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

The zero time value was omitted but appears correctly on page 3 of these appendices. The ^{203}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}W data on page 12 of each appendix citing ^{181}W

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

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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 complex¹ 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}U , ^{235}U , ^{238}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.³

Surface roughness effects are simulated by using Beck's values⁴ 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 | 1.08E+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 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 |
|--------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| *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 | 8.65E-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 |

A-3

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 | 1.26E-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 | 9.29E-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 |

A-5

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

| | 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. |
| 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 |
| SR 92 | 9.00E+00 | 1.12E-01 | 2.42E-04 | 2.43E-12 | 1.14E-25 | 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. |
| 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. |
| 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 |
| 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 |
| NB 96 | 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 |
| 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. |
| 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. |
| 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. |
| 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 |
| 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 |
| RU103 | 9.44E-05 | 2.15E-01 | 2.11E-01 | 2.00E-01 | 1.84E-01 | 1.54E-01 | 1.29E-01 | 9.14E-02 | 3.80E-02 | 6.59E-03 | 1.15E-03 |
| RH103M | 6.29E-09 | 2.15E-01 | 2.12E-01 | 2.01E-01 | 1.84E-01 | 1.54E-01 | 1.29E-01 | 9.14E-02 | 3.81E-02 | 6.59E-03 | 1.15E-03 |
| RU105 | 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. |
| 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. |
| 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 |
| 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 |
| 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 |
| 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. |
| 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. |
| 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. |
| 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. |
| 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. |
| 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 |
| 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. |
| 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. |
| 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. |
| 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 |
| 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 |
| 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 |
| CD117 | 4.83E-02 | 1.05E-03 | 1.03E-06 | 9.57E-16 | 8.50E-31 | 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. |
| IN117 | 9.35E-11 | 2.88E-03 | 3.42E-06 | 3.31E-15 | 2.93E-30 | 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. |
| 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 |
| 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 |
| 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 |
| 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 |

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 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 | 1.49E-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. |

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 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 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 | 1.26E-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-06 | 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 | 6.04E-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 |

A-12

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 | 1.21E+02 | 1.16E+04 |
| 1.00E+00 | 3.59E+01 | 2.31E+03 |
| 2.00E+00 | 1.41E+01 | 8.99E+02 |
| 3.00E+00 | 7.47E+00 | 5.44E+02 |
| 4.00E+00 | 4.62E+00 | 3.94E+02 |
| 6.00E+00 | 2.38E+00 | 2.59E+02 |
| 9.00E+00 | 1.39E+00 | 1.76E+02 |
| 1.20E+01 | 1.00E+00 | 1.33E+02 |
| 1.50E+01 | 7.78E-01 | 1.06E+02 |
| 1.80E+01 | 6.31E-01 | 8.70E+01 |
| 2.10E+01 | 5.24E-01 | 7.34E+01 |
| 1.00E+00 DAYS | 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 |
| 1.00E+00 YEARS | 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 | 2.28E-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 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 | 8.11E-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 101 | 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 101 | 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 102 | 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 102M | 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 102 | 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 103 | 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 103M | 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 104 | 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 105 | 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 105M | 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 105 | 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 106 | 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 106 | 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 107 | 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 107M | 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 |

B-5

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 | 8.35E-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 |
| FR146 | 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 |
| FR147 | 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 | 2.89E-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 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 |
|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 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 | 2.39E-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 | 3.46E-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. | |

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. |
| 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 |
| SR 92 | 5.49E+00 | 6.85E-02 | 1.48E-04 | 1.48E-12 | 6.95E-26 | 0. | 0. | 0. | 0. | 0. | 0. |
| Y 92M | 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. |
| 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. |
| 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 |
| 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 |
| 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 |
| 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. |
| 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. |
| 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. |
| MO 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 |
| 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 |
| 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 |
| 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 |
| 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. |
| 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. |
| 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 |
| 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 |
| 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 |
| 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. |
| 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. |
| 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. |
| 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. |
| AG111M | 5.71E-03 | 1.03E-01 | 5.03E-03 | 5.78E-07 | 1.56E-13 | 1.15E-26 | 8.36E-40 | 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 |
| 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. |
| AG112 | 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. |
| 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. |
| 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 |
| 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 |
| 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 |
| CD117 | 5.90E-02 | 1.29E-03 | 1.25E-06 | 1.17E-15 | 1.04E-30 | 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. |
| IN117 | 1.14E-10 | 3.52E-03 | 4.17E-06 | 4.04E-15 | 3.58E-30 | 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. |
| 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 |
| 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 |
| 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 |
| 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 |

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. |
| 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 |
| 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 |
| 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 |
| 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. |
| 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. |
| 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 |
| 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 |
| 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. |
| 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. |
| 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. |
| 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 |
| 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 |
| 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 |
| 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 |
| 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. |
| 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 |
| 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 |
| 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. |
| 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. |
| 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. |
| 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 |
| 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 |
| 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 | 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. |
| 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 |
| 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 |
| 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. |
| 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 |
| LA142 | 7.59E+00 | 1.66E-03 | 3.22E-08 | 2.37E-22 | 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. |
| 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 |
| 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 |
| FR144 | 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 |
| 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. |
| 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 |
| 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 |
| ND149 | 1.59E+01 | 1.54E-03 | 1.49E-07 | 1.36E-19 | 1.16E-39 | 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 |
| PM150 | 1.93E-01 | 4.08E-04 | 8.60E-07 | 8.07E-15 | 3.38E-28 | 0. | 0. | 0. | 0. | 0. | 0. |

MONTH 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 |
|-------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 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 | 8.59E-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

| | 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 | 8.18E-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 | |

C-4

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 | 1.52E-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 |

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 | 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 | 5.30E-03 |
| PM149 | 2.40E-03 | 1.87E-01 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 8.04E+01 |

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

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
 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 | 6.69E-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 | 6.87E-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 | 5.48E-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-02 | 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 | 8.27E-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. |

C-10

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. |
| 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 |
| 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. |
| 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. |
| 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. |
| 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 |
| 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 | 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 |
| 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 |
| CM242 | 3.98E-06 | 8.44E-07 | 3.88E-07 | 1.78E-07 | 1.74E-07 | 1.69E-09 | 7.59E-11 | 7.18E-13 | 2.06E-17 | 1.92E-17 | 1.79E-17 |
| KR 85 | 2.64E-06 | 6.53E-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 |
| 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. |
| 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 |
| 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 |
| 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. |
| 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. |
| 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. |
| 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. |
| 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. |
| 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. |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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. |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |

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 |

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 |
|--------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 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 |
| CO 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| W185 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| W188 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| AU199 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| PB203 | 3.55E-05 | 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 | 8.87E-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 | 2.76E-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 | 1.77E-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 | 2.80E+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 | 4.93E-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 | 1.84E-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-162 | 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 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 |
|--------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 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 | 2.70E-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 | 2.19E+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 | 2.86E-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 |

D-9

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

D-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 | 4.54E+00 | 1.64E-03 | 5.97E-07 | 2.85E-17 | 1.79E-34 | 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 | 1.17E-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 | 9.29E-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. |

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. | 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 34 | 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-03 | 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 | 2.45E-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 | 9.29E-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 | 1.08E-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 |

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 | 1.67E-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 | 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 | 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 | 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 | 1.92E-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 | 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 | 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 | 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 | 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 | 5.19E-05 |
| W181 | 0. | 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 | 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 | 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 | 8.09E-07 |
| 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 | 1.45E-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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 2.68E-14 |
| BR 83 | 3.53E-01 | 5.27E+00 | 4.88E+00 | 3.64E+00 | 2.91E+00 | 1.65E+00 | 6.96E-01 | 2.93E-01 | 1.24E-01 | 5.22E-02 | 2.20E-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 | 7.91E-02 |

E-3

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 | 9.29E+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 | 3.42E-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 | 9.96E+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 |
| MO101 | 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 |
| TC101 | 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 |
| MO102 | 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 |
| TC102M | 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 |
| TC102 | 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 |
| RU103 | 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 |
| RH103M | 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 |
| TC104 | 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 |
| RU105 | 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 |
| RH105M | 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 |
| RH105 | 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 |
| RU106 | 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 |
| RH106 | 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 |
| RH107 | 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 |
| PD107M | 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 GN/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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |

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 | 1.22E+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 | 7.61E-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 | 5.95E+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-06 | 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 | 7.65E-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. |

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 |
|--------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 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. |
| Y 91 | 2.22E-08 | 9.88E-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 |
| SR 92 | 5.96E+00 | 7.43E-02 | 1.60E-04 | 1.61E-12 | 7.54E-26 | 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. |
| 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. |
| 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 |
| 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 |
| 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 |
| 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. |
| 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. |
| 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. |
| 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 |
| 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 |
| 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 |
| 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 |
| 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. |
| 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. |
| 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 |
| 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 |
| 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 |
| 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. |
| 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. |
| 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. |
| 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. |
| 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. |
| 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 |
| 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. |
| 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. |
| 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. |
| 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 |
| 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 |
| 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 |
| CD117 | 1.47E-01 | 3.21E-03 | 3.13E-06 | 2.92E-15 | 2.59E-30 | 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. |
| IN117 | 2.85E-10 | 8.79E-03 | 1.04E-05 | 1.01E-14 | 8.95E-30 | 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. |
| 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 |
| 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-06 | 8.82E-12 |
| 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 |
| 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 |

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 | 4.81E-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. |
| OD159 | 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 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 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 | 7.59E-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

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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 | 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 |
| SR 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 | 3.93E-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 | 6.69E-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
 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+00 | 8.95E+00 | 8.37E+00 | 7.80E+00 |
| 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 | 1.93E+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
 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

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DEBRIS DECAY FROM 1 TO 300 DAYS

| | ZERO | TIME 1.00E+00 | 2.00E+00 | 5.00E+00 | 1.00E+01 | 2.00E+01 | 3.00E+01 | 5.00E+01 | 1.00E+02 | 2.00E+02 | 3.00E+02 |
|--------|----------|---------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| *BE 7 | 1.59E-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. |
| 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 |
| FF 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 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 | 9.35E-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. | |
| FR143 | 1.45E-08 | 1.30E-01 | 2.02E-01 | 2.61E-01 | 2.24E-01 | 1.36E-01 | 6.24E-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 | |
| FR144 | 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 | |
| FR145 | 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 | 6.73E-04 | 3.85E-03 | 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 |
| EU157 | 2.64E-02 | 3.05E-02 | 4.27E-03 | 3.82E-04 | 3.04E-03 | 1.91E-03 | 1.20E-03 | 4.78E-04 | 4.73E-05 | 4.66E-07 | 4.59E-09 | 0. |
| OD159 | 5.51E-03 | 1.08E-02 | 4.32E-03 | 2.69E-04 | 1.62E-06 | 2.85E-11 | 5.05E-16 | 1.57E-25 | 1.99E-42 | 0. | 0. | 0. |
| TB161 | 7.34E-05 | 4.80E-04 | 4.33E-04 | 3.20E-04 | 2.65E-06 | 2.57E-10 | 2.49E-14 | 2.33E-22 | 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

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. |
| 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 |
| 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. |
| 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. |
| 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. |
| 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 |
| W181 | 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. |
| 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. |
| U234 | 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 |
| * 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 |
| 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 |
| 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 |
| 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. |
| 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 |
| 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 |
| 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. |
| 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. |
| 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. |
| 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. |
| 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. |
| 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. |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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. |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |

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 | 7.27E-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 | 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 | 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 | 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 | 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 | 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 | 7.92E-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 | 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 | 3.89E-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 | 0. |
| U240 | 0. | 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 | 8.16E+01 |
| NP240M | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| NP240 | 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 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 | 2.57E-07 |
| 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 | 2.30E-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 | 5.62E-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 | 1.66E-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 | 6.44E-06 |
| 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 | 8.64E-05 |
| 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 | 7.87E-48 |
| 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 | 1.38E-47 |
| 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 | 1.78E-26 |
| 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 | 1.54E-07 |
| 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 | 2.30E-07 |
| 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 | 2.56E-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 | 1.54E-16 |
| 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 | 1.12E-01 | 4.70E-02 | 1.98E-02 | 8.64E-03 |
| 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 | 3.12E-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 | 1.36E-01 | 1.36E-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 |
| Y 91 | 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 |
| SR 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 |
| Y 92 | 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 |
| SR 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 93 | 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 94 | 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 |
| Y 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 |
| MO 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 |
| MO101 | 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 |
| MO102 | 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 | 1.23E-01 | 1.23E-01 | 1.23E-01 |
| RH103M | 3.58E-09 | 6.43E-02 | 9.53E-02 | 1.10E-01 | 1.16E-01 | 1.23E-01 | 1.24E-01 | 1.24E-01 | 1.23E-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 |

G-4

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

G-5

| | 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 | |

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 | 9.89E+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 | 5.38E+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 | 1.19E-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 | 2.64E-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 | 2.30E-01 |
| PM150 | 9.47E-02 | 7.32E-02 | 5.67E-02 | 4.38E-02 | 3.38E-02 | 2.03E-02 | 9.40E-03 | 4.95E-03 | 2.01E-03 | 9.32E-04 | 4.32E-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 | 7.21E-31 |
| 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 | 1.35E-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 | 2.77E-62 |
| 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 | 4.27E-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 | 4.50E-17 |
| 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 | 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 | 6.52E-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 | 7.01E-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 | 7.11E-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 | 5.75E-10 |
| 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 | 1.11E-22 |
| 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 | 1.23E-03 |
| TB161 | 3.86E-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 | 2.56E-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 | 1.36E+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 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. |
| 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. |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 | 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 |
| U240 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| NP237 | 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 |
| NP240M | 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 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. |
| 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 |
| 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 |
| AS 78 | 9.84E-03 | 8.76E-05 | 2.57E-09 | 2.17E-23 | 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 |
| BR 83 | 3.18E-01 | 8.37E-03 | 8.42E-06 | 8.55E-15 | 8.73E-30 | 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. |
| 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. |
| 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 |
| KR 87 | 6.93E+01 | 1.37E-04 | 2.70E-10 | 2.10E-27 | 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. |
| RB 88 | 1.02E+01 | 1.17E-01 | 3.09E-04 | 5.61E-12 | 7.04E-25 | 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 |
| 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 |
| 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 |
| SR 91 | 8.36E-01 | 2.99E+00 | 5.36E-01 | 3.08E-03 | 5.62E-07 | 1.91E-14 | 6.47E-22 | 7.36E-37 | 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 | 7.08E-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. |

G-9

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 |
|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 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 | 2.55E-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 | 6.53E-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-07 | 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. | 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 | 0. |
| 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. | 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 | 0. |
| 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 | 0. |
| 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. | 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. | 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 | 0. |
| 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 | 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 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. |

**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 | 5.49E-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 | 9.85E-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 | 1.58E-01 | 1.58E-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 | 9.62E-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 |
| SB126 | 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
 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
 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 | 2.38E-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. |
| RB 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 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 |
|--------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 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. |

H-10

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 |
|-------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 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-08 | 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 | 1.35E-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 | 2.69E-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 | 2.30E-15 | 6.47E-21 | 3.04E-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 |

H-12

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 |
| NP241 | 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 |
| MO101 | 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 |
| TC101 | 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 |
| MO102 | 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 |
| TC102M | 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 |
| TC102 | 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 |
| RU103 | 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 |
| RH103M | 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 |
| TC104 | 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 |
| RU105 | 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 |
| RH105M | 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 |
| RH105 | 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 |
| RU106 | 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 |
| RH106 | 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 |
| RH107 | 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 |
| PD107M | 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 | 1.74E-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 | 1.74E-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 | 4.80E-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 | 3.48E-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 | 4.80E-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 | 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 | 7.11E-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 | 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 | 1.50E-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 | 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 | 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 | 2.34E-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 | 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 | 7.50E-04 |
| 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 | 3.10E-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 | 2.00E-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 | 3.00E-09 |
| 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 | 3.00E-09 |
| 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 | 2.40E-43 |
| 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 | 8.78E-24 |
| 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 | 4.95E-25 |
| 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 | 3.96E-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 | 3.10E-11 |
| 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 | 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 | 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 | 7.10E-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 | 1.90E-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 | 1.00E-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 | 1.34E-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 | 9.20E-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 | 8.37E-07 |
| 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 | 9.90E-07 |
| 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 | 1.30E-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 | 7.00E-07 |
| 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 | 5.50E-47 |
| 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 | 2.20E-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 | 8.10E-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 | 2.50E-01 |
| SB130M | 4.46E-01 | 8.42E-01 | 8.21E-01 | 8.01E-01 | 7.81E-01 | 7.53E-01 | 7.19E-01 | 6.81E-01 | 6.34E-01 | 5.83E-01 | 5.29E-01 | 4.70E-01 |
| 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 | 5.80E-12 |

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 | 2.34E-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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |

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. | |
| 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. | |
| 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. | |
| W181 | 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. | |
| 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. | |
| AU199 | 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. | |
| 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. | |
| NP237 | 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. | |
| *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 | 1.01E-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. | |
| 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. | |
| 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. | |
| KR 83M | 1.55E-05 | 3.46E-02 | 3.93E-05 | 3.54E-14 | 3.63E-29 | 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. | |
| 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. | |
| KR 88 | 3.38E+01 | 8.90E-02 | 2.34E-04 | 4.24E-12 | 5.34E-25 | 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. | |
| 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. | |

8-1

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 |
| RU 103 | 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 |
| RH 103M | 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 |
| RU 105 | 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. |
| RH 105M | 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. |
| RH 105 | 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 |
| RU 106 | 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 |
| RH 106 | 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 |
| PD 109 | 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. |
| AG 109M | 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. |
| PD 111M | 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. |
| PD 111 | 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. |
| AG 111M | 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. |
| AG 111 | 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 |
| PD 112 | 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. |
| AG 112 | 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. |
| AG 113 | 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. |
| CD 115M | 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 |
| CD 115 | 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 |
| IN 115M | 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 |
| CD 117 | 3.38E-02 | 7.37E-04 | 7.18E-07 | 6.70E-16 | 5.95E-31 | 0. | 0. | 0. | 0. | 0. | 0. |
| IN 117M | 1.63E-06 | 3.06E-03 | 3.54E-06 | 3.42E-15 | 3.04E-30 | 0. | 0. | 0. | 0. | 0. | 0. |
| IN 117 | 6.54E-11 | 2.02E-03 | 2.39E-06 | 2.32E-15 | 2.05E-30 | 0. | 0. | 0. | 0. | 0. | 0. |
| SN 121 | 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. |
| SN 123 | 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 |
| SN 125 | 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 |
| SB 125 | 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 |
| SB 126 | 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 |

6-1

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 | 3.67E-06 | 9.12E-05 | 8.84E-05 | 8.55E-05 | 7.80E-05 | 7.04E-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. |
| RU106 | 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 | 6.51E-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 | 1.23E-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 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 |
|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| *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 | 2.40E-02 | 2.19E-02 | 1.91E-02 | 1.66E-02 | 1.45E-02 | 1.26E-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 | 1.47E-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 | 1.40E-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 | 3.08E-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 | 1.84E+00 | 1.65E+00 | 1.40E+00 | 1.19E+00 | 1.01E+00 | 8.62E-01 | 7.33E-01 |
| CU 67 | 2.81E-05 | 2.79E-05 | 2.74E-05 | 2.72E-05 | 2.69E-05 | 2.69E-05 | 2.62E-05 | 2.53E-05 | 2.45E-05 | 2.38E-05 | 2.28E-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 | 1.59E-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 | 1.78E-04 | 1.68E-04 | 1.54E-04 | 1.41E-04 | 1.29E-04 | 1.19E-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 | 4.09E-08 | 4.08E-08 | 4.08E-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 | 1.03E-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 |

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 | |
| Y 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 | |
| M0 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 | |
| M0101 | 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 | |
| M0102 | 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 | 1.19E-04 | 1.18E-04 | 1.18E-04 |
| CD115 | 1.52E-06 | 2.87E-02 | 3.09E-02 | 3.09E-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 | 8.63E+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. |

8-1

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 |
|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 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. | 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. | 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. | 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. | 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. | 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. | 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. | 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. | 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. | 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. | 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. | 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. | 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. | 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. | 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. | 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. | 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. | 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. | 0. |
| IN117M | 1.62E-06 | 3.06E-03 | 3.54E-06 | 3.41E-15 | 3.03E-30 | 0. | 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. | 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. | 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 | |

6-J

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 | |
| 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 | |
| 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 | |
| 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. | |
| 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. | |
| 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 | |
| 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 | |
| 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. | |
| 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. | |
| 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. | |
| 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 | |
| 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 | |
| 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 | |
| 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 | |
| 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. | |
| 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 | |
| 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 | |
| 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. | |
| 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. | |
| 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. | |
| 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 | |
| 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 | |
| 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 | |
| BA139 | 1.06E+01 | 1.13E-03 | 6.66E-09 | 1.37E-24 | 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 | |
| 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 | |
| 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. | |
| 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 | |
| LA142 | 1.26E+01 | 2.76E-03 | 5.35E-08 | 3.94E-22 | 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. | |
| 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 | |
| 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 | |
| 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 | |
| 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. | |
| 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 | |
| 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 | |
| ND149 | 2.29E+01 | 2.21E-03 | 2.14E-07 | 1.95E-19 | 1.67E-39 | 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 | |
| PM150 | 2.66E-01 | 5.61E-04 | 1.18E-06 | 1.11E-14 | 4.64E-28 | 0. | 0. | 0. | 0. | 0. | 0. | |

01-1

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 | 1.23E-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

PAGE 2

| 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 MR/HR AT H+12 HOURS = MICROCURIES/SQ METER
 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 | 2.06E-02 | 1.80E-02 | 1.57E-02 | 1.37E-02 | 1.18E-02 |
| MN 54 | 1.47E-04 | 1.47E-04 | 1.47E-04 | 1.47E-04 | 1.47E-04 | 1.47E-04 | 1.47E-04 | 1.46E-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 559 | 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 | 8.10E-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 | 4.89E-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 = 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 |
|--------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 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 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 |
|--------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| FD109 | 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 | 8.91E-01 |
| AG109M | 1.73E-04 | 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 | 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 | 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 | 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 | 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 | 1.03E-01 |
| PD112 | 8.06E-01 | 7.81E-01 | 7.54E-01 | 7.30E-01 | 7.08E-01 | 6.81E-01 | 6.00E-01 | 5.43E-01 | 4.92E-01 | 4.45E-01 | 4.03E-01 | 4.03E-01 |
| AG112 | 2.43E-05 | 1.55E-01 | 2.73E-01 | 3.66E-01 | 4.35E-01 | 5.21E-01 | 5.70E-01 | 5.70E-01 | 5.43E-01 | 5.06E-01 | 4.67E-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 | 2.69E-01 | 1.81E-01 | 1.22E-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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 2.62E-21 |
| SN121 | 3.69E-03 | 3.60E-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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 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 | 8.01E-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-01 | 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. | 0. | 0. | 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 | 3.69E-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-03 | 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 | 3.50E-01 | 7.72E-03 | 2.14E-06 | 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. |

K-10

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 | 9.24E-09 |
| 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 | 1.15E-16 |
| 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 | 5.90E-02 |

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 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 | 7.15E-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
 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 | 2.87E-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 | |

L-4

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

L-5

| | 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 | 5.85E-02 | 5.57E-02 | 5.20E-02 | 4.79E-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 | 6.25E-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 | 4.95E-02 | 6.35E-02 | 7.41E-02 | 8.25E-02 | 8.90E-02 | 9.31E-02 |
| SN128 | 2.04E+01 | 1.01E+01 | 4.99E+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 | 9.45E-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 | 3.60E+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 |

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

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DEBRIS DECAY FROM 1 TO 21 HOURS

| | ZERO TIME | 1.00E+00 | 2.00E+00 | 3.00E+00 | 4.00E+00 | 6.00E+00 | 9.00E+00 | 1.20E+01 | 1.50E+01 | 1.80E+01 | 2.10E+01 |
|--------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| I130 | 2.34E-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 | 8.89E-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 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 |
|-------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| 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

| | 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 | 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 | 7.42E-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. | 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 | 0. |
| SR 92 | 7.91E+00 | 9.86E-02 | 2.13E-04 | 2.14E-12 | 1.00E-25 | 0. | 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. | 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. | 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 | 0. |
| 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 | 0. |
| 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 | 0. |
| 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. | 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. | 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. | 0. |
| M0 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 | 0. |
| 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 | 0. |
| 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 | 0. |
| 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 | 0. |
| 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. | 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. | 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 | 0. |
| 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 | 0. |
| 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 | 0. |
| 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. | 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. | 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. | 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. | 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. | 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 | 0. |
| 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. | 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. | 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. | 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 | 0. |
| 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 | 0. |
| 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 | 0. |
| CD117 | 3.15E-02 | 6.88E-04 | 6.69E-07 | 6.25E-16 | 5.55E-31 | 0. | 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. | 0. |
| IN117 | 6.10E-11 | 1.88E-03 | 2.23E-06 | 2.16E-15 | 1.92E-30 | 0. | 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. | 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 | 0. |
| 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 | 0. |
| 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 | 0. |
| 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 | 0. |

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 | 1.68E-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. |

L-10

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 | 5.57E-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 |
| 3.00E+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 | 3.20E-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 | 8.26E-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

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 | |
| MO 101 | 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 | |
| TC 101 | 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 | |
| MO 102 | 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 | |
| TC 102M | 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 | |
| TC 102 | 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 | |
| RU 103 | 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 | |
| RH 103M | 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 | |
| TC 104 | 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 | |
| RU 105 | 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 | |
| RH 105M | 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 | |
| RH 105 | 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 | |
| RU 106 | 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 | |
| RH 106 | 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 | |
| RH 107 | 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 | |
| PD 107M | 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |

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-01 | 9.44E-02 | 6.72E-02 | 6.14E-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 | 5.86E-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

PAGE

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 | |

M-7

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

M-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 | 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 |
| RUI 03 | 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 |
| RUI 05 | 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 |
| RUI 06 | 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 |

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 |
|--------|-----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|
| SN127 | 3.15E+00 | 1.14E-03 | 4.15E-07 | 1.98E-17 | 1.24E-34 | 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 |
| 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 |
| TE127 | 2.08E-02 | 1.08E-01 | 1.06E-01 | 6.46E-02 | 2.73E-02 | 5.61E-03 | 8.00E-03 | 1.08E-03 | 7.68E-04 | 4.06E-04 | 2.15E-04 |
| 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. |
| 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. |
| 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 |
| 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 |
| 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. |
| 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. |
| 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. |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 | 2.63E-01 | 1.53E-04 | 6.21E-10 | 1.03E-20 | 1.69E-31 | 4.58E-53 | 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. |
| 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. |
| 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 |
| 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 |
| 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 |
| BA139 | 1.27E+01 | 1.35E-03 | 7.99E-09 | 1.64E-24 | 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 |
| 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 |
| 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. |
| 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 |
| LA142 | 7.88E+00 | 1.73E-03 | 3.34E-08 | 2.46E-22 | 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. |
| 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 |
| 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 |
| 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 |
| 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. |
| 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 |
| 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 |
| ND149 | 1.37E+01 | 1.32E-03 | 1.28E-07 | 1.17E-19 | 9.97E-40 | 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 |
| PM150 | 1.54E-01 | 3.26E-04 | 6.86E-07 | 6.45E-15 | 2.70E-28 | 0. | 0. | 0. | 0. | 0. | 0. |

M-10

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. |
| 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 |
| 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. |
| 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 |
| 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 |
| 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. |
| 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. |
| 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 |
| 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 |

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 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 |
| FE 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-03 | 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 |
| W1 81 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| W1 85 | 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. |
| W1 88 | 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. |
| U2 34 | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. | 0. |
| U2 37 | 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 |
| * AM 241 | 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 |
| * CM 242 | 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. |
| RU 103 | 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. |
| RH 103M | 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. |
| RU 106 | 3.93E-04 | 3.74E-03 | 2.65E-03 | 1.88E-03 | 6.67E-04 | 2.37E-04 | 5.96E-05 | 7.54E-06 | 7.60E-09 | 2.45E-13 | 7.86E-18 |
| RH 106 | 4.25E-06 | 3.74E-03 | 2.65E-03 | 1.88E-03 | 6.67E-04 | 2.37E-04 | 5.96E-05 | 7.54E-06 | 7.60E-09 | 2.45E-13 | 7.86E-18 |
| SN 123 | 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 |
| SB 125 | 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 |
| TE 125M | 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 |
| TE 127 | 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 |
| CS 137 | 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 |
| BA 137M | 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 |
| CE 141 | 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 |
| CE 144 | 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. |
| PR 144 | 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 |
| PM 144 | 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 |
| EU 147 | 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 |
| EU 155 | 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 | 1.74E-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 | 1.58E-03 | 1.37E-03 | 1.20E-03 | 1.04E-03 | 9.07E-04 | 7.86E-04 |
| MF 54 | 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 |
| FE 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 | 1.24E-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 |
| CO 58 | 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 |
| CU 64 | 2.97E-01 | 2.81E-01 | 2.66E-01 | 2.53E-01 | 2.39E-01 | 2.15E-01 | 1.82E-01 | 1.55E-01 | 1.32E-01 | 1.12E-01 | 9.53E-02 |
| CU 67 | 9.30E-06 | 9.22E-06 | 9.06E-06 | 8.98E-06 | 8.90E-06 | 8.67E-06 | 8.35E-06 | 8.11E-06 | 7.85E-06 | 7.55E-06 | 7.34E-06 |
| W181 | 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 |
| W187 | 1.05E-03 | 1.02E-03 | 9.88E-04 | 9.60E-04 | 9.35E-04 | 8.80E-04 | 8.08E-04 | 7.42E-04 | 6.78E-04 | 6.25E-04 | 5.70E-04 |
| 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 | 3.62E-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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| *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 | 1.48E-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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 | 6.41E-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 |
| 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 |
| 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 |
| 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 |

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 | 2.28E-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 |
| SR 91M | 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 91 | 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 | 7.32E-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 | 5.62E+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 |
| ZR 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 |
| MO 101 | 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 |
| TC 101 | 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 |
| MO 102 | 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 |
| TC 102M | 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 |
| TC 102 | 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 |
| RU 103 | 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 |
| RH 103M | 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 |
| TC 104 | 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 |
| RU 105 | 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 |
| RH 105M | 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 |
| RH 105 | 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 |
| RU 106 | 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 |
| RH 106 | 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 |
| RH 107 | 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 |
| PD 107M | 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 | 1.05E-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 | 7.58E-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 | 9.33E-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 |

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 | 5.89E-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 |

9-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 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 | 9.67E-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 | 1.78E-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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| 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 |

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 | 5.52E-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 |
| RU 103 | 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 |
| RH 103M | 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 |
| RU 105 | 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. |
| RH 105M | 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. |
| RH 105 | 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 |
| RU 106 | 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 |
| RH 106 | 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 |
| PD 109 | 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. |
| AG 109M | 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. |
| PD 111M | 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. |
| PD 111 | 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. |
| AG 111M | 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. |
| AG 111 | 6.63E-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 |
| PD 112 | 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. |
| AG 112 | 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. |
| AG 113 | 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. |
| CD 115M | 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 |
| CD 115 | 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 |
| IN 115M | 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 |
| CD 117 | 3.69E-02 | 8.06E-04 | 7.84E-07 | 7.32E-16 | 6.50E-31 | 0. | 0. | 0. | 0. | 0. | 0. |
| IN 117M | 1.78E-06 | 3.34E-03 | 3.87E-06 | 3.73E-15 | 3.32E-30 | 0. | 0. | 0. | 0. | 0. | 0. |
| IN 117 | 7.15E-11 | 2.20E-03 | 2.61E-06 | 2.53E-15 | 2.24E-30 | 0. | 0. | 0. | 0. | 0. | 0. |
| SN 121 | 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. |
| SN 123 | 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 |
| SN 125 | 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 |
| SB 125 | 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 |
| SB 126 | 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 | 7.28E-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. | |

N-10

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. |
| 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 |
| 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. |
| 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 |
| 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 |
| 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. |
| 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. |
| 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 |
| 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 |

II-11

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 | 9.49E-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 |
| PM147 | 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 |

N-12