E+00	2.00E-01	5.39E-03	2.37E-05	1.05E-07	4.62E-10	2.04E-12	1.02E-14
TE131M	8.38E-05	4.38E-01	5.00E-01	5.00E-01	4.91E-01	4.69E-01	4.38E-01	4.08E-01	3.81E-01	3.56E-01	3.32E-01
TE131	7.71E+01	8.38E+01	2.73E+01	7.10E+00	1.73E+00	1.62E-01	8.04E-02	7.43E-02	6.93E-02	6.49E-02	6.05E-02
I131	1.12E-02	3.88E-01	5.71E-01	6.27E-01	6.38E-01	6.43E-01	6.43E-01	6.38E-01	6.38E-01	6.32E-01	6.32E-01
TE132	8.76E-01	2.13E+00	2.11E+00	2.09E+00	2.07E+00	2.03E+00	1.98E+00	1.93E+00	1.88E+00	1.83E+00	1.78E+00
I132	2.15E+00	2.14E+00	2.14E+00	2.13E+00	2.11E+00	2.09E+00	2.04E+00	1.99E+00	1.93E+00	1.88E+00	1.84E+00
TE133M	1.06E-01	3.69E+01	1.61E+01	7.00E+00	3.04E+00	5.78E-01	4.76E-02	3.92E-03	3.23E-04	2.67E-05	2.20E-06
TE133	5.98E+02	3.39E+01	3.77E+00	1.25E+00	5.27E-01	9.99E-02	8.26E-03	6.79E-04	5.63E-05	4.63E-06	3.82E-07
I133	9.28E-01	9.99E+00	1.08E+01	1.08E+01	1.06E+01	1.00E+01	9.13E+00	8.26E+00	7.45E+00	6.79E+00	6.14E+00
XE133M	3.95E-08	2.25E-03	5.43E-03	8.67E-03	1.18E-02	1.77E-02	2.57E-02	3.26E-02	3.84E-02	4.35E-02	4.76E-02
XE133	6.90E-07	3.92E-02	9.53E-02	1.52E-01	2.09E-01	3.16E-01	4.64E-01	5.93E-01	7.10E-01	8.11E-01	9.03E-01
TE134	1.88E+02	8.73E+01	3.25E+01	1.21E+01	4.48E+00	6.21E-01	3.18E-02	1.63E-03	8.33E-05	4.28E-06	2.19E-07
I134	8.63E+01	1.15E+02	8.09E+01	4.74E+01	2.54E+01	6.46E+00	7.10E-01	7.25E-02	7.10E-03	6.80E-04	6.46E-05
I135	1.57E+01	2.76E+01	2.49E+01	2.24E+01	2.03E+01	1.64E+01	1.21E+01	8.83E+00	6.48E+00	4.77E+00	3.49E+00
XE135M	1.73E-03	7.97E+00	7.75E+00	7.03E+00	6.30E+00	5.13E+00	3.77E+00	2.76E+00	2.03E+00	1.49E+00	1.09E+00
XE135	1.81E+00	3.57E+00	5.22E+00	6.57E+00	7.66E+00	9.19E+00	1.02E+01	1.02E+01	9.73E+00	8.87E+00	7.93E+00
CS136	6.28E-03	6.26E-03	6.25E-03	6.24E-03	6.22E-03	6.19E-03	6.15E-03	6.11E-03	6.07E-03	6.03E-03	5.99E-03
CS137	7.74E-05	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04
BA137M	1.63E-07	7.79E-04	7.79E-04	7.79E-04	7.79E-04	7.79E-04	7.79E-04	7.79E-04	7.79E-04	7.79E-04	7.79E-04
XE138	5.86E+02	5.04E+01	4.38E+00	3.80E-01	3.29E-02	2.47E-04	1.60E-07	1.04E-10	6.77E-14	4.39E-17	2.86E-20
CS138	8.72E+01	1.47E+02	5.09E+01	1.49E+01	4.19E+00	3.19E-01	6.63E-03	1.38E-04	2.86E-06	5.95E-08	1.23E-09
CS139	5.72E+02	1.83E+01	2.29E-01	2.88E-03	3.61E-05	5.67E-09	1.13E-14	2.23E-20	4.41E-26	8.75E-32	1.73E-37
BA139	1.06E+01	1.18E+02	7.27E+01	4.41E+01	2.67E+01	9.80E+00	2.17E+00	4.83E-01	1.07E-01	2.38E-02	5.28E-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	6.40E-01	6.35E-01
LA140	2.54E-07	1.14E-02	2.26E-02	3.35E-02	4.42E-02	6.51E-02	9.50E-02	1.23E-01	1.49E-01	1.74E-01	1.98E-01
BA141	2.06E+02	6.22E+01	6.18E+00	6.13E-01	6.08E-02	6.03E-04	5.88E-07	5.73E-10	5.59E-13	5.49E-16	5.34E-19
LA141	1.90E+00	4.03E+01	3.76E+01	3.19E+01	2.67E+01	1.87E+01	1.10E+01	6.42E+00	3.78E+00	2.22E+00	1.30E+00
CE141	2.35E-07	2.62E-02	6.13E-02	9.21E-02	1.18E-01	1.58E-01	1.97E-01	2.19E-01	2.31E-01	2.39E-01	2.43E-01
BA142	5.49E+02	2.18E+01	4.98E-01	1.14E-02	2.59E-04	1.35E-07	1.60E-12	1.89E-17	2.25E-22	2.67E-27	3.16E-32
LA142	1.26E+01	8.75E+01	5.77E+01	3.67E+01	2.34E+01	9.45E+00	2.44E+00	6.28E-01	1.62E-01	4.17E-02	1.08E-02
LA143	2.06E+02	4.01E+01	2.06E+00	1.06E-01	5.43E-03	1.42E-05	1.92E-09	2.59E-13	3.49E-17	4.70E-21	6.35E-25
CE143	8.22E-02	5.24E+00	5.43E+00	5.29E+00	5.19E+00	5.00E+00	4.68E+00	4.40E+00	4.13E+00	3.88E+00	3.64E+00
PR143	2.40E-08	8.03E-03	1.94E-02	3.06E-02	4.16E-02	6.30E-02	9.28E-02	1.21E-01	1.47E-01	1.72E-01	1.94E-01
CE144	3.26E-03	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02
PR144	8.93E-07	2.12E-02	2.31E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02
PR145	1.31E-01	1.93E+01	1.72E+01	1.53E+01	1.36E+01	1.08E+01	7.61E+00	5.37E+00	3.81E+00	2.69E+00	1.90E+00
CE146	3.85E+02	1.97E+01	1.01E+00	5.17E-02	2.66E-03	7.01E-06	9.44E-10	1.27E-13	1.71E-17	2.31E-21	3.11E-25
PR146	7.95E+00	6.92E+01	1.57E+01	2.95E+00	5.30E-01	1.67E-02	9.21E-05	5.08E-07	2.81E-09	1.55E-11	8.49E-14
PR147	4.46E+01	1.29E+01	4.03E-01	1.26E-02	3.94E-04	3.84E-07	1.17E-11	3.58E-16	1.09E-20	3.34E-25	1.02E-29

HA  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.603E-12

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	1.59E-05	3.00E-01	3.08E-01	3.08E-01	3.07E-01	3.05E-01	3.03E-01	3.00E-01	2.98E-01	2.96E-01	2.93E-01
ND149	2.29E+01	1.56E+01	1.06E+01	7.22E+00	4.89E+00	2.27E+00	7.13E-01	2.25E-01	7.09E-02	2.23E-02	7.05E-03
PM149	3.19E-03	2.49E-01	4.13E-01	5.23E-01	5.92E-01	6.66E-01	6.92E-01	6.79E-01	6.62E-01	6.36E-01	6.14E-01
PM150	2.66E-01	2.05E-01	1.59E-01	1.23E-01	9.49E-02	5.69E-02	2.64E-02	1.22E-02	5.65E-03	2.61E-03	1.21E-03
ND151	9.09E+01	2.84E+00	8.88E-02	2.78E-03	8.68E-05	8.48E-08	2.59E-12	7.91E-17	2.41E-21	7.34E-26	2.25E-30
PM151	5.76E-02	6.73E-01	6.78E-01	6.61E-01	6.45E-01	6.13E-01	5.68E-01	5.27E-01	4.91E-01	4.54E-01	4.22E-01
PM152	1.47E+02	1.44E-01	1.40E-04	1.37E-07	1.34E-10	1.28E-16	1.19E-25	1.11E-34	1.03E-43	9.66E-53	8.97E-62
SM153	1.97E-01	1.94E-01	1.91E-01	1.88E-01	1.86E-01	1.80E-01	1.72E-01	1.65E-01	1.58E-01	1.51E-01	1.44E-01
SM155	1.14E+01	1.87E+00	3.07E-01	5.02E-02	8.24E-03	2.22E-04	9.78E-07	4.31E-09	1.90E-11	8.46E-14	2.08E-16
EU155	8.39E-06	2.39E-04	2.77E-04	2.83E-04	2.84E-04	2.84E-04	2.84E-04	2.84E-04	2.84E-04	2.84E-04	2.84E-04
SM156	2.00E-01	1.86E-01	1.72E-01	1.60E-01	1.49E-01	1.28E-01	1.03E-01	8.25E-02	6.62E-02	5.30E-02	4.24E-02
EU156	5.84E-04	9.54E-04	1.29E-03	1.61E-03	1.91E-03	2.43E-03	3.09E-03	3.58E-03	4.01E-03	4.32E-03	4.55E-03
EU157	3.31E-02	1.10E-01	1.05E-01	1.00E-01	9.56E-02	8.73E-02	7.62E-02	6.66E-02	5.80E-02	5.05E-02	4.40E-02
EU158	1.25E+00	5.08E-01	2.05E-01	8.32E-02	3.37E-02	5.51E-03	3.67E-04	2.43E-05	1.62E-06	1.07E-07	7.13E-09
EU159	1.51E+00	1.50E-01	1.49E-02	1.48E-03	1.46E-04	1.44E-06	1.41E-09	1.38E-12	1.34E-15	1.31E-18	1.28E-21
GD159	6.47E-03	2.83E-02	2.95E-02	2.86E-02	2.75E-02	2.55E-02	2.27E-02	2.02E-02	1.80E-02	1.60E-02	1.43E-02
TB161	8.35E-05	6.01E-04	5.97E-04	5.95E-04	5.93E-04	5.87E-04	5.81E-04	5.73E-04	5.66E-04	5.60E-04	5.52E-04
TOTAL	9.52E+03	2.08E+03	8.44E+02	5.34E+02	3.99E+02	2.70E+02	1.85E+02	1.40E+02	1.11E+02	9.07E+01	7.63E+01

HA MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.603E-12

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	3.17E-07	3.14E-07	3.09E-07	2.98E-07	2.79E-07	2.45E-07	2.15E-07	1.65E-07	8.66E-08	2.35E-08	6.40E-09
NA 24	2.89E-02	9.55E-03	3.15E-03	1.13E-04	4.42E-07	6.75E-12	1.03E-16	2.40E-26	0.	0.	0.
MN 54	1.47E-05	1.46E-05	1.46E-05	1.43E-05	1.42E-05	1.39E-05	1.37E-05	1.30E-05	1.16E-05	9.26E-06	7.38E-06
FE 55	6.27E-05	6.27E-05	6.27E-05	6.24E-05	6.23E-05	6.19E-05	6.13E-05	6.05E-05	5.82E-05	5.43E-05	5.03E-05
FE 59	1.41E-04	1.39E-04	1.37E-04	1.30E-04	1.21E-04	1.03E-04	8.87E-05	6.52E-05	3.03E-05	6.46E-06	1.39E-06
CO 57	1.95E-06	1.95E-06	1.93E-06	1.93E-06	1.90E-06	1.85E-06	1.80E-06	1.72E-06	1.52E-06	1.17E-06	9.06E-07
CO 58	3.10E-04	3.07E-04	3.04E-04	2.95E-04	2.81E-04	2.55E-04	2.31E-04	1.90E-04	1.17E-04	4.44E-05	1.67E-05
CO 60	3.59E-05	3.59E-05	3.59E-05	3.59E-05	3.57E-05	3.57E-05	3.55E-05	3.53E-05	3.44E-05	3.34E-05	3.21E-05
CU 64	2.28E+00	6.22E-01	1.70E-01	3.45E-03	5.17E-06	1.18E-11	2.66E-17	1.37E-28	0.	0.	0.
CU 67	2.81E-05	2.15E-05	1.64E-05	7.29E-06	1.90E-06	1.28E-07	8.63E-09	3.92E-11	5.48E-17	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	1.59E-06	1.57E-06	1.55E-06	1.52E-06	1.45E-06	1.32E-06	1.20E-06	1.00E-06	6.31E-07	2.51E-07	9.97E-08
W187	2.00E-04	9.98E-05	4.95E-05	6.17E-06	1.90E-07	1.81E-10	1.71E-13	1.54E-21	0.	0.	0.
W188	4.11E-08	4.06E-08	4.02E-08	3.91E-08	3.72E-08	3.36E-08	3.04E-08	2.49E-08	1.51E-08	5.57E-09	2.05E-09
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	8.10E-06	5.88E-06	2.25E-06	4.57E-07	1.88E-08	7.70E-10	1.29E-12	1.51E-19	0.	0.	0.
U237	2.88E-02	2.60E-02	2.35E-02	1.73E-02	1.03E-02	3.70E-03	1.33E-03	1.69E-04	1.00E-06	1.08E-10	7.25E-11
U240	8.65E-03	2.67E-03	8.18E-04	2.37E-05	6.51E-08	4.89E-13	3.68E-18	2.08E-28	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP239	6.88E-04	1.05E+00	7.82E-01	3.23E-01	7.39E-02	3.86E-03	2.02E-04	5.55E-07	2.18E-13	5.21E-23	5.21E-23
NP240M	1.37E-05	2.68E-03	8.24E-04	2.39E-05	6.56E-08	4.94E-13	3.71E-18	2.09E-28	0.	0.	0.
*AM241	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07
*CM242	4.08E-07	4.06E-07	4.04E-07	4.00E-07	3.92E-07	3.75E-07	3.60E-07	3.30E-07	2.69E-07	1.75E-07	1.14E-07
GE 77	4.44E-03	2.79E-03	6.39E-04	7.73E-06	4.91E-09	1.99E-15	8.02E-22	1.31E-34	0.	0.	0.
AS 77	4.59E-05	6.77E-03	4.90E-03	1.42E-03	1.66E-04	2.25E-06	3.06E-08	5.64E-12	2.61E-21	5.61E-40	1.20E-58
SE 77M	1.81E-09	2.04E-05	1.47E-05	4.26E-06	4.96E-07	6.76E-09	9.17E-11	1.69E-14	7.84E-24	1.68E-42	3.62E-61
AS 78	1.25E-02	1.11E-04	3.25E-09	2.75E-23	0.	0.	0.	0.	0.	0.	0.
BR 82	3.99E-04	2.49E-04	1.55E-04	3.78E-05	3.58E-06	3.22E-08	2.89E-10	2.33E-14	1.36E-24	4.67E-45	1.59E-65
BR 83	3.00E-01	7.91E-03	7.95E-06	8.08E-15	8.25E-30	0.	0.	0.	0.	0.	0.
KR 83M	1.55E-05	3.46E-02	3.93E-05	3.53E-14	3.63E-29	0.	0.	0.	0.	0.	0.
KR 85M	3.54E-03	2.02E-01	4.61E-03	5.48E-08	3.37E-16	1.28E-32	4.86E-49	0.	0.	0.	0.
KR 85	3.67E-06	9.63E-05	9.82E-05	9.82E-05	9.82E-05	9.82E-05	9.82E-05	9.77E-05	9.68E-05	9.49E-05	9.35E-05
KR 87	5.99E+01	1.18E-04	2.34E-10	1.81E-27	0.	0.	0.	0.	0.	0.	0.
KR 88	3.38E+01	8.90E-02	2.33E-04	4.24E-12	5.34E-25	0.	0.	0.	0.	0.	0.
RB 88	8.59E+00	9.91E-02	2.61E-04	4.74E-12	5.95E-25	0.	0.	0.	0.	0.	0.
SR 89	3.16E-06	9.48E-02	9.34E-02	8.97E-02	8.42E-02	7.35E-02	6.43E-02	4.95E-02	2.53E-02	6.66E-03	1.76E-03
SR 90	6.36E-06	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.53E-04	6.48E-04	6.48E-04	6.42E-04
Y 90	9.42E-12	1.50E-04	2.65E-04	4.76E-04	6.07E-04	6.48E-04	6.53E-04	6.53E-04	6.48E-04	6.48E-04	6.42E-04
SR 91	8.60E-01	3.08E+00	5.52E-01	3.16E-03	5.79E-07	1.96E-14	6.65E-22	7.57E-37	0.	0.	0.

HA MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.603E-12

DEBRIS DECAY FROM 1 TO 300 DAYS

6-f

	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	5.79E-05	1.99E+00	3.56E-01	2.04E-03	3.75E-07	1.27E-14	4.28E-22	4.89E-37	0.	0.	0.
Y 91	2.37E-08	9.46E-02	1.12E-01	1.12E-01	1.05E-01	9.36E-02	8.33E-02	6.60E-02	3.65E-02	1.12E-02	3.46E-03
SR 92	1.10E+01	1.37E-01	2.96E-04	2.98E-12	1.39E-25	0.	0.	0.	0.	0.	0.
Y 92	5.08E-01	1.44E+00	1.60E-02	1.23E-08	7.18E-19	2.46E-39	8.41E-60	0.	0.	0.	0.
Y 93	5.45E-01	3.68E+00	7.18E-01	5.39E-03	1.55E-06	1.28E-13	1.06E-20	7.23E-35	0.	0.	0.
ZR 95	1.06E-03	1.32E-01	1.31E-01	1.27E-01	1.20E-01	1.08E-01	9.71E-02	7.85E-02	4.60E-02	1.58E-02	5.43E-03
NB 95M	2.25E-11	4.48E-04	8.18E-04	1.56E-03	2.10E-03	2.22E-03	2.05E-03	1.66E-03	9.75E-04	3.36E-04	1.16E-04
NB 95	1.18E-10	2.56E-03	5.06E-03	1.21E-02	2.25E-02	3.89E-02	5.02E-02	6.22E-02	5.99E-02	2.88E-02	1.11E-02
ZR 97	2.57E+00	4.37E+00	1.64E+00	8.70E-02	6.54E-04	3.68E-08	2.07E-12	6.54E-21	3.69E-42	0.	0.
NB 97M	1.32E-02	4.19E+00	1.58E+00	8.39E-02	6.27E-04	3.53E-08	1.99E-12	6.27E-21	3.55E-42	0.	0.
NB 97	1.28E+00	4.38E+00	1.65E+00	8.74E-02	6.58E-04	3.96E-08	2.23E-12	7.07E-21	3.97E-42	0.	0.
MO 99	7.80E-03	2.54E+00	1.98E+00	9.39E-01	2.72E-01	2.27E-02	1.89E-03	1.32E-05	5.37E-11	8.85E-22	1.46E-32
TC 99M	7.26E-08	2.23E+00	1.88E+00	8.99E-01	2.59E-01	2.17E-02	1.81E-03	1.26E-05	5.12E-11	8.45E-22	1.39E-32
RU103	6.93E-05	1.58E-01	1.55E-01	1.47E-01	1.35E-01	1.13E-01	9.50E-02	6.70E-02	2.79E-02	4.84E-03	8.44E-04
RH103M	4.62E-09	1.58E-01	1.55E-01	1.47E-01	1.35E-01	1.13E-01	9.50E-02	6.70E-02	2.79E-02	4.84E-03	8.44E-04
RU105	5.12E-01	4.90E-01	1.15E-02	1.51E-07	1.11E-15	5.91E-32	3.17E-48	0.	0.	0.	0.
RH105M	3.37E-03	4.90E-01	1.15E-02	1.52E-07	1.11E-15	5.94E-32	3.17E-48	0.	0.	0.	0.
RH105	5.53E-09	1.77E+00	1.15E+00	2.88E-01	2.84E-02	2.76E-04	2.68E-06	2.53E-10	2.19E-20	1.65E-40	1.24E-60
RU106	4.47E-04	8.47E-03	8.43E-03	8.40E-03	8.32E-03	8.18E-03	7.99E-03	7.70E-03	7.00E-03	5.79E-03	4.80E-03
RH106	4.84E-06	8.47E-03	8.43E-03	8.40E-03	8.32E-03	8.18E-03	7.99E-03	7.70E-03	7.00E-03	5.79E-03	4.80E-03
PD109	6.78E-03	1.73E-01	5.02E-02	1.25E-03	2.63E-06	1.17E-11	5.21E-17	1.03E-27	0.	0.	0.
AG109M	3.91E-05	1.73E-01	5.04E-02	1.25E-03	2.64E-06	1.17E-11	5.21E-17	1.03E-27	0.	0.	0.
PD111M	8.40E-01	4.08E-02	1.98E-03	2.27E-07	6.15E-14	4.48E-27	3.29E-40	0.	0.	0.	0.
PD111	2.99E-01	3.29E-02	1.59E-03	1.83E-07	4.95E-14	3.61E-27	2.64E-40	0.	0.	0.	0.
AG111M	2.38E-03	4.30E-02	2.09E-03	2.40E-07	6.49E-14	4.77E-27	3.48E-40	0.	0.	0.	0.
AG111	8.47E-10	2.34E-02	2.25E-02	1.71E-02	1.08E-02	4.26E-03	1.69E-03	2.67E-04	2.62E-06	2.54E-10	2.46E-14
PD112	1.57E-01	7.13E-02	3.23E-02	3.00E-03	5.70E-05	2.07E-08	7.52E-12	9.86E-19	6.22E-36	0.	0.
AG112	4.73E-06	8.28E-02	3.81E-02	3.53E-03	6.75E-05	2.44E-08	8.86E-12	1.17E-18	7.33E-36	0.	0.
AG113	1.40E-03	1.48E-02	6.41E-04	5.20E-08	7.96E-15	1.86E-29	4.36E-42	0.	0.	0.	0.
CD115M	3.94E-09	1.14E-04	1.12E-04	1.07E-04	9.87E-05	8.38E-05	7.16E-05	5.17E-05	2.31E-05	4.59E-06	9.18E-07
CD115	1.52E-06	2.29E-02	1.68E-02	6.62E-03	1.40E-03	6.24E-05	2.78E-06	5.55E-09	9.80E-16	3.07E-29	9.60E-43
IN115M	1.90E-11	2.42E-02	1.83E-02	7.23E-03	1.52E-03	6.81E-05	3.03E-06	6.05E-09	1.07E-15	3.35E-29	1.05E-42
CD117	3.38E-02	7.37E-04	7.17E-07	6.69E-16	5.94E-31	0.	0.	0.	0.	0.	0.
IN117M	1.62E-06	3.06E-03	3.54E-06	3.41E-15	3.03E-30	0.	0.	0.	0.	0.	0.
IN117	6.53E-11	2.02E-03	2.39E-06	2.31E-15	2.05E-30	0.	0.	0.	0.	0.	0.
SN121	6.90E-04	3.93E-02	2.12E-02	3.34E-03	1.53E-04	3.24E-07	6.82E-10	3.04E-15	1.27E-28	0.	0.
SN123	3.73E-06	3.90E-04	3.87E-04	3.80E-04	3.70E-04	3.49E-04	3.31E-04	2.96E-04	2.25E-04	1.29E-04	7.43E-05
SN125	1.07E-02	9.90E-03	9.21E-03	7.37E-03	5.09E-03	2.44E-03	1.17E-03	2.67E-04	6.68E-06	4.20E-09	2.63E-12
SB125	6.40E-05	7.09E-05	7.76E-05	9.49E-05	1.16E-04	1.41E-04	1.52E-04	1.58E-04	1.55E-04	1.45E-04	1.35E-04
SB126	2.00E-03	1.89E-03	1.79E-03	1.52E-03	1.15E-03	6.58E-04	3.80E-04	1.25E-04	7.82E-06	3.80E-08	7.63E-09

HA  
 MR/HR AT H+12 HOURS = MICROCURIES/SQ METER  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.603E-12

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	2.79E+00	1.01E-03	3.68E-07	1.76E-17	1.10E-34	0.	0.	0.	0.	0.	0.	0.
SB127	3.26E-02	1.34E-01	1.12E-01	6.54E-02	2.68E-02	4.47E-03	7.48E-04	2.09E-05	2.73E-09	4.66E-17	7.93E-25	0.
TE127M	2.64E-10	2.04E-04	3.74E-04	7.26E-04	1.00E-03	1.11E-03	1.07E-03	9.45E-04	6.90E-04	3.64E-04	1.93E-04	0.
TE127	1.84E-02	9.58E-02	9.41E-02	5.73E-02	2.42E-02	4.97E-03	1.70E-03	9.54E-04	6.81E-04	3.60E-04	1.90E-04	0.
SB128	7.91E-01	1.35E-01	2.13E-02	8.31E-05	8.06E-09	7.57E-17	7.12E-25	6.27E-41	0.	0.	0.	0.
SB129	4.46E+00	2.28E-01	4.77E-03	4.34E-08	1.73E-16	2.72E-33	4.30E-50	0.	0.	0.	0.	0.
TE129M	8.43E-08	8.88E-03	8.88E-03	8.38E-03	7.57E-03	6.17E-03	5.02E-03	3.34E-03	1.20E-03	1.57E-04	2.04E-05	0.
TE129	3.21E+00	2.67E-01	1.11E-02	5.37E-03	4.84E-03	3.95E-03	3.22E-03	2.14E-03	7.72E-04	1.01E-04	1.31E-05	0.
I130	2.13E-02	5.56E-03	1.46E-03	2.60E-05	3.18E-08	4.73E-14	7.06E-20	1.57E-31	0.	0.	0.	0.
TE131M	8.38E-05	2.93E-01	1.68E-01	3.18E-02	1.99E-03	7.77E-06	3.04E-08	4.64E-13	4.22E-25	0.	0.	0.
TE131	7.71E+01	5.34E-02	3.07E-02	5.82E-03	3.63E-04	1.42E-06	5.54E-09	8.49E-14	7.71E-26	0.	0.	0.
I131	1.12E-02	6.05E-01	5.71E-01	4.59E-01	3.02E-01	1.28E-01	5.40E-02	9.65E-03	1.30E-04	2.37E-08	4.33E-12	0.
XE131M	3.04E-11	2.80E-04	5.32E-04	1.11E-03	1.59E-03	1.57E-03	1.16E-03	4.81E-04	3.21E-05	9.60E-08	2.71E-10	0.
TE132	8.76E-01	1.74E+00	1.40E+00	7.38E-01	2.54E-01	3.01E-02	3.57E-03	5.02E-05	1.17E-09	6.42E-19	3.50E-28	0.
I132	2.15E+00	1.79E+00	1.44E+00	7.59E-01	2.62E-01	3.11E-02	3.68E-03	5.17E-05	1.21E-09	6.58E-19	3.61E-28	0.
I133	9.28E-01	5.17E+00	2.33E+00	2.17E-01	4.13E-03	1.50E-06	5.43E-10	7.15E-17	4.49E-34	0.	0.	0.
XE133M	3.95E-08	4.88E-02	5.78E-02	3.39E-02	7.96E-03	3.74E-04	1.74E-05	3.77E-08	8.26E-15	3.95E-28	1.89E-41	0.
XE133	6.90E-07	9.38E-01	1.26E+00	1.13E+00	6.14E-01	1.66E-01	4.46E-02	3.21E-03	4.47E-06	8.67E-12	1.68E-17	0.
I135	1.57E+01	2.56E+00	2.13E-01	1.24E-04	5.04E-10	8.33E-21	1.37E-31	3.72E-53	0.	0.	0.	0.
XE135M	1.73E-03	7.97E-01	6.67E-02	3.88E-05	1.58E-10	2.59E-21	4.27E-32	1.16E-53	0.	0.	0.	0.
XE135	1.81E+00	6.89E+00	1.68E+00	9.64E-03	1.18E-06	1.66E-14	2.32E-22	4.59E-38	0.	0.	0.	0.
CS136	6.28E-03	5.95E-03	5.64E-03	4.81E-03	3.69E-03	2.16E-03	1.27E-03	4.37E-04	3.04E-05	1.46E-07	7.09E-10	0.
CS137	7.74E-05	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.35E-04	8.30E-04	8.25E-04	8.21E-04	0.
BA137M	1.63E-07	7.79E-04	7.79E-04	7.79E-04	7.79E-04	7.79E-04	7.79E-04	7.79E-04	7.74E-04	7.70E-04	7.65E-04	0.
BA139	1.06E+01	1.13E-03	6.66E-09	1.37E-24	0.	0.	0.	0.	0.	0.	0.	0.
BA140	1.07E-01	6.30E-01	6.00E-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	4.88E-01	4.34E-01	2.60E-01	1.51E-01	5.13E-02	3.41E-03	1.52E-05	6.76E-08	0.
LA141	1.90E+00	7.55E-01	1.06E-02	2.93E-08	1.60E-17	4.78E-36	1.43E-54	0.	0.	0.	0.	0.
CE141	2.35E-07	2.61E-01	2.59E-01	2.43E-01	2.18E-01	1.76E-01	1.42E-01	9.26E-02	3.18E-02	3.74E-03	4.41E-04	0.
LA142	1.26E+01	2.76E-03	5.35E-08	3.94E-22	0.	0.	0.	0.	0.	0.	0.	0.
CE143	8.22E-02	3.38E+00	2.04E+00	4.50E-01	3.62E-02	2.34E-04	1.51E-06	6.35E-11	7.16E-22	0.	0.	0.
PR143	2.40E-08	2.16E-01	3.37E-01	4.35E-01	3.73E-01	2.27E-01	1.37E-01	4.95E-02	3.96E-03	2.51E-05	1.60E-07	0.
CE144	3.26E-03	2.33E-02	2.32E-02	2.30E-02	2.27E-02	2.22E-02	2.17E-02	2.06E-02	1.83E-02	1.43E-02	1.12E-02	0.
PR144	8.93E-07	2.33E-02	2.32E-02	2.30E-02	2.27E-02	2.22E-02	2.17E-02	2.06E-02	1.83E-02	1.43E-02	1.12E-02	0.
PR145	1.31E-01	1.34E+00	8.31E-02	1.97E-05	1.80E-11	1.49E-23	1.23E-35	0.	0.	0.	0.	0.
ND147	1.59E-05	2.68E-01	2.52E-01	2.09E-01	1.53E-01	8.20E-02	4.38E-02	1.26E-02	5.51E-04	1.07E-06	2.08E-09	0.
PM147	4.42E-14	2.00E-04	3.88E-04	8.85E-04	1.53E-03	2.34E-03	2.76E-03	3.08E-03	3.10E-03	2.89E-03	2.69E-03	0.
ND149	2.29E+01	2.21E-03	2.14E-07	1.95E-19	1.67E-39	0.	0.	0.	0.	0.	0.	0.
PM149	3.19E-03	5.88E-01	4.31E-01	1.68E-01	3.51E-02	1.53E-03	6.66E-05	1.27E-07	2.00E-14	4.93E-28	1.23E-41	0.
PM150	2.66E-01	5.61E-04	1.18E-06	1.11E-14	4.64E-28	0.	0.	0.	0.	0.	0.	0.

I-10

HA  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.603E-12

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	5.76E-02	3.93E-01	2.17E-01	3.65E-02	1.87E-03	4.91E-06	1.29E-08	8.93E-14	1.12E-26	0.	0.
SM153	1.97E-01	1.38E-01	9.70E-02	3.35E-02	5.69E-03	1.66E-04	4.81E-06	4.04E-09	8.34E-17	3.55E-32	1.51E-47
SM156	2.00E-01	3.41E-02	5.81E-03	2.86E-05	4.12E-09	8.48E-17	1.75E-24	7.45E-40	0.	0.	0.
EU155	8.39E-06	2.84E-04	2.84E-04	2.84E-04	2.83E-04	2.82E-04	2.81E-04	2.78E-04	2.73E-04	2.62E-04	2.52E-04
EU156	5.84E-04	4.75E-03	5.27E-03	4.73E-03	3.75E-03	2.36E-03	1.49E-03	5.90E-04	5.84E-05	5.76E-07	5.67E-09
EU157	3.31E-02	3.83E-02	1.29E-02	4.83E-04	2.03E-06	3.58E-11	6.34E-16	1.97E-25	0.	0.	0.
GD159	6.47E-03	1.27E-02	5.07E-03	3.16E-04	3.11E-06	3.01E-10	2.92E-14	2.74E-22	2.34E-42	0.	0.
TB161	8.35E-05	5.46E-04	4.93E-04	3.65E-04	2.21E-04	8.08E-05	2.96E-05	3.96E-06	2.62E-08	1.13E-12	4.93E-17
TOTAL	2.83E+02	6.45E+01	2.77E+01	9.60E+00	4.50E+00	2.02E+00	1.29E+00	7.29E-01	3.28E-01	1.24E-01	6.26E-02

HA MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 1.603E-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	3.17E-07	2.74E-09	2.55E-10	2.37E-11	1.90E-14	1.52E-17	1.14E-21	7.31E-28	0.	0.	0.
MN 54	1.47E-05	6.35E-06	4.18E-06	2.75E-06	7.86E-07	2.24E-07	4.22E-08	3.45E-09	8.11E-13	2.93E-18	1.06E-23
FE 59	1.41E-04	5.08E-07	3.05E-08	1.83E-09	3.98E-13	8.59E-17	1.12E-21	5.25E-29	0.	0.	0.
CO 57	1.95E-06	7.68E-07	4.81E-07	3.02E-07	7.43E-08	1.83E-08	2.83E-10	1.72E-10	1.50E-14	1.23E-20	0.
CO 58	3.10E-04	8.90E-06	1.51E-06	2.56E-07	1.25E-09	6.06E-12	5.00E-15	1.19E-19	4.53E-35	0.	0.
CO 60	3.59E-05	3.15E-05	2.93E-05	2.74E-05	2.25E-05	1.85E-05	1.42E-05	9.59E-06	2.57E-06	3.57E-07	4.93E-08
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	1.59E-06	5.46E-08	1.01E-08	1.87E-09	1.19E-11	7.62E-14	8.97E-17	3.64E-21	0.	0.	0.
W188	4.11E-08	1.07E-09	1.73E-10	2.78E-11	1.17E-13	4.92E-16	3.33E-19	5.89E-24	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	2.88E-02	7.19E-11	7.00E-11	6.82E-11	6.38E-11	5.92E-11	5.38E-11	4.67E-11	2.91E-11	1.43E-11	7.00E-12
*AM241	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.43E-07	1.44E-07	1.44E-07	1.45E-07	1.45E-07	1.44E-07	1.42E-07
*CM242	4.08E-07	8.66E-08	3.98E-08	1.83E-08	1.78E-09	1.74E-10	7.79E-12	7.37E-14	2.12E-18	1.97E-18	1.84E-18
KR 85	3.67E-06	9.11E-05	8.83E-05	8.54E-05	7.79E-05	7.03E-05	6.18E-05	5.10E-05	2.70E-05	1.03E-05	3.93E-06
SR 89	3.16E-06	7.40E-04	6.47E-05	5.69E-06	3.83E-09	2.59E-12	1.53E-16	6.94E-23	5.04E-44	0.	0.
SR 90	6.36E-06	6.36E-04	6.30E-04	6.24E-04	6.01E-04	5.78E-04	5.50E-04	5.11E-04	4.00E-04	2.76E-04	1.91E-04
Y 90	9.42E-12	6.36E-04	6.30E-04	6.24E-04	6.01E-04	5.78E-04	5.50E-04	5.11E-04	4.00E-04	2.76E-04	1.91E-04
Y 91	2.37E-08	1.60E-03	1.86E-04	2.16E-05	3.39E-08	5.32E-11	9.74E-15	2.39E-20	4.83E-39	0.	0.
ZR 95	1.06E-03	2.72E-03	3.88E-04	5.53E-05	1.61E-07	4.69E-10	1.94E-13	1.64E-18	2.01E-35	0.	0.
NB 95M	2.25E-11	5.76E-05	8.22E-06	1.18E-06	3.41E-09	9.94E-12	4.12E-15	3.47E-20	4.26E-37	0.	0.
NB 95	1.18E-10	5.85E-03	8.41E-04	1.20E-04	3.47E-07	1.01E-09	4.21E-13	3.55E-18	4.35E-35	0.	0.
RU103	6.93E-05	2.69E-04	1.10E-05	4.53E-07	3.09E-11	2.12E-15	5.95E-21	2.80E-29	0.	0.	0.
RH103M	4.62E-09	2.70E-04	1.10E-05	4.53E-07	3.09E-11	2.12E-15	5.95E-21	2.80E-29	0.	0.	0.
RU106	4.47E-04	4.25E-03	3.01E-03	2.13E-03	7.59E-04	2.69E-04	6.78E-05	8.58E-06	8.65E-09	2.78E-13	8.95E-18
RH106	4.84E-06	4.25E-03	3.01E-03	2.13E-03	7.59E-04	2.69E-04	6.78E-05	8.58E-06	8.65E-09	2.78E-13	8.95E-18
SN123	3.73E-06	5.17E-05	1.88E-05	6.81E-06	3.27E-07	1.57E-08	2.73E-10	6.30E-13	1.01E-21	6.50E-35	4.18E-48
SB125	6.40E-05	1.29E-04	1.13E-04	9.96E-05	6.79E-05	4.62E-05	2.76E-05	1.28E-05	9.82E-07	2.09E-08	4.45E-10
TE125M	1.72E-12	5.26E-05	4.67E-05	4.12E-05	2.81E-05	1.91E-05	1.14E-05	5.29E-06	4.06E-07	8.65E-09	1.84E-10
TE127M	2.64E-10	1.26E-04	3.95E-05	1.24E-05	3.80E-07	1.17E-08	1.12E-10	1.06E-13	8.69E-24	6.49E-39	4.84E-54
TE127	1.84E-02	1.25E-04	3.91E-05	1.22E-05	3.76E-07	1.16E-08	1.11E-10	1.05E-13	8.60E-24	6.40E-39	4.79E-54
CS137	7.74E-05	8.16E-04	8.07E-04	7.98E-04	7.70E-04	7.42E-04	7.09E-04	6.63E-04	5.24E-04	3.72E-04	2.63E-04
BA137M	1.63E-07	7.65E-04	7.56E-04	7.47E-04	7.19E-04	6.96E-04	6.63E-04	6.21E-04	4.92E-04	3.48E-04	2.46E-04
CE141	2.35E-07	1.01E-04	2.04E-06	4.10E-08	3.34E-13	2.72E-18	4.45E-25	2.96E-35	0.	0.	0.
CE144	3.26E-03	9.57E-03	6.15E-03	3.92E-03	1.03E-03	2.71E-04	4.55E-05	3.14E-06	4.23E-10	6.64E-16	1.03E-21
PR144	8.93E-07	9.57E-03	6.15E-03	3.92E-03	1.03E-03	2.71E-04	4.55E-05	3.14E-06	4.23E-10	6.64E-16	1.03E-21
PM147	4.42E-14	2.57E-03	2.25E-03	1.97E-03	1.32E-03	8.90E-04	5.23E-04	2.37E-04	1.69E-05	3.19E-07	6.03E-09
EU155	8.39E-06	2.46E-04	2.28E-04	2.12E-04	1.71E-04	1.37E-04	1.02E-04	6.61E-05	1.55E-05	1.74E-06	1.96E-07
TOTAL	5.27E-02	4.55E-02	2.55E-02	1.76E-02	7.96E-03	4.86E-03	3.44E-03	2.71E-03	1.88E-03	1.28E-03	8.95E-04



**APPENDIX K  
DETAILED RESULTS FOR EVENT POST**

POST  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.085E-12

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.25E+02	1.25E+04
1.00E+00	3.58E+01	2.42E+03
2.00E+00	1.39E+01	9.13E+02
3.00E+00	7.34E+00	5.46E+02
4.00E+00	4.55E+00	3.95E+02
6.00E+00	2.37E+00	2.62E+02
9.00E+00	1.39E+00	1.79E+02
1.20E+01	1.00E+00	1.36E+02
1.50E+01	7.78E-01	1.09E+02
1.80E+01	6.30E-01	9.03E+01
2.10E+01	5.24E-01	7.66E+01
1.00E+00 DAYS	4.39E-01	6.54E+01
2.00E+00	1.98E-01	3.03E+01
5.00E+00	7.97E-02	1.12E+01
1.00E+01	3.73E-02	4.93E+00
2.00E+01	1.49E-02	2.04E+00
3.00E+01	8.53E-03	1.26E+00
5.00E+01	3.92E-03	7.01E-01
1.00E+02	1.30E-03	3.02E-01
2.00E+02	4.21E-04	1.09E-01
3.00E+02	1.76E-04	5.90E-02
1.00E+00 YEARS	1.14E-04	4.57E-02
1.50E+00	5.17E-05	2.86E-02
2.00E+00	3.55E-05	2.05E-02
3.50E+00	1.91E-05	9.31E-03
5.00E+00	1.32E-05	5.36E-03
7.00E+00	1.02E-05	3.54E-03
1.00E+01	8.49E-06	2.69E-03
2.00E+01	6.25E-06	1.87E-03
3.50E+01	4.38E-06	1.28E-03
5.00E+01	3.09E-06	8.99E-04

POST MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.085E-12

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	1.83E-06	1.83E-06	1.83E-06	1.83E-06	1.83E-06	1.83E-06	1.82E-06	1.82E-06	1.82E-06	1.81E-06	1.81E-06
NA 24	3.13E-02	2.99E-02	2.86E-02	2.73E-02	2.60E-02	2.37E-02	2.37E-02	2.06E-02	1.80E-02	1.57E-02	1.37E-02
MN 54	1.47E-04	1.47E-04	1.47E-04	1.47E-04	1.47E-04	1.47E-04	1.47E-04	1.47E-04	1.46E-04	1.46E-04	1.46E-04
FE 55	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04	1.26E-04
FE 59	6.98E-05	6.97E-05	6.97E-05	6.97E-05	6.97E-05	6.95E-05	6.94E-05	6.93E-05	6.91E-05	6.90E-05	6.89E-05
CO 57	1.67E-07	1.67E-07	1.67E-07	1.67E-07	1.67E-07	1.67E-07	1.67E-07	1.67E-07	1.67E-07	1.67E-07	1.67E-07
CO 58	4.50E-05	4.50E-05	4.50E-05	4.50E-05	4.49E-05	4.49E-05	4.48E-05	4.48E-05	4.47E-05	4.47E-05	4.46E-05
CO 60	1.67E-05	1.67E-05	1.67E-05	1.67E-05	1.67E-05	1.67E-05	1.67E-05	1.67E-05	1.67E-05	1.67E-05	1.67E-05
CU 64	9.16E-01	8.66E-01	8.21E-01	7.79E-01	7.37E-01	6.61E-01	5.62E-01	4.78E-01	4.06E-01	3.46E-01	2.94E-01
CU 67	1.08E-05	1.07E-05	1.06E-05	1.05E-05	1.04E-05	1.01E-05	9.72E-06	9.44E-06	9.14E-06	8.79E-06	8.54E-06
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	8.15E-06	8.15E-06	8.15E-06	8.15E-06	8.14E-06	8.14E-06	8.14E-06	8.12E-06	8.12E-06	8.10E-06	8.10E-06
W187	3.89E-03	3.77E-03	3.66E-03	3.56E-03	3.47E-03	3.26E-03	3.00E-03	2.75E-03	2.51E-03	2.32E-03	2.11E-03
W188	2.37E-07	2.37E-07	2.37E-07	2.37E-07	2.37E-07	2.37E-07	2.36E-07	2.36E-07	2.35E-07	2.35E-07	2.35E-07
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	1.88E-04	1.85E-04	1.83E-04	1.80E-04	1.77E-04	1.73E-04	1.67E-04	1.60E-04	1.54E-04	1.47E-04	1.42E-04
U237	6.78E-02	6.75E-02	6.73E-02	6.70E-02	6.67E-02	6.61E-02	6.52E-02	6.45E-02	6.36E-02	6.27E-02	6.20E-02
U239	9.73E+02	1.66E+02	2.83E+01	4.82E+00	8.19E-01	2.39E-02	1.18E-04	5.84E-07	2.89E-09	1.43E-11	7.07E-14
U240	4.70E-03	4.48E-03	4.27E-03	4.06E-03	3.87E-03	3.50E-03	3.02E-03	2.60E-03	2.25E-03	1.94E-03	1.67E-03
NP239	3.33E-03	5.58E+00	6.45E+00	6.56E+00	6.50E+00	6.35E+00	6.09E+00	5.89E+00	5.68E+00	5.48E+00	5.28E+00
NP240M	7.44E-06	4.50E-03	4.30E-03	4.10E-03	3.90E-03	3.53E-03	3.05E-03	2.63E-03	2.27E-03	1.95E-03	1.69E-03
NP240	1.88E-13	9.69E-14	5.03E-14	2.59E-14	1.34E-14	3.59E-15	4.95E-16	6.83E-17	9.42E-18	1.30E-18	1.79E-19
AM241	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07
CM242	1.61E-05	1.61E-05	1.61E-05	1.61E-05	1.61E-05	1.61E-05	1.60E-05	1.60E-05	1.60E-05	1.60E-05	1.60E-05
GE 75	1.65E-05	8.01E-02	4.83E-02	2.91E-02	1.75E-02	6.34E-03	1.38E-03	3.03E-04	6.62E-05	1.44E-05	3.16E-06
GE 77	1.01E-02	2.60E-02	2.45E-02	2.30E-02	2.17E-02	1.92E-02	1.59E-02	1.32E-02	1.10E-02	9.17E-03	7.63E-03
AS 77	1.04E-04	1.65E-02	1.67E-02	1.68E-02	1.69E-02	1.70E-02	1.70E-02	1.69E-02	1.67E-02	1.63E-02	1.59E-02
SE 77M	4.12E-09	4.94E-05	5.01E-05	5.05E-05	5.05E-05	5.09E-05	5.13E-05	5.09E-05	5.01E-05	4.90E-05	4.75E-05
GE 78	1.45E+00	9.03E-01	5.62E-01	3.51E-01	2.19E-01	8.53E-02	2.07E-02	5.02E-03	1.22E-03	2.98E-04	7.23E-05
AS 78	2.60E-02	4.32E-01	5.32E-01	4.98E-01	4.16E-01	2.46E-01	9.13E-02	3.03E-02	9.38E-03	2.80E-03	8.13E-04
AS 79	2.43E+01	2.39E-01	2.36E-03	2.32E-05	2.28E-07	2.21E-11	2.11E-17	2.01E-23	1.92E-29	1.83E-35	1.75E-41
SE 79M	3.59E-02	4.22E-01	4.16E-03	4.10E-05	4.03E-07	3.90E-11	3.72E-17	3.55E-23	3.39E-29	3.24E-35	3.09E-41
BR 80	1.28E-01	1.20E-02	1.13E-03	1.06E-04	1.00E-05	8.89E-08	7.44E-11	6.20E-14	5.17E-17	4.32E-20	3.60E-23
SE 81M	9.40E-02	4.39E+00	2.12E+00	1.02E+00	4.89E-01	1.14E-01	1.28E-02	1.43E-03	1.61E-04	1.80E-05	2.02E-06
SE 81	1.15E+00	5.19E+00	3.00E+00	1.50E+00	7.27E-01	1.70E-01	1.90E-02	2.13E-03	2.38E-04	2.68E-05	3.00E-06
BR 82	4.70E-04	4.61E-04	4.52E-04	4.44E-04	4.35E-04	4.18E-04	3.94E-04	3.72E-04	3.51E-04	3.30E-04	3.12E-04
SE 83	3.90E+01	7.40E+00	1.40E+00	2.66E-01	5.02E-02	1.81E-03	1.23E-05	8.36E-08	5.71E-10	3.87E-12	2.46E-14
BR 83	3.24E-01	4.84E+00	4.48E+00	3.53E+00	2.68E+00	1.51E+00	6.39E-01	2.69E-01	1.14E-01	4.79E-02	2.02E-02
KR 83M	1.68E-05	1.10E+00	2.24E+00	2.78E+00	2.87E+00	2.39E+00	1.41E+00	7.26E-01	3.50E-01	1.62E-01	7.26E-02

K-3

POST  
 MR/HR AT H+12 HOURS = MICROCURIES/SQ METER  
 FRACTION OF REFRACTORIES PRESENT = 1.000  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.085E-12

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	7.30E-02	1.26E+01	3.41E+00	9.22E-01	2.49E-01	1.82E-02	3.60E-04	7.11E-06	1.41E-07	2.78E-09	5.50E-11
KR 85M	2.57E-03	5.51E+00	4.69E+00	4.01E+00	3.42E+00	2.50E+00	1.56E+00	9.72E-01	6.06E-01	3.77E-01	2.35E-01
KR 87	3.94E+01	2.28E+01	1.32E+01	7.61E+00	4.39E+00	1.47E+00	2.86E-01	5.53E-02	1.07E-02	2.08E-03	4.01E-04
KR 88	2.07E+01	1.62E+01	1.26E+01	9.86E+00	7.70E+00	4.68E+00	2.23E+00	1.06E+00	5.05E-01	2.41E-01	1.14E-01
RB 88	5.27E+00	1.64E+01	1.40E+01	1.10E+01	8.61E+00	5.24E+00	2.50E+00	1.19E+00	5.68E-01	2.70E-01	1.28E-01
RB 89	2.83E+01	2.66E+01	1.79E+00	1.20E-01	8.05E-03	3.64E-05	1.10E-08	3.33E-12	1.01E-15	3.07E-19	9.32E-23
SR 89	2.17E-06	7.61E-02	8.11E-02	8.11E-02	8.11E-02	8.11E-02	8.11E-02	8.08E-02	8.08E-02	8.05E-02	8.05E-02
SR 90	4.18E-06	4.29E-04	4.29E-04	4.29E-04	4.29E-04	4.29E-04	4.29E-04	4.29E-04	4.29E-04	4.29E-04	4.29E-04
SR 91	5.46E-01	1.02E+01	9.48E+00	8.83E+00	8.21E+00	7.11E+00	5.73E+00	4.64E+00	3.74E+00	3.00E+00	2.42E+00
Y 91M	3.67E-05	3.50E+00	4.77E+00	5.12E+00	5.05E+00	4.53E+00	3.71E+00	2.98E+00	2.41E+00	1.94E+00	1.57E+00
Y 91	1.50E-08	3.11E-03	7.18E-03	1.15E-02	1.57E-02	2.35E-02	3.33E-02	4.12E-02	4.77E-02	5.29E-02	5.70E-02
SR 92	4.31E+00	1.92E+01	1.49E+01	1.15E+01	8.93E+00	5.35E+00	2.48E+00	1.15E+00	5.35E-01	2.48E-01	1.16E-01
Y 92	1.98E-01	4.05E+00	6.35E+00	7.55E+00	8.01E+00	7.63E+00	5.85E+00	3.99E+00	2.56E+00	1.58E+00	9.51E-01
SR 93	1.99E+02	3.43E+00	1.89E-02	1.05E-04	5.77E-07	1.77E-11	2.98E-18	5.02E-25	8.47E-32	1.43E-38	2.41E-45
Y 93	2.43E-01	7.86E+00	7.38E+00	6.91E+00	6.45E+00	5.63E+00	4.59E+00	3.75E+00	3.04E+00	2.50E+00	2.03E+00
Y 94	3.00E+01	4.10E+01	5.27E+00	6.80E-01	8.77E-02	1.46E-03	3.12E-06	6.70E-09	1.43E-11	3.12E-14	1.73E-15
Y 95	1.39E+02	1.31E+01	2.88E-01	6.35E-03	1.40E-04	6.79E-08	7.27E-13	7.77E-18	8.30E-23	8.87E-28	9.49E-33
ZR 95	5.21E-04	6.81E-02	6.95E-02	6.95E-02	6.95E-02	6.95E-02	6.95E-02	6.93E-02	6.93E-02	6.90E-02	6.90E-02
NB 95	5.81E-11	4.21E-05	9.81E-05	1.54E-04	2.10E-04	3.22E-04	4.89E-04	6.58E-04	8.23E-04	9.90E-04	1.15E-03
ZR 97	1.42E+00	6.16E+00	5.90E+00	5.68E+00	5.43E+00	5.02E+00	4.43E+00	3.92E+00	3.48E+00	3.07E+00	2.73E+00
NB 97M	7.28E-03	5.92E+00	5.68E+00	5.46E+00	5.24E+00	4.82E+00	4.26E+00	3.78E+00	3.34E+00	2.95E+00	2.61E+00
NB 97	7.09E-01	3.09E+00	4.36E+00	4.97E+00	5.21E+00	5.19E+00	4.73E+00	4.21E+00	3.73E+00	3.29E+00	2.92E+00
NB 98	8.51E+00	3.77E+00	1.67E+00	7.37E-01	3.26E-01	6.39E-02	5.52E-03	4.77E-04	4.16E-05	3.60E-06	3.10E-07
MO 99	4.83E-03	1.99E+00	1.97E+00	1.95E+00	1.93E+00	1.89E+00	1.84E+00	1.78E+00	1.73E+00	1.67E+00	1.62E+00
TC 99M	4.49E-08	1.90E-01	3.57E-01	5.05E-01	6.34E-01	8.46E-01	1.07E+00	1.22E+00	1.31E+00	1.36E+00	1.38E+00
MO101	1.65E+02	7.46E+01	4.33E+00	2.51E-01	1.46E-02	4.88E-05	9.48E-09	1.85E-12	3.59E-16	6.97E-20	1.36E-23
TC101	6.97E+00	2.09E+02	2.29E+01	1.88E+00	1.37E-01	6.16E-04	1.54E-07	3.45E-11	7.32E-15	1.51E-18	3.05E-22
MO102	1.58E+03	3.60E+01	8.20E-01	1.87E-02	4.27E-04	2.22E-07	2.64E-12	3.13E-17	3.71E-22	4.40E-27	5.23E-32
TC102M	1.02E+00	3.05E+01	6.98E-01	1.59E-02	3.63E-04	1.88E-07	2.23E-12	2.65E-17	3.14E-22	3.72E-27	4.42E-32
TC102	4.75E+03	1.81E+01	4.14E-01	9.40E-03	2.15E-04	1.12E-07	1.33E-12	1.58E-17	1.87E-22	2.22E-27	2.63E-32
RU103	1.34E-04	3.11E-01	3.10E-01	3.10E-01	3.10E-01	3.09E-01	3.08E-01	3.08E-01	3.07E-01	3.06E-01	3.05E-01
RH103M	8.92E-09	1.60E-01	2.38E-01	2.75E-01	2.93E-01	3.05E-01	3.08E-01	3.08E-01	3.07E-01	3.06E-01	3.06E-01
TC104	1.32E+02	9.48E+01	9.48E+00	9.39E-01	9.29E-02	9.15E-04	8.93E-07	8.73E-10	8.52E-13	8.33E-16	8.13E-19
RU105	1.30E+00	4.49E+01	3.84E+01	3.29E+01	2.81E+01	2.05E+01	1.29E+01	8.05E+00	5.04E+00	3.15E+00	1.98E+00
RH105M	8.53E-03	4.50E+01	3.84E+01	3.30E+01	2.81E+01	2.06E+01	1.29E+01	8.08E+00	5.06E+00	3.16E+00	1.98E+00
RH105	1.40E-08	9.13E-01	1.70E+00	2.34E+00	2.88E+00	3.68E+00	4.40E+00	4.73E+00	4.83E+00	4.78E+00	4.66E+00
RU106	1.23E-03	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02
RH106	1.33E-05	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02
RH107	4.22E-01	5.73E+01	8.69E+00	1.31E+00	1.97E-01	4.50E-03	1.55E-05	5.35E-08	1.84E-10	6.30E-14	6.27E-17
PD107M	8.77E-04	1.17E+01	1.76E+00	2.66E-01	4.02E-02	9.16E-04	3.16E-06	1.09E-08	3.74E-11	1.29E-13	4.41E-16

K-4

POST  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.085E-12

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	2.99E-02	2.48E+00	2.36E+00	2.24E+00	2.12E+00	1.92E+00	1.65E+00	1.41E+00	1.21E+00	1.04E+00	8.91E-01	
AG109M	1.73E-04	2.48E+00	2.36E+00	2.24E+00	2.13E+00	1.92E+00	1.65E+00	1.41E+00	1.21E+00	1.04E+00	8.91E-01	
PD111M	3.72E+00	3.28E+00	2.89E+00	2.56E+00	2.25E+00	1.75E+00	1.20E+00	8.21E-01	5.62E-01	3.85E-01	2.64E-01	
PD111	1.32E+00	2.39E+00	2.29E+00	2.04E+00	1.81E+00	1.40E+00	9.62E-01	6.60E-01	4.51E-01	3.10E-01	2.12E-01	
AG111M	1.05E-02	3.22E+00	3.03E+00	2.71E+00	2.39E+00	1.85E+00	1.26E+00	8.65E-01	5.93E-01	4.07E-01	2.78E-01	
AG111	3.75E-09	1.11E-02	2.33E-02	3.43E-02	4.40E-02	6.00E-02	7.71E-02	8.83E-02	9.57E-02	1.00E-01	1.03E-01	
PD112	8.06E-01	7.81E-01	7.54E-01	7.30E-01	7.08E-01	6.61E-01	6.00E-01	5.43E-01	4.92E-01	4.45E-01	4.03E-01	
AG112	2.43E-05	1.55E-01	2.73E-01	3.66E-01	4.35E-01	5.21E-01	5.73E-01	5.70E-01	5.43E-01	5.06E-01	4.67E-01	
AG113	7.82E-03	1.67E+00	1.47E+00	1.29E+00	1.13E+00	8.69E-01	5.88E-01	3.97E-01	2.68E-01	1.81E-01	1.22E-01	
AG115	2.52E+00	2.70E+00	3.36E-01	4.20E-02	5.26E-03	8.23E-05	1.61E-07	3.14E-10	6.08E-13	6.04E-16	5.60E-16	
CD115M	2.06E-08	5.48E-04	6.16E-04	6.24E-04	6.24E-04	6.24E-04	6.22E-04	6.22E-04	6.20E-04	6.18E-04	6.18E-04	
CD115	7.97E-06	1.50E-01	1.62E-01	1.61E-01	1.59E-01	1.55E-01	1.49E-01	1.44E-01	1.38E-01	1.33E-01	1.28E-01	
IN115M	9.93E-11	1.66E-02	3.68E-02	5.46E-02	6.97E-02	9.29E-02	1.15E-01	1.26E-01	1.32E-01	1.33E-01	1.32E-01	
CD117	1.74E-01	2.90E+00	2.18E+00	1.63E+00	1.22E+00	6.86E-01	2.88E-01	1.21E-01	5.10E-02	2.14E-02	9.02E-03	
IN117M	8.37E-06	1.01E+00	1.46E+00	1.58E+00	1.53E+00	1.21E+00	6.90E-01	3.53E-01	1.70E-01	7.86E-02	3.55E-02	
IN117	3.37E-10	1.84E-01	4.45E-01	6.18E-01	6.90E-01	6.35E-01	4.04E-01	2.16E-01	1.08E-01	5.06E-02	2.33E-02	
CD118	1.13E+01	4.84E+00	2.08E+00	8.85E-01	3.79E-01	6.94E-02	5.44E-03	4.26E-04	3.35E-05	2.62E-06	2.06E-07	
IN118	7.48E-01	4.84E+00	2.08E+00	8.87E-01	3.79E-01	6.96E-02	5.44E-03	4.28E-04	3.35E-05	2.62E-06	2.06E-07	
CD119	2.88E+01	4.49E-01	7.00E-03	1.10E-04	1.71E-06	4.19E-10	1.60E-15	6.10E-21	2.32E-26	8.87E-32	3.39E-37	
IN119M	4.34E-02	4.85E+00	5.28E-01	5.33E-02	5.30E-03	5.22E-05	5.09E-08	4.98E-11	4.85E-14	4.75E-17	4.64E-20	
IN119	2.14E+00	2.56E-01	2.96E-02	3.01E-03	3.01E-04	2.94E-06	2.88E-09	2.81E-12	2.75E-15	2.68E-18	2.62E-21	
SN121	3.69E-03	3.80E-01	3.69E-01	3.60E-01	3.51E-01	3.34E-01	3.08E-01	2.86E-01	2.65E-01	2.45E-01	2.28E-01	
SN123M	1.97E+00	3.68E+00	1.30E+00	4.61E-01	1.63E-01	2.03E-02	9.00E-04	3.98E-05	1.76E-06	7.78E-08	3.44E-09	
SN123	1.85E-05	1.93E-03	1.93E-03	1.93E-03	1.93E-03	1.93E-03	1.93E-03	1.93E-03	1.93E-03	1.93E-03	1.93E-03	
SN125	4.62E-02	4.61E-02	4.60E-02	4.59E-02	4.56E-02	4.54E-02	4.50E-02	4.45E-02	4.42E-02	4.37E-02	4.33E-02	
SB125	2.78E-04	2.79E-04	2.80E-04	2.81E-04	2.82E-04	2.85E-04	2.90E-04	2.93E-04	2.97E-04	3.01E-04	3.04E-04	
SB126	6.43E-03	6.41E-03	6.40E-03	6.39E-03	6.37E-03	6.34E-03	6.30E-03	6.25E-03	6.20E-03	6.16E-03	6.12E-03	
SN127	5.74E+00	4.12E+00	2.96E+00	2.13E+00	1.53E+00	7.91E-01	2.94E-01	1.09E-01	4.05E-02	1.51E-02	5.60E-03	
SB127	6.69E-02	2.31E-01	2.56E-01	2.72E-01	2.84E-01	2.96E-01	3.01E-01	2.98E-01	2.93E-01	2.87E-01	2.81E-01	
TE127	3.78E-02	4.71E-02	5.72E-02	6.78E-02	7.84E-02	9.83E-02	1.26E-01	1.47E-01	1.64E-01	1.76E-01	1.85E-01	
SN128	3.51E+01	1.73E+01	8.57E+00	4.23E+00	2.09E+00	5.11E-01	6.17E-02	7.44E-03	8.98E-04	1.09E-04	1.31E-05	
SB128M	1.79E-02	1.97E+01	1.02E+01	5.05E+00	2.49E+00	6.10E-01	7.35E-02	8.88E-03	1.07E-03	1.29E-04	1.56E-05	
SB128	1.48E+00	1.42E+00	1.34E+00	1.26E+00	1.17E+00	1.00E+00	8.02E-01	6.36E-01	5.05E-01	4.01E-01	3.18E-01	
SN129M	1.95E+01	9.69E+00	4.86E+00	2.43E+00	1.22E+00	3.04E-01	3.80E-02	4.75E-03	5.94E-04	7.42E-05	9.28E-06	
SN129	1.30E+02	1.27E+00	1.26E-02	1.24E-04	1.22E-06	1.18E-10	1.12E-16	1.08E-22	1.03E-28	9.77E-35	9.36E-41	
SB129	7.30E+00	1.22E+01	1.15E+01	1.03E+01	9.03E+00	6.71E+00	4.18E+00	2.59E+00	1.59E+00	9.85E-01	6.06E-01	
TE129M	1.38E-07	1.53E-03	3.14E-03	4.62E-03	5.94E-03	8.05E-03	1.02E-02	1.15E-02	1.23E-02	1.28E-02	1.31E-02	
TE129	5.25E+00	7.23E+00	8.46E+00	8.79E+00	8.46E+00	7.00E+00	4.66E+00	2.94E+00	1.83E+00	1.13E+00	7.03E-01	
SB130M	7.17E-01	1.35E+00	3.55E-03	9.33E-06	2.46E-08	1.70E-13	3.09E-21	5.61E-29	1.02E-36	1.85E-44	3.37E-52	
SB130	1.23E+02	3.72E+01	1.06E+01	2.99E+00	8.48E-01	6.82E-02	1.56E-03	3.55E-05	8.09E-07	1.84E-08	4.21E-10	

K-5

POST MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.085E-12

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	3.42E-02	3.24E-02	3.06E-02	2.89E-02	2.74E-02	2.45E-02	2.07E-02	1.75E-02	1.48E-02	1.25E-02	1.06E-02	
SB131	2.59E+02	6.76E+01	1.10E+01	1.81E+00	2.97E-01	6.01E-03	3.53E-05	1.56E-07	6.86E-10	3.02E-12	1.51E-14	
TE131M	1.24E-04	6.51E-01	7.42E-01	7.43E-01	7.29E-01	6.97E-01	6.50E-01	6.06E-01	5.66E-01	5.28E-01	4.93E-01	
TE131	1.15E+02	1.24E+02	4.05E+01	1.05E+01	2.56E+00	2.41E-01	1.19E-01	1.10E-01	1.03E-01	9.64E-02	8.98E-02	
I131	1.66E-02	5.77E-01	8.49E-01	9.31E-01	9.48E-01	9.56E-01	9.56E-01	9.48E-01	9.48E-01	9.39E-01	9.39E-01	
TE132	1.12E+00	2.73E+00	2.70E+00	2.68E+00	2.65E+00	2.60E+00	2.54E+00	2.47E+00	2.41E+00	2.34E+00	2.28E+00	
I132	2.75E+00	2.75E+00	2.74E+00	2.73E+00	2.71E+00	2.67E+00	2.61E+00	2.54E+00	2.48E+00	2.41E+00	2.35E+00	
TE133M	1.28E-01	4.45E+01	1.94E+01	8.44E+00	3.67E+00	6.98E-01	5.74E-02	4.74E-03	3.90E-04	3.22E-05	2.66E-06	
TE133	7.22E+02	4.09E+01	4.55E+00	1.51E+00	6.36E+00	1.21E-01	9.97E-03	8.20E-04	6.79E-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	9.97E+00	8.99E+00	8.20E+00	7.40E+00	
XE133M	4.77E-08	2.71E-03	6.55E-03	1.05E-02	1.43E-02	2.14E-02	3.10E-02	3.93E-02	4.64E-02	5.24E-02	5.75E-02	
XE133	8.32E-07	4.74E-02	1.15E-01	1.84E-01	2.52E-01	3.82E-01	5.60E-01	7.16E-01	8.57E-01	9.79E-01	1.09E+00	
TE134	2.32E+02	1.08E+02	4.01E+01	1.49E+01	5.53E+00	7.66E-01	3.92E-02	2.01E-03	1.03E-04	5.28E-06	2.71E-07	
I134	1.06E+02	1.42E+02	9.97E+01	5.84E+01	3.14E+01	7.97E+00	8.76E-01	8.94E-02	8.76E-03	8.39E-04	7.97E-05	
I135	1.91E+01	3.36E+01	3.03E+01	2.73E+01	2.47E+01	2.00E+01	1.47E+01	1.07E+01	7.89E+00	5.81E+00	4.24E+00	
XE135M	2.11E-03	9.70E+00	9.43E+00	8.55E+00	7.68E+00	6.25E+00	4.59E+00	3.36E+00	2.47E+00	1.81E+00	1.33E+00	
XE135	2.20E+00	4.35E+00	6.36E+00	8.00E+00	9.32E+00	1.12E+01	1.24E+01	1.24E+01	1.18E+01	1.08E+01	9.65E+00	
CS136	3.10E-02	3.09E-02	3.08E-02	3.08E-02	3.07E-02	3.05E-02	3.03E-02	3.01E-02	2.99E-02	2.97E-02	2.95E-02	
CS137	9.80E-05	1.06E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03	
BA137M	2.07E-07	9.86E-04	9.86E-04	9.86E-04	9.86E-04	9.86E-04	9.86E-04	9.86E-04	9.86E-04	9.86E-04	9.86E-04	
XE138	6.02E+02	5.18E+01	4.50E+00	3.90E-01	3.38E-02	2.53E-04	1.65E-07	1.07E-10	6.96E-14	4.52E-17	2.94E-20	
CS138	8.96E+01	1.51E+02	5.23E+01	1.54E+01	4.30E+00	3.28E-01	6.82E-03	1.41E-04	2.94E-06	6.12E-08	1.27E-09	
CS139	7.41E+02	2.37E+01	2.97E-01	3.73E-03	4.68E-05	7.34E-09	1.46E-14	2.89E-20	5.72E-26	1.13E-31	2.24E-37	
BA139	1.37E+01	1.53E+02	9.41E+01	5.72E+01	3.46E+01	1.27E+01	2.82E+00	6.25E-01	1.39E-01	3.08E-02	6.84E-03	
BA140	9.81E-02	6.12E-01	6.12E-01	6.07E-01	6.07E-01	6.03E-01	6.03E-01	5.98E-01	5.93E-01	5.89E-01	5.84E-01	
LA140	2.33E-07	1.05E-02	2.07E-02	3.08E-02	4.06E-02	5.98E-02	8.74E-02	1.13E-01	1.37E-01	1.60E-01	1.82E-01	
BA141	1.50E+02	4.54E+01	4.50E+00	4.47E-01	4.43E-02	4.39E-04	4.29E-07	4.18E-10	4.07E-13	4.00E-16	3.89E-19	
LA141	1.39E+00	2.94E+01	2.74E+01	2.32E+01	1.95E+01	1.36E+01	8.00E+00	4.68E+00	2.75E+00	1.62E+00	9.47E-01	
CE141	1.72E-07	1.91E-02	4.47E-02	6.72E-02	8.61E-02	1.15E-01	1.43E-01	1.59E-01	1.69E-01	1.74E-01	1.77E-01	
BA142	3.06E+02	1.22E+01	2.78E-01	6.33E-03	1.44E-04	7.50E-08	8.90E-13	1.06E-17	1.25E-22	1.49E-27	1.77E-32	
LA142	7.04E+00	4.88E+01	3.22E+01	2.05E+01	1.30E+01	5.27E+00	1.36E+00	3.50E-01	9.03E-02	2.33E-02	6.00E-03	
LA143	1.02E+02	2.00E+01	1.02E+00	5.27E-02	2.71E-03	7.09E-06	9.55E-10	1.29E-13	1.74E-17	2.34E-21	3.16E-25	
CE143	4.09E-02	2.61E+00	2.71E+00	2.63E+00	2.59E+00	2.49E+00	2.33E+00	2.19E+00	2.06E+00	1.93E+00	1.81E+00	
PR143	1.20E-08	4.00E-03	9.65E-03	1.52E-02	2.07E-02	3.14E-02	4.62E-02	6.03E-02	7.33E-02	8.55E-02	9.67E-02	
CE144	1.54E-03	1.11E-02	1.11E-02	1.11E-02	1.11E-02	1.11E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02	1.10E-02	
PR144	4.24E-07	1.01E-02	1.10E-02	1.10E-02	1.11E-02	1.11E-02	1.11E-02	1.11E-02	1.10E-02	1.10E-02	1.10E-02	
PR145	6.93E-02	1.02E+01	9.06E+00	8.06E+00	7.19E+00	5.70E+00	4.02E+00	2.84E+00	2.01E+00	1.42E+00	1.00E+00	
CE146	2.29E+02	1.17E+01	6.01E-01	3.07E-02	1.58E-03	4.17E-06	5.61E-10	7.56E-14	1.02E-17	1.37E-21	1.85E-25	
PR146	4.73E+00	4.12E+01	9.33E+00	1.75E+00	3.15E-01	9.92E-03	5.48E-05	3.02E-07	1.67E-09	9.25E-12	5.05E-14	
PR147	2.62E+01	7.59E+00	2.37E-01	7.40E-03	2.32E-04	2.26E-07	6.90E-12	2.11E-16	6.43E-21	1.96E-25	5.99E-30	

K-6

POST MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.085E-12

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	9.37E-06	1.76E-01	1.81E-01	1.81E-01	1.80E-01	1.80E-01	1.78E-01	1.77E-01	1.75E-01	1.74E-01	1.73E-01
ND149	1.68E+01	1.14E+01	7.78E+00	5.30E+00	3.59E+00	1.67E+00	5.24E-01	1.65E-01	5.21E-02	1.64E-02	5.17E-03
PM149	2.34E-03	1.83E-01	3.03E-01	3.84E-01	4.35E-01	4.89E-01	5.08E-01	4.98E-01	4.86E-01	4.67E-01	4.51E-01
PM150	2.13E-01	1.64E-01	1.27E-01	9.82E-02	7.59E-02	4.56E-02	2.11E-02	9.75E-03	4.52E-03	2.09E-03	9.68E-04
ND151	8.63E+01	2.70E+00	8.44E-02	2.64E-03	8.25E-05	8.06E-08	2.46E-12	7.52E-17	2.29E-21	6.98E-26	2.14E-30
PM151	5.47E-02	6.40E-01	6.44E-01	6.28E-01	6.13E-01	5.82E-01	5.40E-01	5.01E-01	4.66E-01	4.32E-01	4.01E-01
PM152	1.46E+02	1.43E-01	1.39E-04	1.36E-07	1.33E-10	1.27E-16	1.18E-25	1.10E-34	1.03E-43	9.60E-53	8.92E-62
SM153	2.10E-01	2.07E-01	2.05E-01	2.01E-01	1.99E-01	1.93E-01	1.85E-01	1.76E-01	1.69E-01	1.62E-01	1.55E-01
SM155	1.50E+01	2.46E+00	4.03E-01	6.60E-02	1.08E-02	2.91E-04	1.28E-06	5.65E-09	2.49E-11	1.11E-13	2.73E-16
EU155	1.10E-05	3.14E-04	3.64E-04	3.71E-04	3.73E-04	3.73E-04	3.73E-04	3.73E-04	3.73E-04	3.73E-04	3.73E-04
SM156	3.26E-01	3.02E-01	2.81E-01	2.61E-01	2.42E-01	2.09E-01	1.67E-01	1.34E-01	1.08E-01	8.63E-02	6.90E-02
EU156	9.51E-04	1.55E-03	2.11E-03	2.63E-03	3.11E-03	3.96E-03	5.04E-03	5.83E-03	6.53E-03	7.04E-03	7.42E-03
EU157	5.01E-02	1.66E-01	1.59E-01	1.51E-01	1.44E-01	1.32E-01	1.15E-01	1.01E-01	8.76E-02	7.63E-02	6.65E-02
EU158	2.32E+00	9.40E-01	3.80E-01	1.54E-01	6.23E-02	1.02E-02	6.80E-04	4.50E-05	2.99E-06	1.99E-07	1.32E-08
EU159	2.76E+00	2.74E-01	2.72E-02	2.70E-03	2.67E-04	2.64E-06	2.58E-09	2.51E-12	2.45E-15	2.40E-18	2.34E-21
GD159	1.18E-02	5.18E-02	5.38E-02	5.22E-02	5.02E-02	4.65E-02	4.15E-02	3.70E-02	3.29E-02	2.93E-02	2.61E-02
TB161	1.95E-04	1.40E-03	1.39E-03	1.39E-03	1.38E-03	1.37E-03	1.36E-03	1.34E-03	1.32E-03	1.31E-03	1.29E-03
TOTAL	1.25E+04	2.42E+03	9.13E+02	5.46E+02	3.95E+02	2.62E+02	1.79E+02	1.36E+02	1.09E+02	9.03E+01	7.66E+01

POST MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.085E-12

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	1.83E-06	1.81E-06	1.79E-06	1.72E-06	1.61E-06	1.41E-06	1.24E-06	9.55E-07	5.00E-07	1.36E-07	3.69E-08	
NA 24	3.13E-02	1.03E-02	3.40E-03	1.22E-04	4.78E-07	7.30E-12	1.11E-16	2.59E-26	0.	0.	0.	0.
MN 54	1.47E-04	1.46E-04	1.46E-04	1.43E-04	1.42E-04	1.39E-04	1.37E-04	1.30E-04	1.16E-04	9.24E-05	7.37E-05	
FE 55	1.26E-04	1.26E-04	1.26E-04	1.25E-04	1.25E-04	1.24E-04	1.23E-04	1.21E-04	1.17E-04	1.09E-04	1.01E-04	
FE 59	6.98E-05	6.87E-05	6.77E-05	6.46E-05	5.98E-05	5.13E-05	4.40E-05	3.23E-05	1.50E-05	3.20E-06	6.87E-07	
CO 57	1.67E-07	1.67E-07	1.65E-07	1.65E-07	1.63E-07	1.58E-07	1.54E-07	1.47E-07	1.30E-07	1.00E-07	7.75E-08	
CO 58	4.50E-05	4.46E-05	4.41E-05	4.28E-05	4.08E-05	3.70E-05	3.36E-05	2.76E-05	1.70E-05	6.44E-06	2.43E-06	
CO 60	1.67E-05	1.67E-05	1.67E-05	1.67E-05	1.66E-05	1.66E-05	1.65E-05	1.64E-05	1.60E-05	1.55E-05	1.49E-05	
CU 64	9.16E-01	2.49E-01	6.80E-02	1.38E-03	2.07E-06	4.71E-12	1.07E-17	5.49E-29	0.	0.	0.	
CU 67	1.08E-05	8.26E-06	6.30E-06	2.80E-06	7.30E-07	4.92E-08	3.32E-09	1.51E-11	2.11E-17	0.	0.	
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
W185	8.15E-06	8.08E-06	7.94E-06	7.78E-06	7.44E-06	6.77E-06	6.18E-06	5.13E-06	3.24E-06	1.29E-06	5.11E-07	
W187	3.89E-03	1.94E-03	9.62E-04	1.20E-04	3.69E-06	3.52E-09	3.32E-12	3.00E-20	0.	0.	0.	
W188	2.37E-07	2.34E-07	2.32E-07	2.25E-07	2.15E-07	1.94E-07	1.75E-07	1.44E-07	8.72E-08	3.22E-08	1.18E-08	
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	1.37E-04	9.91E-05	3.80E-05	7.70E-06	3.17E-07	1.30E-08	2.18E-11	2.55E-18	0.	0.	0.	
U237	6.78E-02	6.12E-02	5.52E-02	4.06E-02	2.43E-02	8.70E-03	3.12E-03	3.99E-04	2.35E-06	2.53E-10	1.71E-10	
U240	4.70E-03	1.45E-03	4.44E-04	1.29E-05	3.54E-08	2.66E-13	2.00E-18	1.13E-28	0.	0.	0.	
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
NP239	3.33E-03	5.08E+00	3.78E+00	1.56E+00	3.57E-01	1.87E-02	9.78E-04	2.68E-06	1.06E-12	2.52E-22	2.52E-22	
NP240M	7.44E-06	1.46E-03	4.48E-04	1.30E-05	3.56E-08	2.68E-13	2.02E-18	1.14E-28	0.	0.	0.	
AM241	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.19E-07	
CM242	1.61E-05	1.60E-05	1.59E-05	1.57E-05	1.54E-05	1.47E-05	1.42E-05	1.30E-05	1.06E-05	6.88E-06	4.50E-06	
GE 77	1.01E-02	6.36E-03	1.46E-03	1.76E-05	1.12E-08	4.53E-15	1.83E-21	2.98E-34	0.	0.	0.	
AS 77	1.04E-04	1.54E-02	1.12E-02	3.23E-03	3.78E-04	5.13E-06	6.96E-08	1.28E-11	5.95E-21	1.28E-39	2.74E-58	
SE 77M	4.12E-09	4.64E-05	3.34E-05	9.69E-06	1.13E-06	1.54E-08	2.09E-10	3.85E-14	1.79E-23	3.82E-42	8.23E-61	
AS 78	2.60E-02	2.31E-04	6.77E-09	5.72E-23	0.	0.	0.	0.	0.	0.	0.	
BR 82	4.70E-04	2.94E-04	1.83E-04	4.46E-05	4.22E-06	3.80E-08	3.41E-10	2.75E-14	1.61E-24	5.51E-45	1.88E-65	
BR 83	3.24E-01	8.54E-03	8.58E-06	8.72E-15	8.90E-30	0.	0.	0.	0.	0.	0.	
KR 83M	1.68E-05	3.74E-02	4.24E-05	3.81E-14	3.91E-29	0.	0.	0.	0.	0.	0.	
KR 85M	2.57E-03	1.47E-01	3.34E-03	3.97E-08	2.45E-16	9.31E-33	3.53E-49	0.	0.	0.	0.	
KR 85	2.66E-06	6.98E-05	7.12E-05	7.12E-05	7.12E-05	7.12E-05	7.12E-05	7.09E-05	7.02E-05	6.88E-05	6.78E-05	
KR 87	3.94E+01	7.78E-05	1.54E-10	1.19E-27	0.	0.	0.	0.	0.	0.	0.	
KR 88	2.07E+01	5.46E-02	1.43E-04	2.60E-12	3.27E-25	0.	0.	0.	0.	0.	0.	
RB 88	5.27E+00	6.08E-02	1.60E-04	2.91E-12	3.65E-25	0.	0.	0.	0.	0.	0.	
SR 89	2.17E-06	6.50E-02	6.40E-02	6.15E-02	5.77E-02	5.04E-02	4.40E-02	3.39E-02	1.73E-02	4.56E-03	1.20E-03	
SR 90	4.18E-06	4.29E-04	4.29E-04	4.29E-04	4.29E-04	4.29E-04	4.29E-04	4.29E-04	4.25E-04	4.25E-04	4.22E-04	
Y 90	6.19E-12	9.84E-05	1.74E-04	3.13E-04	3.99E-04	4.25E-04	4.29E-04	4.29E-04	4.25E-04	4.25E-04	4.22E-04	
SR 91	5.46E-01	1.95E+00	3.50E-01	2.01E-03	3.67E-07	1.25E-14	4.22E-22	4.81E-37	0.	0.	0.	



POST MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.085E-12

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	3.67E-05	1.26E+00	2.26E-01	1.30E-03	2.38E-07	8.04E-15	2.72E-22	3.10E-37	0.	0.	0.	0.
Y 91	1.50E-08	6.01E-02	7.11E-02	7.11E-02	6.70E-02	5.94E-02	5.29E-02	4.19E-02	0.32E-02	7.14E-03	2.19E-03	0.
SR 92	4.31E+00	5.37E-02	1.16E-04	1.16E-12	5.45E-26	0.	0.	0.	0.	0.	0.	0.
Y 92	1.98E-01	5.63E-01	6.25E-03	4.81E-09	2.80E-19	9.59E-40	3.28E-60	0.	0.	0.	0.	0.
Y 93	2.43E-01	1.64E+00	3.20E-01	2.41E-03	6.93E-07	5.72E-14	4.73E-21	3.23E-35	0.	0.	0.	0.
ZR 95	5.21E-04	6.51E-02	6.45E-02	6.24E-02	5.92E-02	5.30E-02	4.78E-02	3.86E-02	2.26E-02	7.80E-03	2.67E-03	0.
NB 95M	1.11E-11	2.21E-04	4.02E-04	7.68E-04	1.04E-03	1.09E-03	1.01E-03	8.18E-04	4.80E-04	1.65E-04	5.69E-05	0.
NB 95	5.81E-11	1.26E-03	2.49E-03	5.97E-03	1.11E-02	1.91E-02	2.47E-02	3.06E-02	2.95E-02	1.42E-02	5.44E-03	0.
ZR 97	1.42E+00	2.41E+00	9.06E-01	4.80E-02	3.61E-04	2.03E-08	1.14E-12	3.61E-21	2.03E-42	0.	0.	0.
NB 97M	7.28E-03	2.31E+00	8.70E-01	4.63E-02	3.46E-04	1.95E-08	1.10E-12	3.46E-21	1.96E-42	0.	0.	0.
NB 97	7.09E-01	2.42E+00	9.09E-01	4.82E-02	3.63E-04	2.19E-08	1.23E-12	3.90E-21	2.19E-42	0.	0.	0.
MO 99	4.83E-03	1.57E+00	1.23E+00	5.82E-01	1.68E-01	1.41E-02	1.17E-03	8.19E-06	3.32E-11	5.48E-22	9.02E-33	0.
TC 99M	4.49E-08	1.38E+00	1.16E+00	5.57E-01	1.61E-01	1.34E-02	1.12E-03	7.82E-06	3.17E-11	5.23E-22	8.62E-33	0.
RU103	1.34E-04	3.05E-01	2.99E-01	2.84E-01	2.61E-01	2.19E-01	1.84E-01	1.30E-01	5.39E-02	9.35E-03	1.63E-03	0.
RH103M	8.92E-09	3.05E-01	3.00E-01	2.85E-01	2.61E-01	2.19E-01	1.84E-01	1.30E-01	5.40E-02	9.35E-03	1.63E-03	0.
RU105	1.30E+00	1.24E+00	2.92E-02	3.84E-07	2.80E-15	1.50E-31	8.02E-48	0.	0.	0.	0.	0.
RH105M	8.53E-03	1.24E+00	2.93E-02	3.84E-07	2.81E-15	1.51E-31	8.04E-48	0.	0.	0.	0.	0.
RH105	1.40E-08	4.48E+00	2.93E+00	7.29E-01	7.19E-02	6.99E-04	6.79E-06	6.41E-10	5.56E-20	4.18E-40	3.13E-60	0.
RU106	1.23E-03	2.32E-02	2.31E-02	2.30E-02	2.28E-02	2.24E-02	2.19E-02	2.11E-02	1.92E-02	1.59E-02	1.32E-02	0.
RH106	1.33E-05	2.32E-02	2.31E-02	2.30E-02	2.28E-02	2.24E-02	2.19E-02	2.11E-02	1.92E-02	1.59E-02	1.32E-02	0.
PD109	2.99E-02	7.62E-01	2.22E-01	5.51E-03	1.16E-05	5.17E-11	2.30E-16	4.56E-27	0.	0.	0.	0.
AG109M	1.73E-04	7.62E-01	2.23E-01	5.52E-03	1.17E-05	5.18E-11	2.30E-16	4.56E-27	0.	0.	0.	0.
PD111M	3.72E+00	1.81E-01	8.78E-03	1.01E-06	2.72E-13	1.99E-26	1.46E-39	0.	0.	0.	0.	0.
PD111	1.32E+00	1.46E-01	7.06E-03	8.10E-07	2.19E-13	1.60E-26	1.17E-39	0.	0.	0.	0.	0.
AG111M	1.05E-02	1.90E-01	9.26E-03	1.07E-06	2.87E-13	2.11E-26	1.54E-39	0.	0.	0.	0.	0.
AG111	3.75E-09	1.03E-01	9.94E-02	7.57E-02	4.76E-02	1.89E-02	7.50E-03	1.18E-03	1.16E-05	1.13E-09	1.09E-13	0.
PD112	8.06E-01	3.66E-01	1.66E-01	1.54E-02	2.92E-04	1.06E-07	3.86E-11	5.06E-18	3.19E-35	0.	0.	0.
AG112	2.43E-05	4.25E-01	1.95E-01	1.81E-02	3.47E-04	1.25E-07	4.55E-11	6.00E-18	3.76E-35	0.	0.	0.
AG113	7.82E-03	8.27E-02	3.57E-03	2.90E-07	4.44E-14	1.04E-27	2.43E-41	0.	0.	0.	0.	0.
CD115M	2.06E-08	5.96E-04	5.86E-04	5.58E-04	5.16E-04	4.38E-04	3.74E-04	2.70E-04	1.21E-04	2.40E-05	4.80E-06	0.
CD115	7.97E-06	1.20E-01	8.79E-02	3.46E-02	7.31E-03	3.26E-04	1.46E-05	2.90E-08	5.12E-15	1.61E-28	5.02E-42	0.
IN115M	9.93E-11	1.26E-01	9.59E-02	3.78E-02	7.97E-03	3.56E-04	1.59E-05	3.16E-08	5.60E-15	1.75E-28	5.48E-42	0.
CD117	1.74E-01	3.79E-03	3.69E-06	3.45E-15	3.06E-30	0.	0.	0.	0.	0.	0.	0.
IN117M	8.37E-06	1.58E-02	1.82E-05	1.76E-14	1.56E-29	0.	0.	0.	0.	0.	0.	0.
IN117	3.37E-10	1.04E-02	1.23E-05	1.19E-14	1.06E-29	0.	0.	0.	0.	0.	0.	0.
SN121	3.69E-03	2.10E-01	1.13E-01	1.79E-02	8.20E-04	1.73E-06	3.64E-09	1.62E-14	6.79E-28	0.	0.	0.
SN123	1.85E-05	1.93E-03	1.92E-03	1.88E-03	1.83E-03	1.73E-03	1.64E-03	1.47E-03	1.11E-03	6.39E-04	3.68E-04	0.
SN125	4.62E-02	4.30E-02	4.00E-02	3.20E-02	2.21E-02	1.06E-02	5.06E-03	1.16E-03	2.90E-05	1.82E-08	1.14E-11	0.
SB125	2.78E-04	3.08E-04	3.37E-04	4.12E-04	5.05E-04	6.11E-04	6.58E-04	6.86E-04	6.72E-04	6.28E-04	5.85E-04	0.
SB126	6.43E-03	6.08E-03	5.76E-03	4.87E-03	3.65E-03	2.12E-03	1.22E-03	4.02E-04	2.51E-05	1.22E-07	2.45E-08	0.

K-9

POST MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.085E-12

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	5.74E+00	2.08E-03	7.55E-07	3.60E-17	2.26E-34	0.	0.	0.	0.	0.	0.
SB127	6.69E-02	2.75E-01	2.30E-01	1.34E-01	5.50E-02	9.18E-03	1.53E-03	4.29E-05	5.60E-09	9.56E-17	1.63E-24
TE127M	5.41E-10	4.19E-04	7.67E-04	1.49E-03	2.06E-03	2.27E-03	2.19E-03	1.94E-03	1.42E-03	7.47E-04	3.95E-04
TE127	3.78E-02	1.97E-01	1.93E-01	1.18E-01	4.97E-02	1.02E-02	3.49E-03	1.96E-03	1.40E-03	7.39E-04	3.91E-04
SB128	1.48E+00	2.52E-01	3.98E-02	1.55E-04	1.51E-08	1.41E-16	1.33E-24	1.17E-40	0.	0.	0.
SB129	7.30E+00	3.74E-01	7.80E-03	7.10E-08	2.82E-16	4.46E-33	7.04E-50	0.	0.	0.	0.
TE129M	1.38E-07	1.45E-02	1.45E-02	1.37E-02	1.24E-02	1.01E-02	8.21E-03	5.47E-03	1.97E-03	2.57E-04	3.34E-05
TE129	5.25E+00	4.38E-01	1.82E-02	8.79E-03	7.92E-03	6.46E-03	5.27E-03	3.51E-03	1.26E-03	1.65E-04	2.14E-05
I130	3.42E-02	8.94E-03	2.34E-03	4.18E-05	5.11E-08	7.61E-14	1.14E-19	2.53E-31	0.	0.	0.
TE131M	1.24E-04	4.35E-01	2.50E-01	4.73E-02	2.96E-03	1.15E-05	4.52E-08	6.89E-13	6.26E-25	0.	0.
TE131	1.15E+02	7.94E-02	4.56E-02	8.65E-03	5.40E-04	2.11E-06	8.23E-09	1.26E-13	1.15E-25	0.	0.
I131	1.66E-02	8.98E-01	8.49E-01	6.82E-01	4.49E-01	1.90E-01	8.03E-02	1.43E-02	1.94E-04	3.53E-08	6.43E-12
XE131M	4.52E-11	4.16E-04	7.90E-04	1.65E-03	2.36E-03	2.33E-03	1.73E-03	7.14E-04	4.76E-05	1.43E-07	4.02E-10
TE132	1.12E+00	2.22E+00	1.80E+00	9.45E-01	3.26E-01	3.86E-02	4.58E-03	6.43E-05	1.50E-09	8.23E-19	4.49E-28
I132	2.75E+00	2.29E+00	1.85E+00	9.72E-01	3.36E-01	3.98E-02	4.71E-03	6.62E-05	1.55E-09	8.43E-19	4.62E-28
I133	1.12E+00	6.24E+00	2.81E+00	2.61E-01	4.98E-03	1.80E-06	6.55E-10	8.63E-17	5.42E-34	0.	0.
XE133M	4.77E-08	5.89E-02	6.98E-02	4.09E-02	9.61E-03	4.51E-04	2.10E-05	4.55E-08	9.97E-15	4.77E-28	2.28E-41
XE133	8.32E-07	1.13E+00	1.52E+00	1.36E+00	7.40E-01	2.00E-01	5.38E-02	3.87E-03	5.40E-06	1.05E-11	2.03E-17
I135	1.91E+01	3.11E+00	2.60E-01	1.51E-04	6.14E-10	1.01E-20	1.67E-31	4.53E-53	0.	0.	0.
XE135M	2.11E-03	9.70E-01	8.11E-02	4.72E-05	1.92E-10	3.16E-21	5.20E-32	1.41E-53	0.	0.	0.
XE135	2.20E+00	8.39E+00	2.05E+00	1.17E-02	1.44E-06	2.02E-14	2.83E-22	5.59E-38	0.	0.	0.
CS136	3.10E-02	2.94E-02	2.78E-02	2.37E-02	1.82E-02	1.07E-02	6.28E-03	2.15E-03	1.50E-04	7.21E-07	3.50E-09
CS137	9.80E-05	1.06E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03	1.06E-03	1.05E-03	1.04E-03	1.04E-03
BA137M	2.07E-07	9.86E-04	9.86E-04	9.86E-04	9.86E-04	9.86E-04	9.86E-04	9.86E-04	9.80E-04	9.74E-04	9.68E-04
BA139	1.37E+01	1.46E-03	8.62E-09	1.77E-24	0.	0.	0.	0.	0.	0.	0.
BA140	9.81E-02	5.79E-01	5.51E-01	4.67E-01	3.56E-01	2.07E-01	1.21E-01	4.09E-02	2.73E-03	1.21E-05	5.37E-08
LA140	2.33E-07	2.02E-01	3.25E-01	4.49E-01	3.99E-01	2.39E-01	1.39E-01	4.72E-02	3.13E-03	1.40E-05	6.21E-08
LA141	1.39E+00	5.50E-01	7.72E-03	2.14E-08	1.17E-17	3.49E-36	1.04E-54	0.	0.	0.	0.
CE141	1.72E-07	1.90E-01	1.89E-01	1.77E-01	1.59E-01	1.29E-01	1.04E-01	6.75E-02	2.32E-02	2.73E-03	3.22E-04
LA142	7.04E+00	1.54E-03	2.99E-08	2.20E-22	0.	0.	0.	0.	0.	0.	0.
CE143	4.09E-02	1.68E+00	1.02E+00	2.24E-01	1.80E-02	1.17E-04	7.54E-07	3.16E-11	3.57E-22	0.	0.
PR143	1.20E-08	1.08E-01	1.68E-01	2.16E-01	1.86E-01	1.13E-01	6.82E-02	2.47E-02	1.97E-03	1.25E-05	7.95E-08
CE144	1.54E-03	1.10E-02	1.10E-02	1.09E-02	1.08E-02	1.05E-02	1.03E-02	9.80E-03	8.66E-03	6.79E-03	5.33E-03
PR144	4.24E-07	1.10E-02	1.10E-02	1.09E-02	1.08E-02	1.05E-02	1.03E-02	9.80E-03	8.66E-03	6.79E-03	5.33E-03
PR145	6.93E-02	7.09E-01	4.38E-02	1.04E-05	9.48E-12	7.85E-24	6.51E-36	0.	0.	0.	0.
ND147	9.37E-06	1.57E-01	1.48E-01	1.23E-01	8.98E-02	4.82E-02	2.57E-02	7.40E-03	3.24E-04	6.32E-07	1.22E-09
PM147	2.60E-14	1.18E-04	2.28E-04	5.21E-04	9.01E-04	1.37E-03	1.62E-03	1.81E-03	1.83E-03	1.70E-03	1.58E-03
ND149	1.68E+01	1.63E-03	1.57E-07	1.43E-19	1.23E-39	0.	0.	0.	0.	0.	0.
PM149	2.34E-03	4.32E-01	3.16E-01	1.23E-01	2.58E-02	1.12E-03	4.89E-05	9.30E-08	1.47E-14	3.62E-28	9.02E-42
PM150	2.13E-01	4.49E-04	9.45E-07	8.87E-15	3.71E-28	0.	0.	0.	0.	0.	0.

POST MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.085E-12

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	5.47E-02	3.73E-01	2.06E-01	3.46E-02	1.78E-03	4.66E-06	1.23E-08	8.48E-14	1.06E-26	0.	0.	0.
SM153	2.10E-01	1.48E-01	1.04E-01	3.59E-02	6.10E-03	1.77E-04	5.15E-06	4.33E-09	8.93E-17	3.80E-32	1.62E-47	0.
SM156	3.26E-01	5.55E-02	9.47E-03	4.66E-05	6.72E-09	1.38E-16	2.85E-24	1.21E-39	0.	0.	0.	0.
EU155	1.10E-05	3.73E-04	3.72E-04	3.72E-04	3.71E-04	3.70E-04	3.68E-04	3.66E-04	3.59E-04	3.44E-04	3.31E-04	3.31E-04
EU156	9.51E-04	7.74E-03	8.58E-03	7.70E-03	6.11E-03	3.84E-03	2.42E-03	9.61E-04	9.51E-05	9.37E-07	9.24E-09	0.
EU157	5.01E-02	5.79E-02	1.95E-02	7.30E-04	3.07E-06	5.41E-11	9.58E-16	2.98E-25	0.	0.	0.	0.
GD159	1.18E-02	2.33E-02	9.25E-03	5.77E-04	5.68E-06	5.50E-10	5.33E-14	5.00E-22	4.27E-42	0.	0.	0.
TB161	1.95E-04	1.27E-03	1.15E-03	8.50E-04	5.15E-04	1.88E-04	6.89E-05	9.24E-06	6.11E-08	2.64E-12	1.15E-16	0.
TOTAL	2.82E+02	6.54E+01	3.03E+01	1.12E+01	4.93E+00	2.04E+00	1.26E+00	7.01E-01	3.02E-01	1.09E-01	5.90E-02	0.

POST  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 3.085E-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	1.83E-06	1.58E-08	1.47E-09	1.37E-10	1.10E-13	8.80E-17	6.58E-21	4.22E-27	0.	0.	0.
MN 54	1.47E-04	6.34E-05	4.18E-05	2.75E-05	7.85E-06	2.24E-06	4.22E-07	3.45E-08	8.10E-12	2.93E-17	1.06E-22
FE 59	6.98E-05	2.52E-07	1.51E-08	9.08E-10	1.97E-13	4.26E-17	5.55E-22	2.60E-29	0.	0.	0.
CO 57	1.67E-07	6.57E-08	4.11E-08	2.58E-08	6.36E-09	1.57E-09	2.42E-11	1.47E-11	1.28E-15	1.05E-21	0.
CO 58	4.50E-05	1.29E-06	2.19E-07	3.71E-08	1.81E-10	8.80E-13	7.26E-16	1.72E-20	6.58E-36	0.	0.
CO 60	1.67E-05	1.46E-05	1.36E-05	1.27E-05	1.05E-05	8.60E-06	6.60E-06	4.45E-06	1.19E-06	1.66E-07	2.29E-08
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	8.15E-06	2.80E-07	5.19E-08	9.62E-09	6.12E-11	3.91E-13	4.60E-16	1.87E-20	0.	0.	0.
W188	2.37E-07	6.16E-09	1.00E-09	1.60E-10	6.78E-13	2.84E-15	1.92E-18	3.40E-23	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	6.78E-02	1.69E-10	1.65E-10	1.60E-10	1.50E-10	1.39E-10	1.27E-10	1.10E-10	6.84E-11	3.36E-11	1.65E-11
AM241	7.19E-07	7.19E-07	7.19E-07	7.19E-07	7.23E-07	7.26E-07	7.26E-07	7.30E-07	7.33E-07	7.26E-07	7.16E-07
CM242	1.61E-05	3.41E-06	1.57E-06	7.21E-07	7.02E-08	6.84E-09	3.07E-10	2.90E-12	8.33E-17	7.76E-17	7.25E-17
KR 85	2.66E-06	6.61E-05	6.40E-05	6.20E-05	5.65E-05	5.10E-05	4.48E-05	3.70E-05	1.95E-05	7.46E-06	2.85E-06
SR 89	2.17E-06	5.07E-04	4.44E-05	3.90E-06	2.62E-09	1.77E-12	1.05E-16	4.75E-23	3.45E-44	0.	0.
SR 90	4.18E-06	4.18E-04	4.14E-04	4.10E-04	3.95E-04	3.80E-04	3.62E-04	3.36E-04	2.62E-04	1.81E-04	1.25E-04
Y 90	6.19E-12	4.18E-04	4.14E-04	4.10E-04	3.95E-04	3.80E-04	3.62E-04	3.36E-04	2.62E-04	1.81E-04	1.25E-04
Y 91	1.50E-08	1.02E-03	1.18E-04	1.37E-05	2.15E-08	3.38E-11	6.18E-15	1.52E-20	3.07E-39	0.	0.
ZR 95	5.21E-04	1.34E-03	1.91E-04	2.72E-05	7.93E-08	2.31E-10	9.56E-14	8.07E-19	9.88E-36	0.	0.
NB 95M	1.11E-11	2.83E-05	4.05E-06	5.78E-07	1.68E-09	4.89E-12	2.03E-15	1.71E-20	2.10E-37	0.	0.
NB 95	5.81E-11	2.88E-03	4.14E-04	5.90E-05	1.71E-07	4.96E-10	2.07E-13	1.75E-18	2.14E-35	0.	0.
RU103	1.34E-04	5.20E-04	2.13E-05	8.75E-07	5.97E-11	4.09E-15	1.15E-20	5.41E-29	0.	0.	0.
RH103M	8.92E-09	5.21E-04	2.13E-05	8.75E-07	5.98E-11	4.10E-15	1.15E-20	5.41E-29	0.	0.	0.
RU106	1.23E-03	1.17E-02	8.25E-03	5.85E-03	2.08E-03	7.38E-04	1.86E-04	2.35E-05	2.37E-08	7.63E-13	2.45E-17
RH106	1.33E-05	1.17E-02	8.25E-03	5.85E-03	2.08E-03	7.38E-04	1.86E-04	2.35E-05	2.37E-08	7.63E-13	2.45E-17
SN123	1.85E-05	2.56E-04	9.29E-05	3.37E-05	1.62E-06	7.76E-08	1.35E-09	3.12E-12	5.00E-21	3.22E-34	2.07E-47
SB125	2.78E-04	5.59E-04	4.91E-04	4.32E-04	2.95E-04	2.00E-04	1.20E-04	5.54E-05	4.26E-06	9.07E-08	1.93E-09
TE125M	7.47E-12	2.28E-04	2.03E-04	1.79E-04	1.22E-04	8.29E-05	4.96E-05	2.29E-05	1.76E-06	3.75E-08	7.99E-10
TE127M	5.41E-10	2.59E-04	8.11E-05	2.54E-05	7.80E-07	2.40E-08	2.31E-10	2.17E-13	1.78E-23	1.33E-38	9.93E-54
TE127	3.78E-02	2.56E-04	8.01E-05	2.51E-05	7.71E-07	2.37E-08	2.28E-10	2.15E-13	1.76E-23	1.31E-38	9.83E-54
CS137	9.80E-05	1.03E-03	1.02E-03	1.01E-03	9.74E-04	9.39E-04	8.98E-04	8.39E-04	6.63E-04	4.71E-04	3.33E-04
BA137M	2.07E-07	9.68E-04	9.57E-04	9.45E-04	9.10E-04	8.80E-04	8.39E-04	7.86E-04	6.22E-04	4.40E-04	3.12E-04
CE141	1.72E-07	7.40E-05	1.49E-06	2.99E-08	2.43E-13	1.98E-18	3.25E-25	2.15E-35	0.	0.	0.
CE144	1.54E-03	4.54E-03	2.92E-03	1.86E-03	4.89E-04	1.29E-04	2.16E-05	1.49E-06	2.01E-10	3.15E-16	4.91E-22
PR144	4.24E-07	4.54E-03	2.92E-03	1.86E-03	4.89E-04	1.29E-04	2.16E-05	1.49E-06	2.01E-10	3.15E-16	4.91E-22
PM147	2.60E-14	1.51E-03	1.32E-03	1.16E-03	7.79E-04	5.24E-04	3.08E-04	1.40E-04	9.92E-06	1.88E-07	3.55E-09
EU155	1.10E-05	3.22E-04	3.00E-04	2.79E-04	2.24E-04	1.80E-04	1.34E-04	8.68E-05	2.03E-05	2.28E-06	2.57E-07
TOTAL	1.10E-01	4.57E-02	2.86E-02	2.05E-02	9.31E-03	5.36E-03	3.54E-03	2.69E-03	1.87E-03	1.28E-03	8.99E-04

K-12

**APPENDIX L**  
**DETAILED RESULTS FOR EVENT MET**

MET  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.635E-13

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.01E+02	9.75E+03
1.00E+00	3.42E+01	2.24E+03
2.00E+00	1.37E+01	8.97E+02
3.00E+00	7.30E+00	5.47E+02
4.00E+00	4.53E+00	3.97E+02
6.00E+00	2.36E+00	2.61E+02
9.00E+00	1.38E+00	1.76E+02
1.20E+01	1.00E+00	1.32E+02
1.50E+01	7.80E-01	1.05E+02
1.80E+01	6.34E-01	8.63E+01
2.10E+01	5.28E-01	7.28E+01
1.00E+00 DAYS	4.43E-01	6.17E+01
2.00E+00	1.92E-01	2.70E+01
5.00E+00	7.49E-02	9.91E+00
1.00E+01	3.63E-02	4.58E+00
2.00E+01	1.50E-02	1.95E+00
3.00E+01	8.56E-03	1.20E+00
5.00E+01	3.82E-03	6.61E-01
1.00E+02	1.25E-03	2.83E-01
2.00E+02	4.29E-04	9.86E-02
3.00E+02	1.66E-04	4.65E-02
1.00E+03 YEARS	9.50E-05	3.28E-02
1.50E+00	2.90E-05	1.82E-02
2.00E+00	1.74E-05	1.30E-02
3.50E+00	1.14E-05	6.87E-03
5.00E+00	9.54E-06	4.88E-03
7.00E+00	8.50E-06	3.93E-03
1.00E+01	7.68E-06	3.36E-03
2.00E+01	5.91E-06	2.48E-03
3.50E+01	4.17E-06	1.71E-03
5.00E+01	2.94E-06	1.19E-03

MET MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.635E-13

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	1.91E-07	1.91E-07	1.91E-07	1.91E-07	1.91E-07	1.91E-07	1.90E-07	1.90E-07	1.90E-07	1.89E-07	1.89E-07
NA 24	2.16E-02	2.06E-02	1.97E-02	1.88E-02	1.80E-02	1.64E-02	1.43E-02	1.24E-02	1.08E-02	9.43E-03	8.17E-03
MN 54	5.63E-05	5.63E-05	5.63E-05	5.63E-05	5.63E-05	5.63E-05	5.63E-05	5.58E-05	5.58E-05	5.58E-05	5.58E-05
FE 55	9.16E-05	9.16E-05	9.16E-05	9.16E-05	9.16E-05	9.16E-05	9.16E-05	9.16E-05	9.16E-05	9.16E-05	9.16E-05
FE 59	1.92E-04	1.91E-04	1.91E-04	1.91E-04	1.91E-04	1.91E-04	1.91E-04	1.91E-04	1.90E-04	1.90E-04	1.89E-04
CO 57	6.26E-07	6.26E-07	6.26E-07	6.26E-07	6.26E-07	6.26E-07	6.26E-07	6.26E-07	6.26E-07	6.26E-07	6.26E-07
CO 58	7.37E-04	7.37E-04	7.37E-04	7.37E-04	7.35E-04	7.35E-04	7.34E-04	7.34E-04	7.32E-04	7.32E-04	7.31E-04
CO 60	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.37E-05
CU 64	7.53E-01	7.12E-01	6.75E-01	6.40E-01	6.06E-01	5.44E-01	4.62E-01	3.93E-01	3.34E-01	2.84E-01	2.41E-01
CU 67	2.03E-05	2.02E-05	1.98E-05	1.96E-05	1.95E-05	1.90E-05	1.83E-05	1.77E-05	1.72E-05	1.65E-05	1.60E-05
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04	1.30E-04
W187	9.01E-03	8.73E-03	8.47E-03	8.24E-03	8.02E-03	7.55E-03	6.94E-03	6.37E-03	5.81E-03	5.36E-03	4.89E-03
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	3.32E-05	3.27E-05	3.22E-05	3.18E-05	3.13E-05	3.06E-05	2.94E-05	2.83E-05	2.71E-05	2.60E-05	2.50E-05
U237	6.09E-02	6.07E-02	6.04E-02	6.01E-02	5.99E-02	5.93E-02	5.85E-02	5.79E-02	5.71E-02	5.63E-02	5.56E-02
U239	9.14E+02	1.56E+02	2.66E+01	4.53E+00	7.70E-01	2.24E-02	1.11E-04	5.48E-07	2.71E-09	1.34E-11	6.64E-14
U240	1.73E-01	1.65E-01	1.57E-01	1.50E-01	1.42E-01	1.29E-01	1.11E-01	9.60E-02	8.29E-02	7.14E-02	6.16E-02
NP239	3.13E-03	5.24E+00	6.06E+00	6.16E+00	6.11E+00	5.97E+00	5.72E+00	5.53E+00	5.34E+00	5.15E+00	4.96E+00
NP240M	2.74E-04	1.66E-01	1.59E-01	1.51E-01	1.44E-01	1.30E-01	1.12E-01	9.69E-02	8.35E-02	7.20E-02	6.22E-02
NP240	6.94E-12	3.57E-12	1.85E-12	9.56E-13	4.95E-13	1.32E-13	1.82E-14	2.52E-15	3.47E-16	4.78E-17	6.62E-18
AM241	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CM242	2.96E-06	2.96E-06	2.96E-06	2.96E-06	2.96E-06	2.96E-06	2.95E-06	2.95E-06	2.95E-06	2.95E-06	2.95E-06
GE 75	2.79E-05	1.35E-01	8.14E-02	4.90E-02	2.95E-02	1.07E-02	2.33E-03	5.11E-04	1.12E-04	2.43E-05	5.32E-06
GE 77	1.15E-02	2.96E-02	2.78E-02	2.62E-02	2.46E-02	2.18E-02	1.81E-02	1.51E-02	1.25E-02	1.04E-02	8.68E-03
AS 77	1.19E-04	1.88E-02	1.90E-02	1.91E-02	1.92E-02	1.94E-02	1.94E-02	1.92E-02	1.89E-02	1.85E-02	1.81E-02
SE 77M	4.68E-09	5.61E-05	5.70E-05	5.74E-05	5.74E-05	5.78E-05	5.83E-05	5.78E-05	5.70E-05	5.57E-05	5.40E-05
GE 78	1.40E+00	8.73E-01	5.43E-01	3.39E-01	2.12E-01	8.24E-02	2.00E-02	4.85E-03	1.18E-03	2.88E-04	6.98E-05
AS 78	2.51E-02	4.17E-01	5.14E-01	4.81E-01	4.02E-01	2.38E-01	8.82E-02	2.93E-02	9.07E-03	2.71E-03	7.85E-04
AS 79	2.41E+01	2.37E-01	2.34E-03	2.30E-05	2.27E-07	2.20E-11	2.09E-17	2.00E-23	1.91E-29	1.82E-35	1.74E-41
SE 79M	3.57E-02	4.19E-01	4.13E-03	4.07E-05	4.01E-07	3.87E-11	3.70E-17	3.53E-23	3.37E-29	3.21E-35	3.07E-41
BR 80	1.42E-01	1.34E-02	1.26E-03	1.18E-04	1.11E-05	9.87E-08	8.26E-11	6.89E-14	5.74E-17	4.79E-20	4.00E-23
SE 81M	1.12E-01	5.20E+00	2.51E+00	1.21E+00	5.81E-01	1.36E-01	1.52E-02	1.70E-03	1.91E-04	2.14E-05	2.40E-06
SE 81	1.36E+00	6.15E+00	3.56E+00	1.78E+00	8.62E-01	2.01E-01	2.25E-02	2.52E-03	2.83E-04	3.17E-05	3.55E-06
BR 82	6.52E-04	6.40E-04	6.27E-04	6.15E-04	6.03E-04	5.80E-04	5.47E-04	5.15E-04	4.86E-04	4.58E-04	4.32E-04
SE 83	5.88E+01	1.11E+01	2.11E+00	4.00E-01	7.57E-02	2.72E-03	1.85E-05	1.26E-07	8.60E-10	5.83E-12	3.70E-14
BR 83	4.88E-01	7.29E+00	6.75E+00	5.31E+00	4.03E+00	2.28E+00	9.63E-01	4.05E-01	1.71E-01	7.22E-02	3.05E-02
KR 83M	2.52E-05	1.65E+00	3.37E+00	4.19E+00	4.32E+00	3.61E+00	2.13E+00	1.09E+00	5.27E-01	2.44E-01	1.09E-01

L-3

MET MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.635E-13

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	1.22E-01	2.11E+01	5.70E+00	1.54E+00	4.17E-01	3.05E-02	6.03E-04	1.19E-05	2.36E-07	4.66E-09	9.20E-11	
KR 85M	5.75E-03	1.23E+01	1.05E+01	8.96E+00	7.66E+00	5.59E+00	3.48E+00	2.17E+00	1.36E+00	8.42E-01	5.26E-01	
KR 87	9.33E+01	5.38E+01	3.12E+01	1.80E+01	1.04E+01	3.49E+00	6.76E-01	1.31E-01	2.54E-02	4.91E-03	9.49E-04	
KR 88	5.30E+01	4.14E+01	3.23E+01	2.52E+01	1.97E+01	1.20E+01	5.71E+00	2.72E+00	1.29E+00	6.15E-01	2.93E-01	
RB 88	1.35E+01	4.18E+01	3.57E+01	2.81E+01	2.20E+01	1.34E+01	6.39E+00	3.04E+00	1.45E+00	6.89E-01	3.23E-01	
RB 89	6.47E+01	6.08E+01	4.09E+00	2.75E-01	1.84E-02	8.34E-05	2.52E-08	7.61E-12	2.32E-15	7.02E-19	2.13E-22	
SR 89	4.96E-06	1.74E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01	1.86E-01	1.85E-01	1.85E-01	1.84E-01	1.84E-01	
SR 90	9.51E-06	9.77E-04	9.77E-04	9.77E-04	9.77E-04	9.77E-04	9.77E-04	9.77E-04	9.77E-04	9.77E-04	9.77E-04	
SR 91	1.10E+00	2.05E+01	1.91E+01	1.78E+01	1.66E+01	1.44E+01	1.16E+01	9.36E+00	7.56E+00	6.07E+00	4.90E+00	
Y 91M	7.42E-05	7.07E+00	9.64E+00	1.03E+01	1.02E+01	9.15E+00	7.49E+00	6.03E+00	4.86E+00	3.92E+00	3.16E+00	
Y 91	3.04E-08	6.29E-03	1.45E-02	2.32E-02	3.16E-02	4.74E-02	6.73E-02	8.32E-02	9.64E-02	1.07E-01	1.15E-01	
SR 92	7.91E+00	3.53E+01	2.74E+01	2.12E+01	1.64E+01	9.83E+00	4.56E+00	2.12E+00	9.83E-01	4.56E-01	2.12E-01	
Y 92	3.65E-01	7.43E+00	1.17E+01	1.39E+01	1.47E+01	1.40E+01	1.07E+01	7.32E+00	4.71E+00	2.90E+00	1.75E+00	
SR 93	3.08E+02	5.31E+00	2.93E-02	1.62E-04	8.93E-07	2.73E-11	4.61E-18	7.77E-25	1.31E-31	2.21E-38	3.73E-45	
Y 93	3.76E-01	1.22E+01	1.14E+01	1.07E+01	9.99E+00	8.72E+00	7.11E+00	5.80E+00	4.71E+00	3.87E+00	3.14E+00	
Y 94	4.43E+01	6.05E+01	7.79E+00	1.00E+00	1.30E-01	2.15E-03	4.61E-06	9.89E-09	2.11E-11	4.61E-14	2.56E-15	
Y 95	1.86E+02	1.76E+01	3.87E-01	8.54E-03	1.88E-04	9.13E-08	9.77E-13	1.04E-17	1.12E-22	1.19E-27	1.28E-32	
ZR 95	7.01E-04	9.16E-02	9.34E-02	9.34E-02	9.34E-02	9.34E-02	9.34E-02	9.31E-02	9.31E-02	9.28E-02	9.28E-02	
NB 95	7.80E-11	5.65E-05	1.32E-04	2.07E-04	2.83E-04	4.33E-04	6.57E-04	8.85E-04	1.11E-03	1.33E-03	1.55E-03	
ZR 97	1.64E+00	7.14E+00	6.83E+00	6.57E+00	6.29E+00	5.81E+00	5.14E+00	4.54E+00	4.03E+00	3.56E+00	3.16E+00	
NB 97M	8.44E-03	6.86E+00	6.57E+00	6.32E+00	6.07E+00	5.59E+00	4.94E+00	4.37E+00	3.87E+00	3.41E+00	3.02E+00	
NB 97	8.21E-01	3.58E+00	5.05E+00	5.76E+00	6.04E+00	6.01E+00	5.47E+00	4.88E+00	4.32E+00	3.81E+00	3.39E+00	
NB 98	9.01E+00	3.99E+00	1.76E+00	7.80E-01	3.46E-01	6.77E-02	5.85E-03	5.05E-04	4.40E-05	3.81E-06	3.28E-07	
MO 99	4.61E-03	1.90E+00	1.88E+00	1.86E+00	1.84E+00	1.81E+00	1.75E+00	1.70E+00	1.65E+00	1.60E+00	1.55E+00	
TC 99M	4.29E-08	1.81E-01	3.41E-01	4.81E-01	6.05E-01	8.07E-01	1.02E+00	1.16E+00	1.25E+00	1.29E+00	1.32E+00	
MO101	1.19E+02	5.38E+01	3.12E+00	1.81E-01	1.05E-02	3.52E-05	6.84E-09	1.33E-12	2.59E-16	5.03E-20	9.81E-24	
TC101	5.03E+00	1.51E+02	1.65E+01	1.35E+00	9.86E-02	4.45E-04	1.11E-07	2.49E-11	5.28E-15	1.09E-18	2.20E-22	
MO102	8.94E+02	2.04E+01	4.64E-01	1.06E-02	2.42E-04	1.26E-07	1.49E-12	1.77E-17	2.10E-22	2.49E-27	2.96E-32	
TC102M	5.75E-01	1.72E+01	3.95E-01	9.02E-03	2.06E-04	1.06E-07	1.26E-12	1.50E-17	1.77E-22	2.11E-27	2.50E-32	
TC102	2.69E+03	1.03E+01	2.34E-01	5.32E-03	1.22E-04	6.34E-08	7.53E-13	8.94E-18	1.06E-22	1.26E-27	1.49E-32	
RU103	5.82E-05	1.35E-01	1.35E-01	1.35E-01	1.35E-01	1.34E-01	1.34E-01	1.34E-01	1.34E-01	1.33E-01	1.33E-01	
RH103M	3.88E-09	6.97E-02	1.03E-01	1.20E-01	1.28E-01	1.33E-01	1.34E-01	1.34E-01	1.34E-01	1.33E-01	1.33E-01	
TC104	4.61E+01	3.31E+01	3.31E+00	3.28E-01	3.25E-02	3.20E-04	3.12E-07	3.05E-10	2.98E-13	2.91E-16	2.84E-19	
RU105	3.16E-01	1.09E+01	9.33E+00	7.99E+00	6.84E+00	5.00E+00	3.13E+00	1.96E+00	1.23E+00	7.67E-01	4.82E-01	
RH105M	2.08E-03	1.09E+01	9.35E+00	8.02E+00	6.84E+00	5.02E+00	3.13E+00	1.97E+00	1.23E+00	7.70E-01	4.82E-01	
RH105	3.41E-09	2.22E-01	4.12E-01	5.69E-01	7.00E-01	8.96E-01	1.07E+00	1.15E+00	1.18E+00	1.16E+00	1.13E+00	
RU106	2.46E-04	4.66E-03	4.66E-03	4.66E-03	4.66E-03	4.66E-03	4.66E-03	4.66E-03	4.66E-03	4.66E-03	4.66E-03	
RH106	2.66E-06	4.66E-03	4.66E-03	4.66E-03	4.66E-03	4.66E-03	4.66E-03	4.66E-03	4.66E-03	4.66E-03	4.66E-03	
RH107	3.55E-02	4.81E+00	7.30E-01	1.10E-01	1.66E-02	3.78E-04	1.30E-06	4.49E-09	1.55E-11	5.29E-14	5.26E-18	
PD107M	7.37E-05	9.80E-01	1.48E-01	2.24E-02	3.37E-03	7.70E-05	2.65E-07	9.14E-10	3.14E-12	1.09E-14	3.70E-17	



MET MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.635E-13

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	2.52E-03	2.09E-01	1.99E-01	1.88E-01	1.79E-01	1.61E-01	1.39E-01	1.19E-01	1.02E-01	8.73E-02	7.50E-02	
AG109M	1.45E-05	2.09E-01	1.99E-01	1.89E-01	1.79E-01	1.62E-01	1.39E-01	1.19E-01	1.02E-01	8.73E-02	7.50E-02	
PD111M	3.55E-01	3.13E-01	2.76E-01	2.44E-01	2.15E-01	1.67E-01	1.14E-01	7.84E-02	5.37E-02	3.67E-02	2.52E-02	
PD111	1.27E-01	2.28E-01	2.19E-01	1.95E-01	1.72E-01	1.34E-01	9.19E-02	6.30E-02	4.31E-02	2.96E-02	2.03E-02	
AG111M	1.01E-03	3.08E-01	2.89E-01	2.59E-01	2.28E-01	1.76E-01	1.21E-01	8.26E-02	5.66E-02	3.89E-02	2.65E-02	
AG111	3.58E-10	1.06E-03	2.23E-03	3.28E-03	4.20E-03	5.73E-03	7.36E-03	8.44E-03	9.14E-03	9.58E-03	9.84E-03	
PD112	8.27E-02	8.02E-02	7.74E-02	7.49E-02	7.26E-02	6.79E-02	6.15E-02	5.57E-02	5.04E-02	4.57E-02	4.14E-02	
AG112	2.49E-06	1.59E-02	2.80E-02	3.76E-02	4.46E-02	5.35E-02	5.88E-02	6.25E-02	6.57E-02	6.82E-02	7.09E-02	
AG113	1.06E-03	2.27E-01	1.99E-01	1.75E-01	1.53E-01	1.18E-01	7.98E-02	5.39E-02	3.64E-02	2.46E-02	1.66E-02	
AG115	4.39E-01	4.70E-01	5.85E-02	7.32E-03	9.16E-04	1.43E-05	2.80E-08	5.47E-11	1.06E-13	1.05E-16	9.76E-17	
CD115M	3.59E-09	9.55E-05	1.07E-04	1.09E-04	1.09E-04	1.09E-04	1.08E-04	1.08E-04	1.08E-04	1.08E-04	1.08E-04	
CD115	1.39E-06	2.61E-02	2.81E-02	2.81E-02	2.77E-02	2.70E-02	2.60E-02	2.50E-02	2.40E-02	2.31E-02	2.22E-02	
IN115M	1.73E-11	2.89E-03	6.41E-03	9.51E-03	1.21E-02	1.62E-02	2.00E-02	2.20E-02	2.29E-02	2.31E-02	2.30E-02	
CD117	3.15E-02	5.25E-01	3.96E-01	2.96E-01	2.22E-01	1.24E-01	5.22E-02	2.20E-02	9.25E-03	3.88E-03	1.63E-03	
IN117M	1.52E-06	1.83E-01	2.64E-01	2.87E-01	2.77E-01	2.19E-01	1.25E-01	6.40E-02	3.07E-02	1.42E-02	6.44E-03	
IN117	6.10E-11	3.33E-02	8.06E-02	1.12E-01	1.25E-01	1.15E-01	7.32E-02	3.92E-02	1.95E-02	9.17E-03	4.22E-03	
CD118	2.13E+00	9.14E-01	3.92E-01	1.67E-01	7.16E-02	1.31E-02	1.03E-03	8.03E-05	6.32E-06	4.95E-07	3.88E-08	
IN118	1.41E-01	9.14E-01	3.92E-01	1.68E-01	7.16E-02	1.31E-02	1.03E-03	8.07E-05	6.32E-06	4.95E-07	3.88E-08	
CD119	5.39E+00	8.40E-02	1.31E-03	2.05E-05	3.20E-07	7.84E-11	2.99E-16	1.14E-21	4.34E-27	1.66E-32	6.35E-38	
IN119M	8.12E-03	9.08E-01	9.89E-02	9.97E-03	9.93E-04	9.77E-06	9.52E-09	9.32E-12	9.08E-15	8.88E-18	8.68E-21	
IN119	4.00E-01	4.78E-02	5.55E-03	5.63E-04	5.63E-05	5.51E-07	5.39E-10	5.26E-13	5.14E-16	5.02E-19	4.90E-22	
SN121	6.89E-04	7.10E-02	6.89E-02	6.73E-02	6.57E-02	6.25E-02	5.76E-02	5.35E-02	4.95E-02	4.58E-02	4.26E-02	
SN123M	3.91E-01	7.31E-01	2.59E-01	9.17E-02	3.24E-02	4.04E-03	1.79E-04	7.92E-06	3.50E-07	1.55E-08	6.84E-10	
SN123	3.67E-06	3.84E-04	3.84E-04	3.84E-04	3.84E-04	3.84E-04	3.84E-04	3.84E-04	3.84E-04	3.84E-04	3.84E-04	
SN125	1.01E-02	1.01E-02	1.01E-02	1.01E-02	1.00E-02	9.95E-03	9.87E-03	9.77E-03	9.69E-03	9.58E-03	9.50E-03	
SB125	6.09E-05	6.11E-05	6.14E-05	6.17E-05	6.19E-05	6.23E-05	6.35E-05	6.43E-05	6.51E-05	6.59E-05	6.67E-05	
SB126	1.81E-03	1.81E-03	1.80E-03	1.80E-03	1.79E-03	1.79E-03	1.77E-03	1.76E-03	1.75E-03	1.74E-03	1.73E-03	
SN127	2.89E+00	2.08E+00	1.49E+00	1.07E+00	7.74E-01	3.99E-01	1.48E-01	5.51E-02	2.04E-02	7.60E-03	2.82E-03	
SB127	3.37E-02	1.16E-01	1.29E-01	1.37E-01	1.43E-01	1.49E-01	1.52E-01	1.50E-01	1.48E-01	1.45E-01	1.42E-01	
TE127	1.90E-02	2.37E-02	2.88E-02	3.42E-02	3.95E-02	4.96E-02	6.35E-02	7.41E-02	8.25E-02	8.90E-02	9.31E-02	
SN128	2.04E+01	1.01E+01	4.96E+00	2.47E+00	1.22E+00	2.98E-01	3.59E-02	4.34E-03	5.23E-04	6.34E-05	7.64E-06	
SB128M	1.04E-02	1.15E+01	5.96E+00	2.94E+00	1.45E+00	3.56E-01	4.28E-02	5.17E-03	6.23E-04	7.54E-05	9.11E-06	
SB128	8.62E-01	8.29E-01	7.81E-01	7.32E-01	6.83E-01	5.85E-01	4.67E-01	3.71E-01	2.94E-01	2.34E-01	1.85E-01	
SN129M	1.33E+01	6.64E+00	3.33E+00	1.67E+00	8.33E-01	2.08E-01	2.60E-02	3.26E-03	4.07E-04	5.09E-05	6.36E-06	
SN129	8.89E+01	8.72E-01	8.61E-03	8.49E-05	8.33E-07	8.10E-11	7.71E-17	7.37E-23	7.03E-29	6.69E-35	6.41E-41	
SB129	5.00E+00	8.38E+00	7.88E+00	7.03E+00	6.19E+00	4.60E+00	2.86E+00	1.77E+00	1.09E+00	6.75E-01	4.15E-01	
TE129M	3.45E-08	1.05E-03	2.15E-03	3.17E-03	4.07E-03	5.51E-03	6.98E-03	7.88E-03	8.44E-03	8.78E-03	9.00E-03	
TE129	9.60E+00	4.95E+00	5.79E+00	6.02E+00	5.79E+00	4.80E+00	3.20E+00	2.01E+00	1.25E+00	7.76E-01	4.82E-01	
SB130M	4.90E-01	9.26E-01	2.43E-03	6.38E-06	1.68E-08	1.16E-13	2.11E-21	3.84E-29	6.97E-37	1.27E-44	2.30E-52	
SB130	8.41E+01	2.54E+01	7.23E+00	2.05E+00	5.80E-01	4.67E-02	1.06E-03	2.43E-05	5.53E-07	1.26E-08	2.88E-10	

L-5

MET MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.635E-13

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	2.34E-02	2.21E-02	2.10E-02	1.98E-02	1.87E-02	1.68E-02	1.42E-02	1.20E-02	1.01E-02	8.56E-03	7.23E-03
SB131	1.96E+02	5.12E+01	8.36E+00	1.37E+00	2.25E-01	6.07E-03	2.67E-05	1.18E-07	5.19E-10	2.29E-12	1.14E-14
TE131M	9.42E-05	4.93E-01	5.62E-01	5.63E-01	5.52E-01	5.28E-01	4.92E-01	4.59E-01	4.29E-01	4.00E-01	3.73E-01
TE131	8.67E+01	9.42E+01	3.07E+01	7.99E+00	1.94E+00	1.82E-01	9.05E-02	8.36E-02	7.80E-02	7.30E-02	6.80E-02
I131	1.26E-02	4.37E-01	6.43E-01	7.05E-01	7.18E-01	7.24E-01	7.24E-01	7.18E-01	7.18E-01	7.11E-01	7.11E-01
TE132	1.04E+00	2.53E+00	2.50E+00	2.48E+00	2.46E+00	2.41E+00	2.35E+00	2.29E+00	2.23E+00	2.17E+00	2.11E+00
I132	2.55E+00	2.55E+00	2.54E+00	2.53E+00	2.51E+00	2.48E+00	2.42E+00	2.36E+00	2.29E+00	2.24E+00	2.18E+00
TE133M	1.26E-01	4.38E+01	1.91E+01	8.31E+00	3.61E+00	6.86E-01	5.65E-02	4.66E-03	3.84E-04	3.17E-05	2.61E-06
TE133	7.10E+02	4.03E+01	4.48E+00	1.48E+00	6.26E-01	1.19E-01	9.81E-03	8.07E-04	6.68E-05	5.50E-06	4.53E-07
I133	1.10E+00	1.19E+01	1.28E+01	1.28E+01	1.26E+01	1.19E+01	1.08E+01	9.81E+00	8.85E+00	8.07E+00	7.28E+00
XE133M	4.69E-08	2.67E-03	6.44E-03	1.03E-02	1.40E-02	2.11E-02	3.05E-02	3.87E-02	4.56E-02	5.16E-02	5.65E-02
XE133	8.19E-07	4.66E-02	1.13E-01	1.81E-01	2.48E-01	3.76E-01	5.51E-01	7.04E-01	8.43E-01	9.63E-01	1.07E+00
TE134	2.21E+02	1.02E+02	3.80E+01	1.41E+01	5.25E+00	7.27E-01	3.72E-02	1.90E-03	9.76E-05	5.01E-06	2.57E-07
I134	1.01E+02	1.35E+02	9.47E+01	5.55E+01	2.98E+01	7.56E+00	8.31E-01	8.49E-02	8.31E-03	7.97E-04	7.56E-05
I135	1.92E+01	3.38E+01	3.05E+01	2.74E+01	2.48E+01	2.01E+01	1.48E+01	1.08E+01	7.93E+00	5.84E+00	4.26E+00
XE135M	2.12E-03	9.75E+00	9.48E+00	8.60E+00	7.71E+00	6.28E+00	4.61E+00	3.38E+00	2.48E+00	1.82E+00	1.33E+00
XE135	2.21E+00	4.37E+00	6.39E+00	8.04E+00	9.37E+00	1.12E+01	1.25E+01	1.25E+01	1.19E+01	1.09E+01	9.70E+00
CS136	4.84E-03	4.82E-03	4.81E-03	4.81E-03	4.79E-03	4.77E-03	4.74E-03	4.71E-03	4.67E-03	4.64E-03	4.61E-03
CS137	9.34E-05	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03
BA137M	1.97E-07	9.39E-04	9.39E-04	9.39E-04	9.39E-04	9.39E-04	9.39E-04	9.39E-04	9.39E-04	9.39E-04	9.39E-04
XE138	7.69E+02	6.62E+01	5.75E+00	4.98E-01	4.32E-02	3.24E-04	2.10E-07	1.37E-10	8.83E-14	5.77E-17	3.75E-20
CS138	1.14E+02	1.93E+02	6.68E+01	1.96E+01	5.50E+00	4.19E-01	8.71E-03	1.81E-04	3.75E-06	7.81E-08	1.62E-09
CS139	6.77E+02	2.16E+01	2.71E-01	3.40E-03	4.27E-05	6.70E-09	1.33E-14	2.64E-20	5.22E-26	1.03E-31	2.04E-37
BA139	1.25E+01	1.39E+02	8.59E+01	5.22E+01	3.16E+01	1.16E+01	2.57E+00	5.71E-01	1.27E-01	2.81E-02	6.25E-03
BA140	1.18E-01	7.34E-01	7.34E-01	7.28E-01	7.28E-01	7.22E-01	7.22E-01	7.17E-01	7.11E-01	7.06E-01	7.00E-01
LA140	2.79E-07	1.25E-02	2.49E-02	3.69E-02	4.87E-02	7.17E-02	1.05E-01	1.36E-01	1.65E-01	1.92E-01	2.18E-01
BA141	1.75E+02	5.30E+01	5.25E+00	5.21E-01	5.17E-02	5.13E-04	5.00E-07	4.88E-10	4.75E-13	4.67E-16	4.55E-19
LA141	1.62E+00	3.43E+01	3.20E+01	2.71E+01	2.27E+01	1.59E+01	9.34E+00	5.46E+00	3.22E+00	1.88E+00	1.11E+00
CE141	2.00E-07	2.23E-02	5.21E-02	7.84E-02	1.00E-01	1.35E-01	1.67E-01	1.86E-01	1.97E-01	2.03E-01	2.06E-01
BA142	3.52E+02	1.40E+01	3.19E-01	7.28E-03	1.66E-04	8.62E-08	1.02E-12	1.21E-17	1.44E-22	1.71E-27	2.03E-32
LA142	8.08E+00	5.61E+01	3.70E+01	2.35E+01	1.50E+01	6.06E+00	1.56E+00	4.03E-01	1.04E-01	2.67E-02	6.89E-03
LA143	1.33E+02	2.59E+01	1.33E+00	6.82E-02	3.50E-03	9.18E-06	1.24E-09	1.67E-13	2.25E-17	3.03E-21	4.09E-25
CE143	5.30E-02	3.38E+00	3.50E+00	3.41E+00	3.35E+00	3.23E+00	3.02E+00	2.84E+00	2.66E+00	2.50E+00	2.35E+00
PR143	1.55E-08	5.18E-03	1.25E-02	1.98E-02	2.69E-02	4.06E-02	5.99E-02	7.82E-02	9.49E-02	1.11E-01	1.25E-01
CE144	2.14E-03	1.53E-02	1.53E-02	1.53E-02	1.53E-02	1.53E-02	1.53E-02	1.53E-02	1.53E-02	1.53E-02	1.53E-02
PR144	5.87E-07	1.40E-02	1.52E-02	1.53E-02	1.53E-02	1.53E-02	1.53E-02	1.53E-02	1.53E-02	1.53E-02	1.53E-02
PR145	8.28E-02	1.22E+01	1.08E+01	9.63E+00	8.60E+00	6.81E+00	4.80E+00	3.39E+00	2.40E+00	1.69E+00	1.20E+00
CE146	2.36E+02	1.21E+01	6.21E-01	3.18E-02	1.64E-03	4.31E-06	5.80E-10	7.82E-14	1.05E-17	1.42E-21	1.91E-25
PR146	4.89E+00	4.25E+01	9.64E+00	1.81E+00	3.26E-01	1.02E-02	5.66E-05	3.12E-07	1.73E-09	9.56E-12	5.22E-14
PR147	2.70E+01	7.82E+00	2.44E-01	7.62E-03	2.38E-04	2.33E-07	7.10E-12	2.17E-16	6.62E-21	2.02E-25	6.16E-30

MET  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.635E-13

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	9.64E-06	1.81E-01	1.87E-01	1.86E-01	1.86E-01	1.85E-01	1.83E-01	1.82E-01	1.81E-01	1.79E-01	1.78E-01	1.78E-01
ND149	1.29E+01	8.75E+00	5.95E+00	4.06E+00	2.75E+00	1.28E+00	4.01E-01	1.27E-01	3.99E-02	1.25E-02	3.96E-03	3.96E-03
PM149	1.79E-03	1.40E-01	2.32E-01	2.94E-01	3.33E-01	3.74E-01	3.89E-01	3.82E-01	3.72E-01	3.57E-01	3.45E-01	3.45E-01
PM150	1.42E-01	1.10E-01	8.51E-02	6.57E-02	5.08E-02	3.05E-02	1.41E-02	6.52E-03	3.02E-03	1.40E-03	6.48E-04	6.48E-04
ND151	4.41E+01	1.38E+00	4.31E-02	1.35E-03	4.21E-05	4.11E-08	1.26E-12	3.84E-17	1.17E-21	3.56E-26	1.09E-30	1.09E-30
PM151	2.79E-02	3.27E-01	3.29E-01	3.21E-01	3.13E-01	2.97E-01	2.75E-01	2.56E-01	2.38E-01	2.20E-01	2.05E-01	2.05E-01
PM152	6.87E+01	6.72E-02	6.55E-05	6.40E-08	6.25E-11	5.97E-17	5.56E-26	5.18E-35	4.83E-44	4.51E-53	4.19E-62	4.19E-62
SM153	8.59E-02	8.46E-02	8.35E-02	8.22E-02	8.11E-02	7.87E-02	7.53E-02	7.19E-02	6.89E-02	6.60E-02	6.31E-02	6.31E-02
SM155	3.56E+00	5.85E-01	9.58E-02	1.57E-02	2.57E-03	6.92E-05	3.05E-07	1.34E-09	5.93E-12	2.64E-14	6.48E-17	6.48E-17
EU155	2.62E-06	7.46E-05	8.64E-05	8.83E-05	8.86E-05	8.86E-05	8.86E-05	8.86E-05	8.86E-05	8.86E-05	8.86E-05	8.86E-05
SM156	4.70E-02	4.37E-02	4.06E-02	3.77E-02	3.50E-02	3.02E-02	2.42E-02	1.94E-02	1.56E-02	1.25E-02	9.97E-03	9.97E-03
EU156	1.37E-04	2.24E-04	3.05E-04	3.79E-04	4.49E-04	5.72E-04	7.28E-04	8.42E-04	9.44E-04	1.02E-03	1.07E-03	1.07E-03
EU157	7.76E-03	2.57E-02	2.46E-02	2.35E-02	2.24E-02	2.05E-02	1.79E-02	1.56E-02	1.36E-02	1.18E-02	1.03E-02	1.03E-02
EU158	1.62E-01	6.58E-02	2.66E-02	1.08E-02	4.36E-03	7.14E-04	4.76E-05	3.15E-06	2.09E-07	1.39E-08	9.24E-10	9.24E-10
EU159	1.90E-01	1.89E-02	1.87E-03	1.86E-04	1.84E-05	1.82E-07	1.77E-10	1.73E-13	1.69E-16	1.65E-19	1.62E-22	1.62E-22
GD159	8.14E-04	3.57E-03	3.71E-03	3.60E-03	3.46E-03	3.21E-03	2.86E-03	2.55E-03	2.27E-03	2.02E-03	1.80E-03	1.80E-03
TB161	6.58E-06	4.74E-05	4.71E-05	4.69E-05	4.67E-05	4.63E-05	4.58E-05	4.52E-05	4.46E-05	4.41E-05	4.35E-05	4.35E-05
TOTAL	9.75E+03	2.24E+03	8.97E+02	5.47E+02	3.97E+02	2.61E+02	1.76E+02	1.32E+02	1.05E+02	8.63E+01	7.28E+01	7.28E+01

MET  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.635E-13

DEBRIS DECAY FROM 1 TO 300 DAYS

8-7

	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	1.91E-07	1.89E-07	1.86E-07	1.79E-07	1.68E-07	1.48E-07	1.30E-07	9.97E-08	5.22E-08	1.42E-08	3.85E-09
NA 24	2.16E-02	7.13E-03	2.35E-03	8.43E-05	3.30E-07	5.04E-12	7.69E-17	1.79E-26	0.	0.	0.
MN 54	5.63E-05	5.58E-05	5.58E-05	5.48E-05	5.43E-05	5.33E-05	5.23E-05	4.98E-05	4.45E-05	3.54E-05	2.82E-05
FE 55	9.16E-05	9.16E-05	9.16E-05	9.11E-05	9.09E-05	9.04E-05	8.95E-05	8.84E-05	8.49E-05	7.92E-05	7.35E-05
FE 59	1.92E-04	1.89E-04	1.86E-04	1.78E-04	1.64E-04	1.41E-04	1.21E-04	8.88E-05	4.12E-05	8.80E-06	1.89E-06
CO 57	6.26E-07	6.26E-07	6.21E-07	6.21E-07	6.12E-07	5.94E-07	5.80E-07	5.52E-07	4.87E-07	3.76E-07	2.91E-07
CO 58	7.37E-04	7.31E-04	7.23E-04	7.01E-04	6.69E-04	6.07E-04	5.50E-04	4.53E-04	2.79E-04	1.06E-04	3.98E-05
CO 60	1.37E-05	1.37E-05	1.37E-05	1.37E-05	1.36E-05	1.36E-05	1.36E-05	1.35E-05	1.31E-05	1.27E-05	1.23E-05
CU 64	7.53E-01	2.05E-01	5.59E-02	1.14E-03	1.70E-06	3.87E-12	8.77E-18	4.51E-29	0.	0.	0.
CU 67	2.03E-05	1.55E-05	1.18E-05	5.27E-06	1.37E-06	9.25E-08	6.24E-09	2.83E-11	3.96E-17	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	1.30E-04	1.29E-04	1.27E-04	1.24E-04	1.19E-04	1.08E-04	9.89E-05	8.21E-05	5.18E-05	2.06E-05	8.18E-06
W187	9.01E-03	4.49E-03	2.23E-03	2.78E-04	8.53E-06	8.14E-09	7.69E-12	6.94E-20	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	2.41E-05	1.75E-05	6.70E-06	1.36E-06	5.59E-08	2.29E-09	3.85E-12	4.50E-19	0.	0.	0.
U237	6.09E-02	5.50E-02	4.96E-02	3.65E-02	2.18E-02	7.81E-03	2.80E-03	3.58E-04	2.11E-06	2.27E-10	1.53E-10
U240	1.73E-01	5.34E-02	1.64E-02	4.75E-04	1.30E-06	9.79E-12	7.37E-17	4.16E-27	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP239	3.13E-03	4.77E+00	3.56E+00	1.47E+00	3.36E-01	1.76E-02	9.19E-04	2.52E-06	9.91E-13	2.37E-22	2.37E-22
NP240M	2.74E-04	5.37E-02	1.65E-02	4.78E-04	1.31E-06	9.89E-12	7.43E-17	4.19E-27	0.	0.	0.
AM241	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CM242	2.96E-06	2.95E-06	2.93E-06	2.90E-06	2.84E-06	2.72E-06	2.61E-06	2.40E-06	1.95E-06	1.27E-06	8.29E-07
GE 77	1.15E-02	7.23E-03	1.65E-03	2.00E-05	1.27E-08	5.15E-15	2.08E-21	3.39E-34	0.	0.	0.
AS 77	1.19E-04	1.75E-02	1.27E-02	3.67E-03	4.30E-04	5.83E-06	7.91E-08	1.46E-11	6.76E-21	1.45E-39	3.11E-58
SE 77M	4.68E-09	5.27E-05	3.80E-05	1.10E-05	1.28E-06	1.75E-08	2.37E-10	4.38E-14	2.03E-23	4.34E-42	9.36E-61
AS 78	2.51E-02	2.24E-04	6.55E-09	5.53E-23	0.	0.	0.	0.	0.	0.	0.
BR 82	6.52E-04	4.07E-04	2.54E-04	6.18E-05	5.86E-06	5.26E-08	4.72E-10	3.81E-14	2.23E-24	7.64E-45	2.60E-65
BR 83	4.88E-01	1.29E-02	1.29E-05	1.31E-14	1.34E-29	0.	0.	0.	0.	0.	0.
KR 83M	2.52E-05	5.63E-02	6.39E-05	5.74E-14	5.90E-29	0.	0.	0.	0.	0.	0.
KR 85M	5.75E-03	3.29E-01	7.48E-03	8.88E-08	5.48E-16	2.08E-32	7.89E-49	0.	0.	0.	0.
KR 85	5.95E-06	1.56E-04	1.59E-04	1.59E-04	1.59E-04	1.59E-04	1.59E-04	1.59E-04	1.57E-04	1.54E-04	1.52E-04
KR 87	9.33E+01	1.84E-04	3.64E-10	2.82E-27	0.	0.	0.	0.	0.	0.	0.
KR 88	5.30E+01	1.39E-01	3.66E-04	6.65E-12	8.37E-25	0.	0.	0.	0.	0.	0.
RB 88	1.35E+01	1.55E-01	4.10E-04	7.44E-12	9.33E-25	0.	0.	0.	0.	0.	0.
SR 89	4.96E-06	1.49E-01	1.46E-01	1.41E-01	1.32E-01	1.15E-01	1.01E-01	7.76E-02	3.96E-02	1.04E-02	2.75E-03
SR 90	9.51E-06	9.77E-04	9.77E-04	9.77E-04	9.77E-04	9.77E-04	9.77E-04	9.77E-04	9.68E-04	9.68E-04	9.60E-04
Y 90	1.41E-11	2.24E-04	3.96E-04	7.12E-04	9.08E-04	9.68E-04	9.77E-04	9.77E-04	9.68E-04	9.68E-04	9.60E-04
SR 91	1.10E+00	3.95E+00	7.07E-01	4.06E-03	7.42E-07	2.52E-14	8.53E-22	9.71E-37	0.	0.	0.

MET MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.635E-13

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO	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	7.42E-05	2.55E+00	4.56E-01	2.62E-03	4.81E-07	1.62E-14	5.49E-22	6.27E-37	0.	0.	0.
Y 91	3.04E-08	1.21E-01	1.44E-01	1.44E-01	1.35E-01	1.20E-01	1.07E-01	8.46E-02	4.68E-02	1.44E-02	4.43E-03
SR 92	7.91E+00	9.86E-02	2.13E-04	2.14E-12	1.00E-25	0.	0.	0.	0.	0.	0.
Y 92	3.65E-01	1.03E+00	1.15E-02	8.83E-09	5.15E-19	1.76E-39	6.04E-60	0.	0.	0.	0.
Y 93	3.76E-01	2.54E+00	4.96E-01	3.73E-03	1.07E-06	8.86E-14	7.32E-21	4.99E-35	0.	0.	0.
ZR 95	7.01E-04	8.76E-02	8.66E-02	8.39E-02	7.96E-02	7.13E-02	6.42E-02	5.19E-02	3.04E-02	1.05E-02	3.59E-03
NB 95M	1.49E-11	2.96E-04	5.41E-04	1.03E-03	1.39E-03	1.47E-03	1.35E-03	1.10E-03	6.45E-04	2.22E-04	7.65E-05
NB 95	7.80E-11	1.69E-03	3.35E-03	8.02E-03	1.49E-02	2.57E-02	3.32E-02	4.12E-02	3.96E-02	1.90E-02	7.31E-03
ZR 97	1.64E+00	2.79E+00	1.05E+00	5.56E-02	4.18E-04	2.35E-08	1.32E-12	4.18E-21	2.36E-42	0.	0.
NB 97M	8.44E-03	2.68E+00	1.01E+00	5.36E-02	4.01E-04	2.26E-08	1.27E-12	4.01E-21	2.27E-42	0.	0.
NB 97	8.21E-01	2.80E+00	1.05E+00	5.59E-02	4.20E-04	2.53E-08	1.42E-12	4.51E-21	2.54E-42	0.	0.
MO 99	4.61E-03	1.50E+00	1.17E+00	5.55E-01	1.61E-01	1.34E-02	1.12E-03	7.81E-06	3.17E-11	5.23E-22	8.60E-33
TC 99M	4.29E-08	1.32E+00	1.11E+00	5.31E-01	1.53E-01	1.28E-02	1.07E-03	7.46E-06	3.02E-11	4.99E-22	8.22E-33
RU103	5.82E-05	1.33E-01	1.30E-01	1.23E-01	1.13E-01	9.51E-02	7.98E-02	5.63E-02	2.34E-02	4.07E-03	7.09E-04
RH103M	3.88E-09	1.33E-01	1.31E-01	1.24E-01	1.13E-01	9.51E-02	7.98E-02	5.63E-02	2.35E-02	4.07E-03	7.09E-04
RU105	3.16E-01	3.02E-01	7.10E-03	9.33E-08	6.82E-16	3.64E-32	1.95E-48	0.	0.	0.	0.
RH105M	2.08E-03	3.02E-01	7.12E-03	9.35E-08	6.84E-16	3.66E-32	1.96E-48	0.	0.	0.	0.
RH105	3.41E-09	1.09E+00	7.12E-01	1.77E-01	1.75E-02	1.70E-04	1.65E-06	1.56E-10	1.35E-20	1.02E-40	7.63E-61
RU106	2.46E-04	4.66E-03	4.64E-03	4.62E-03	4.58E-03	4.50E-03	4.39E-03	4.23E-03	3.85E-03	3.18E-03	2.64E-03
RH106	2.66E-06	4.66E-03	4.64E-03	4.62E-03	4.58E-03	4.50E-03	4.39E-03	4.23E-03	3.85E-03	3.18E-03	2.64E-03
PD109	2.52E-03	6.42E-02	1.87E-02	4.64E-04	9.76E-07	4.35E-12	1.94E-17	3.84E-28	0.	0.	0.
AG109M	1.45E-05	6.42E-02	1.87E-02	4.64E-04	9.81E-07	4.36E-12	1.94E-17	3.84E-28	0.	0.	0.
PD111M	3.55E-01	1.72E-02	8.38E-04	9.62E-08	2.60E-14	1.90E-27	1.39E-40	0.	0.	0.	0.
PD111	1.27E-01	1.39E-02	6.74E-04	7.73E-08	2.10E-14	1.53E-27	1.12E-40	0.	0.	0.	0.
AG111M	1.01E-03	1.82E-02	8.85E-04	1.02E-07	2.75E-14	2.02E-27	1.47E-40	0.	0.	0.	0.
AG111	3.58E-10	9.88E-03	9.50E-03	7.23E-03	4.55E-03	1.80E-03	7.16E-04	1.13E-04	1.11E-06	1.08E-10	1.04E-14
PD112	8.27E-02	3.76E-02	1.70E-02	1.58E-03	3.00E-05	1.09E-08	3.96E-12	5.20E-19	3.28E-36	0.	0.
AG112	2.49E-06	4.36E-02	2.01E-02	1.86E-03	3.56E-05	1.29E-08	4.67E-12	6.15E-19	3.86E-36	0.	0.
AG113	1.06E-03	1.12E-02	4.85E-04	3.94E-08	6.03E-15	1.41E-28	3.30E-42	0.	0.	0.	0.
CD115M	3.59E-09	1.04E-04	1.02E-04	9.72E-05	8.99E-05	7.63E-05	6.52E-05	4.70E-05	2.10E-05	4.18E-06	8.36E-07
CD115	1.39E-06	2.09E-02	1.53E-02	6.03E-03	1.27E-03	5.68E-05	2.53E-06	5.05E-09	8.92E-16	2.79E-29	8.75E-43
IN115M	1.73E-11	2.20E-02	1.67E-02	6.59E-03	1.39E-03	6.20E-05	2.76E-06	5.51E-09	9.76E-16	3.05E-29	9.55E-43
CD117	3.15E-02	6.88E-04	6.69E-07	6.25E-16	5.55E-31	0.	0.	0.	0.	0.	0.
IN117M	1.52E-06	2.86E-03	3.31E-06	3.19E-15	2.83E-30	0.	0.	0.	0.	0.	0.
IN117	6.10E-11	1.88E-03	2.23E-06	2.16E-15	1.92E-30	0.	0.	0.	0.	0.	0.
SN121	6.89E-04	3.93E-02	2.12E-02	3.34E-03	1.53E-04	3.24E-07	6.81E-10	3.04E-15	1.27E-28	0.	0.
SN123	3.67E-06	3.84E-04	3.81E-04	3.74E-04	3.64E-04	3.44E-04	3.26E-04	2.92E-04	2.21E-04	1.27E-04	7.31E-05
SN125	1.01E-02	9.42E-03	8.76E-03	7.01E-03	4.84E-03	2.32E-03	1.11E-03	2.54E-04	6.35E-06	4.00E-09	2.50E-12
SB125	6.09E-05	6.75E-05	7.38E-05	9.02E-05	1.11E-04	1.34E-04	1.44E-04	1.50E-04	1.47E-04	1.38E-04	1.28E-04
SB126	1.81E-03	1.71E-03	1.62E-03	1.37E-03	1.04E-03	5.96E-04	3.44E-04	1.13E-04	7.08E-06	3.44E-08	6.91E-09

6-1

MET MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.635E-13

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	2.89E+00	1.05E-03	3.80E-07	1.82E-17	1.14E-34	0.	0.	0.	0.	0.	0.
SB127	3.37E-02	1.39E-01	1.16E-01	6.76E-02	2.77E-02	4.63E-03	7.74E-04	2.16E-05	2.82E-09	4.82E-17	8.20E-25
TE127M	2.73E-10	2.11E-04	3.87E-04	7.51E-04	1.04E-03	1.14E-03	1.10E-03	9.78E-04	7.14E-04	3.77E-04	1.99E-04
TE127	1.90E-02	9.92E-02	9.73E-02	5.93E-02	2.51E-02	5.14E-03	1.76E-03	9.87E-04	7.04E-04	3.73E-04	1.97E-04
SB128	8.62E-01	1.47E-01	2.32E-02	9.05E-05	8.78E-09	8.24E-17	7.75E-25	6.83E-41	0.	0.	0.
SB129	5.00E+00	2.56E-01	5.34E-03	4.87E-08	1.94E-16	3.05E-33	4.82E-50	0.	0.	0.	0.
TE129M	9.45E-08	9.96E-03	9.96E-03	9.39E-03	8.49E-03	6.92E-03	5.63E-03	3.75E-03	1.35E-03	1.76E-04	2.29E-05
TE129	3.60E+00	3.00E-01	1.25E-02	6.02E-03	5.43E-03	4.43E-03	3.61E-03	2.40E-03	8.66E-04	1.13E-04	1.47E-05
I130	2.34E-02	6.12E-03	1.60E-03	2.86E-05	3.50E-08	5.21E-14	7.77E-20	1.73E-31	0.	0.	0.
TE131M	9.42E-05	3.29E-01	1.89E-01	3.58E-02	2.24E-03	8.74E-06	3.42E-08	5.22E-13	4.74E-25	0.	0.
TE131	8.67E+01	6.01E-02	3.45E-02	6.55E-03	4.09E-04	1.60E-06	6.23E-09	9.55E-14	8.67E-26	0.	0.
I131	1.26E-02	6.80E-01	6.43E-01	5.17E-01	3.40E-01	1.44E-01	6.08E-02	1.09E-02	1.47E-04	2.67E-08	4.87E-12
XE131M	3.42E-11	3.15E-04	5.98E-04	1.25E-03	1.78E-03	1.77E-03	1.31E-03	5.41E-04	3.61E-05	1.08E-07	3.05E-10
TE132	1.04E+00	2.06E+00	1.66E+00	8.76E-01	3.02E-01	3.58E-02	4.24E-03	5.95E-05	1.39E-09	7.62E-19	4.16E-28
I132	2.55E+00	2.12E+00	1.71E+00	9.01E-01	3.11E-01	3.69E-02	4.37E-03	6.14E-05	1.44E-09	7.81E-19	4.28E-28
I133	1.10E+00	6.14E+00	2.77E+00	2.57E-01	4.90E-03	1.78E-06	6.44E-10	8.49E-17	5.33E-34	0.	0.
XE133M	4.69E-08	5.80E-02	6.86E-02	4.03E-02	9.45E-03	4.44E-04	2.06E-05	4.48E-08	9.81E-15	4.69E-28	2.25E-41
XE133	8.19E-07	1.11E+00	1.49E+00	1.34E+00	7.28E-01	1.97E-01	5.29E-02	3.81E-03	5.31E-06	1.03E-11	2.00E-17
I135	1.92E+01	3.13E+00	2.61E-01	1.52E-04	6.17E-10	1.02E-20	1.69E-31	4.55E-53	0.	0.	0.
XE135M	2.12E-03	9.75E-01	8.15E-02	4.74E-05	1.93E-10	3.17E-21	5.23E-32	1.42E-53	0.	0.	0.
XE135	2.21E+00	8.43E+00	2.06E+00	1.18E-02	1.44E-06	2.03E-14	2.84E-22	5.62E-38	0.	0.	0.
CS136	4.84E-03	4.58E-03	4.34E-03	3.70E-03	2.84E-03	1.67E-03	9.80E-04	3.36E-04	2.34E-05	1.13E-07	5.46E-10
CS137	9.34E-05	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.00E-03	9.95E-04	9.89E-04
BA137M	1.97E-07	9.39E-04	9.39E-04	9.39E-04	9.39E-04	9.39E-04	9.39E-04	9.39E-04	9.34E-04	9.28E-04	9.22E-04
BA139	1.25E+01	1.33E-03	7.87E-09	1.62E-24	0.	0.	0.	0.	0.	0.	0.
BA140	1.18E-01	6.94E-01	6.61E-01	5.60E-01	4.27E-01	2.49E-01	1.44E-01	4.90E-02	3.27E-03	1.46E-05	6.44E-08
LA140	2.79E-07	2.42E-01	3.89E-01	5.38E-01	4.78E-01	2.86E-01	1.66E-01	5.66E-02	3.76E-03	1.67E-05	7.45E-08
LA141	1.62E+00	6.42E-01	9.01E-03	2.49E-08	1.36E-17	4.07E-36	1.21E-54	0.	0.	0.	0.
CE141	2.00E-07	2.22E-01	2.20E-01	2.07E-01	1.86E-01	1.50E-01	1.21E-01	7.88E-02	2.71E-02	3.19E-03	3.75E-04
LA142	8.08E+00	1.77E-03	3.43E-08	2.52E-22	0.	0.	0.	0.	0.	0.	0.
CE143	5.30E-02	2.18E+00	1.32E+00	2.90E-01	2.34E-02	1.51E-04	9.77E-07	4.09E-11	4.62E-22	0.	0.
PR143	1.55E-08	1.40E-01	2.17E-01	2.80E-01	2.40E-01	1.46E-01	8.84E-02	3.19E-02	2.56E-03	1.62E-05	1.03E-07
CE144	2.14E-03	1.53E-02	1.52E-02	1.51E-02	1.50E-02	1.46E-02	1.42E-02	1.36E-02	1.20E-02	9.40E-03	7.38E-03
PR144	5.87E-07	1.53E-02	1.52E-02	1.51E-02	1.50E-02	1.46E-02	1.42E-02	1.36E-02	1.20E-02	9.40E-03	7.38E-03
PR145	8.28E-02	8.47E-01	5.24E-02	1.24E-05	1.13E-11	9.38E-24	7.78E-36	0.	0.	0.	0.
ND147	9.64E-06	1.62E-01	1.52E-01	1.26E-01	9.24E-02	4.96E-02	2.65E-02	7.62E-03	3.34E-04	6.50E-07	1.26E-09
PM147	2.68E-14	1.21E-04	2.35E-04	5.36E-04	9.27E-04	1.41E-03	1.67E-03	1.86E-03	1.88E-03	1.75E-03	1.63E-03
ND149	1.29E+01	1.24E-03	1.21E-07	1.10E-19	9.38E-40	0.	0.	0.	0.	0.	0.
PM149	1.79E-03	3.30E-01	2.42E-01	9.45E-02	1.97E-02	8.60E-04	3.74E-05	7.12E-08	1.12E-14	2.77E-28	6.90E-42
PM150	1.42E-01	3.00E-04	6.32E-07	5.93E-15	2.48E-28	0.	0.	0.	0.	0.	0.

MET MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.635E-13

## 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	2.79E-02	1.90E-01	1.05E-01	1.77E-02	9.07E-04	2.38E-06	6.28E-09	4.33E-14	5.43E-27	0.	0.
SM153	8.59E-02	6.04E-02	4.24E-02	1.46E-02	2.49E-03	7.24E-05	2.10E-06	1.77E-09	3.65E-17	1.55E-32	6.60E-48
SM156	4.70E-02	8.02E-03	1.37E-03	6.74E-06	9.70E-10	1.99E-17	4.12E-25	1.75E-40	0.	0.	0.
EU155	2.62E-06	8.86E-05	8.85E-05	8.85E-05	8.83E-05	8.79E-05	8.76E-05	8.69E-05	8.52E-05	8.18E-05	7.86E-05
EU156	1.37E-04	1.12E-03	1.24E-03	1.11E-03	8.83E-04	5.55E-04	3.50E-04	1.39E-04	1.37E-05	1.35E-07	1.33E-09
EU157	7.76E-03	8.97E-03	3.02E-03	1.13E-04	4.75E-07	8.38E-12	1.48E-16	4.62E-26	0.	0.	0.
GD159	8.14E-04	1.60E-03	6.38E-04	3.98E-05	3.91E-07	3.79E-11	3.68E-15	3.45E-23	2.95E-43	0.	0.
TB161	6.58E-06	4.30E-05	3.88E-05	2.87E-05	1.74E-05	6.37E-06	2.33E-06	3.12E-07	2.07E-09	8.93E-14	3.88E-18
TOTAL	3.35E+02	6.17E+01	2.70E+01	9.91E+00	4.58E+00	1.95E+00	1.20E+00	6.61E-01	2.83E-01	9.86E-02	4.65E-02

MET  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.635E-13

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	1.91E-07	1.65E-09	1.54E-10	1.43E-11	1.15E-14	9.19E-18	6.87E-22	4.41E-28	0.	0.	0.	0.
MN 54	5.63E-05	2.43E-05	1.60E-05	1.05E-05	3.01E-06	8.57E-07	1.62E-07	1.32E-08	3.10E-12	1.12E-17	4.06E-23	0.
FE 59	1.92E-04	6.92E-07	4.15E-08	2.50E-09	5.42E-13	1.17E-16	1.53E-21	7.15E-29	0.	0.	0.	0.
CO 57	6.26E-07	2.47E-07	1.54E-07	9.69E-08	2.39E-08	5.89E-09	9.09E-11	5.52E-11	4.82E-15	3.96E-21	0.	0.
CO 58	7.37E-04	2.12E-05	3.59E-06	6.08E-07	2.96E-09	1.44E-11	1.19E-14	2.82E-19	1.08E-34	0.	0.	0.
CO 60	1.37E-05	1.20E-05	1.12E-05	1.05E-05	8.60E-06	7.07E-06	5.43E-06	3.66E-06	9.82E-07	1.36E-07	1.88E-08	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	1.30E-04	4.49E-06	8.31E-07	1.54E-07	9.79E-10	6.25E-12	7.36E-15	2.99E-19	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	6.09E-02	1.52E-10	1.48E-10	1.44E-10	1.35E-10	1.25E-10	1.14E-10	9.87E-11	6.15E-11	3.01E-11	1.48E-11	0.
AM241	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CM242	2.96E-06	6.28E-07	2.89E-07	1.33E-07	1.29E-08	1.26E-09	5.65E-11	5.35E-13	1.54E-17	1.43E-17	1.34E-17	0.
KR 85	5.95E-06	1.48E-04	1.43E-04	1.39E-04	1.26E-04	1.14E-04	1.00E-04	8.27E-05	4.37E-05	1.67E-05	6.38E-06	0.
SR 89	4.96E-06	1.16E-03	1.01E-04	8.92E-06	6.00E-09	4.05E-12	2.39E-16	1.09E-22	7.90E-44	0.	0.	0.
SR 90	9.51E-06	9.51E-04	9.42E-04	9.34E-04	8.99E-04	8.65E-04	8.23E-04	7.64E-04	5.97E-04	4.12E-04	2.85E-04	0.
Y 90	1.41E-11	9.51E-04	9.42E-04	9.34E-04	8.99E-04	8.65E-04	8.23E-04	7.64E-04	5.97E-04	4.12E-04	2.85E-04	0.
Y 91	3.04E-08	2.05E-03	2.39E-04	2.77E-05	4.35E-08	6.82E-11	1.25E-14	3.06E-20	6.19E-39	0.	0.	0.
ZR 95	7.01E-04	1.80E-03	5.7E-04	3.66E-05	1.07E-07	3.10E-10	1.28E-13	1.08E-18	1.33E-35	0.	0.	0.
NB 95M	1.49E-11	3.81E-05	5.44E-06	7.77E-07	2.26E-09	6.57E-12	2.72E-15	2.30E-20	2.82E-37	0.	0.	0.
NB 95	7.80E-11	3.87E-03	5.56E-04	7.93E-05	2.30E-07	6.67E-10	2.78E-13	2.35E-18	2.88E-35	0.	0.	0.
RU103	5.82E-05	2.26E-04	9.25E-06	3.80E-07	2.60E-11	1.78E-15	5.00E-21	2.35E-29	0.	0.	0.	0.
RH103M	3.88E-09	2.26E-04	9.25E-06	3.80E-07	2.60E-11	1.78E-15	5.00E-21	2.35E-29	0.	0.	0.	0.
RU106	2.46E-04	2.34E-03	1.65E-03	1.17E-03	4.17E-04	1.48E-04	3.73E-05	4.72E-06	4.76E-09	1.53E-13	4.92E-18	0.
RH106	2.66E-06	2.34E-03	1.65E-03	1.17E-03	4.17E-04	1.48E-04	3.73E-05	4.72E-06	4.76E-09	1.53E-13	4.92E-18	0.
SN123	3.67E-06	5.09E-05	1.85E-05	6.71E-06	3.22E-07	1.54E-08	2.69E-10	6.20E-13	9.94E-22	6.40E-35	4.11E-48	0.
SB125	6.09E-05	1.23E-04	1.08E-04	9.47E-05	6.46E-05	4.39E-05	2.63E-05	1.21E-05	9.34E-07	1.99E-08	4.23E-10	0.
TE125M	1.64E-12	5.00E-05	4.45E-05	3.92E-05	2.67E-05	1.82E-05	1.09E-05	5.03E-06	3.86E-07	8.23E-09	1.75E-10	0.
TE127M	2.73E-10	1.31E-04	4.09E-05	1.28E-05	3.93E-07	1.21E-08	1.16E-10	1.09E-13	8.99E-24	6.72E-39	5.00E-54	0.
TE127	1.90E-02	1.29E-04	4.04E-05	1.26E-05	3.89E-07	1.20E-08	1.15E-10	1.08E-13	8.90E-24	6.63E-39	4.96E-54	0.
CS137	9.34E-05	9.84E-04	9.73E-04	9.62E-04	9.28E-04	8.94E-04	8.55E-04	7.99E-04	6.32E-04	4.49E-04	3.17E-04	0.
BA137M	1.97E-07	9.22E-04	9.11E-04	9.00E-04	8.67E-04	8.39E-04	7.99E-04	7.49E-04	5.93E-04	4.19E-04	2.97E-04	0.
CE141	2.00E-07	8.63E-05	1.73E-06	3.49E-08	2.84E-13	2.31E-18	3.79E-25	2.51E-35	0.	0.	0.	0.
CE144	2.14E-03	6.29E-03	4.04E-03	2.58E-03	6.77E-04	1.78E-04	2.99E-05	2.07E-06	2.78E-10	4.36E-16	6.80E-22	0.
PR144	5.87E-07	6.29E-03	4.04E-03	2.58E-03	6.77E-04	1.78E-04	2.99E-05	2.07E-06	2.78E-10	4.36E-16	6.80E-22	0.
PM147	2.68E-14	1.55E-03	1.36E-03	1.19E-03	8.02E-04	5.39E-04	3.17E-04	1.44E-04	1.02E-05	1.93E-07	3.65E-09	0.
EU155	2.62E-06	7.66E-05	7.12E-05	6.62E-05	5.33E-05	4.28E-05	3.19E-05	2.06E-05	4.82E-06	5.42E-07	6.11E-08	0.
TOTAL	8.44E-02	3.28E-02	1.82E-02	1.30E-02	6.87E-03	4.88E-03	3.93E-03	3.36E-03	2.48E-03	1.71E-03	1.19E-03	0.



K	FINAL VALUE	STND. DEV.	
1	1.1806E+04	2.1384E+03	
2	2.7390E+00	0.	FIXED PARAMETER
3	2.1516E+03	4.0621E+02	
4	8.8130E-01	0.	FIXED PARAMETER
5	3.6061E+02	1.2269E+02	
6	3.8960E-01	0.	FIXED PARAMETER
7	2.9285E+02	2.2848E+01	
8	1.2090E-01	0.	FIXED PARAMETER
9	6.5532E+01	5.2869E+00	
10	3.4400E-02	0.	FIXED PARAMETER
11	1.5113E+01	1.0428E+00	
12	8.8070E-03	0.	FIXED PARAMETER
13	3.7789E+00	1.7022E-01	
14	2.3380E-03	0.	FIXED PARAMETER
15	6.1631E-01	2.1103E-02	
16	4.4040E-04	0.	FIXED PARAMETER
17	2.8005E-02	3.2975E-03	
18	1.1150E-04	0.	FIXED PARAMETER
19	9.7408E-03	1.0368E-03	
20	4.5780E-05	0.	FIXED PARAMETER
21	3.9564E-03	6.7367E-05	
22	2.7300E-06	0.	FIXED PARAMETER

	TIME (HOURS)	INPUT	CALCULATED FUNCTION	PERCENT DEVIATION
1	1.000E+00	2.2400E+03	2.2408E+03	-0.04
2	2.000E+00	8.9700E+02	8.9437E+02	0.29
3	3.000E+00	5.4700E+02	5.5019E+02	-0.58
4	4.000E+00	3.9700E+02	3.9612E+02	0.22
5	6.000E+00	2.6100E+02	2.5950E+02	0.58
6	9.000E+00	1.7600E+02	1.7664E+02	-0.36
7	1.200E+01	1.3200E+02	1.3335E+02	-1.01
8	1.500E+01	1.0500E+02	1.0547E+02	-0.45
9	1.800E+01	8.6300E+01	8.6010E+01	0.34
10	2.100E+01	7.2800E+01	7.1855E+01	1.32
11	2.400E+01	6.1700E+01	6.1278E+01	0.69
12	4.800E+01	2.7000E+01	2.7379E+01	-1.39
13	1.200E+02	9.9100E+00	9.7889E+00	1.24
14	2.400E+02	4.5800E+00	4.5940E+00	-0.30
15	4.800E+02	1.9500E+00	1.9896E+00	-1.99
16	7.200E+02	1.2000E+00	1.2166E+00	-1.37
17	1.200E+03	6.6100E-01	6.2988E-01	4.94
18	2.400E+03	2.8300E-01	2.6208E-01	7.98
19	4.800E+03	9.8600E-02	1.0260E-01	-3.90
20	7.200E+03	4.6500E-02	4.9298E-02	-5.68
21	8.770E+03	3.2800E-02	3.3870E-02	-3.16
22	1.320E+04	1.8200E-02	1.7408E-02	4.55
23	1.750E+04	1.3000E-02	1.2400E-02	4.84
24	3.070E+04	6.8700E-03	6.9414E-03	-1.03
25	4.380E+04	4.8800E-03	5.0339E-03	-3.06
26	6.140E+04	3.9300E-03	3.9615E-03	-0.80
27	8.770E+04	3.3600E-03	3.2913E-03	2.09
28	1.750E+05	2.4800E-03	2.4569E-03	0.94
29	3.070E+05	1.7100E-03	1.7112E-03	-0.07
30	4.380E+05	1.1900E-03	1.1967E-03	-0.56

**APPENDIX M**  
**DETAILED RESULTS FOR EVENT APPLE II**

APPLE II  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.027E-13

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.07E+02	1.04E+04
1.00E+00	3.47E+01	2.25E+03
2.00E+00	1.38E+01	8.91E+02
3.00E+00	7.37E+00	5.41E+02
4.00E+00	4.56E+00	3.92E+02
6.00E+00	2.37E+00	2.58E+02
9.00E+00	1.38E+00	1.75E+02
1.20E+01	1.00E+00	1.32E+02
1.50E+01	7.81E-01	1.05E+02
1.80E+01	6.35E-01	8.64E+01
2.10E+01	5.29E-01	7.30E+01
1.00E+00 DAYS	4.44E-01	6.19E+01
2.00E+00	1.94E-01	2.73E+01
5.00E+00	7.59E-02	1.00E+01
1.00E+01	3.66E-02	4.64E+00
2.00E+01	1.50E-02	1.98E+00
3.00E+01	8.60E-03	1.22E+00
5.00E+01	3.87E-03	6.74E-01
1.00E+02	1.27E-03	2.89E-01
2.00E+02	4.33E-04	1.01E-01
3.00E+02	1.68E-04	4.88E-02
1.00E+00 YEARS	9.83E-05	3.51E-02
1.50E+00	3.24E-05	1.99E-02
2.00E+00	2.01E-05	1.42E-02
3.50E+00	1.26E-05	7.24E-03
5.00E+00	1.02E-05	4.94E-03
7.00E+00	8.87E-06	3.85E-03
1.00E+01	7.90E-06	3.24E-03
2.00E+01	5.99E-06	2.38E-03
3.50E+01	4.21E-06	1.64E-03
5.00E+01	2.96E-06	1.14E-03

APPLE II MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.027E-13

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	5.82E-06	5.81E-06	5.81E-06	5.81E-06	5.81E-06	5.80E-06	5.79E-06	5.77E-06	5.77E-06	5.76E-06	5.75E-06
NA 24	1.99E-02	1.90E-02	1.81E-02	1.73E-02	1.65E-02	1.51E-02	1.31E-02	1.14E-02	9.95E-03	8.67E-03	7.51E-03
MN 54	2.72E-06	2.72E-06	2.72E-06	2.72E-06	2.72E-06	2.72E-06	2.72E-06	2.70E-06	2.70E-06	2.70E-06	2.70E-06
FE 55	1.36E-04	1.36E-04	1.36E-04	1.36E-04	1.36E-04	1.36E-04	1.36E-04	1.36E-04	1.36E-04	1.36E-04	1.36E-04
FE 59	2.23E-04	2.22E-04	2.22E-04	2.22E-04	2.22E-04	2.22E-04	2.22E-04	2.21E-04	2.21E-04	2.20E-04	2.20E-04
CO 57	7.94E-08	7.94E-08	7.94E-08	7.94E-08	7.94E-08	7.94E-08	7.94E-08	7.94E-08	7.94E-08	7.94E-08	7.94E-08
CO 58	8.98E-05	8.98E-05	8.98E-05	8.98E-05	8.96E-05	8.96E-05	8.94E-05	8.94E-05	8.92E-05	8.92E-05	8.90E-05
CO 60	2.84E-05	2.84E-05	2.84E-05	2.84E-05	2.84E-05	2.84E-05	2.84E-05	2.84E-05	2.84E-05	2.84E-05	2.84E-05
CU 64	6.19E-01	5.86E-01	5.55E-01	5.27E-01	4.98E-01	4.47E-01	3.80E-01	3.23E-01	2.75E-01	2.34E-01	1.99E-01
CU 67	1.38E-05	1.36E-05	1.34E-05	1.33E-05	1.32E-05	1.28E-05	1.23E-05	1.20E-05	1.16E-05	1.12E-05	1.09E-05
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	2.06E-04	2.06E-04	2.06E-04	2.06E-04	2.06E-04	2.06E-04	2.06E-04	2.05E-04	2.05E-04	2.05E-04	2.05E-04
W187	1.65E-02	1.60E-02	1.55E-02	1.51E-02	1.47E-02	1.38E-02	1.27E-02	1.17E-02	1.07E-02	9.83E-03	8.96E-03
W188	8.03E-07	8.03E-07	8.03E-07	8.01E-07	8.01E-07	8.01E-07	7.99E-07	7.99E-07	7.97E-07	7.97E-07	7.96E-07
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	5.88E-05	5.80E-05	5.72E-05	5.64E-05	5.55E-05	5.43E-05	5.23E-05	5.02E-05	4.81E-05	4.61E-05	4.44E-05
U237	4.29E-02	4.28E-02	4.26E-02	4.24E-02	4.22E-02	4.18E-02	4.13E-02	4.08E-02	4.02E-02	3.97E-02	3.92E-02
U239	8.10E+02	1.38E+02	2.36E+01	4.01E+00	6.82E-01	1.99E-02	9.84E-05	4.86E-07	2.40E-09	1.19E-11	5.88E-14
U240	1.49E-01	1.42E-01	1.35E-01	1.28E-01	1.22E-01	1.11E-01	9.55E-02	8.23E-02	7.11E-02	6.12E-02	5.28E-02
NP239	2.77E-03	4.64E+00	5.37E+00	5.45E+00	5.41E+00	5.28E+00	5.07E+00	4.90E+00	4.73E+00	4.56E+00	4.39E+00
NP240M	2.35E-04	1.42E-01	1.36E-01	1.30E-01	1.23E-01	1.12E-01	9.64E-02	8.32E-02	7.16E-02	6.18E-02	5.34E-02
NP240	5.96E-12	3.06E-12	1.59E-12	8.20E-13	4.24E-13	1.14E-13	1.56E-14	2.16E-15	2.98E-16	4.10E-17	5.68E-18
* AM241	9.97E-09	9.97E-09	9.97E-09	9.97E-09	9.97E-09	9.97E-09	9.97E-09	9.97E-09	9.97E-09	9.97E-09	9.97E-09
* CM242	1.42E-07	1.42E-07	1.42E-07	1.42E-07	1.42E-07	1.42E-07	1.41E-07	1.41E-07	1.41E-07	1.41E-07	1.41E-07
GE 75	7.81E-06	3.79E-02	2.28E-02	1.37E-02	8.27E-03	3.00E-03	6.55E-04	1.43E-04	3.13E-05	6.82E-06	1.49E-06
GE 77	4.94E-03	1.27E-02	1.20E-02	1.13E-02	1.06E-02	9.38E-03	7.80E-03	6.48E-03	5.40E-03	4.49E-03	3.74E-03
AS 77	5.11E-05	8.08E-03	8.17E-03	8.22E-03	8.28E-03	8.33E-03	8.33E-03	8.28E-03	8.15E-03	7.98E-03	7.78E-03
SE 77M	2.01E-09	2.42E-05	2.45E-05	2.47E-05	2.47E-05	2.49E-05	2.51E-05	2.49E-05	2.45E-05	2.40E-05	2.33E-05
GE 78	7.54E-01	4.71E-01	2.93E-01	1.83E-01	1.14E-01	4.45E-02	1.08E-02	2.62E-03	6.39E-04	1.55E-04	3.77E-05
AS 78	1.36E-02	2.25E-01	2.78E-01	2.60E-01	2.17E-01	1.28E-01	4.77E-02	1.58E-02	4.90E-03	1.46E-03	4.24E-04
AS 79	1.52E+01	1.50E-01	1.48E-03	1.45E-05	1.43E-07	1.39E-11	1.32E-17	1.26E-23	1.20E-29	1.15E-35	1.10E-41
SE 79M	2.25E-02	2.65E-01	2.61E-03	2.57E-05	2.53E-07	2.45E-11	2.33E-17	2.23E-23	2.13E-29	2.03E-35	1.94E-41
BR 80	9.72E-02	9.16E-03	8.61E-04	8.10E-05	7.63E-06	6.77E-08	5.66E-11	4.72E-14	3.93E-17	3.28E-20	2.74E-23
SE 81M	8.07E-02	3.77E+00	1.82E+00	8.74E-01	4.20E-01	9.82E-02	1.10E-02	1.23E-03	1.38E-04	1.55E-05	1.74E-06
SE 81	9.86E-01	4.45E+00	2.58E+00	1.29E+00	6.24E-01	1.46E-01	1.63E-02	1.83E-03	2.05E-04	2.30E-05	2.57E-06
BR 82	5.02E-04	4.93E-04	4.83E-04	4.74E-04	4.64E-04	4.46E-04	4.21E-04	3.97E-04	3.74E-04	3.53E-04	3.33E-04
SE 83	4.64E+01	8.80E+00	1.67E+00	3.16E-01	5.97E-02	2.15E-03	1.46E-05	9.94E-08	6.79E-10	4.60E-12	2.92E-14
BR 83	3.86E-01	5.76E+00	5.33E+00	4.19E+00	3.18E+00	1.80E+00	7.60E-01	3.20E-01	1.35E-01	5.70E-02	2.41E-02
KR 83M	1.99E-05	1.30E+00	2.66E+00	3.31E+00	3.41E+00	2.85E+00	1.68E+00	8.63E-01	4.16E-01	1.92E-01	8.63E-02

M-3

APPLE II MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.027E-13

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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	9.86E-02	1.70E+01	4.60E+00	1.25E+00	3.36E-01	2.46E-02	4.86E-04	9.60E-06	1.90E-07	3.76E-09	7.42E-11	
KR 85M	4.82E-03	1.03E+01	8.79E+00	7.50E+00	6.41E+00	4.68E+00	2.92E+00	1.82E+00	1.14E+00	7.06E-01	4.41E-01	
KR 87	8.11E+01	4.68E+01	2.71E+01	1.57E+01	9.04E+00	3.03E+00	5.88E-01	1.14E-01	2.21E-02	4.27E-03	8.25E-04	
KR 88	4.65E+01	3.63E+01	2.83E+01	2.21E+01	1.73E+01	1.05E+01	5.00E+00	2.38E+00	1.13E+00	5.39E-01	2.56E-01	
RB 88	1.18E+01	3.67E+01	3.13E+01	2.47E+01	1.93E+01	1.17E+01	5.60E+00	2.67E+00	1.27E+00	6.04E-01	2.87E-01	
RB 89	5.60E+01	5.26E+01	3.54E+00	2.38E-01	1.59E-02	7.22E-05	2.18E-08	6.59E-12	2.01E-15	6.08E-19	1.84E-22	
SR 89	4.29E-06	1.51E-01	1.61E-01	1.61E-01	1.61E-01	1.61E-01	1.61E-01	1.60E-01	1.60E-01	1.59E-01	1.59E-01	
SR 90	8.65E-06	8.89E-04	8.89E-04	8.89E-04	8.89E-04	8.89E-04	8.89E-04	8.89E-04	8.89E-04	8.89E-04	8.89E-04	
SR 91	1.01E+00	1.88E+01	1.76E+01	1.64E+01	1.52E+01	1.32E+01	1.06E+01	8.59E+00	6.94E+00	5.57E+00	4.49E+00	
Y 91M	6.81E-05	6.49E+00	8.85E+00	9.48E+00	9.36E+00	8.40E+00	6.87E+00	5.53E+00	4.46E+00	3.60E+00	2.90E+00	
Y 91	2.79E-08	5.77E-03	1.33E-02	2.13E-02	2.90E-02	4.35E-02	6.17E-02	7.64E-02	8.85E-02	9.80E-02	1.06E-01	
SR 92	7.34E+00	3.28E+01	2.54E+01	1.97E+01	1.52E+01	9.12E+00	4.23E+00	1.97E+00	9.12E-01	4.23E-01	1.97E-01	
Y 92	3.38E-01	6.90E+00	1.08E+01	1.29E+01	1.37E+01	1.30E+01	9.97E+00	6.79E+00	4.37E+00	2.69E+00	1.62E+00	
SR 93	2.92E+02	5.02E+00	2.77E-02	1.53E-04	8.45E-07	2.58E-11	4.36E-18	7.35E-25	1.24E-31	2.09E-38	3.53E-45	
Y 93	3.56E-01	1.15E+01	1.08E+01	1.01E+01	9.45E+00	8.25E+00	6.72E+00	5.49E+00	4.46E+00	3.66E+00	2.97E+00	
Y 94	4.23E+01	5.78E+01	7.44E+00	9.59E-01	1.24E-01	2.06E-03	4.41E-06	9.45E-09	2.02E-11	4.41E-14	2.44E-15	
Y 95	1.81E+02	1.71E+01	3.77E-01	8.31E-03	1.83E-04	8.88E-08	9.51E-13	1.02E-17	1.09E-22	1.16E-27	1.24E-32	
ZR 95	6.82E-04	8.91E-02	9.09E-02	9.09E-02	9.09E-02	9.09E-02	9.09E-02	9.06E-02	9.06E-02	9.03E-02	9.03E-02	
NB 95	7.59E-11	5.50E-05	1.28E-04	2.02E-04	2.75E-04	4.22E-04	6.40E-04	8.61E-04	1.08E-03	1.29E-03	1.51E-03	
ZR 97	1.62E+00	7.06E+00	6.75E+00	6.50E+00	6.22E+00	5.75E+00	5.08E+00	4.49E+00	3.99E+00	3.52E+00	3.13E+00	
NB 97M	8.34E-03	6.78E+00	6.50E+00	6.25E+00	6.00E+00	5.52E+00	4.88E+00	4.32E+00	3.82E+00	3.38E+00	2.99E+00	
NB 97	8.12E-01	3.54E+00	4.99E+00	5.69E+00	5.97E+00	5.94E+00	5.41E+00	4.83E+00	4.27E+00	3.77E+00	3.35E+00	
NB 98	9.14E+00	4.04E+00	1.79E+00	7.91E-01	3.50E-01	6.86E-02	5.93E-03	5.12E-04	4.46E-05	3.86E-06	3.33E-07	
MO 99	4.80E-03	1.98E+00	1.96E+00	1.94E+00	1.92E+00	1.88E+00	1.82E+00	1.77E+00	1.71E+00	1.66E+00	1.61E+00	
TC 99M	4.46E-08	1.89E-01	3.54E-01	5.01E-01	6.29E-01	8.40E-01	1.07E+00	1.21E+00	1.30E+00	1.35E+00	1.37E+00	
MO101	1.34E+02	6.05E+01	3.51E+00	2.04E-01	1.18E-02	3.96E-05	7.69E-09	1.50E-12	2.91E-16	5.65E-20	1.10E-23	
TC101	5.65E+00	1.70E+02	1.85E+01	1.52E+00	1.11E-01	5.00E-04	1.25E-07	2.80E-11	5.94E-15	1.22E-18	2.47E-22	
MO102	1.08E+03	2.47E+01	5.61E-01	1.28E-02	2.92E-04	1.52E-07	1.81E-12	2.14E-17	2.54E-22	3.01E-27	3.58E-32	
TC102M	6.95E-01	2.08E+01	4.78E-01	1.09E-02	2.49E-04	1.29E-07	1.53E-12	1.81E-17	2.15E-22	2.55E-27	3.03E-32	
TC102	3.25E+03	1.24E+01	2.83E-01	6.43E-03	1.47E-04	7.67E-08	9.11E-13	1.08E-17	1.28E-22	1.52E-27	1.80E-32	
RU103	7.47E-05	1.73E-01	1.73E-01	1.73E-01	1.73E-01	1.72E-01	1.72E-01	1.72E-01	1.71E-01	1.71E-01	1.70E-01	
RH103M	4.98E-09	8.95E-02	1.33E-01	1.54E-01	1.64E-01	1.70E-01	1.72E-01	1.72E-01	1.71E-01	1.71E-01	1.71E-01	
TC104	6.26E+01	4.50E+01	4.50E+00	4.45E-01	4.40E-02	4.34E-04	4.24E-07	4.14E-10	4.04E-13	3.95E-16	3.86E-19	
RU105	4.75E-01	1.64E+01	1.40E+01	1.20E+01	1.03E+01	7.52E+00	4.71E+00	2.95E+00	1.84E+00	1.15E+00	7.24E-01	
RH105M	3.12E-03	1.65E+01	1.41E+01	1.21E+01	1.03E+01	7.55E+00	4.71E+00	2.96E+00	1.85E+00	1.16E+00	7.24E-01	
RH105	5.13E-09	3.34E-01	6.20E-01	8.56E-01	1.05E+00	1.35E+00	1.61E+00	1.73E+00	1.77E+00	1.75E+00	1.71E+00	
RU106	3.93E-04	7.44E-03	7.44E-03	7.44E-03	7.44E-03	7.44E-03	7.44E-03	7.44E-03	7.44E-03	7.44E-03	7.44E-03	
RH106	4.25E-06	7.44E-03	7.44E-03	7.44E-03	7.44E-03	7.44E-03	7.44E-03	7.44E-03	7.44E-03	7.44E-03	7.44E-03	
RH107	8.16E-02	1.11E+01	1.68E+00	2.53E-01	3.82E-02	8.71E-04	3.00E-06	1.03E-08	3.56E-11	1.22E-14	1.21E-17	
PD107M	1.70E-04	2.26E+00	3.41E-01	5.15E-02	7.77E-03	1.77E-04	6.10E-07	2.11E-09	7.24E-12	2.50E-14	8.53E-17	

M-4

APPLE !! MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.027E-13

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	4.83E-03	4.01E-01	3.81E-01	3.61E-01	3.43E-01	3.09E-01	2.66E-01	2.28E-01	1.95E-01	1.67E-01	1.44E-01	1.24E-01
AG109M	2.79E-05	4.01E-01	3.81E-01	3.62E-01	3.44E-01	3.10E-01	2.66E-01	2.28E-01	1.95E-01	1.67E-01	1.44E-01	1.24E-01
PD111M	6.18E-01	5.45E-01	4.80E-01	4.25E-01	3.74E-01	2.91E-01	1.99E-01	1.36E-01	9.34E-02	6.39E-02	4.38E-02	2.93E-02
PD111	2.20E-01	3.97E-01	3.81E-01	3.39E-01	3.00E-01	2.33E-01	1.60E-01	1.10E-01	7.50E-02	5.15E-02	3.53E-02	2.42E-02
AG111M	1.75E-03	5.35E-01	5.03E-01	4.50E-01	3.97E-01	3.07E-01	2.10E-01	1.44E-01	9.85E-02	6.76E-02	4.61E-02	3.12E-02
AG111	6.23E-10	1.85E-03	3.88E-03	5.70E-03	7.31E-03	9.97E-03	1.28E-02	1.47E-02	1.59E-02	1.67E-02	1.71E-02	1.71E-02
PD112	1.23E-01	1.19E-01	1.15E-01	1.11E-01	1.08E-01	1.01E-01	9.12E-02	8.26E-02	7.48E-02	6.77E-02	6.13E-02	5.54E-02
AG112	3.69E-06	2.35E-02	4.15E-02	5.57E-02	6.62E-02	7.93E-02	8.71E-02	8.67E-02	8.26E-02	7.70E-02	7.10E-02	6.48E-02
AG113	1.26E-03	2.70E-01	2.37E-01	2.08E-01	1.83E-01	1.40E-01	9.51E-02	6.42E-02	4.33E-02	2.92E-02	1.98E-02	1.34E-02
AG115	4.86E-01	5.21E-01	6.48E-02	8.10E-03	1.01E-03	1.58E-05	3.10E-08	6.05E-11	1.17E-13	1.16E-16	1.08E-16	1.01E-16
CD115M	3.97E-09	1.06E-04	1.19E-04	1.20E-04	1.20E-04	1.20E-04	1.20E-04	1.20E-04	1.20E-04	1.19E-04	1.19E-04	1.19E-04
CD115	1.53E-06	2.89E-02	3.11E-02	3.10E-02	3.07E-02	2.99E-02	2.88E-02	2.76E-02	2.66E-02	2.56E-02	2.46E-02	2.36E-02
IN115M	1.91E-11	3.19E-03	7.09E-03	1.05E-02	1.34E-02	1.79E-02	2.21E-02	2.43E-02	2.54E-02	2.56E-02	2.54E-02	2.54E-02
CD117	3.43E-02	5.71E-01	4.30E-01	3.21E-01	2.41E-01	1.35E-01	5.67E-02	2.39E-02	1.00E-02	4.22E-03	1.78E-03	7.84E-04
IN117M	1.65E-06	1.99E-01	2.87E-01	3.12E-01	3.01E-01	2.37E-01	1.36E-01	6.95E-02	3.34E-02	1.55E-02	6.99E-03	3.12E-03
IN117	6.63E-11	3.62E-02	8.76E-02	1.22E-01	1.36E-01	1.25E-01	7.96E-02	4.26E-02	2.12E-02	9.97E-03	4.58E-03	2.07E-03
CD118	2.28E+00	9.76E-01	4.19E-01	1.79E-01	7.65E-02	1.40E-02	1.10E-03	8.58E-05	6.75E-06	5.29E-07	4.15E-08	3.12E-09
IN118	1.51E-01	9.76E-01	4.19E-01	1.79E-01	7.65E-02	1.40E-02	1.10E-03	8.62E-05	6.75E-06	5.29E-07	4.15E-08	3.12E-09
CD119	5.67E+00	8.84E-02	1.38E-03	2.16E-05	3.37E-07	8.25E-11	3.14E-16	1.20E-21	4.57E-27	1.75E-32	6.68E-38	2.42E-43
IN119M	8.55E-03	9.56E-01	1.04E-01	1.05E-02	1.04E-03	1.03E-05	1.00E-08	9.82E-12	9.56E-15	9.35E-18	9.14E-21	8.93E-24
IN119	4.21E-01	5.03E-02	5.84E-03	5.92E-04	5.92E-05	5.80E-07	5.67E-10	5.54E-13	5.42E-16	5.29E-19	5.16E-22	5.03E-25
SN121	6.96E-04	7.16E-02	6.96E-02	6.80E-02	6.63E-02	6.31E-02	5.81E-02	5.40E-02	4.99E-02	4.63E-02	4.30E-02	4.00E-02
SN123M	3.91E-01	7.32E-01	2.59E-01	9.18E-02	3.24E-02	4.05E-03	1.79E-04	7.93E-06	3.51E-07	1.55E-08	6.85E-10	3.00E-11
SN123	3.68E-06	3.85E-04	3.85E-04	3.85E-04	3.85E-04	3.85E-04	3.85E-04	3.85E-04	3.85E-04	3.85E-04	3.85E-04	3.85E-04
SN125	1.04E-02	1.03E-02	1.03E-02	1.03E-02	1.02E-02	1.02E-02	1.01E-02	1.00E-02	9.92E-03	9.81E-03	9.73E-03	9.64E-03
SB125	6.23E-05	6.26E-05	6.29E-05	6.31E-05	6.34E-05	6.39E-05	6.50E-05	6.58E-05	6.66E-05	6.75E-05	6.83E-05	6.91E-05
SB126	1.99E-03	1.98E-03	1.98E-03	1.97E-03	1.97E-03	1.96E-03	1.94E-03	1.93E-03	1.92E-03	1.90E-03	1.89E-03	1.88E-03
SN127	3.15E+00	2.26E+00	1.63E+00	1.17E+00	8.43E-01	4.35E-01	1.62E-01	6.01E-02	2.23E-02	8.28E-03	3.08E-03	1.12E-03
SB127	3.68E-02	1.27E-01	1.40E-01	1.49E-01	1.56E-01	1.63E-01	1.65E-01	1.64E-01	1.61E-01	1.58E-01	1.55E-01	1.52E-01
TE127	2.08E-02	2.59E-02	3.14E-02	3.73E-02	4.31E-02	5.40E-02	6.92E-02	8.08E-02	8.99E-02	9.70E-02	1.02E-01	1.06E-01
SN128	2.11E+01	1.04E+01	5.15E+00	2.55E+00	1.26E+00	3.07E-01	3.71E-02	4.47E-03	5.40E-04	6.54E-05	7.89E-06	9.40E-07
SB128M	1.07E-02	1.19E+01	6.15E+00	3.04E+00	1.50E+00	3.67E-01	4.42E-02	5.34E-03	6.43E-04	7.77E-05	9.40E-06	1.14E-06
SB128	8.89E-01	8.56E-01	8.05E-01	7.55E-01	7.05E-01	6.04E-01	4.82E-01	3.83E-01	3.04E-01	2.41E-01	1.91E-01	1.47E-01
SN129M	1.37E+01	6.82E+00	3.42E+00	1.71E+00	8.55E-01	2.14E-01	2.67E-02	3.34E-03	4.18E-04	5.22E-05	6.53E-06	8.10E-07
SN129	9.13E+01	8.95E-01	8.84E-03	8.72E-05	8.55E-07	8.32E-11	7.91E-17	7.57E-23	7.22E-29	6.87E-35	6.59E-41	6.30E-47
SB129	5.14E+00	8.61E+00	8.09E+00	7.22E+00	6.35E+00	4.72E+00	2.94E+00	1.82E+00	1.12E+00	6.93E-01	4.26E-01	2.54E-01
TE129M	9.70E-08	1.07E-03	2.21E-03	3.25E-03	4.18E-03	5.66E-03	7.16E-03	8.09E-03	8.66E-03	9.01E-03	9.24E-03	9.40E-03
TE129	3.70E+00	5.08E+00	5.95E+00	6.18E+00	5.95E+00	4.93E+00	3.28E+00	2.07E+00	1.29E+00	7.97E-01	4.94E-01	2.93E-01
SB130M	5.12E-01	9.66E-01	2.54E-03	6.66E-06	1.75E-08	1.21E-13	2.20E-21	4.01E-29	7.27E-37	1.32E-44	2.40E-52	4.10E-60
SB130	8.77E+01	2.65E+01	7.55E+00	2.14E+00	6.05E-01	4.87E-02	1.11E-03	2.53E-05	5.77E-07	1.32E-08	3.00E-10	6.70E-12

M-5

APPLE II MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.027E-13

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	2.44E-02	2.31E-02	2.19E-02	2.06E-02	1.95E-02	1.75E-02	1.48E-02	1.25E-02	1.05E-02	8.94E-03	7.55E-03
SB131	2.04E+02	5.34E+01	8.72E+00	1.43E+00	2.35E-01	6.33E-03	2.79E-05	1.23E-07	5.42E-10	2.39E-12	1.19E-14
TE131M	9.83E-05	5.14E-01	5.87E-01	5.87E-01	5.76E-01	5.51E-01	5.14E-01	4.79E-01	4.47E-01	4.17E-01	3.89E-01
TE131	9.05E+01	9.83E+01	3.20E+01	8.33E+00	2.02E+00	1.90E+00	9.44E-02	8.72E-02	8.14E-02	7.62E-02	7.10E-02
I131	1.32E-02	4.56E-01	6.71E-01	7.36E-01	7.49E-01	7.55E-01	7.55E-01	7.49E-01	7.49E-01	7.42E-01	7.42E-01
TE132	1.07E+00	2.60E+00	2.58E+00	2.56E+00	2.53E+00	2.49E+00	2.42E+00	2.36E+00	2.30E+00	2.23E+00	2.17E+00
I132	2.63E+00	2.62E+00	2.62E+00	2.60E+00	2.58E+00	2.55E+00	2.49E+00	2.43E+00	2.36E+00	2.30E+00	2.25E+00
TE133M	1.31E-01	4.54E+01	1.98E+01	8.60E+00	3.74E+00	7.11E-01	5.85E-02	4.82E-03	3.98E-04	3.28E-05	2.71E-06
TE133	7.36E+02	4.17E+01	4.64E+00	1.53E+00	6.48E-01	1.23E-01	1.02E-02	8.35E-04	6.92E-05	5.69E-06	4.69E-07
I133	1.14E+00	1.23E+01	1.33E+01	1.33E+01	1.30E+01	1.23E+01	1.12E+01	1.02E+01	9.16E+00	8.35E+00	7.54E+00
XE133M	4.86E-08	2.76E-03	6.67E-03	1.07E-02	1.45E-02	2.18E-02	3.16E-02	4.01E-02	4.73E-02	5.34E-02	5.85E-02
XE133	8.48E-07	4.82E-02	1.17E-01	1.87E-01	2.57E-01	3.89E-01	5.70E-01	7.29E-01	8.73E-01	9.97E-01	1.11E+00
TE134	2.30E+02	1.07E+02	3.97E+01	1.48E+01	5.47E+00	7.59E-01	3.88E-02	1.99E-03	1.02E-04	5.23E-06	2.68E-07
I134	1.05E+02	1.41E+02	9.88E+01	5.79E+01	3.11E+01	7.89E+00	8.67E-01	8.85E-02	8.67E-03	8.31E-04	7.89E-05
I135	1.93E+01	3.40E+01	3.07E+01	2.76E+01	2.50E+01	2.03E+01	1.49E+01	1.09E+01	7.99E+00	5.88E+00	4.29E+00
XE135M	2.14E-03	9.82E+00	9.54E+00	8.66E+00	7.77E+00	6.33E+00	4.64E+00	3.40E+00	2.50E+00	1.83E+00	1.34E+00
XE135	2.23E+00	4.40E+00	6.44E+00	8.10E+00	9.43E+00	1.13E+01	1.25E+01	1.26E+01	1.20E+01	1.09E+01	9.77E+00
CS136	4.20E-03	4.19E-03	4.18E-03	4.17E-03	4.16E-03	4.14E-03	4.11E-03	4.08E-03	4.06E-03	4.03E-03	4.00E-03
CS137	9.40E-05	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03
BA137M	1.98E-07	9.46E-04	9.46E-04	9.46E-04	9.46E-04	9.46E-04	9.46E-04	9.46E-04	9.46E-04	9.46E-04	9.46E-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	6.87E+02	2.19E+01	2.75E-01	3.46E-03	4.33E-05	6.80E-09	1.35E-14	2.68E-20	5.30E-26	1.05E-31	2.07E-37
BA139	1.27E+01	1.41E+02	8.72E+01	5.30E+01	3.20E+01	1.18E+01	2.61E+00	5.79E-01	1.29E-01	2.85E-02	6.34E-03
BA140	1.15E-01	7.17E-01	7.17E-01	7.11E-01	7.11E-01	7.06E-01	7.06E-01	7.00E-01	6.95E-01	6.89E-01	6.84E-01
LA140	2.73E-07	1.23E-02	2.43E-02	3.61E-02	4.76E-02	7.00E-02	1.02E-01	1.32E-01	1.61E-01	1.88E-01	2.13E-01
BA141	1.72E+02	5.20E+01	5.16E+00	5.12E-01	5.08E-02	5.04E-04	4.92E-07	4.79E-10	4.67E-13	4.59E-16	4.47E-19
LA141	1.59E+00	3.37E+01	3.14E+01	2.66E+01	2.23E+01	1.57E+01	9.18E+00	5.37E+00	3.16E+00	1.85E+00	1.09E+00
CE141	1.97E-07	2.19E-02	5.12E-02	7.70E-02	9.88E-02	1.32E-01	1.64E-01	1.83E-01	1.93E-01	2.00E-01	2.03E-01
BA142	3.43E+02	1.36E+01	3.11E-01	7.09E-03	1.62E-04	8.40E-08	9.97E-13	1.18E-17	1.40E-22	1.67E-27	1.98E-32
LA142	7.88E+00	5.47E+01	3.61E+01	2.29E+01	1.46E+01	5.90E+00	1.52E+00	3.93E-01	1.01E-01	2.61E-02	6.72E-03
LA143	1.32E+02	2.57E+01	1.32E+00	6.77E-02	3.48E-03	9.10E-06	1.23E-09	1.65E-13	2.23E-17	3.01E-21	4.06E-25
CE143	5.26E-02	3.35E+00	3.48E+00	3.38E+00	3.32E+00	3.20E+00	3.00E+00	2.81E+00	2.64E+00	2.48E+00	2.33E+00
PR143	1.54E-08	5.14E-03	1.24E-02	1.96E-02	2.66E-02	4.03E-02	5.94E-02	7.75E-02	9.41E-02	1.10E-01	1.24E-01
CE144	2.11E-03	1.52E-02	1.52E-02	1.52E-02	1.52E-02	1.52E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02	1.51E-02
PR144	5.80E-07	1.38E-02	1.50E-02	1.51E-02	1.52E-02	1.52E-02	1.52E-02	1.52E-02	1.51E-02	1.51E-02	1.51E-02
PR145	8.36E-02	1.23E+01	1.09E+01	9.72E+00	8.68E+00	6.87E+00	4.84E+00	3.42E+00	2.42E+00	1.71E+00	1.21E+00
CE146	2.40E+02	1.23E+01	6.30E-01	3.22E-02	1.66E-03	4.37E-06	5.88E-10	7.93E-14	1.07E-17	1.44E-21	1.94E-25
PR146	4.96E+00	4.31E+01	9.78E+00	1.84E+00	3.31E-01	1.04E-02	5.74E-05	3.17E-07	1.75E-09	9.69E-12	5.29E-14
PR147	2.79E+01	8.08E+00	2.52E-01	7.87E-03	2.46E-04	2.41E-07	7.34E-12	2.24E-16	6.84E-21	2.09E-25	6.37E-30

APPLE II MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.027E-13

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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	9.96E-06	1.87E-01	1.93E-01	1.92E-01	1.92E-01	1.91E-01	1.90E-01	1.88E-01	1.87E-01	1.85E-01	1.84E-01	
ND149	1.37E+01	9.30E+00	6.33E+00	4.31E+00	2.92E+00	1.36E+00	4.26E-01	1.35E-01	4.24E-02	1.33E-02	4.21E-03	
PM149	1.90E-03	1.49E-01	2.47E-01	3.13E-01	3.54E-01	3.98E-01	4.13E-01	4.06E-01	3.95E-01	3.80E-01	3.67E-01	
PM150	1.54E-01	1.19E-01	9.24E-02	7.13E-02	5.51E-02	3.31E-02	1.53E-02	7.08E-03	3.28E-03	1.52E-03	7.03E-04	
ND151	4.99E+01	1.56E+00	4.87E-02	1.52E-03	4.76E-05	4.65E-08	1.42E-12	4.34E-17	1.32E-21	4.03E-26	1.23E-30	
PM151	3.16E-02	3.70E-01	3.72E-01	3.63E-01	3.54E-01	3.36E-01	3.12E-01	2.89E-01	2.69E-01	2.49E-01	2.31E-01	
PM152	7.91E+01	7.74E-02	7.55E-05	7.37E-08	7.20E-11	6.88E-17	6.40E-26	5.97E-35	5.56E-44	5.20E-53	4.83E-62	
SM153	1.03E-01	1.02E-01	1.01E-01	9.90E-02	9.76E-02	9.47E-02	9.07E-02	8.66E-02	8.29E-02	7.95E-02	7.60E-02	
SM155	5.18E+00	8.50E-01	1.39E-01	2.28E-02	3.74E-03	1.01E-04	4.44E-07	1.95E-09	8.62E-12	3.84E-14	9.43E-17	
EU155	3.81E-06	1.09E-04	1.26E-04	1.28E-04	1.29E-04	1.29E-04	1.29E-04	1.29E-04	1.29E-04	1.29E-04	1.29E-04	
SM156	7.93E-02	7.36E-02	6.84E-02	6.35E-02	5.90E-02	5.09E-02	4.08E-02	3.27E-02	2.63E-02	2.10E-02	1.68E-02	
EU156	2.32E-04	3.78E-04	5.14E-04	6.40E-04	7.57E-04	9.65E-04	1.23E-03	1.42E-03	1.59E-03	1.72E-03	1.81E-03	
EU157	1.34E-02	4.43E-02	4.23E-02	4.04E-02	3.86E-02	3.52E-02	3.08E-02	2.69E-02	2.34E-02	2.04E-02	1.78E-02	
EU158	4.13E-01	1.67E-01	6.77E-02	2.74E-02	1.11E-02	1.82E-03	1.21E-04	8.03E-06	5.33E-07	3.54E-08	2.35E-09	
EU159	5.06E-01	5.03E-02	4.98E-03	4.95E-04	4.90E-05	4.84E-07	4.73E-10	4.61E-13	4.50E-16	4.40E-19	4.30E-22	
GD159	2.17E-03	9.50E-03	9.88E-03	9.57E-03	9.22E-03	8.53E-03	7.61E-03	6.78E-03	6.03E-03	5.37E-03	4.79E-03	
TB161	2.50E-05	1.79E-04	1.78E-04	1.78E-04	1.77E-04	1.75E-04	1.74E-04	1.71E-04	1.69E-04	1.67E-04	1.65E-04	
TOTAL	1.04E+04	2.25E+03	8.91E+02	5.41E+02	3.92E+02	2.58E+02	1.75E+02	1.32E+02	1.05E+02	8.64E+01	7.30E+01	



APPLE II MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.027E-13

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	5.82E-06	5.75E-06	5.67E-06	5.46E-06	5.11E-06	4.49E-06	3.94E-06	3.03E-06	1.59E-06	4.31E-07	1.17E-07	
NA 24	1.99E-02	6.55E-03	2.16E-03	7.75E-05	3.03E-07	4.64E-12	7.07E-17	1.65E-26	0.	0.	0.	
MN 54	2.72E-06	2.70E-06	2.70E-06	2.65E-06	2.63E-06	2.58E-06	2.53E-06	2.41E-06	2.15E-06	1.71E-06	1.36E-06	
FE 55	1.36E-04	1.36E-04	1.36E-04	1.36E-04	1.35E-04	1.35E-04	1.33E-04	1.32E-04	1.26E-04	1.18E-04	1.09E-04	
FE 59	2.23E-04	2.19E-04	2.16E-04	2.06E-04	1.91E-04	1.64E-04	1.40E-04	1.03E-04	4.79E-05	1.02E-05	2.19E-06	
CO 57	7.94E-08	7.94E-08	7.88E-08	7.88E-08	7.76E-08	7.52E-08	7.35E-08	6.99E-08	6.17E-08	4.77E-08	3.69E-08	
CO 58	8.98E-05	8.90E-05	8.81E-05	8.54E-05	8.16E-05	7.39E-05	6.71E-05	5.52E-05	3.40E-05	1.29E-05	4.85E-06	
CO 60	2.84E-05	2.84E-05	2.84E-05	2.84E-05	2.82E-05	2.82E-05	2.81E-05	2.79E-05	2.72E-05	2.64E-05	2.54E-05	
CU 64	6.19E-01	1.69E-01	4.60E-02	9.35E-04	1.40E-06	3.19E-12	7.22E-18	3.71E-29	0.	0.	0.	
CU 67	1.38E-05	1.05E-05	8.01E-06	3.56E-06	9.28E-07	6.25E-08	4.22E-09	1.92E-11	2.68E-17	0.	0.	
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
W185	2.06E-04	2.04E-04	2.01E-04	1.97E-04	1.88E-04	1.71E-04	1.56E-04	1.30E-04	8.19E-05	3.26E-05	1.29E-05	
W187	1.65E-02	8.24E-03	4.08E-03	5.10E-04	1.57E-05	1.49E-08	1.41E-11	1.27E-19	0.	0.	0.	
W188	8.03E-07	7.94E-07	7.86E-07	7.64E-07	7.28E-07	6.56E-07	5.94E-07	4.87E-07	2.95E-07	1.09E-07	4.01E-08	
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	4.28E-05	3.10E-05	1.19E-05	2.41E-06	9.92E-08	4.07E-09	6.83E-12	7.98E-19	0.	0.	0.	
U237	4.29E-02	3.88E-02	3.49E-02	2.57E-02	1.54E-02	5.51E-03	1.98E-03	2.52E-04	1.49E-06	1.60E-10	1.08E-10	
U240	1.49E-01	4.58E-02	1.40E-02	4.07E-04	1.12E-06	8.40E-12	6.32E-17	3.57E-27	0.	0.	0.	
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
NP239	2.77E-03	4.23E+00	3.15E+00	1.30E+00	2.97E-01	1.56E-02	8.14E-04	2.23E-06	8.78E-13	2.10E-22	2.10E-22	
NP240M	2.35E-04	4.61E-02	1.42E-02	4.10E-04	1.13E-06	8.48E-12	6.38E-17	3.60E-27	0.	0.	0.	
*AM241	9.97E-09	9.97E-09	9.97E-09	9.97E-09	9.97E-09	9.97E-09	9.97E-09	9.97E-09	9.97E-09	9.97E-09	9.97E-09	
*CM242	1.42E-07	1.41E-07	1.40E-07	1.39E-07	1.36E-07	1.30E-07	1.25E-07	1.15E-07	9.33E-08	6.07E-08	3.97E-08	
GE 77	4.94E-03	3.11E-03	7.12E-04	8.61E-06	5.48E-09	2.22E-15	8.94E-22	1.46E-34	0.	0.	0.	
AS 77	5.11E-05	7.54E-03	5.46E-03	1.58E-03	1.85E-04	2.51E-06	3.41E-08	6.28E-12	2.91E-21	6.24E-40	1.34E-58	
SE 77M	2.01E-09	2.27E-05	1.64E-05	4.74E-06	5.53E-07	7.53E-09	1.02E-10	1.89E-14	8.73E-24	1.87E-42	4.03E-61	
AS 78	1.36E-02	1.21E-04	3.54E-09	2.99E-23	0.	0.	0.	0.	0.	0.	0.	
BR 82	5.02E-04	3.14E-04	1.96E-04	4.76E-05	4.51E-06	4.05E-08	3.64E-10	2.94E-14	1.71E-24	5.89E-45	2.00E-65	
BR 83	3.86E-01	1.02E-02	1.02E-05	1.04E-14	1.06E-29	0.	0.	0.	0.	0.	0.	
KR 83M	1.99E-05	4.44E-02	5.04E-05	4.53E-14	4.65E-29	0.	0.	0.	0.	0.	0.	
KR 85M	4.82E-03	2.75E-01	6.27E-03	7.44E-08	4.59E-16	1.74E-32	6.61E-49	0.	0.	0.	0.	
KR 85	4.98E-06	1.31E-04	1.33E-04	1.33E-04	1.33E-04	1.33E-04	1.33E-04	1.33E-04	1.31E-04	1.29E-04	1.27E-04	
KR 87	8.11E+01	1.60E-04	3.17E-10	2.45E-27	0.	0.	0.	0.	0.	0.	0.	
KR 88	4.65E+01	1.22E-01	3.21E-04	5.83E-12	7.33E-25	0.	0.	0.	0.	0.	0.	
RB 88	1.18E+01	1.36E-01	3.59E-04	6.52E-12	8.17E-25	0.	0.	0.	0.	0.	0.	
SR 89	4.29E-06	1.29E-01	1.27E-01	1.22E-01	1.14E-01	9.98E-02	8.72E-02	6.71E-02	3.43E-02	9.04E-03	2.38E-03	
SR 90	8.65E-06	8.89E-04	8.89E-04	8.89E-04	8.89E-04	8.89E-04	8.89E-04	8.89E-04	8.81E-04	8.81E-04	8.73E-04	
Y 90	1.28E-11	2.04E-04	3.60E-04	6.47E-04	8.26E-04	8.81E-04	8.89E-04	8.89E-04	8.81E-04	8.81E-04	8.73E-04	
SR 91	1.01E+00	3.62E+00	6.49E-01	3.72E-03	6.81E-07	2.31E-14	7.83E-22	8.91E-37	0.	0.	0.	

M-8

APPLE II MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.027E-13

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	6.81E-05	2.34E+00	4.19E-01	2.41E-03	4.42E-07	1.49E-14	5.04E-22	5.75E-37	0.	0.	0.
Y 91	2.79E-08	1.11E-01	1.32E-01	1.32E-01	1.24E-01	1.10E-01	9.80E-02	7.77E-02	4.30E-02	1.32E-02	4.07E-03
SR 92	7.34E+00	9.15E-02	1.97E-04	1.98E-12	9.29E-26	0.	0.	0.	0.	0.	0.
Y 92	3.38E-01	9.59E-01	1.07E-02	8.19E-09	4.78E-19	1.64E-39	5.60E-60	0.	0.	0.	0.
Y 93	3.56E-01	2.40E+00	4.69E-01	3.53E-03	1.01E-06	8.38E-14	6.92E-21	4.72E-35	0.	0.	0.
ZR 95	6.82E-04	8.52E-02	8.43E-02	8.16E-02	7.74E-02	6.94E-02	6.25E-02	5.05E-02	2.96E-02	1.02E-02	3.50E-03
NB 95M	1.45E-11	2.89E-04	5.26E-04	1.00E-03	1.35E-03	1.43E-03	1.32E-03	1.07E-03	6.28E-04	2.16E-04	7.44E-05
NB 95	7.59E-11	1.65E-03	3.26E-03	7.80E-03	1.45E-02	2.50E-02	3.23E-02	4.01E-02	3.86E-02	1.85E-02	7.12E-03
ZR 97	1.62E+00	2.76E+00	1.04E+00	5.50E-02	4.13E-04	2.32E-08	1.31E-12	4.13E-21	2.33E-42	0.	0.
NB 97M	8.34E-03	2.65E+00	9.96E-01	5.30E-02	3.96E-04	2.23E-08	1.26E-12	3.96E-21	2.24E-42	0.	0.
NB 97	8.12E-01	2.77E+00	1.04E+00	5.52E-02	4.16E-04	2.50E-08	1.41E-12	4.46E-21	2.51E-42	0.	0.
MO 99	4.80E-03	1.56E+00	1.22E+00	5.77E-01	1.67E-01	1.40E-02	1.16E-03	8.13E-06	3.30E-11	5.44E-22	8.95E-33
TC 99M	4.46E-08	1.37E+00	1.15E+00	5.53E-01	1.59E-01	1.33E-02	1.11E-03	7.76E-06	3.15E-11	5.19E-22	8.56E-33
RU103	7.47E-05	1.70E-01	1.67E-01	1.58E-01	1.46E-01	1.22E-01	1.02E-01	7.23E-02	3.01E-02	5.22E-03	9.09E-04
RH103M	4.98E-09	1.70E-01	1.68E-01	1.59E-01	1.46E-01	1.22E-01	1.02E-01	7.23E-02	3.01E-02	5.22E-03	9.09E-04
RU105	4.75E-01	4.54E-01	1.07E-02	1.40E-07	1.03E-15	5.48E-32	2.94E-48	0.	0.	0.	0.
RH105M	3.12E-03	4.54E-01	1.07E-02	1.41E-07	1.03E-15	5.51E-32	2.94E-48	0.	0.	0.	0.
RH105	5.13E-09	1.64E+00	1.07E+00	2.67E-01	2.63E-02	2.56E-04	2.48E-06	2.35E-10	2.03E-20	1.53E-40	1.15E-60
RU106	3.93E-04	7.44E-03	7.41E-03	7.38E-03	7.31E-03	7.18E-03	7.02E-03	6.77E-03	6.15E-03	5.09E-03	4.22E-03
RH106	4.25E-06	7.44E-03	7.41E-03	7.38E-03	7.31E-03	7.18E-03	7.02E-03	6.77E-03	6.15E-03	5.09E-03	4.22E-03
PD109	4.83E-03	1.23E-01	3.58E-02	8.89E-04	1.87E-06	8.35E-12	3.72E-17	7.35E-28	0.	0.	0.
AG109M	2.79E-05	1.23E-01	3.59E-02	8.90E-04	1.88E-06	8.36E-12	3.72E-17	7.36E-28	0.	0.	0.
PD111M	6.18E-01	3.00E-02	1.46E-03	1.67E-07	4.52E-14	3.30E-27	2.42E-40	0.	0.	0.	0.
PD111	2.20E-01	2.42E-02	1.17E-03	1.35E-07	3.65E-14	2.65E-27	1.94E-40	0.	0.	0.	0.
AG111M	1.75E-03	3.16E-02	1.54E-03	1.77E-07	4.78E-14	3.51E-27	2.56E-40	0.	0.	0.	0.
AG111	6.23E-10	1.72E-02	1.65E-02	1.26E-02	7.91E-03	3.14E-03	1.25E-03	1.96E-04	1.93E-06	1.87E-10	1.81E-14
PD112	1.23E-01	5.57E-02	2.52E-02	2.34E-03	4.45E-05	1.62E-08	5.87E-12	7.70E-19	4.86E-36	0.	0.
AG112	3.69E-06	6.47E-02	2.97E-02	2.76E-03	5.27E-05	1.91E-08	6.92E-12	9.12E-19	5.72E-36	0.	0.
AG113	1.26E-03	1.34E-02	5.78E-04	4.69E-08	7.18E-15	1.68E-28	3.93E-42	0.	0.	0.	0.
CD115M	3.97E-09	1.15E-04	1.13E-04	1.08E-04	9.95E-05	8.44E-05	7.21E-05	5.21E-05	2.33E-05	4.63E-06	9.25E-07
CD115	1.53E-06	2.31E-02	1.69E-02	6.67E-03	1.41E-03	6.28E-05	2.80E-06	5.59E-09	9.87E-16	3.09E-29	9.68E-43
IN115M	1.91E-11	2.44E-02	1.85E-02	7.29E-03	1.53E-03	6.86E-05	3.06E-06	6.09E-09	1.08E-15	3.38E-29	1.06E-42
CD117	3.43E-02	7.47E-04	7.27E-07	6.79E-16	6.03E-31	0.	0.	0.	0.	0.	0.
IN117M	1.65E-06	3.10E-03	3.59E-06	3.46E-15	3.08E-30	0.	0.	0.	0.	0.	0.
IN117	6.63E-11	2.05E-03	2.42E-06	2.35E-15	2.08E-30	0.	0.	0.	0.	0.	0.
SN121	6.96E-04	3.97E-02	2.14E-02	3.37E-03	1.55E-04	3.27E-07	6.88E-10	3.07E-15	1.28E-28	0.	0.
SN123	3.68E-06	3.85E-04	3.81E-04	3.74E-04	3.64E-04	3.44E-04	3.27E-04	2.92E-04	2.21E-04	1.27E-04	7.32E-05
SN125	1.04E-02	9.64E-03	8.97E-03	7.18E-03	4.96E-03	2.38E-03	1.14E-03	2.60E-04	6.50E-06	4.09E-09	2.56E-12
SB125	6.23E-05	6.91E-05	7.56E-05	9.24E-05	1.13E-04	1.37E-04	1.48E-04	1.54E-04	1.51E-04	1.41E-04	1.31E-04
SB126	1.99E-03	1.88E-03	1.78E-03	1.50E-03	1.14E-03	6.53E-04	3.77E-04	1.24E-04	7.76E-06	3.77E-08	7.57E-09

M-9

APPLE II MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.027E-13

DEBRIS DECAY FROM 1 TO 300 DAYS

M-10

	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	3.15E+00	1.14E-03	4.15E-07	1.98E-17	1.24E-34	0.	0.	0.	0.	0.	0.	0.
SB127	3.68E-02	1.51E-01	1.26E-01	7.37E-02	3.02E-02	5.04E-03	8.43E-04	2.36E-05	3.08E-09	5.25E-17	8.94E-25	0.
TE127M	2.97E-10	2.30E-04	4.22E-04	8.18E-04	1.13E-03	1.25E-03	1.20E-03	1.07E-03	7.78E-04	4.11E-04	2.17E-04	0.
TE127	2.08E-02	1.08E-01	1.06E-01	6.46E-02	2.73E-02	5.61E-03	1.92E-03	1.08E-03	7.68E-04	4.06E-04	2.15E-04	0.
SB128	8.89E-01	1.52E-01	2.39E-02	9.34E-05	9.06E-09	8.50E-17	8.00E-25	7.05E-41	0.	0.	0.	0.
SB129	5.14E+00	2.63E-01	5.49E-03	5.00E-08	1.99E-16	3.14E-33	4.95E-50	0.	0.	0.	0.	0.
TE129M	9.70E-08	1.02E-02	1.02E-02	9.65E-03	8.72E-03	7.10E-03	5.78E-03	3.85E-03	1.39E-03	1.81E-04	2.35E-05	0.
TE129	3.70E+00	3.08E-01	1.28E-02	6.18E-03	5.57E-03	4.55E-03	3.71E-03	2.47E-03	8.90E-04	1.16E-04	1.51E-05	0.
I130	2.44E-02	6.38E-03	1.67E-03	2.99E-05	3.65E-08	5.43E-14	8.10E-20	1.80E-31	0.	0.	0.	0.
TE131M	9.83E-05	3.44E-01	1.97E-01	3.74E-02	2.34E-03	9.11E-06	3.57E-08	5.44E-13	4.95E-25	0.	0.	0.
TE131	9.05E+01	6.27E-02	3.60E-02	6.84E-03	4.26E-04	1.67E-06	6.50E-09	9.96E-14	9.05E-26	0.	0.	0.
I131	1.32E-02	7.10E-01	6.71E-01	5.39E-01	3.55E-01	1.50E-01	6.34E-02	1.13E-02	1.53E-04	2.79E-08	5.08E-12	0.
XE131M	3.57E-11	3.29E-04	6.24E-04	1.30E-03	1.86E-03	1.84E-03	1.37E-03	5.64E-04	3.76E-05	1.13E-07	3.18E-10	0.
TE132	1.07E+00	2.12E+00	1.71E+00	9.02E-01	3.11E-01	3.69E-02	4.37E-03	6.13E-05	1.43E-09	7.85E-19	4.28E-28	0.
I132	2.63E+00	2.19E+00	1.77E+00	9.28E-01	3.21E-01	3.80E-02	4.50E-03	6.32E-05	1.48E-09	8.05E-19	4.41E-28	0.
I133	1.14E+00	6.36E+00	2.87E+00	2.66E-01	5.07E-03	1.84E-06	6.67E-10	8.79E-17	5.52E-34	0.	0.	0.
XE133M	4.86E-08	6.00E-02	7.11E-02	4.17E-02	9.79E-03	4.59E-04	2.14E-05	4.64E-08	1.02E-14	4.86E-28	2.33E-41	0.
XE133	8.48E-07	1.15E+00	1.55E+00	1.38E+00	7.54E-01	2.04E-01	5.48E-02	3.95E-03	5.50E-06	1.07E-11	2.07E-17	0.
I135	1.93E+01	3.15E+00	2.63E-01	1.53E-04	6.21E-10	1.03E-20	1.69E-31	4.58E-53	0.	0.	0.	0.
XE135M	2.14E-03	9.82E-01	8.21E-02	4.78E-05	1.94E-10	3.20E-21	5.27E-32	1.43E-53	0.	0.	0.	0.
XE135	2.23E+00	8.49E+00	2.08E+00	1.19E-02	1.45E-06	2.04E-14	2.86E-22	5.66E-38	0.	0.	0.	0.
CS136	4.20E-03	3.98E-03	3.77E-03	3.21E-03	2.46E-03	1.45E-03	8.50E-04	2.92E-04	2.03E-05	9.78E-08	4.74E-10	0.
CS137	9.40E-05	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.01E-03	1.00E-03	9.97E-04	0.
BA137M	1.98E-07	9.46E-04	9.46E-04	9.46E-04	9.46E-04	9.46E-04	9.46E-04	9.46E-04	9.40E-04	9.35E-04	9.29E-04	0.
BA139	1.27E+01	1.35E-03	7.99E-09	1.64E-24	0.	0.	0.	0.	0.	0.	0.	0.
BA140	1.15E-01	6.78E-01	6.46E-01	5.47E-01	4.17E-01	2.43E-01	1.41E-01	4.79E-02	3.20E-03	1.42E-05	6.29E-08	0.
LA140	2.73E-07	2.36E-01	3.80E-01	5.26E-01	4.67E-01	2.80E-01	1.62E-01	5.53E-02	3.67E-03	1.64E-05	7.28E-08	0.
LA141	1.59E+00	6.31E-01	8.85E-03	2.45E-08	1.34E-17	4.00E-36	1.19E-54	0.	0.	0.	0.	0.
CE141	1.97E-07	2.18E-01	2.16E-01	2.03E-01	1.82E-01	1.48E-01	1.19E-01	7.74E-02	2.66E-02	3.13E-03	3.69E-04	0.
LA142	7.88E+00	1.73E-03	3.34E-08	2.46E-22	0.	0.	0.	0.	0.	0.	0.	0.
CE143	5.26E-02	2.16E+00	1.31E+00	2.88E-01	2.32E-02	1.50E-04	9.69E-07	4.06E-11	4.58E-22	0.	0.	0.
PR143	1.54E-08	1.38E-01	2.15E-01	2.78E-01	2.38E-01	1.45E-01	8.76E-02	3.17E-02	2.53E-03	1.61E-05	1.02E-07	0.
CE144	2.11E-03	1.51E-02	1.51E-02	1.50E-02	1.48E-02	1.44E-02	1.41E-02	1.34E-02	1.19E-02	9.29E-03	7.29E-03	0.
PR144	5.80E-07	1.51E-02	1.51E-02	1.50E-02	1.48E-02	1.44E-02	1.41E-02	1.34E-02	1.19E-02	9.29E-03	7.29E-03	0.
PR145	8.36E-02	8.55E-01	5.29E-02	1.25E-05	1.14E-11	9.47E-24	7.85E-36	0.	0.	0.	0.	0.
ND147	9.96E-06	1.67E-01	1.57E-01	1.31E-01	9.55E-02	5.13E-02	2.74E-02	7.87E-03	3.45E-04	6.72E-07	1.30E-09	0.
PM147	2.76E-14	1.25E-04	2.43E-04	5.54E-04	9.58E-04	1.46E-03	1.73E-03	1.92E-03	1.94E-03	1.81E-03	1.68E-03	0.
ND149	1.37E+01	1.32E-03	1.28E-07	1.17E-19	9.97E-40	0.	0.	0.	0.	0.	0.	0.
PM149	1.90E-03	3.51E-01	2.57E-01	1.00E-01	2.10E-02	9.14E-04	3.98E-05	7.57E-08	1.19E-14	2.94E-28	7.34E-42	0.
PM150	1.54E-01	3.26E-04	6.86E-07	6.45E-15	2.70E-28	0.	0.	0.	0.	0.	0.	0.

APPLE II MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.027E-13

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	3.16E-02	2.15E-01	1.19E-01	2.00E-02	1.03E-03	2.69E-06	7.10E-09	4.90E-14	6.14E-27	0.	0.	0.
SM153	1.03E-01	7.27E-02	5.10E-02	1.76E-02	3.00E-03	8.72E-05	2.53E-06	2.13E-09	4.39E-17	1.87E-32	7.95E-48	0.
SM156	7.93E-02	1.35E-02	2.31E-03	1.14E-05	1.64E-09	3.36E-17	6.94E-25	2.95E-40	0.	0.	0.	0.
EU155	3.81E-06	1.29E-04	1.29E-04	1.29E-04	1.28E-04	1.28E-04	1.27E-04	1.26E-04	1.24E-04	1.19E-04	1.14E-04	1.14E-04
EU156	2.32E-04	1.89E-03	2.09E-03	1.88E-03	1.49E-03	9.35E-04	5.90E-04	2.34E-04	2.32E-05	2.28E-07	2.25E-09	0.
EU157	1.34E-02	1.55E-02	5.20E-03	1.95E-04	8.19E-07	1.44E-11	2.56E-16	7.96E-26	0.	0.	0.	0.
GD159	2.17E-03	4.27E-03	1.70E-03	1.06E-04	1.04E-06	1.01E-10	9.79E-15	9.18E-23	7.84E-43	0.	0.	0.
TB161	2.50E-05	1.63E-04	1.47E-04	1.09E-04	6.59E-05	2.41E-05	8.83E-06	1.18E-06	7.83E-09	3.38E-13	1.47E-17	0.
TOTAL	3.20E+02	6.19E+01	2.73E+01	1.00E+01	4.64E+00	1.98E+00	1.22E+00	6.74E-01	2.89E-01	1.01E-01	4.88E-02	0.

M-11

APPLE 11 MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.027E-13

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	5.82E-06	5.03E-08	4.67E-09	4.34E-10	3.49E-13	2.79E-16	2.09E-20	1.34E-26	0.	0.	0.
MN 54	2.72E-06	1.17E-06	7.74E-07	5.08E-07	1.45E-07	4.15E-08	7.81E-09	6.39E-10	1.50E-13	5.42E-19	1.96E-24
FF 59	2.23E-04	8.04E-07	4.82E-08	2.90E-09	6.30E-13	1.36E-16	1.77E-21	8.31E-29	0.	0.	0.
CO 57	7.94E-08	3.13E-08	1.96E-08	1.23E-08	3.03E-09	7.46E-10	1.15E-11	6.99E-12	6.11E-16	5.02E-22	0.
CO 58	8.98E-05	2.58E-06	4.37E-07	7.41E-08	3.61E-10	1.76E-12	1.45E-15	3.44E-20	1.31E-35	0.	0.
CO 60	2.84E-05	2.49E-05	2.32E-05	2.17E-05	1.78E-05	1.46E-05	1.12E-05	7.58E-06	2.03E-06	2.82E-07	3.90E-08
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	2.06E-04	7.09E-06	1.31E-06	2.43E-07	1.55E-09	9.89E-12	1.16E-14	4.72E-19	0.	0.	0.
W188	8.03E-07	2.09E-08	3.39E-09	5.44E-10	2.29E-12	9.61E-15	6.51E-18	1.15E-22	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	4.29E-02	1.07E-10	1.04E-10	1.02E-10	9.50E-11	8.82E-11	8.02E-11	6.96E-11	4.33E-11	2.12E-11	1.04E-11
*AM241	9.97E-09	9.97E-09	9.97E-09	9.97E-09	1.00E-08	1.01E-08	1.01E-08	1.01E-08	1.02E-08	1.01E-08	9.92E-09
*CM242	1.42E-07	3.01E-08	1.38E-08	6.36E-09	6.19E-10	6.03E-11	2.70E-12	2.56E-14	7.35E-19	6.85E-19	6.39E-19
KR 85	4.98E-06	1.24E-04	1.20E-04	1.16E-04	1.06E-04	9.56E-05	8.40E-05	6.93E-05	3.66E-05	1.40E-05	5.34E-06
SR 89	4.29E-06	1.00E-03	8.78E-05	7.72E-06	5.20E-09	3.51E-12	2.07E-16	9.41E-23	6.84E-44	0.	0.
SR 90	8.65E-06	8.65E-04	8.57E-04	8.50E-04	8.18E-04	7.87E-04	7.49E-04	6.95E-04	5.44E-04	3.75E-04	2.60E-04
Y 90	1.28E-11	8.65E-04	8.57E-04	8.50E-04	8.18E-04	7.87E-04	7.49E-04	6.95E-04	5.44E-04	3.75E-04	2.60E-04
Y 91	2.79E-08	1.88E-03	2.19E-04	2.55E-05	3.99E-08	6.26E-11	1.15E-14	2.81E-20	5.68E-39	0.	0.
ZR 95	6.82E-04	1.75E-03	2.50E-04	3.56E-05	1.04E-07	3.02E-10	1.25E-13	1.06E-18	1.29E-35	0.	0.
NB 95M	1.45E-11	3.71E-05	5.29E-06	7.56E-07	2.20E-09	5.40E-12	2.65E-15	2.24E-20	2.74E-37	0.	0.
NB 95	7.59E-11	3.77E-03	5.41E-04	7.71E-05	2.24E-07	6.49E-10	2.71E-13	2.29E-18	2.80E-35	0.	0.
RU103	7.47E-05	2.90E-04	1.19E-05	4.88E-07	3.33E-11	2.28E-15	6.41E-21	3.02E-29	0.	0.	0.
RH103M	4.98E-09	2.91E-04	1.19E-05	4.88E-07	3.34E-11	2.29E-15	6.41E-21	3.02E-29	0.	0.	0.
RU106	3.93E-04	3.74E-03	2.65E-03	1.89E-03	6.67E-04	2.37E-04	5.96E-05	7.54E-06	7.60E-09	2.45E-13	7.86E-18
RH106	4.25E-06	3.74E-03	2.65E-03	1.89E-03	6.67E-04	2.37E-04	5.96E-05	7.54E-06	7.60E-09	2.45E-13	7.86E-18
SN123	3.68E-06	5.09E-05	1.85E-05	6.71E-06	3.22E-07	1.54E-08	2.69E-10	6.21E-13	9.95E-22	6.41E-35	4.12E-48
SB125	6.23E-05	1.25E-04	1.10E-04	9.70E-05	6.61E-05	4.50E-05	2.69E-05	1.24E-05	9.56E-07	2.03E-08	4.33E-10
TE125M	1.68E-12	5.12E-05	4.55E-05	4.01E-05	2.74E-05	1.86E-05	1.11E-05	5.15E-06	3.96E-07	8.43E-09	1.79E-10
TE127M	2.97E-10	1.42E-04	4.45E-05	1.39E-05	4.29E-07	1.32E-08	1.27E-10	1.19E-13	9.80E-24	7.32E-39	5.45E-54
TE127	2.08E-02	1.41E-04	4.40E-05	1.38E-05	4.24E-07	1.30E-08	1.25E-10	1.18E-13	9.70E-24	7.22E-39	5.40E-54
CS137	9.40E-05	9.91E-04	9.80E-04	9.69E-04	9.35E-04	9.01E-04	8.62E-04	8.05E-04	6.36E-04	4.52E-04	3.19E-04
BA137M	1.98E-07	9.29E-04	9.18E-04	9.07E-04	8.73E-04	8.45E-04	8.05E-04	7.55E-04	5.97E-04	4.22E-04	2.99E-04
CE141	1.97E-07	8.48E-05	1.70E-06	3.43E-08	2.79E-13	2.27E-18	3.72E-25	2.47E-35	0.	0.	0.
CE144	2.11E-03	6.21E-03	4.00E-03	2.55E-03	6.69E-04	1.76E-04	2.96E-05	2.04E-06	2.75E-10	4.31E-16	6.72E-22
PR144	5.80E-07	6.21E-03	4.00E-03	2.55E-03	6.69E-04	1.76E-04	2.96E-05	2.04E-06	2.75E-10	4.31E-16	6.72E-22
PM147	2.76E-14	1.61E-03	1.41E-03	1.23E-03	8.28E-04	5.57E-04	3.27E-04	1.49E-04	1.06E-05	2.00E-07	3.77E-09
EU155	3.81E-06	1.11E-04	1.04E-04	9.63E-05	7.75E-05	6.22E-05	4.65E-05	3.00E-05	7.01E-06	7.88E-07	8.88E-08
TOTAL	6.77E-02	3.51E-02	1.99E-02	1.42E-02	7.24E-03	4.94E-03	3.85E-03	3.24E-03	2.38E-03	1.64E-03	1.14E-03

M-12

APPENDIX N  
DETAILED RESULTS FOR EVENT ZUCCHINI

ZUCCHINI  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.103E-13

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.04E+02	9.78E+03
1.00E+00	3.47E+01	2.21E+03
2.00E+00	1.38E+01	8.92E+02
3.00E+00	7.37E+00	5.46E+02
4.00E+00	4.57E+00	3.97E+02
6.00E+00	2.37E+00	2.61E+02
9.00E+00	1.39E+00	1.75E+02
1.20E+01	1.00E+00	1.31E+02
1.50E+01	7.79E-01	1.04E+02
1.80E+01	6.31E-01	8.50E+01
2.10E+01	5.25E-01	7.14E+01
1.00E+00 DAYS	4.40E-01	6.04E+01
2.00E+00	1.90E-01	2.60E+01
5.00E+00	7.44E-02	9.51E+00
1.00E+01	3.64E-02	4.51E+00
2.00E+01	1.51E-02	1.96E+00
3.00E+01	8.63E-03	1.22E+00
5.00E+01	3.86E-03	6.71E-01
1.00E+02	1.26E-03	2.88E-01
2.00E+02	4.30E-04	1.01E-01
3.00E+02	1.67E-04	4.83E-02
1.00E+00 YEARS	9.74E-05	3.46E-02
1.50E+00	3.16E-05	1.96E-02
2.00E+00	1.94E-05	1.40E-02
3.50E+00	1.22E-05	7.21E-03
5.00E+00	9.92E-06	4.97E-03
7.00E+00	8.68E-06	3.91E-03
1.00E+01	7.80E-06	3.31E-03
2.00E+01	6.01E-06	2.43E-03
3.50E+01	4.25E-06	1.68E-03
5.00E+01	3.00E-06	1.17E-03

ZUCCHINI MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.103E-13

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	1.75E-06	1.75E-06	1.75E-06	1.75E-06	1.75E-06	1.75E-06	1.74E-06	1.74E-06	1.74E-06	1.73E-06	1.73E-06	1.73E-06
NA 24	2.08E-03	1.99E-03	1.90E-03	1.81E-03	1.73E-03	1.65E-03	1.58E-03	1.51E-03	1.44E-03	1.37E-03	1.30E-03	1.24E-03
MN 54	3.73E-05	3.73E-05	3.73E-05	3.73E-05	3.73E-05	3.73E-05	3.73E-05	3.73E-05	3.69E-05	3.69E-05	3.69E-05	3.69E-05
FE 55	5.42E-05	5.42E-05	5.42E-05	5.42E-05	5.42E-05	5.42E-05	5.42E-05	5.42E-05	5.42E-05	5.42E-05	5.42E-05	5.42E-05
CE 59	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.25E-04	1.24E-04	1.24E-04	1.24E-04
CO 57	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07	1.19E-07
CO 58	8.83E-05	8.83E-05	8.83E-05	8.83E-05	8.83E-05	8.81E-05	8.81E-05	8.79E-05	8.79E-05	8.77E-05	8.77E-05	8.75E-05
CO 60	9.06E-06	9.06E-06	9.06E-06	9.06E-06	9.06E-06	9.06E-06	9.06E-06	9.06E-06	9.06E-06	9.06E-06	9.06E-06	9.06E-06
CU 64	2.97E-01	2.81E-01	2.66E-01	2.53E-01	2.39E-01	2.26E-01	2.15E-01	2.05E-01	1.95E-01	1.86E-01	1.78E-01	1.71E-01
CU 67	9.30E-06	9.22E-06	9.06E-06	8.98E-06	8.90E-06	8.82E-06	8.74E-06	8.66E-06	8.58E-06	8.50E-06	8.42E-06	8.34E-06
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	1.26E-06	1.26E-06	1.26E-06	1.26E-06	1.26E-06	1.26E-06	1.26E-06	1.26E-06	1.26E-06	1.26E-06	1.26E-06	1.26E-06
W187	1.05E-03	1.02E-03	9.88E-04	9.60E-04	9.35E-04	9.10E-04	8.80E-04	8.58E-04	8.34E-04	8.10E-04	7.86E-04	7.62E-04
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	3.62E-05	3.57E-05	3.52E-05	3.47E-05	3.42E-05	3.34E-05	3.22E-05	3.09E-05	2.96E-05	2.84E-05	2.73E-05	2.62E-05
U237	3.69E-02	3.68E-02	3.66E-02	3.64E-02	3.63E-02	3.60E-02	3.55E-02	3.51E-02	3.46E-02	3.41E-02	3.37E-02	3.32E-02
U239	5.48E+02	9.35E+01	1.60E+01	2.72E+00	4.62E-01	1.34E-02	6.67E-05	3.29E-07	1.63E-09	8.05E-12	3.98E-14	1.91E-16
U240	1.06E-01	1.01E-01	9.61E-02	9.15E-02	8.71E-02	7.89E-02	6.81E-02	5.87E-02	5.07E-02	4.36E-02	3.76E-02	3.24E-02
NP239	1.88E-03	3.15E+00	3.64E+00	3.69E+00	3.66E+00	3.58E+00	3.43E+00	3.32E+00	3.20E+00	3.09E+00	2.97E+00	2.85E+00
NP240M	1.68E-04	1.01E-01	9.69E-02	9.23E-02	8.79E-02	7.95E-02	6.87E-02	5.93E-02	5.11E-02	4.40E-02	3.80E-02	3.28E-02
NP240	4.24E-12	2.18E-12	1.13E-12	5.85E-13	3.02E-13	8.09E-14	1.12E-14	1.54E-15	2.12E-16	2.92E-17	4.04E-18	5.56E-19
*AM241	9.99E-09	9.99E-09	9.99E-09	9.99E-09	9.99E-09	9.99E-09	9.99E-09	9.99E-09	9.99E-09	9.99E-09	9.99E-09	9.99E-09
*CM242	1.48E-07	1.48E-07	1.48E-07	1.48E-07	1.48E-07	1.48E-07	1.47E-07	1.47E-07	1.47E-07	1.47E-07	1.47E-07	1.47E-07
GE 75	2.70E-05	1.31E-01	7.89E-02	4.75E-02	2.86E-02	1.04E-02	2.26E-03	4.96E-04	1.08E-04	2.36E-05	5.16E-06	1.14E-06
GE 77	1.15E-02	2.97E-02	2.79E-02	2.62E-02	2.47E-02	2.18E-02	1.82E-02	1.51E-02	1.26E-02	1.05E-02	8.70E-03	7.28E-03
AS 77	1.19E-04	1.88E-02	1.90E-02	1.92E-02	1.93E-02	1.94E-02	1.94E-02	1.93E-02	1.90E-02	1.86E-02	1.81E-02	1.76E-02
SE 77M	4.69E-09	5.63E-05	5.72E-05	5.76E-05	5.76E-05	5.80E-05	5.85E-05	5.80E-05	5.72E-05	5.59E-05	5.42E-05	5.24E-05
GE 78	1.43E+00	8.96E-01	5.58E-01	3.49E-01	2.18E-01	8.47E-02	2.06E-02	4.98E-03	1.22E-03	2.95E-04	7.17E-05	1.78E-05
AS 78	2.58E-02	4.28E-01	5.28E-01	4.95E-01	4.13E-01	2.44E-01	9.06E-02	3.01E-02	9.31E-03	2.78E-03	8.07E-04	2.28E-04
AS 79	2.46E+01	2.43E-01	2.39E-03	2.35E-05	2.32E-07	2.24E-11	2.14E-17	2.04E-23	1.95E-29	1.86E-35	1.78E-41	1.70E-47
SE 79M	3.65E-02	4.28E-01	4.22E-03	4.16E-05	4.09E-07	3.96E-11	3.78E-17	3.61E-23	3.44E-29	3.28E-35	3.13E-41	2.97E-47
BR 80	1.43E-01	1.35E-02	1.27E-03	1.19E-04	1.12E-05	9.95E-08	8.33E-11	6.94E-14	5.79E-17	4.83E-20	4.03E-23	3.34E-26
SE 81M	1.12E-01	5.20E+00	2.51E+00	1.21E+00	5.81E-01	1.36E-01	1.52E-02	1.70E-03	1.91E-04	2.14E-05	2.40E-06	2.68E-07
SE 81	1.36E+00	6.15E+00	3.56E+00	1.78E+00	8.62E-01	2.01E-01	2.25E-02	2.52E-03	2.83E-04	3.17E-05	3.55E-06	3.94E-07
BR 82	6.41E-04	6.28E-04	6.16E-04	6.04E-04	5.92E-04	5.69E-04	5.37E-04	5.06E-04	4.78E-04	4.50E-04	4.24E-04	3.98E-04
SE 83	5.73E+01	1.09E+01	2.06E+00	3.90E-01	7.38E-02	2.66E-03	1.80E-05	1.23E-07	8.38E-10	5.68E-12	3.61E-14	2.31E-16
BR 83	4.76E-01	7.11E+00	6.58E+00	5.18E+00	3.93E+00	2.22E+00	9.39E-01	3.95E-01	1.67E-01	7.04E-02	2.97E-02	1.14E-02
KR 83M	2.46E-05	1.61E+00	3.29E+00	4.08E+00	4.21E+00	3.51E+00	2.07E+00	1.07E+00	5.14E-01	2.37E-01	1.07E-01	4.62E-02

N-3



ZUCCHINI MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.103E-13

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	1.18E-01	2.04E+01	5.51E+00	1.49E+00	4.03E-01	2.95E-02	5.83E-04	1.15E-05	2.26E-07	4.50E-09	8.89E-11	
KR 85M	5.43E-03	1.17E+01	9.91E+00	8.47E+00	7.24E+00	5.28E+00	3.29E+00	2.06E+00	1.28E+00	7.96E-01	4.97E-01	
KR 87	8.81E+01	5.08E+01	2.94E+01	1.70E+01	9.81E+00	3.29E+00	6.38E-01	1.24E-01	2.39E-02	4.64E-03	8.96E-04	
KR 88	4.97E+01	3.88E+01	3.03E+01	2.36E+01	1.84E+01	1.12E+01	5.35E+00	2.55E+00	1.21E+00	5.77E-01	2.74E-01	
RB 88	1.26E+01	3.92E+01	3.35E+01	2.64E+01	2.06E+01	1.25E+01	5.99E+00	2.85E+00	1.36E+00	6.46E-01	3.07E-01	
RB 89	6.11E+01	5.74E+01	3.86E+00	2.59E-01	1.74E-02	7.87E-05	2.38E-08	7.19E-12	2.19E-15	6.63E-19	2.01E-22	
SR 89	4.68E-06	1.64E-01	1.75E-01	1.75E-01	1.75E-01	1.75E-01	1.75E-01	1.75E-01	1.75E-01	1.74E-01	1.74E-01	
SR 90	8.96E-06	9.21E-04	9.21E-04	9.21E-04	9.21E-04	9.21E-04	9.21E-04	9.21E-04	9.21E-04	9.21E-04	9.21E-04	
SR 91	1.05E+00	1.95E+01	1.82E+01	1.69E+01	1.57E+01	1.36E+01	1.10E+01	8.88E+00	7.17E+00	5.76E+00	4.65E+00	
Y 91	7.04E-05	6.71E+00	9.15E+00	9.80E+00	9.67E+00	8.69E+00	7.11E+00	5.72E+00	4.61E+00	3.72E+00	3.00E+00	
Y 92	2.88E-08	5.97E-03	1.38E-02	2.20E-02	3.00E-02	4.49E-02	6.38E-02	7.90E-02	9.15E-02	1.01E-01	1.09E-01	
SR 92	7.56E+00	3.37E+01	2.61E+01	2.02E+01	1.57E+01	9.38E+00	4.36E+00	2.02E+00	9.38E-01	4.36E-01	2.03E-01	
Y 92	3.48E-01	7.10E+00	1.11E+01	1.33E+01	1.41E+01	1.34E+01	1.03E+01	6.99E+00	4.50E+00	2.77E+00	1.67E+00	
SR 93	2.98E+02	5.14E+00	2.84E-02	1.57E-04	8.65E-07	2.64E-11	4.46E-18	7.52E-25	1.27E-31	2.14E-38	3.61E-45	
Y 93	3.64E-01	1.18E+01	1.11E+01	1.03E+01	9.67E+00	8.44E+00	6.88E+00	5.72E+00	4.56E+00	3.74E+00	3.04E+00	
Y 94	4.30E+01	5.87E+01	7.56E+00	9.74E-01	1.26E-01	2.09E-03	4.48E-06	9.60E-09	2.05E-11	4.48E-14	2.48E-15	
Y 95	1.82E+02	1.72E+01	3.79E-01	8.36E-03	1.84E-04	8.93E-08	9.56E-13	1.02E-17	1.09E-22	1.17E-27	1.25E-32	
ZR 95	6.85E-04	8.96E-02	9.14E-02	9.14E-02	9.14E-02	9.14E-02	9.14E-02	9.11E-02	9.11E-02	9.08E-02	9.08E-02	
NB 95	7.64E-11	5.53E-05	1.29E-04	2.03E-04	2.77E-04	4.24E-04	6.43E-04	8.66E-04	1.08E-03	1.30E-03	1.52E-03	
ZR 97	1.63E+00	7.08E+00	6.78E+00	6.52E+00	6.24E+00	5.77E+00	5.10E+00	4.51E+00	4.00E+00	3.53E+00	3.14E+00	
NB 97M	8.37E-03	6.80E+00	6.52E+00	6.27E+00	6.02E+00	5.54E+00	4.90E+00	4.34E+00	3.84E+00	3.39E+00	3.00E+00	
NB 97	8.15E-01	3.56E+00	5.01E+00	5.71E+00	5.99E+00	5.96E+00	5.43E+00	4.84E+00	4.28E+00	3.78E+00	3.36E+00	
NB 98	9.03E+00	3.99E+00	1.77E+00	7.81E-01	3.46E-01	6.78E-02	5.86E-03	5.06E-04	4.41E-05	3.82E-06	3.28E-07	
MO 99	4.67E-03	1.93E+00	1.91E+00	1.89E+00	1.87E+00	1.83E+00	1.78E+00	1.72E+00	1.67E+00	1.62E+00	1.57E+00	
TC 99M	4.34E-08	1.84E-01	3.45E-01	4.88E-01	6.13E-01	8.18E-01	1.04E+00	1.18E+00	1.26E+00	1.31E+00	1.33E+00	
MO101	1.26E+02	5.67E+01	3.29E+00	1.91E-01	1.11E-02	3.71E-05	7.21E-09	1.40E-12	2.73E-16	5.30E-20	1.03E-23	
TC101	5.30E+00	1.59E+02	1.74E+01	1.43E+00	1.04E-01	4.68E-04	1.17E-07	2.62E-11	5.56E-15	1.14E-18	2.32E-22	
MO102	9.81E+02	2.24E+01	5.09E-01	1.16E-02	2.65E-04	1.38E-07	1.64E-12	1.94E-17	2.30E-22	2.73E-27	3.25E-32	
TC102M	6.31E-01	1.89E+01	4.34E-01	9.90E-03	2.26E-04	1.17E-07	1.39E-12	1.64E-17	1.95E-22	2.31E-27	2.75E-32	
TC102	2.95E+03	1.13E+01	2.57E-01	5.84E-03	1.34E-04	6.96E-08	8.27E-13	9.81E-18	1.16E-22	1.38E-27	1.64E-32	
RU103	6.76E-05	1.57E-01	1.56E-01	1.56E-01	1.56E-01	1.56E-01	1.56E-01	1.56E-01	1.55E-01	1.55E-01	1.54E-01	
RH103M	4.51E-09	8.11E-02	1.20E-01	1.39E-01	1.48E-01	1.54E-01	1.56E-01	1.56E-01	1.55E-01	1.55E-01	1.55E-01	
TC104	5.68E+01	4.08E+01	4.08E+00	4.04E-01	4.00E-02	3.94E-04	3.84E-07	3.76E-10	3.67E-13	3.58E-16	3.50E-19	
RU105	4.38E-01	1.52E+01	1.30E+01	1.11E+01	9.50E+00	6.94E+00	4.35E+00	2.72E+00	1.70E+00	1.06E+00	6.68E-01	
RH105M	2.88E-03	1.52E+01	1.30E+01	1.11E+01	9.50E+00	6.97E+00	4.35E+00	2.73E+00	1.71E+00	1.07E+00	6.68E-01	
RH105	4.73E-09	3.08E-01	5.72E-01	7.90E-01	9.72E-01	1.24E+00	1.49E+00	1.60E+00	1.63E+00	1.61E+00	1.57E+00	
RU106	3.69E-04	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	
RH106	3.99E-06	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	6.98E-03	
RH107	8.21E-02	1.12E+01	1.69E+00	2.54E-01	3.84E-02	8.76E-04	3.02E-06	1.04E-08	3.58E-11	1.22E-14	1.22E-17	
PD107M	1.71E-04	2.27E+00	3.43E-01	5.18E-02	7.81E-03	1.78E-04	6.14E-07	2.12E-09	7.28E-12	2.51E-14	8.58E-17	

N-4

ZUCCHINI MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.103E-13

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	5.14E-03	4.26E-01	4.05E-01	3.84E-01	3.64E-01	3.29E-01	2.83E-01	2.42E-01	2.08E-01	1.78E-01	1.53E-01
AG109M	2.96E-05	4.26E-01	4.05E-01	3.85E-01	3.65E-01	3.30E-01	2.83E-01	2.42E-01	2.08E-01	1.78E-01	1.53E-01
PD111M	6.58E-01	5.80E-01	5.11E-01	4.52E-01	3.98E-01	3.10E-01	2.12E-01	1.45E-01	9.95E-02	6.81E-02	4.67E-02
PD111	2.34E-01	4.23E-01	4.05E-01	3.61E-01	3.19E-01	2.48E-01	1.70E-01	1.17E-01	7.98E-02	5.48E-02	3.76E-02
AG111M	1.86E-03	5.70E-01	5.36E-01	4.79E-01	4.23E-01	3.27E-01	2.23E-01	1.53E-01	1.05E-01	7.20E-02	4.91E-02
AG111	6.63E-10	1.97E-03	4.13E-03	6.07E-03	7.79E-03	1.06E-02	1.36E-02	1.56E-02	1.69E-02	1.77E-02	1.82E-02
PD112	1.35E-01	1.31E-01	1.26E-01	1.22E-01	1.18E-01	1.11E-01	1.00E-01	9.08E-02	8.22E-02	7.44E-02	6.74E-02
AG112	4.06E-06	2.58E-02	4.56E-02	6.12E-02	7.27E-02	8.71E-02	9.58E-02	9.53E-02	9.08E-02	8.47E-02	7.81E-02
AG113	1.40E-03	3.00E-01	2.63E-01	2.31E-01	2.02E-01	1.56E-01	1.05E-01	7.11E-02	4.80E-02	3.24E-02	2.19E-02
AG115	5.19E-01	5.56E-01	6.92E-02	8.65E-03	1.08E-03	1.69E-05	3.31E-08	6.46E-11	1.25E-13	1.24E-16	1.15E-16
CD115M	4.24E-09	1.13E-04	1.27E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.28E-04	1.27E-04	1.27E-04
CD115	1.64E-06	3.09E-02	3.32E-02	3.31E-02	3.27E-02	3.19E-02	3.07E-02	2.95E-02	2.84E-02	2.73E-02	2.63E-02
IN115M	2.04E-11	3.41E-03	7.59E-03	1.12E-02	1.43E-02	1.91E-02	2.36E-02	2.60E-02	2.71E-02	2.73E-02	2.71E-02
CD117	3.69E-02	6.15E-01	4.63E-01	3.46E-01	2.59E-01	1.46E-01	6.11E-02	2.57E-02	1.08E-02	4.55E-03	1.91E-03
IN117M	1.78E-06	2.14E-01	3.10E-01	3.36E-01	3.25E-01	2.56E-01	1.46E-01	7.49E-02	3.60E-02	1.67E-02	7.54E-03
IN117	7.15E-11	3.90E-02	9.44E-02	1.31E-01	1.46E-01	1.35E-01	8.58E-02	4.59E-02	2.28E-02	1.07E-02	4.94E-03
CD118	2.48E+00	1.06E+00	4.55E-01	1.94E-01	8.31E-02	1.52E-02	1.19E-03	9.33E-05	7.34E-06	5.75E-07	4.51E-08
IN118	1.64E-01	1.06E+00	4.55E-01	1.94E-01	8.31E-02	1.52E-02	1.19E-03	9.37E-05	7.34E-06	5.75E-07	4.51E-08
CD119	6.25E+00	9.74E-02	1.52E-03	2.38E-05	3.72E-07	9.09E-11	3.46E-16	1.32E-21	5.03E-27	1.93E-32	7.37E-38
IN119M	9.42E-03	1.05E+00	1.15E-01	1.16E-02	1.15E-03	1.13E-05	1.10E-08	1.08E-11	1.05E-14	1.03E-17	1.01E-20
IN119	4.64E-01	5.55E-02	6.43E-03	6.53E-04	6.53E-05	6.39E-07	6.25E-10	6.11E-13	5.97E-16	5.83E-19	5.69E-22
SN121	7.99E-04	8.23E-02	7.99E-02	7.81E-02	7.62E-02	7.24E-02	6.68E-02	6.21E-02	5.74E-02	5.31E-02	4.94E-02
SN123M	4.60E-01	8.61E-01	3.05E-01	1.08E-01	3.81E-02	4.76E-03	2.11E-04	9.32E-06	4.13E-07	1.82E-08	8.05E-10
SN123	4.32E-06	4.52E-04	4.52E-04	4.52E-04	4.52E-04	4.52E-04	4.52E-04	4.52E-04	4.52E-04	4.52E-04	4.52E-04
SN125	1.21E-02	1.20E-02	1.20E-02	1.20E-02	1.19E-02	1.19E-02	1.18E-02	1.16E-02	1.15E-02	1.14E-02	1.13E-02
SB125	7.25E-05	7.28E-05	7.31E-05	7.34E-05	7.38E-05	7.44E-05	7.57E-05	7.66E-05	7.75E-05	7.85E-05	7.94E-05
SB126	2.15E-03	2.14E-03	2.14E-03	2.14E-03	2.13E-03	2.12E-03	2.11E-03	2.09E-03	2.08E-03	2.06E-03	2.05E-03
SN127	3.10E+00	2.23E+00	1.60E+00	1.15E+00	8.31E-01	4.28E-01	1.59E-01	5.92E-02	2.19E-02	8.16E-03	3.03E-03
SB127	3.62E-02	1.25E-01	1.38E-01	1.47E-01	1.54E-01	1.60E-01	1.63E-01	1.61E-01	1.59E-01	1.55E-01	1.52E-01
TE127	2.04E-02	2.55E-02	3.09E-02	3.67E-02	4.24E-02	5.32E-02	6.82E-02	7.96E-02	8.85E-02	9.55E-02	1.00E-01
SN128	2.19E+01	1.08E+01	5.34E+00	2.64E+00	1.31E+00	3.18E-01	3.85E-02	4.64E-03	5.60E-04	6.79E-05	8.18E-06
SB128M	1.11E-02	1.23E+01	6.38E+00	3.15E+00	1.55E+00	3.81E-01	4.58E-02	5.53E-03	6.67E-04	8.06E-05	9.75E-06
SB128	9.22E-01	8.88E-01	8.35E-01	7.83E-01	7.31E-01	6.26E-01	5.00E-01	3.97E-01	3.15E-01	2.50E-01	1.98E-01
SN129M	1.40E+01	6.99E+00	3.51E+00	1.75E+00	8.76E-01	2.19E-01	2.74E-02	3.43E-03	4.28E-04	5.35E-05	6.69E-06
SN129	9.36E+01	9.18E-01	9.06E-03	8.94E-05	8.76E-07	8.53E-11	8.11E-17	7.76E-23	7.40E-29	7.05E-35	6.75E-41
SB129	5.26E+00	8.82E+00	8.29E+00	7.40E+00	6.51E+00	4.84E+00	3.01E+00	1.87E+00	1.15E+00	7.11E-01	4.37E-01
TE129M	9.95E-08	1.10E-03	2.27E-03	3.33E-03	4.28E-03	5.80E-03	7.34E-03	8.29E-03	8.88E-03	9.24E-03	9.47E-03
TE129	3.79E+00	5.21E+00	6.10E+00	6.34E+00	6.10E+00	5.05E+00	3.36E+00	2.12E+00	1.32E+00	8.17E-01	5.07E-01
SB130M	5.20E-01	9.81E-01	2.58E-03	6.77E-06	1.78E-08	1.23E-13	2.24E-21	4.07E-29	7.39E-37	1.34E-44	2.44E-52
SB130	8.91E+01	2.70E+01	7.67E+00	2.17E+00	6.15E-01	4.95E-02	1.13E-03	2.57E-05	5.87E-07	1.34E-08	3.05E-10

N-5

ZUCCHINI MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.103E-13

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	2.48E-02	2.35E-02	2.22E-02	2.10E-02	1.99E-02	1.78E-02	1.50E-02	1.27E-02	1.07E-02	9.08E-03	7.67E-03
SB131	2.05E+02	5.35E+01	8.75E+00	1.44E+00	2.36E-01	6.35E-03	2.79E-05	1.23E-07	5.43E-10	2.40E-12	1.20E-14
TE131M	9.86E-05	5.16E-01	5.88E-01	5.89E-01	5.78E-01	5.52E-01	5.15E-01	4.81E-01	4.49E-01	4.19E-01	3.91E-01
TE131	9.08E+01	9.86E+01	3.21E+01	8.36E+00	2.03E+00	1.91E-01	9.47E-02	8.75E-02	8.16E-02	7.64E-02	7.12E-02
I131	1.32E-02	4.57E-01	6.73E-01	7.38E-01	7.51E-01	7.58E-01	7.58E-01	7.51E-01	7.51E-01	7.44E-01	7.44E-01
TE132	1.06E+00	2.57E+00	2.54E+00	2.52E+00	2.50E+00	2.45E+00	2.39E+00	2.33E+00	2.27E+00	2.20E+00	2.15E+00
I132	2.59E+00	2.59E+00	2.58E+00	2.57E+00	2.55E+00	2.52E+00	2.46E+00	2.40E+00	2.33E+00	2.27E+00	2.22E+00
TE133M	1.28E-01	4.43E+01	1.93E+01	8.41E+00	3.65E+00	6.94E-01	5.71E-02	4.71E-03	3.89E-04	3.20E-05	2.64E-06
TE133	7.19E+02	4.07E+01	4.53E+00	1.50E+00	6.33E-01	1.20E-01	9.93E-03	8.16E-04	6.76E-05	5.56E-06	4.59E-07
I133	1.11E+00	1.20E+01	1.30E+01	1.30E+01	1.27E+01	1.21E+01	1.10E+01	9.93E+00	8.95E+00	8.16E+00	7.37E+00
XE133M	4.74E-08	2.70E-03	6.52E-03	1.04E-02	1.42E-02	2.13E-02	3.09E-02	3.92E-02	4.62E-02	5.22E-02	5.72E-02
XE133	8.28E-07	4.71E-02	1.15E-01	1.83E-01	2.51E-01	3.80E-01	5.57E-01	7.13E-01	8.53E-01	9.75E-01	1.08E+00
TE134	2.25E+02	1.04E+02	3.87E+01	1.44E+01	5.34E+00	7.41E-01	3.79E-02	1.94E-03	9.94E-05	5.10E-06	2.62E-07
I134	1.03E+02	1.38E+02	9.64E+01	5.65E+01	3.03E+01	7.70E+00	8.47E-01	8.64E-02	8.47E-03	8.11E-04	7.70E-05
I135	1.94E+01	3.41E+01	3.08E+01	2.77E+01	2.50E+01	2.03E+01	1.49E+01	1.09E+01	8.01E+00	5.90E+00	4.30E+00
XE135M	2.14E-03	9.84E+00	9.57E+00	8.68E+00	7.79E+00	6.34E+00	4.66E+00	3.41E+00	2.50E+00	1.84E+00	1.35E+00
XE135	2.23E+00	4.41E+00	6.45E+00	8.12E+00	9.46E+00	1.13E+01	1.26E+01	1.26E+01	1.20E+01	1.10E+01	9.79E+00
CS136	7.20E-03	7.17E-03	7.16E-03	7.15E-03	7.13E-03	7.09E-03	7.05E-03	7.00E-03	6.96E-03	6.91E-03	6.86E-03
CS137	9.51E-05	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03
BA137M	2.00E-07	9.57E-04	9.57E-04	9.57E-04	9.57E-04	9.57E-04	9.57E-04	9.57E-04	9.57E-04	9.57E-04	9.57E-04
XE138	7.56E+02	6.51E+01	5.66E+00	4.90E-01	4.24E-02	3.18E-04	2.07E-07	1.34E-10	8.73E-14	5.67E-17	3.69E-20
CS138	1.13E+02	1.89E+02	6.56E+01	1.93E+01	5.40E+00	4.11E-01	8.56E-03	1.78E-04	3.69E-06	7.68E-08	1.59E-09
CS139	6.95E+02	2.22E+01	2.78E-01	3.49E-03	4.38E-05	6.88E-09	1.37E-14	2.71E-20	5.36E-26	1.06E-31	2.10E-37
BA139	1.28E+01	1.43E+02	8.82E+01	5.36E+01	3.24E+01	1.19E+01	2.64E+00	5.86E-01	1.30E-01	2.89E-02	6.41E-03
BA140	1.17E-01	7.27E-01	7.27E-01	7.21E-01	7.21E-01	7.16E-01	7.16E-01	7.10E-01	7.05E-01	6.99E-01	6.94E-01
LA140	2.77E-07	1.24E-02	2.46E-02	3.66E-02	4.83E-02	7.10E-02	1.04E-01	1.34E-01	1.63E-01	1.90E-01	2.16E-01
BA141	1.74E+02	5.26E+01	5.22E+00	5.18E-01	5.14E-02	5.10E-04	4.97E-07	4.85E-10	4.72E-13	4.64E-16	4.52E-19
LA141	1.61E+00	3.41E+01	3.18E+01	2.69E+01	2.26E+01	1.58E+01	9.28E+00	5.43E+00	3.20E+00	1.87E+00	1.10E+00
CE141	1.99E-07	2.21E-02	5.18E-02	7.79E-02	9.99E-02	1.34E-01	1.66E-01	1.85E-01	1.96E-01	2.02E-01	2.05E-01
BA142	3.51E+02	1.40E+01	3.18E-01	7.26E-03	1.65E-04	8.60E-08	1.02E-12	1.21E-17	1.44E-22	1.71E-27	2.02E-32
LA142	8.06E+00	5.59E+01	3.69E+01	2.35E+01	1.49E+01	6.04E+00	1.56E+00	4.02E-01	1.04E-01	2.67E-02	6.87E-03
LA143	1.30E+02	2.55E+01	1.30E+00	6.71E-02	3.44E-03	9.02E-06	1.22E-09	1.64E-13	2.21E-17	2.98E-21	4.02E-25
CE143	5.21E-02	3.32E+00	3.44E+00	3.35E+00	3.29E+00	3.17E+00	2.97E+00	2.79E+00	2.62E+00	2.46E+00	2.31E+00
PR143	1.52E-08	5.09E-03	1.23E-02	1.94E-02	2.64E-02	3.99E-02	5.88E-02	7.68E-02	9.33E-02	1.09E-01	1.23E-01
CE144	2.09E-03	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02
PR144	5.72E-07	1.36E-02	1.48E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02	1.49E-02
PR145	8.19E-02	1.20E+01	1.07E+01	9.52E+00	8.50E+00	6.73E+00	4.75E+00	3.35E+00	2.37E+00	1.68E+00	1.18E+00
CE146	2.38E+02	1.22E+01	6.24E-01	3.19E-02	1.64E-03	4.33E-06	5.83E-10	7.85E-14	1.06E-17	1.43E-21	1.92E-25
PR146	4.91E+00	4.27E+01	9.69E+00	1.82E+00	3.28E-01	1.03E-02	5.69E-05	3.14E-07	1.74E-09	9.60E-12	5.25E-14
PR147	2.71E+01	7.84E+00	2.45E-01	7.64E-03	2.39E-04	2.34E-07	7.13E-12	2.18E-16	6.64E-21	2.03E-25	6.18E-30

ZUCCHINI MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.103E-13

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	5.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
ND147	9.67E-06	1.82E-01	1.87E-01	1.87E-01	1.86E-01	1.85E-01	1.84E-01	1.83E-01	1.81E-01	1.80E-01	1.80E-01	1.78E-01
ND149	1.34E+01	9.13E+00	6.21E+00	4.23E+00	2.86E+00	1.33E+00	4.18E-01	1.32E-01	4.16E-02	1.31E-02	4.13E-03	4.13E-03
PM149	1.87E-03	1.46E-01	2.42E-01	3.07E-01	3.47E-01	3.90E-01	4.06E-01	3.98E-01	3.88E-01	3.73E-01	3.60E-01	3.60E-01
PM150	1.51E-01	1.17E-01	9.06E-02	7.00E-02	5.41E-02	3.25E-02	1.50E-02	6.95E-03	3.22E-03	1.49E-03	6.90E-04	6.90E-04
ND151	4.95E+01	1.55E+00	4.84E-02	1.51E-03	4.73E-05	4.62E-08	1.41E-12	4.31E-17	1.31E-21	4.00E-26	1.22E-30	1.22E-30
PM151	3.14E-02	3.67E-01	3.69E-01	3.60E-01	3.51E-01	3.34E-01	3.09E-01	2.87E-01	2.67E-01	2.47E-01	2.30E-01	2.30E-01
PM152	7.85E+01	7.68E-02	7.48E-05	7.31E-08	7.14E-11	6.82E-17	6.35E-26	5.92E-35	5.52E-44	5.15E-53	4.79E-62	4.79E-62
SM153	1.01E-01	9.95E-02	9.82E-02	9.66E-02	9.53E-02	9.25E-02	8.85E-02	8.46E-02	8.10E-02	7.76E-02	7.42E-02	7.42E-02
SM155	4.98E+00	8.18E-01	1.34E-01	2.19E-02	3.59E-03	9.68E-05	4.27E-07	1.88E-09	8.29E-12	3.69E-14	9.07E-17	9.07E-17
EU155	3.66E-06	1.04E-04	1.21E-04	1.23E-04	1.24E-04	1.24E-04	1.24E-04	1.24E-04	1.24E-04	1.24E-04	1.24E-04	1.24E-04
SM156	8.00E-02	7.43E-02	6.90E-02	6.41E-02	5.95E-02	5.14E-02	4.12E-02	3.30E-02	2.65E-02	2.12E-02	1.70E-02	1.70E-02
EU156	2.34E-04	3.82E-04	5.18E-04	6.45E-04	7.63E-04	9.73E-04	1.24E-03	1.43E-03	1.60E-03	1.73E-03	1.82E-03	1.82E-03
EU157	1.30E-02	4.31E-02	4.11E-02	3.93E-02	3.75E-02	3.42E-02	2.99E-02	2.61E-02	2.27E-02	1.98E-02	1.73E-02	1.73E-02
EU158	4.22E-01	1.71E-01	6.91E-02	2.80E-02	1.13E-02	1.86E-03	1.24E-04	8.20E-06	5.45E-07	3.61E-08	2.40E-09	2.40E-09
EU159	4.99E-01	4.96E-02	4.92E-03	4.88E-04	4.84E-05	4.77E-07	4.66E-10	4.55E-13	4.44E-16	4.34E-19	4.24E-22	4.24E-22
GD159	2.14E-03	9.37E-03	9.74E-03	9.45E-03	9.09E-03	8.42E-03	7.51E-03	6.69E-03	5.95E-03	5.30E-03	4.73E-03	4.73E-03
TB161	2.57E-05	1.85E-04	1.84E-04	1.83E-04	1.82E-04	1.80E-04	1.79E-04	1.76E-04	1.74E-04	1.72E-04	1.70E-04	1.70E-04
TOTAL	9.78E+03	2.21E+03	8.92E+02	5.46E+02	3.97E+02	2.61E+02	1.75E+02	1.31E+02	1.04E+02	8.50E+01	7.14E+01	7.14E+01

7-1

ZUCCHINI MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.103E-13

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	1.75E-06	1.73E-06	1.70E-06	1.64E-06	1.54E-06	1.35E-06	1.18E-06	9.12E-07	4.77E-07	1.30E-07	3.52E-08
NA 24	2.08E-03	6.86E-04	2.26E-04	8.11E-06	3.17E-08	4.85E-13	7.40E-18	1.72E-27	0.	0.	0.
MN 54	3.73E-05	3.69E-05	3.69E-05	3.63E-05	3.59E-05	3.53E-05	3.46E-05	3.30E-05	2.94E-05	2.34E-05	1.87E-05
FE 55	5.42E-05	5.42E-05	5.42E-05	5.39E-05	5.38E-05	5.35E-05	5.30E-05	5.23E-05	5.02E-05	4.69E-05	4.35E-05
FE 59	1.25E-04	1.23E-04	1.22E-04	1.16E-04	1.07E-04	9.21E-05	7.90E-05	5.80E-05	2.69E-05	5.75E-06	1.23E-06
CO 57	1.19E-07	1.19E-07	1.18E-07	1.18E-07	1.17E-07	1.13E-07	1.10E-07	1.05E-07	9.27E-08	7.16E-08	5.55E-08
CO 58	8.83E-05	8.75E-05	8.66E-05	8.40E-05	8.02E-05	7.27E-05	6.59E-05	5.43E-05	3.34E-05	1.26E-05	4.77E-06
CO 60	9.06E-06	9.06E-06	9.06E-06	9.06E-06	9.00E-06	9.00E-06	8.95E-06	8.90E-06	8.68E-06	8.41E-06	8.09E-06
CU 64	2.97E-01	8.09E-02	2.21E-02	4.48E-04	6.73E-07	1.53E-12	3.46E-18	1.78E-29	0.	0.	0.
CU 67	9.30E-06	7.09E-06	5.41E-06	2.41E-06	6.27E-07	4.23E-08	2.85E-09	1.30E-11	1.81E-17	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	1.26E-06	1.25E-06	1.23E-06	1.21E-06	1.15E-06	1.05E-06	9.58E-07	7.96E-07	5.02E-07	2.00E-07	7.93E-08
W187	1.05E-03	5.24E-04	2.60E-04	3.24E-05	9.94E-07	9.49E-10	8.96E-13	8.08E-21	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	2.63E-05	1.91E-05	7.32E-06	1.48E-06	6.10E-08	2.50E-09	4.20E-12	4.91E-19	0.	0.	0.
U237	3.69E-02	3.33E-02	3.00E-02	2.21E-02	1.32E-02	4.73E-03	1.70E-03	2.17E-04	1.28E-06	1.38E-10	9.29E-11
U240	1.06E-01	3.26E-02	1.00E-02	2.90E-04	7.97E-07	5.99E-12	4.50E-17	2.54E-27	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP239	1.88E-03	2.86E+00	2.13E+00	8.80E-01	2.01E-01	1.05E-02	5.51E-04	1.51E-06	5.94E-13	1.42E-22	1.42E-22
NP240M	1.68E-04	3.28E-02	1.01E-02	2.92E-04	8.03E-07	6.05E-12	4.55E-17	2.56E-27	0.	0.	0.
*AM241	9.99E-09	9.99E-09	9.99E-09	9.99E-09	9.99E-09	9.99E-09	9.99E-09	9.99E-09	9.99E-09	9.99E-09	9.99E-09
*CM242	1.48E-07	1.47E-07	1.46E-07	1.45E-07	1.42E-07	1.36E-07	1.30E-07	1.19E-07	9.72E-08	6.32E-08	4.13E-08
GE 77	1.15E-02	7.25E-03	1.66E-03	2.01E-05	1.29E-08	5.16E-15	2.08E-21	3.40E-34	0.	0.	0.
AS 77	1.19E-04	1.76E-02	1.27E-02	3.68E-03	4.31E-04	5.85E-06	7.94E-08	1.46E-11	6.78E-21	1.45E-39	3.12E-58
SE 77M	4.69E-09	5.29E-05	3.81E-05	1.11E-05	1.29E-06	1.75E-08	2.38E-10	4.39E-14	2.04E-23	4.35E-42	9.39E-61
AS 78	2.58E-02	2.30E-04	6.72E-09	5.68E-23	0.	0.	0.	0.	0.	0.	0.
BR 82	6.41E-04	4.00E-04	2.50E-04	6.07E-05	5.75E-06	5.17E-08	4.64E-10	3.75E-14	2.19E-24	7.51E-45	2.56E-65
BR 83	4.76E-01	1.25E-02	1.26E-05	1.28E-14	1.31E-29	0.	0.	0.	0.	0.	0.
KR 83M	2.46E-05	5.48E-02	6.23E-05	5.60E-14	5.75E-29	0.	0.	0.	0.	0.	0.
KR 85M	5.43E-03	3.10E-01	7.07E-03	8.39E-08	5.17E-16	1.97E-32	7.45E-49	0.	0.	0.	0.
KR 85	5.62E-06	1.48E-04	1.51E-04	1.51E-04	1.51E-04	1.51E-04	1.51E-04	1.50E-04	1.48E-04	1.45E-04	1.43E-04
KR 87	8.81E+01	1.74E-04	3.44E-10	2.67E-27	0.	0.	0.	0.	0.	0.	0.
KR 88	4.97E+01	1.31E-01	3.43E-04	6.23E-12	7.84E-25	0.	0.	0.	0.	0.	0.
RB 88	1.26E+01	1.46E-01	3.84E-04	6.97E-12	8.74E-25	0.	0.	0.	0.	0.	0.
SR 89	4.68E-06	1.40E-01	1.38E-01	1.33E-01	1.25E-01	1.09E-01	9.51E-02	7.32E-02	3.74E-02	9.86E-03	2.60E-03
SR 90	8.96E-06	9.21E-04	9.21E-04	9.21E-04	9.21E-04	9.21E-04	9.21E-04	9.21E-04	9.12E-04	9.12E-04	9.04E-04
Y 90	1.33E-11	2.11E-04	3.73E-04	6.70E-04	8.55E-04	9.12E-04	9.21E-04	9.21E-04	9.12E-04	9.12E-04	9.04E-04
SR 91	1.05E+00	3.74E+00	6.71E-01	3.85E-03	7.04E-07	2.39E-14	8.09E-22	9.21E-37	0.	0.	0.

8-N

ZUCCHINI MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.103E-13

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	7.04E-05	2.42E+00	4.33E-01	2.49E-03	4.57E-07	1.54E-14	5.21E-22	5.95E-37	0.	0.	0.
Y 91	2.88E-08	1.15E-01	1.36E-01	1.36E-01	1.28E-01	1.14E-01	1.01E-01	8.03E-02	4.44E-02	1.37E-02	4.20E-03
SR 92	7.56E+00	9.42E-02	2.03E-04	2.04E-12	9.56E-26	0.	0.	0.	0.	0.	0.
Y 92	3.48E-01	9.88E-01	1.10E-02	8.44E-09	4.92E-19	1.68E-39	5.76E-60	0.	0.	0.	0.
Y 93	3.64E-01	2.46E+00	4.80E-01	3.61E-03	1.04E-06	8.58E-14	7.08E-21	4.83E-35	0.	0.	0.
ZR 95	6.85E-04	8.57E-02	8.48E-02	8.21E-02	7.79E-02	6.97E-02	6.28E-02	5.08E-02	2.98E-02	1.03E-02	3.52E-03
NB 95M	1.46E-11	2.90E-04	5.29E-04	1.01E-03	1.36E-03	1.44E-03	1.33E-03	1.08E-03	6.31E-04	2.17E-04	7.48E-05
NB 95	7.64E-11	1.66E-03	3.28E-03	7.85E-03	1.46E-02	2.52E-02	3.25E-02	4.03E-02	3.88E-02	1.86E-02	7.15E-03
ZR 97	1.63E+00	2.77E+00	1.04E+00	5.52E-02	4.14E-04	2.33E-08	1.31E-12	4.14E-21	2.34E-42	0.	0.
NB 97M	8.37E-03	2.66E+00	9.99E-01	5.32E-02	3.98E-04	2.24E-08	1.26E-12	3.98E-21	2.25E-42	0.	0.
NB 97	8.15E-01	2.78E+00	1.04E+00	5.54E-02	4.17E-04	2.51E-08	1.41E-12	4.48E-21	2.52E-42	0.	0.
MO 99	4.67E-03	1.52E+00	1.19E+00	5.62E-01	1.63E-01	1.36E-02	1.13E-03	7.92E-06	3.21E-11	5.30E-22	8.72E-33
TC 99M	4.34E-08	1.34E+00	1.12E+00	5.39E-01	1.55E-01	1.30E-02	1.08E-03	7.56E-06	3.07E-11	5.06E-22	8.33E-33
RU103	6.76E-05	1.54E-01	1.51E-01	1.43E-01	1.32E-01	1.11E-01	9.28E-02	6.55E-02	2.72E-02	4.73E-03	8.24E-04
RH103M	4.51E-09	1.54E-01	1.52E-01	1.44E-01	1.32E-01	1.11E-01	9.28E-02	6.55E-02	2.73E-02	4.73E-03	8.24E-04
RU105	4.38E-01	4.19E-01	9.85E-03	1.30E-07	9.47E-16	5.05E-32	2.71E-48	0.	0.	0.	0.
RH105M	2.88E-03	4.19E-01	9.88E-03	1.30E-07	9.50E-16	5.08E-32	2.72E-48	0.	0.	0.	0.
RH105	4.73E-09	1.51E+00	9.88E-01	2.46E-01	2.43E-02	2.36E-04	2.29E-06	2.16E-10	1.88E-20	1.41E-40	1.06E-60
RU106	3.69E-04	6.98E-03	6.95E-03	6.92E-03	6.86E-03	6.74E-03	6.59E-03	6.35E-03	5.77E-03	4.78E-03	3.96E-03
RH106	3.99E-06	6.98E-03	6.95E-03	6.92E-03	6.86E-03	6.74E-03	6.59E-03	6.35E-03	5.77E-03	4.78E-03	3.96E-03
PD109	5.14E-03	1.31E-01	3.81E-02	9.45E-04	1.99E-06	8.88E-12	3.95E-17	7.82E-28	0.	0.	0.
AG109M	2.96E-05	1.31E-01	3.82E-02	9.46E-04	2.00E-06	8.89E-12	3.95E-17	7.83E-28	0.	0.	0.
PD111M	6.58E-01	3.19E-02	1.55E-03	1.78E-07	4.82E-14	3.51E-27	2.58E-40	0.	0.	0.	0.
PD111	2.34E-01	2.58E-02	1.25E-03	1.43E-07	3.88E-14	2.83E-27	2.07E-40	0.	0.	0.	0.
AG111M	1.86E-03	3.37E-02	1.64E-03	1.88E-07	5.09E-14	3.73E-27	2.73E-40	0.	0.	0.	0.
AG111	6.83E-10	1.83E-02	1.76E-02	1.34E-02	8.43E-03	3.34E-03	1.33E-03	2.09E-04	2.06E-06	1.99E-10	1.93E-14
PD112	1.35E-01	6.12E-02	2.77E-02	2.57E-03	4.89E-05	1.78E-08	6.45E-12	8.47E-19	5.34E-36	0.	0.
AG112	4.06E-06	7.11E-02	3.27E-02	3.03E-03	5.79E-05	2.10E-08	7.60E-12	1.00E-18	6.29E-36	0.	0.
AG113	1.40E-03	1.48E-02	6.40E-04	5.20E-08	7.96E-15	1.86E-28	4.35E-42	0.	0.	0.	0.
CD115M	4.24E-09	1.23E-04	1.21E-04	1.15E-04	1.06E-04	9.02E-05	7.70E-05	5.56E-05	2.49E-05	4.94E-06	9.88E-07
CD115	1.64E-06	2.47E-02	1.81E-02	7.12E-03	1.50E-03	6.71E-05	2.99E-06	5.97E-09	1.05E-15	3.30E-29	1.03E-42
IN115M	2.04E-11	2.60E-02	1.97E-02	7.78E-03	1.64E-03	7.33E-05	3.26E-06	6.50E-09	1.15E-15	3.61E-29	1.13E-42
CD117	3.69E-02	8.06E-04	7.84E-07	7.32E-16	6.50E-31	0.	0.	0.	0.	0.	0.
IN117M	1.78E-06	3.34E-03	3.87E-06	3.73E-15	3.32E-30	0.	0.	0.	0.	0.	0.
IN117	7.15E-11	2.20E-03	2.61E-06	2.53E-15	2.24E-30	0.	0.	0.	0.	0.	0.
SN121	7.99E-04	4.56E-02	2.46E-02	3.87E-03	1.78E-04	3.75E-07	7.90E-10	3.52E-15	1.47E-28	0.	0.
SN123	4.32E-06	4.52E-04	4.48E-04	4.40E-04	4.28E-04	4.05E-04	3.84E-04	3.44E-04	2.60E-04	1.50E-04	8.61E-05
SN125	1.21E-02	1.12E-02	1.04E-02	8.35E-03	5.77E-03	2.76E-03	1.32E-03	3.02E-04	7.57E-06	4.76E-09	2.98E-12
SB125	7.25E-05	8.04E-05	8.80E-05	1.07E-04	1.32E-04	1.60E-04	1.72E-04	1.79E-04	1.76E-04	1.64E-04	1.53E-04
SB126	2.15E-03	2.04E-03	1.93E-03	1.63E-03	1.24E-03	7.08E-04	4.08E-04	1.34E-04	8.41E-06	4.08E-08	8.20E-09

6-N

ZUCCHINI MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.103E-13

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	3.10E+00	1.12E-03	4.08E-07	1.95E-17	1.22E-34	0.	0.	0.	0.	0.	0.	0.
SB127	3.62E-02	1.49E-01	1.24E-01	7.26E-02	2.97E-02	4.97E-03	8.31E-04	2.32E-05	3.03E-09	5.17E-17	8.80E-25	
TE127M	2.93E-10	2.27E-04	4.15E-04	8.06E-04	1.11E-03	1.23E-03	1.18E-03	1.05E-03	7.66E-04	4.04E-04	2.14E-04	
TE127	2.04E-02	1.06E-01	1.04E-01	6.37E-02	2.69E-02	5.52E-03	1.89E-03	1.06E-03	7.56E-04	4.00E-04	2.11E-04	
SB128	9.22E-01	1.57E-01	2.48E-02	9.69E-05	9.40E-09	8.82E-17	8.30E-25	7.31E-41	0.	0.	0.	
SB129	5.26E+00	2.69E-01	5.63E-03	5.12E-08	2.04E-16	3.22E-33	5.07E-50	0.	0.	0.	0.	
TE129M	9.95E-08	1.05E-02	1.05E-02	9.89E-03	8.94E-03	7.29E-03	5.92E-03	3.94E-03	1.42E-03	1.85E-04	2.41E-05	
TE129	3.79E+00	3.16E-01	1.31E-02	6.34E-03	5.71E-03	4.66E-03	3.80E-03	2.53E-03	9.12E-04	1.19E-04	1.55E-05	
I130	2.48E-02	6.49E-03	1.70E-03	3.03E-05	3.71E-08	5.52E-14	8.23E-20	1.83E-31	0.	0.	0.	
TE131M	9.86E-05	3.45E-01	1.98E-01	3.75E-02	2.34E-03	9.14E-06	3.58E-08	5.46E-13	4.96E-25	0.	0.	
TE131	9.08E+01	6.29E-02	3.61E-02	6.86E-03	4.28E-04	1.67E-06	6.52E-09	9.99E-14	9.08E-26	0.	0.	
I131	1.32E-02	7.12E-01	6.73E-01	5.41E-01	3.56E-01	1.50E-01	6.36E-02	1.14E-02	1.53E-04	2.79E-08	5.09E-12	
XE131M	3.58E-11	3.30E-04	6.26E-04	1.31E-03	1.87E-03	1.85E-03	1.37E-03	5.66E-04	3.77E-05	1.13E-07	3.19E-10	
TE132	1.06E+00	2.09E+00	1.69E+00	8.91E-01	3.07E-01	3.64E-02	4.31E-03	6.05E-05	1.42E-09	7.75E-19	4.23E-28	
I132	2.59E+00	2.16E+00	1.74E+00	9.16E-01	3.16E-01	3.75E-02	4.44E-03	6.24E-05	1.46E-09	7.94E-19	4.36E-28	
I133	1.11E+00	6.21E+00	2.80E+00	2.60E-01	4.96E-03	1.80E-06	6.52E-10	8.59E-17	5.40E-34	0.	0.	
XE133M	4.74E-08	5.87E-02	6.94E-02	4.07E-02	9.56E-03	4.49E-04	2.09E-05	4.53E-08	9.93E-15	4.74E-28	2.27E-41	
XE133	8.28E-07	1.13E+00	1.51E+00	1.35E+00	7.37E-01	1.99E-01	5.35E-02	3.86E-03	5.37E-06	1.04E-11	2.02E-17	
I135	1.94E+01	3.16E+00	2.64E-01	1.54E-04	6.23E-10	1.03E-20	1.69E-31	4.59E-53	0.	0.	0.	
XE135M	2.14E-03	9.84E-01	8.23E-02	4.79E-05	1.95E-10	3.20E-21	5.28E-32	1.43E-53	0.	0.	0.	
XE135	2.23E+00	8.51E+00	2.08E+00	1.19E-02	1.46E-06	2.05E-14	2.87E-22	5.67E-38	0.	0.	0.	
CS136	7.20E-03	6.82E-03	6.46E-03	5.51E-03	4.22E-03	2.48E-03	1.46E-03	5.00E-04	3.48E-05	1.68E-07	8.13E-10	
CS137	9.51E-05	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.02E-03	1.01E-03	1.01E-03	
BA137M	2.00E-07	9.57E-04	9.57E-04	9.57E-04	9.57E-04	9.57E-04	9.57E-04	9.57E-04	9.51E-04	9.45E-04	9.39E-04	
BA139	1.28E+01	1.37E-03	8.08E-09	1.66E-24	0.	0.	0.	0.	0.	0.	0.	
BA140	1.17E-01	6.88E-01	6.55E-01	5.55E-01	4.23E-01	2.46E-01	1.43E-01	4.85E-02	3.24E-03	1.44E-05	6.38E-08	
LA140	2.77E-07	2.40E-01	3.86E-01	5.33E-01	4.74E-01	2.84E-01	1.65E-01	5.60E-02	3.72E-03	1.66E-05	7.38E-08	
LA141	1.61E+00	6.38E-01	8.95E-03	2.48E-08	1.36E-17	4.05E-36	1.21E-54	0.	0.	0.	0.	
CE141	1.99E-07	2.20E-01	2.19E-01	2.06E-01	1.84E-01	1.49E-01	1.20E-01	7.83E-02	2.69E-02	3.17E-03	3.73E-04	
LA142	8.06E+00	1.77E-03	3.42E-08	2.52E-22	0.	0.	0.	0.	0.	0.	0.	
CE143	5.21E-02	2.14E+00	1.30E+00	2.85E-01	2.30E-02	1.48E-04	9.60E-07	4.02E-11	4.54E-22	0.	0.	
PR143	1.52E-08	1.37E-01	2.13E-01	2.76E-01	2.36E-01	1.44E-01	8.69E-02	3.14E-02	2.51E-03	1.59E-05	1.01E-07	
CE144	2.09E-03	1.49E-02	1.48E-02	1.48E-02	1.46E-02	1.42E-02	1.39E-02	1.32E-02	1.17E-02	9.16E-03	7.19E-03	
PR144	5.72E-07	1.49E-02	1.48E-02	1.48E-02	1.46E-02	1.42E-02	1.39E-02	1.32E-02	1.17E-02	9.16E-03	7.19E-03	
PR145	8.19E-02	8.38E-01	5.18E-02	1.23E-05	1.12E-11	9.27E-24	7.69E-36	0.	0.	0.	0.	
ND147	9.67E-06	1.63E-01	1.53E-01	1.27E-01	9.27E-02	4.98E-02	2.66E-02	7.64E-03	3.35E-04	6.52E-07	1.26E-09	
PM147	2.68E-14	1.22E-04	2.36E-04	5.38E-04	9.30E-04	1.42E-03	1.68E-03	1.87E-03	1.89E-03	1.76E-03	1.63E-03	
ND149	1.34E+01	1.30E-03	1.26E-07	1.15E-19	9.79E-40	0.	0.	0.	0.	0.	0.	
PM149	1.87E-03	3.45E-01	2.53E-01	9.86E-02	2.06E-02	8.97E-04	3.90E-05	7.43E-08	1.17E-14	2.89E-28	7.20E-42	
PM150	1.51E-01	3.20E-04	6.73E-07	6.32E-15	2.64E-28	0.	0.	0.	0.	0.	0.	

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ZUCCHINI MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.103E-13

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	3.14E-02	2.14E-01	1.18E-01	1.99E-02	1.02E-03	2.67E-06	7.05E-09	4.86E-14	6.10E-27	0.	0.	0.
SM153	1.01E-01	7.10E-02	4.98E-02	1.72E-02	2.93E-03	8.51E-05	2.47E-06	2.08E-09	4.28E-17	1.83E-32	7.76E-48	0.
SM156	8.00E-02	1.36E-02	2.33E-03	1.15E-05	1.65E-09	3.39E-17	7.00E-25	2.98E-40	0.	0.	0.	0.
EU155	3.66E-06	1.24E-04	1.24E-04	1.24E-04	1.23E-04	1.23E-04	1.23E-04	1.22E-04	1.19E-04	1.14E-04	1.10E-04	1.10E-04
EU156	2.34E-04	1.90E-03	2.11E-03	1.89E-03	1.50E-03	9.43E-04	5.95E-04	2.36E-04	2.34E-05	2.30E-07	2.27E-09	0.
EU157	1.30E-02	1.50E-02	5.05E-03	1.89E-04	7.95E-07	1.40E-11	2.48E-16	7.73E-26	0.	0.	0.	0.
GD159	2.14E-03	4.21E-03	1.68E-03	1.04E-04	1.03E-06	9.96E-11	9.66E-15	9.06E-23	7.74E-43	0.	0.	0.
TB161	2.57E-05	1.68E-04	1.51E-04	1.12E-04	6.78E-05	2.48E-05	9.09E-06	1.22E-06	8.06E-09	3.48E-13	1.51E-17	0.
TOTAL	3.31E+02	6.04E+01	2.60E+01	9.51E+00	4.51E+00	1.96E+00	1.22E+00	6.71E-01	2.88E-01	1.01E-01	4.83E-02	0.

II-N



ZUCCHINI MICROCURIES/SQ METER  
 MR/HR AT H+12 HOURS = 1.000  
 FRACTION OF REFRACTORIES PRESENT = 0.500  
 RELAXATION LENGTH = 0.16 GM/SQCM  
 BOMB FRACTION PER SQ. METER = 2.103E-13

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	1.75E-06	1.51E-08	1.40E-09	1.30E-10	1.05E-13	8.40E-17	6.28E-21	4.03E-27	0.	0.	0.
MN 54	3.73E-05	1.61E-05	1.06E-05	6.96E-06	1.99E-06	5.67E-07	1.07E-07	8.74E-09	2.05E-12	7.42E-18	2.68E-23
FE 59	1.25E-04	4.52E-07	2.71E-08	1.63E-09	3.54E-13	7.65E-17	9.97E-22	4.67E-29	0.	0.	0.
CO 57	1.19E-07	4.70E-08	2.94E-08	1.85E-08	4.55E-09	1.12E-09	1.73E-11	1.05E-11	9.19E-16	7.54E-22	0.
CO 58	8.83E-05	2.54E-06	4.30E-07	7.29E-08	3.55E-10	1.73E-12	1.43E-15	3.38E-20	1.29E-35	0.	0.
CO 60	9.06E-06	7.93E-06	7.40E-06	6.91E-06	5.68E-06	4.67E-06	3.59E-06	2.42E-06	6.48E-07	9.00E-08	1.24E-08
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	1.26E-06	4.35E-08	8.05E-09	1.49E-09	9.49E-12	6.06E-14	7.13E-17	2.89E-21	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	3.69E-02	9.21E-11	8.97E-11	8.73E-11	8.17E-11	7.58E-11	6.90E-11	5.98E-11	3.72E-11	1.83E-11	8.97E-12
AM241	9.99E-09	9.99E-09	9.99E-09	9.99E-09	1.00E-08	1.01E-08	1.01E-08	1.01E-08	1.02E-08	1.01E-08	9.94E-09
CM242	1.48E-07	3.13E-08	1.44E-08	6.62E-09	6.45E-10	6.29E-11	2.82E-12	2.66E-14	7.66E-19	7.13E-19	6.66E-19
KR 85	5.62E-06	1.40E-04	1.35E-04	1.31E-04	1.19E-04	1.08E-04	9.48E-05	7.82E-05	4.13E-05	1.58E-05	6.03E-06
SR 89	4.68E-06	1.10E-03	9.58E-05	8.42E-06	5.67E-09	3.83E-12	2.26E-16	1.03E-22	7.46E-44	0.	0.
SR 90	8.96E-06	8.96E-04	8.88E-04	8.80E-04	8.47E-04	8.15E-04	7.76E-04	7.20E-04	5.63E-04	3.89E-04	2.69E-04
Y 90	1.33E-11	8.96E-04	8.88E-04	8.80E-04	8.47E-04	8.15E-04	7.76E-04	7.20E-04	5.63E-04	3.89E-04	2.69E-04
Y 91	2.88E-08	1.95E-03	2.26E-04	2.63E-05	4.13E-08	6.47E-11	1.18E-14	2.91E-20	5.88E-39	0.	0.
ZR 95	6.85E-04	1.76E-03	2.51E-04	3.58E-05	1.04E-07	3.04E-10	1.26E-13	1.06E-18	1.30E-35	0.	0.
NB 95M	1.46E-11	3.73E-05	5.32E-06	7.61E-07	2.21E-09	6.43E-12	2.66E-15	2.25E-20	2.76E-37	0.	0.
NB 95	7.64E-11	3.79E-03	5.44E-04	7.76E-05	2.25E-07	6.52E-10	2.72E-13	2.30E-18	2.82E-35	0.	0.
RU103	6.76E-05	2.63E-04	1.08E-05	4.42E-07	3.02E-11	2.07E-15	5.81E-21	2.73E-29	0.	0.	0.
RH103M	4.51E-09	2.63E-04	1.08E-05	4.42E-07	3.02E-11	2.07E-15	5.81E-21	2.74E-29	0.	0.	0.
RU106	3.69E-04	3.51E-03	2.48E-03	1.76E-03	6.26E-04	2.22E-04	5.59E-05	7.07E-06	7.13E-09	2.29E-13	7.38E-18
RH106	3.99E-06	3.51E-03	2.48E-03	1.76E-03	6.26E-04	2.22E-04	5.59E-05	7.07E-06	7.13E-09	2.29E-13	7.38E-18
SN123	4.32E-06	5.99E-05	2.17E-05	7.89E-06	3.79E-07	1.82E-08	3.17E-10	7.30E-13	1.17E-21	7.54E-35	4.84E-48
SB125	7.25E-05	1.46E-04	1.28E-04	1.13E-04	7.69E-05	5.23E-05	3.13E-05	1.45E-05	1.11E-06	2.37E-08	5.04E-10
TE125M	1.95E-12	5.96E-05	5.30E-05	4.67E-05	3.18E-05	2.17E-05	1.30E-05	5.99E-06	4.60E-07	9.80E-09	2.09E-10
TE127M	2.93E-10	1.40E-04	4.39E-05	1.37E-05	4.22E-07	1.30E-08	1.25E-10	1.17E-13	9.65E-24	7.21E-39	5.37E-54
TE127	2.04E-02	1.39E-04	4.34E-05	1.36E-05	4.17E-07	1.28E-08	1.23E-10	1.16E-13	9.55E-24	7.11E-39	5.32E-54
CS137	9.51E-05	1.00E-03	9.91E-04	9.79E-04	9.45E-04	9.11E-04	8.71E-04	8.14E-04	6.43E-04	4.57E-04	3.23E-04
BA137M	2.00E-07	9.39E-04	9.28E-04	9.17E-04	8.83E-04	8.54E-04	8.14E-04	7.63E-04	6.04E-04	4.27E-04	3.02E-04
CE141	1.99E-07	8.58E-05	1.72E-06	3.46E-08	2.82E-13	2.30E-18	3.77E-25	2.50E-35	0.	0.	0.
CE144	2.09E-03	6.13E-03	3.94E-03	2.51E-03	6.60E-04	1.73E-04	2.92E-05	2.01E-06	2.71E-10	4.25E-16	6.63E-22
PR144	5.72E-07	6.13E-03	3.94E-03	2.51E-03	6.60E-04	1.73E-04	2.92E-05	2.01E-06	2.71E-10	4.25E-16	6.63E-22
FM147	2.68E-14	1.56E-03	1.37E-03	1.20E-03	8.04E-04	5.41E-04	3.18E-04	1.44E-04	1.02E-05	1.94E-07	3.66E-09
EU155	3.66E-06	1.07E-04	9.96E-05	9.27E-05	7.45E-05	5.99E-05	4.47E-05	2.89E-05	6.74E-06	7.58E-07	8.54E-08
TOTAL	6.10E-02	3.46E-02	1.96E-02	1.40E-02	7.21E-03	4.97E-03	3.91E-03	3.31E-03	2.43E-03	1.68E-03	1.17E-03

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