

MARSHALL ISLANDS FILE TRACKING DOCUMENT

Record Number: 323

File Name (TITLE): Results of Calculation

of External Gamma Rad. of Buster -

Document Number (ID): ACKL-53152 Pt. 2

DATE: 7/1981

Previous Location (FROM): LNU

AUTHOR: H. Hicks

Addditional Information: _____

OrMBox: 18

CyMBox: 11

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

Operation Buster-Jangle, 1951

Harry G. Hicks

Manuscript date: July 1981

LAWRENCE LIVERMORE LABORATORY
University of California • Livermore, California • 94550 



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.



Lawrence Livermore National Laboratory

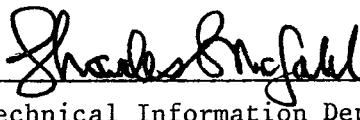
TO: All holders of UCRL-53152, "Results of Calculations of External Gamma Radiation Exposure Rates from Fallout and the Related Radionuclide Compositions," Part 2, "Operation Buster-Jangle, 1951"
FROM: Technical Information Department

ADDENDUM

For purposes of clarification, the following information (underlined below) is being added to your copy of UCRL-53152 Part 2:

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

FOREWORD

This document is one of eight parts of Report UCRL-53152. Each part contains results for Events (shots) from a specific Operation or Operations, as listed here.

- Part 1. Operation Ranger, Events Able, Baker, Easy, Baker-2 and Fox.
- Part 2. Operation Buster-Jangle, Events Buster Baker, Buster Charlie, Buster Dog, Buster Easy, Jangle Sugar and Jangle Uncle.
- Part 3. Operation Tumbler-Snapper, Events Able, Baker, Charlie, Dog, Easy, Fox, George and How.
- Part 4. Operation Upshot-Knothole, Events Annie, Nancy, Ruth, Dixie, Ray, Badger, Simon, Encore, Harry, Grable and Climax.
- Part 5. Operation Teapot, Events Wasp, Moth, Tesla, Turk, Hornet, Bee, Ess, Apple I, Wasp Prime, HA, Post, Met, Apple II and Zucchini.
- Part 6. Operation Plumbob, Events Boltzmann, Franklin, Wilson, Priscilla, Hood, Diablo, John, Kepler, Owens, Pascal A, Stokes, Shasta, Doppler, Franklin Prime, Smoky, Galileo, Wheeler, Coulomb B, Laplace, Fizeau, Newton, Whitney, Charleston, Morgan and Coulomb C.
- Part 7. Operation Hardtack II, Events Otero, Eddy, Mora, Hidalgo, Quay, Lea, Hamilton, Dona Ana, Vesta, Rio Arriba, Socorro, Wrangell, Rushmore, Catron, Sanford, Debaca, Chavez, Humboldt, Titania and Santa Fe.
- Part 8. Operations Nougat through Bowline, Events Danny Boy, Sedan, Johnny Boy, Small Boy, Little Feller I, Sulky, Palanquin, Cabriolet, Buggy and Schooner.

Each part of the report contains 11 pages of data relating to each Event covered by that part of the report.

CONTENTS

Abstract	1
Introduction	1
Results	1
References	2
Appendix A. Detailed results for Event Buster Baker	A1
Appendix B. Detailed results for Event Buster Charlie	B1
Appendix C. Detailed results for Event Buster Dog	C1
Appendix D. Detailed results for Event Buster Easy	D1
Appendix E. Detailed results for Event Jangle Sugar	E1
Appendix F. Detailed results for Event Jangle Uncle	F1

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

Operation Buster-Jangle, 1951

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 $\mu\text{Ci}/\text{m}^2$.

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 $(\text{mR}/\text{h})/(\mu\text{Ci}/\text{m}^2)$ for a relaxation length of 0.16 g/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 $1/\alpha$.

TABLE 1. Yield, date and placement of Events of Operation Buster-Jangle, 1951.

Event	Yield (kt)	Date	Placement
Buster Baker	3.5	Oct. 28	Air drop 1118 ft
Buster Charlie	14	Oct. 30	Air drop 1132 ft
Buster Dog	21	Nov. 1	Air drop 1417 ft
Buster Easy	31	Nov. 5	Air drop 1314 ft
Jangle Sugar	1.2	Nov. 19	Surface
Jangle Uncle	1.2	Nov. 29	Buried 17 ft

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 BUSTER BAKER

BUSTER BAKER
 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 = 1.497E-12

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.24E+02	1.12E+04
1.00E+00	3.46E+01	2.20E+03
2.00E+00	1.36E+01	8.66E+02
3.00E+00	7.37E+00	5.40E+02
4.00E+00	4.65E+00	3.99E+02
6.00E+00	2.44E+00	2.70E+02
9.00E+00	1.40E+00	1.85E+02
1.20E+01	1.00E+00	1.40E+02
1.50E+01	7.76E-01	1.12E+02
1.80E+01	6.30E-01	9.22E+01
2.10E+01	5.26E-01	7.79E+01
1.00E+00 DAYS	4.41E-01	6.61E+01
2.00E+00	1.95E-01	2.93E+01
5.00E+00	7.33E-02	1.03E+01
1.00E+01	3.62E-02	4.80E+00
2.00E+01	1.62E-02	2.18E+00
3.00E+01	1.00E-02	1.41E+00
5.00E+01	5.29E-03	8.13E-01
1.00E+02	2.24E-03	3.71E-01
2.00E+02	8.06E-04	1.41E-01
3.00E+02	3.21E-04	7.41E-02
1.00E+00 YEARS	1.90E-04	5.49E-02
1.50E+00	6.37E-05	3.20E-02
2.00E+00	3.79E-05	2.22E-02
3.50E+00	2.04E-05	9.70E-03
5.00E+00	1.46E-05	5.44E-03
7.00E+00	1.13E-05	3.48E-03
1.00E+01	9.11E-06	2.54E-03
2.00E+01	6.93E-06	1.65E-03
3.50E+01	3.88E-06	1.12E-03
5.00E+01	2.70E-06	7.79E-04

BUSTER BAKER 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 = 1.497E-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	3.46E-07	3.45E-07	3.45E-07	3.45E-07	3.45E-07	3.44E-07	3.43E-07	3.43E-07	3.42E-07	3.42E-07
*NA 24	5.21E-02	4.98E-02	4.76E-02	4.54E-02	4.33E-02	3.95E-02	3.44E-02	3.00E-02	2.61E-02	2.27E-02
MN 54	2.43E-05	2.41E-05	2.41E-05	2.41E-05						
FE 55	7.00E-04									
FE 59	5.23E-04	5.22E-04	5.22E-04	5.22E-04	5.21E-04	5.20E-04	5.20E-04	5.18E-04	5.17E-04	5.16E-04
CD 57	4.10E-05									
CD 58	8.87E-02	8.87E-02	8.87E-02	8.85E-02	8.85E-02	8.83E-02	8.83E-02	8.81E-02	8.81E-02	8.79E-02
CD 60	1.95E-04									
*CU 64	2.72E+00	2.57E+00	2.44E+00	2.31E+00	2.19E+00	1.97E+00	1.67E+00	1.42E+00	1.21E+00	1.03E+00
*CU 67	1.23E-04	1.22E-04	1.19E-04	1.18E-04	1.17E-04	1.14E-04	1.10E-04	1.07E-04	1.04E-04	9.96E-05
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	4.76E-07	4.76E-07	4.76E-07	4.76E-07	4.75E-07	4.75E-07	4.74E-07	4.74E-07	4.73E-07	4.73E-07
W187	9.82E-03	9.52E-03	9.24E-03	8.98E-03	8.74E-03	8.23E-03	7.56E-03	6.94E-03	6.34E-03	5.84E-03
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PB203	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	6.33E-04	6.30E-04	6.27E-04	6.25E-04	6.22E-04	6.16E-04	6.08E-04	6.01E-04	5.93E-04	5.85E-04
U239	8.96E+00	1.53E+00	2.61E-01	4.44E-02	7.55E-03	2.20E-04	1.09E-06	5.38E-09	2.66E-11	1.32E-13
U240	2.05E-04	1.95E-04	1.86E-04	1.77E-04	1.69E-04	1.53E-04	1.32E-04	1.14E-04	9.81E-05	8.45E-05
NP239	3.07E-05	5.14E-02	5.94E-02	6.04E-02	5.99E-02	5.85E-02	5.61E-02	5.42E-02	5.23E-02	5.05E-02
NP240M	3.25E-07	1.96E-04	1.88E-04	1.79E-04	1.70E-04	1.54E-04	1.33E-04	1.15E-04	9.89E-05	8.53E-05
NP240	8.22E-15	4.23E-15	2.19E-15	1.13E-15	5.85E-16	1.57E-16	2.16E-17	2.98E-18	4.11E-19	5.66E-20
*AM241	1.11E-06									
*CM242	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.42E-05	1.41E-05	1.41E-05	1.41E-05	1.41E-05
GE 75	7.39E-06	3.58E-02	2.16E-02	1.30E-02	7.81E-03	2.83E-03	6.19E-04	1.36E-04	2.96E-05	6.45E-06
GE 77	6.28E-03	1.62E-02	1.52E-02	1.43E-02	1.35E-02	1.19E-02	9.91E-03	8.23E-03	6.86E-03	5.70E-03
AS 77	6.49E-05	1.03E-02	1.04E-02	1.04E-02	1.05E-02	1.06E-02	1.06E-02	1.05E-02	1.03E-02	1.01E-02
SE 77M	2.56E-09	3.07E-05	3.12E-05	3.14E-05	3.14E-05	3.16E-05	3.19E-05	3.16E-05	3.12E-05	3.05E-05
GE 78	1.04E+00	6.53E-01	4.06E-01	2.54E-01	1.58E-01	6.16E-02	1.50E-02	3.63E-03	8.85E-04	2.15E-04
AS 78	1.88E-02	3.12E-01	3.84E-01	3.60E-01	3.01E-01	1.78E-01	6.60E-02	2.19E-02	6.78E-03	2.03E-03
AS 79	1.83E+01	1.80E-01	1.77E-03	1.75E-05	1.72E-07	1.66E-11	1.59E-17	1.51E-23	1.44E-29	1.38E-35
SE 79M	2.70E-02	3.17E-01	3.13E-03	3.09E-05	3.04E-07	2.94E-11	2.80E-17	2.67E-23	2.55E-29	2.44E-35
BR 80	9.86E-02	9.30E-03	8.74E-04	8.22E-05	7.74E-06	6.86E-08	5.75E-11	4.79E-14	3.99E-17	3.33E-20
SE 81M	7.41E-02	3.46E+00	1.67E+00	8.02E-01	3.86E-01	9.01E-02	1.01E-02	1.13E-03	1.27E-04	1.42E-05
SE 81	9.05E-01	4.09E+00	2.36E+00	1.18E+00	5.73E-01	1.34E-01	1.50E-02	1.68E-03	1.88E-04	2.11E-05
BR 82	3.73E-04	3.66E-04	3.58E-04	3.52E-04	3.44E-04	3.31E-04	3.12E-04	2.94E-04	2.78E-04	2.62E-04
SE 83	3.14E+01	5.94E+00	1.13E+00	2.13E-01	4.03E-02	1.45E-03	9.87E-06	6.71E-08	4.59E-10	3.11E-12
BR 83	2.60E-01	3.89E+00	3.60E+00	2.83E+00	2.15E+00	1.21E+00	5.14E-01	2.16E-01	9.13E-02	3.85E-02
KR 83M	1.35E-05	8.80E-01	1.80E+00	2.23E+00	2.30E+00	1.92E+00	1.13E+00	5.83E-01	2.81E-01	1.30E-01

BUSTER BAKER 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 = 1.497E-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	5.93E-02	1.02E+01	2.76E+00	7.49E-01	2.02E-01	1.48E-02	2.92E-04	5.77E-06	1.14E-07	2.26E-09	4.46E-11
KR 85M	2.09E-03	4.48E+00	3.81E+00	3.26E+00	2.78E+00	2.03E+00	1.27E+00	7.91E-01	4.93E-01	3.06E-01	1.91E-01
KR 87	3.40E+01	1.97E+01	1.14E+01	6.57E+00	3.79E+00	1.27E+00	2.47E-01	4.78E-02	9.26E-03	1.79E-03	3.46E-04
KR 88	1.73E+01	1.35E+01	1.05E+01	8.21E+00	6.42E+00	3.90E+00	1.86E+00	8.86E-01	4.21E-01	2.01E-01	9.54E-02
RB 88	4.39E+00	1.36E+01	1.16E+01	9.18E+00	7.17E+00	4.37E+00	2.08E+00	9.93E-01	4.73E-01	2.25E-01	1.07E-01
RB 89	2.39E+01	2.24E+01	1.51E+00	1.01E-01	6.79E-03	3.07E-05	9.30E-09	2.81E-12	8.55E-16	2.59E-19	7.86E-23
SR 89	1.83E-06	6.41E-02	6.84E-02	6.84E-02	6.84E-02	6.84E-02	6.84E-02	6.82E-02	6.82E-02	6.79E-02	6.79E-02
SR 90	3.57E-06	3.67E-04	3.67E-04								
SR 91	5.31E-01	9.89E+00	9.22E+00	8.58E+00	7.98E+00	6.91E+00	5.58E+00	4.51E+00	3.64E+00	2.92E+00	2.36E+00
Y 91M	3.57E-05	3.41E+00	4.64E+00	4.96E+00	4.91E+00	4.41E+00	3.61E+00	2.90E+00	2.34E+00	1.89E+00	1.52E+00
Y 91	1.46E-08	3.03E-03	6.98E-03	1.12E-02	1.52E-02	2.28E-02	3.24E-02	4.01E-02	4.64E-02	5.14E-02	5.55E-02
SR 92	7.37E+00	3.29E+01	2.55E+01	1.97E+01	1.53E+01	9.15E+00	4.25E+00	1.97E+00	9.15E-01	4.25E-01	1.98E-01
Y 92	3.40E-01	6.92E+00	1.09E+01	1.29E+01	1.37E+01	1.31E+01	1.00E+01	6.82E+00	4.39E+00	2.70E+00	1.63E+00
SR 93	3.44E+02	5.93E+00	3.27E-02	1.81E-04	9.97E-07	3.05E-11	5.14E-18	8.67E-25	1.46E-31	2.47E-38	4.16E-45
Y 93	4.20E-01	1.36E+01	1.28E+01	1.19E+01	1.11E+01	9.73E+00	7.93E+00	6.48E+00	5.26E+00	4.32E+00	3.51E+00
Y 94	5.16E+01	7.06E+01	9.08E+00	1.17E+00	1.51E-01	2.51E-03	5.38E-06	1.15E-08	2.47E-11	5.38E-14	2.98E-15
Y 95	2.39E+02	2.25E+01	4.97E-01	1.10E-02	2.41E-04	1.17E-07	1.25E-12	1.34E-17	1.43E-22	1.53E-27	1.64E-32
ZR 95	8.99E-04	1.17E-01	1.20E-01	1.20E-01	1.20E-01	1.20E-01	1.20E-01	1.19E-01	1.19E-01	1.19E-01	1.19E-01
NB 95	1.00E-10	7.25E-05	1.69E-04	2.66E-04	3.63E-04	5.56E-04	8.43E-04	1.13E-03	1.42E-03	1.71E-03	1.99E-03
ZR 97	2.43E+00	1.06E+01	1.01E+01	9.74E+00	9.33E+00	8.61E+00	7.61E+00	6.73E+00	5.98E+00	5.27E+00	4.68E+00
NB 97M	1.25E-02	1.02E+01	9.74E+00	9.37E+00	8.99E+00	8.28E+00	7.32E+00	6.48E+00	5.73E+00	5.06E+00	4.47E+00
NB 97	1.22E+00	5.31E+00	7.49E+00	8.53E+00	8.95E+00	8.91E+00	8.11E+00	7.23E+00	6.40E+00	5.65E+00	5.02E+00
NB 98	1.46E+01	6.46E+00	2.86E+00	1.26E+00	5.60E-01	1.10E-01	9.48E-03	8.19E-04	7.13E-05	6.18E-06	5.32E-07
M0 99	8.32E-03	3.44E+00	3.40E+00	3.37E+00	3.33E+00	3.26E+00	3.17E+00	3.06E+00	2.97E+00	2.88E+00	2.79E+00
TC 99M	7.74E-08	3.28E-01	6.15E-01	8.70E-01	1.09E+00	1.46E+00	1.85E+00	2.10E+00	2.25E+00	2.34E+00	2.38E+00
M0101	1.43E+02	6.47E+01	3.76E+00	2.18E-01	1.26E-02	4.23E-05	8.23E-09	1.60E-12	3.12E-16	6.05E-20	1.18E-23
TC101	6.05E+00	1.81E+02	1.98E+01	1.63E+00	1.19E-01	5.35E-04	1.34E-07	2.99E-11	6.35E-15	1.31E-18	2.64E-22
M0102	1.37E+03	3.12E+01	7.11E-01	1.62E-02	3.70E-04	1.92E-07	2.29E-12	2.71E-17	3.22E-22	3.82E-27	4.53E-32
TC102M	8.81E-01	2.64E+01	6.05E-01	1.38E-02	3.15E-04	1.63E-07	1.94E-12	2.30E-17	2.72E-22	3.23E-27	3.84E-32
TC102	4.12E+03	1.57E+01	3.59E-01	8.15E-03	1.87E-04	9.72E-08	1.15E-12	1.37E-17	1.62E-22	1.92E-27	2.28E-32
RU103	1.16E-04	2.69E-01	2.69E-01	2.69E-01	2.69E-01	2.68E-01	2.67E-01	2.67E-01	2.66E-01	2.66E-01	2.65E-01
RH103M	7.74E-09	1.39E-01	2.06E-01	2.39E-01	2.54E-01	2.65E-01	2.67E-01	2.67E-01	2.66E-01	2.66E-01	2.66E-01
TC104	1.14E+02	8.18E+01	8.18E+00	8.10E-01	8.01E-02	7.89E-04	7.71E-07	7.53E-10	7.35E-13	7.19E-16	7.02E-19
RU105	1.12E+00	3.87E+01	3.31E+01	2.84E+01	2.43E+01	1.77E+01	1.11E+01	6.95E+00	4.35E+00	2.72E+00	1.71E+00
RH105M	7.36E-03	3.88E+01	3.32E+01	2.84E+01	2.43E+01	1.78E+01	1.11E+01	6.97E+00	4.36E+00	2.73E+00	1.71E+00
RH105	1.21E-08	7.88E-01	1.46E+00	2.02E+00	2.48E+00	3.18E+00	3.80E+00	4.09E+00	4.17E+00	4.13E+00	4.02E+00
RU106	1.06E-03	2.01E-02	2.01E-02								
RH106	1.15E-05	2.01E-02	2.01E-02								
RH107	3.51E-01	4.77E+01	7.23E+00	1.09E+00	1.64E-01	3.75E-03	1.29E-05	4.45E-08	1.53E-10	5.24E-146	5.21E-17
PD107M	7.30E-04	9.71E+00	1.47E+00	2.22E-01	3.34E-02	7.62E-04	2.63E-06	9.06E-09	3.11E-11	1.08E-13	3.67E-16

BUSTER BAKER 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 = 1.497E-12

PAGE 5

DEBRIS DECAY FROM 1 TO 21 HOURS

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

PD109	2.00E-02	1.66E+00	1.58E+00	1.49E+00	1.42E+00	1.28E+00	1.10E+00	9.44E-01	8.09E-01	6.93E-01	5.96E-01
AG109M	1.15E-04	1.66E+00	1.58E+00	1.50E+00	1.42E+00	1.29E+00	1.10E+00	9.44E-01	8.09E-01	6.93E-01	5.96E-01
PD111M	2.35E+00	2.07E+00	1.82E+00	1.61E+00	1.42E+00	1.10E+00	7.55E-01	5.18E-01	3.55E-01	2.43E-01	1.66E-01
PD111	8.36E-01	1.51E+00	1.45E+00	1.29E+00	1.14E+00	8.85E-01	6.07E-01	4.16E-01	2.85E-01	1.95E-01	1.34E-01
AG111M	6.64E-03	2.03E+00	1.91E+00	1.71E+00	1.51E+00	1.17E+00	7.96E-01	5.46E-01	3.74E-01	2.57E-01	1.75E-01
AG111	2.37E-09	7.01E-03	1.47E-02	2.16E-02	2.78E-02	3.79E-02	4.86E-02	5.57E-02	6.04E-02	6.33E-02	6.50E-02
PD112	4.20E-01	4.07E-01	3.93E-01	3.80E-01	3.69E-01	3.44E-01	3.12E-01	2.83E-01	2.56E-01	2.32E-01	2.10E-01
AG112	1.26E-05	8.05E-02	1.42E-01	1.91E-01	2.27E-01	2.71E-01	2.98E-01	2.97E-01	2.83E-01	2.64E-01	2.43E-01
AG113	3.12E-03	6.68E-01	5.85E-01	5.14E-01	4.51E-01	3.47E-01	2.35E-01	1.59E-01	1.07E-01	7.22E-02	4.88E-02
AG115	8.80E-01	9.42E-01	1.17E-01	1.47E-02	1.84E-03	2.87E-05	5.61E-08	1.10E-10	2.12E-13	2.11E-16	1.95E-16
CD115M	7.19E-09	1.91E-04	2.15E-04	2.18E-04	2.18E-04	2.18E-04	2.17E-04	2.17E-04	2.16E-04	2.16E-04	2.16E-04
CD115	2.78E-06	5.24E-02	5.63E-02	5.62E-02	5.55E-02	5.41E-02	5.21E-02	5.01E-02	4.82E-02	4.64E-02	4.45E-02
IN115M	3.46E-11	5.78E-03	1.28E-02	1.91E-02	2.43E-02	3.24E-02	4.00E-02	4.41E-02	4.59E-02	4.64E-02	4.60E-02
CD117	6.08E-02	1.01E+00	7.63E-01	5.70E-01	4.27E-01	2.40E-01	1.01E-01	4.24E-02	1.78E-02	7.49E-03	3.15E-03
IN117M	2.92E-06	3.52E-01	5.10E-01	5.53E-01	5.35E-01	4.21E-01	2.41E-01	1.23E-01	5.92E-02	2.75E-02	1.24E-02
IN117	1.18E-10	6.42E-02	1.55E-01	2.16E-01	2.41E-01	2.22E-01	1.41E-01	7.56E-02	3.76E-02	1.77E-02	8.13E-03
CD118	3.95E+00	1.69E+00	7.27E-01	3.10E-01	1.33E-01	2.43E-02	1.91E-03	1.49E-04	1.17E-05	9.18E-07	7.20E-08
IN118	2.62E-01	1.69E+00	7.27E-01	3.11E-01	1.33E-01	2.44E-02	1.91E-03	1.50E-04	1.17E-05	9.18E-07	7.20E-08
CD119	9.91E+00	1.55E-01	2.41E-03	3.77E-05	5.90E-07	1.44E-10	5.50E-16	2.10E-21	7.99E-27	3.06E-32	1.17E-37
IN119M	1.49E-02	1.67E+00	1.82E-01	1.83E-02	1.83E-03	1.80E-05	1.75E-08	1.72E-11	1.67E-14	1.64E-17	1.60E-20
IN119	7.37E-01	8.80E-02	1.02E-02	1.04E-03	1.04E-04	1.01E-06	9.91E-10	9.69E-13	9.47E-16	9.25E-19	9.03E-22
SN121	1.25E-03	1.29E-01	1.25E-01	1.22E-01	1.19E-01	1.13E-01	1.05E-01	9.73E-02	8.99E-02	8.33E-02	7.74E-02
SN123M	7.52E-01	1.41E+00	4.99E-01	1.76E-01	6.23E-02	7.78E-03	3.44E-04	1.52E-05	6.74E-07	2.98E-08	1.32E-09
SN123	7.07E-06	7.39E-04									
SN125	2.05E-02	2.04E-02	2.04E-02	2.03E-02	2.02E-02	2.01E-02	2.00E-02	1.97E-02	1.96E-02	1.94E-02	1.92E-02
SB125	1.23E-04	1.24E-04	1.24E-04	1.25E-04	1.25E-04	1.26E-04	1.28E-04	1.30E-04	1.32E-04	1.33E-04	1.35E-04
SB126	3.67E-03	3.66E-03	3.65E-03	3.64E-03	3.63E-03	3.62E-03	3.59E-03	3.57E-03	3.54E-03	3.52E-03	3.49E-03
SN127	3.71E+00	2.67E+00	1.92E+00	1.38E+00	9.94E-01	5.13E-01	1.90E-01	7.08E-02	2.63E-02	9.76E-03	3.63E-03
SB127	4.33E-02	1.49E-01	1.65E-01	1.76E-01	1.84E-01	1.92E-01	1.95E-01	1.93E-01	1.90E-01	1.86E-01	1.82E-01
TE127	2.45E-02	3.05E-02	3.70E-02	4.39E-02	5.08E-02	6.37E-02	8.16E-02	9.52E-02	1.06E-01	1.14E-01	1.20E-01
SN128	2.53E+01	1.25E+01	6.18E+00	3.05E+00	1.51E+00	3.68E-01	4.45E-02	5.37E-03	6.47E-04	7.85E-05	9.46E-06
SB128M	1.29E-02	1.42E+01	7.38E+00	3.64E+00	1.80E+00	4.40E-01	5.30E-02	6.40E-03	7.71E-04	9.32E-05	1.13E-05
SB128	1.07E+00	1.03E+00	9.66E-01	9.06E-01	8.45E-01	7.25E-01	5.78E-01	4.59E-01	3.64E-01	2.89E-01	2.29E-01
SN129M	1.50E+01	7.48E+00	3.75E+00	1.88E+00	9.38E-01	2.35E-01	2.93E-02	3.67E-03	4.58E-04	5.73E-05	7.16E-06
SN129	1.00E+02	9.83E-01	9.70E-03	9.57E-05	9.38E-07	9.13E-11	8.68E-17	8.30E-23	7.92E-29	7.54E-35	7.23E-41
SB129	5.64E+00	9.44E+00	8.87E+00	7.92E+00	6.97E+00	5.18E+00	3.23E+00	2.00E+00	1.23E+00	7.61E-01	4.68E-01
TE129M	1.06E-07	1.18E-03	2.43E-03	3.57E-03	4.58E-03	6.21E-03	7.86E-03	8.87E-03	9.51E-03	9.89E-03	1.01E-02
TE129	4.06E+00	5.58E+00	6.53E+00	6.78E+00	6.53E+00	5.41E+00	3.60E+00	2.27E+00	1.41E+00	8.75E-01	5.43E-01
SB130M	5.85E-01	1.10E+00	2.90E-03	7.61E-06	2.00E-08	1.38E-13	2.52E-21	4.58E-29	8.31E-37	1.51E-44	2.75E-52
SB130	1.00E+02	3.03E+01	8.62E+00	2.44E+00	6.91E-01	5.56E-02	1.27E-03	2.89E-05	6.59E-07	1.50E-08	3.43E-10

BUSTER BAKER 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 = 1.497E-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	2.79E-02	2.64E-02	2.50E-02	2.36E-02	2.23E-02	2.00E-02	1.69E-02	1.43E-02	1.20E-02	1.02E-02	8.62E-03
SB131	2.18E+02	5.69E+01	9.29E+00	1.53E+00	2.50E-01	6.74E-03	2.97E-05	1.31E-07	5.77E-10	2.54E-12	1.27E-14
TE131M	1.05E-04	5.48E-01	6.25E-01	6.25E-01	6.14E-01	5.87E-01	5.47E-01	5.10E-01	4.76E-01	4.44E-01	4.15E-01
TE131	9.64E+01	1.05E+02	3.41E+01	8.87E+00	2.16E+00	2.02E-01	1.01E-01	9.29E-02	8.67E-02	8.11E-02	7.56E-02
I131	1.40E-02	4.85E-01	7.14E-01	7.83E-01	7.97E-01	8.04E-01	8.04E-01	7.97E-01	7.97E-01	7.90E-01	7.90E-01
TE132	9.54E-01	2.32E+00	2.30E+00	2.28E+00	2.26E+00	2.21E+00	2.16E+00	2.10E+00	2.05E+00	1.99E+00	1.94E+00
I132	2.34E+00	2.34E+00	2.33E+00	2.32E+00	2.30E+00	2.27E+00	2.22E+00	2.16E+00	2.10E+00	2.05E+00	2.00E+00
TE133M	1.12E-01	3.88E+01	1.69E+01	7.35E+00	3.19E+00	6.07E-01	4.99E-02	4.12E-03	3.40E-04	2.80E-05	2.31E-06
TE133	6.28E+02	3.56E+01	3.96E+00	1.31E+00	5.54E-01	1.05E-01	8.68E-03	7.14E-04	5.91E-05	4.86E-06	4.01E-07
I133	9.74E-01	1.05E+01	1.13E+01	1.13E+01	1.11E+01	1.05E+01	9.58E+00	8.68E+00	7.83E+00	7.14E+00	6.44E+00
XE133M	4.15E-08	2.36E-03	5.70E-03	9.11E-03	1.24E-02	1.86E-02	2.70E-02	3.42E-02	4.04E-02	4.56E-02	5.00E-02
XE133	7.24E-07	4.12E-02	1.00E-01	1.60E-01	2.19E-01	3.32E-01	4.87E-01	6.23E-01	7.45E-01	8.52E-01	9.48E-01
TE134	2.06E+02	9.54E+01	3.55E+01	1.32E+01	4.90E+00	6.79E-01	3.47E-02	1.78E-03	9.11E-05	4.68E-06	2.40E-07
I134	9.43E+01	1.26E+02	8.84E+01	5.18E+01	2.78E+01	7.06E+00	7.76E-01	7.92E-02	7.76E-03	7.44E-04	7.06E-05
I135	1.64E+01	2.90E+01	2.61E+01	2.35E+01	2.13E+01	1.72E+01	1.27E+01	9.26E+00	6.80E+00	5.01E+00	3.66E+00
XE135M	1.82E-03	8.36E+00	8.13E+00	7.37E+00	6.62E+00	5.39E+00	3.96E+00	2.90E+00	2.13E+00	1.56E+00	1.14E+00
XE135	1.89E+00	3.75E+00	5.48E+00	6.90E+00	8.03E+00	9.64E+00	1.07E+01	1.07E+01	1.02E+01	9.31E+00	8.32E+00
CS136	1.86E-02	1.85E-02	1.85E-02	1.84E-02	1.84E-02	1.83E-02	1.82E-02	1.81E-02	1.79E-02	1.78E-02	1.77E-02
CS137	8.53E-05	9.19E-04									
BA137M	1.80E-07	8.58E-04									
XE138	5.18E+02	4.46E+01	3.87E+00	3.36E+01	2.91E-02	2.18E-04	1.42E-07	9.19E-11	5.98E-14	3.89E-17	2.53E-20
CS138	7.71E+01	1.30E+02	4.50E+01	1.32E+01	3.70E+00	2.82E-01	5.86E-03	1.22E-04	2.53E-06	5.26E-08	1.09E-09
CS139	6.54E+02	2.09E+01	2.62E+01	3.29E-03	4.12E-05	6.48E-09	1.29E-14	2.55E-20	5.04E-26	1.00E-31	1.97E-37
BA139	1.21E+01	1.35E+02	8.30E+01	5.04E+01	3.05E+01	1.12E+01	2.48E+00	5.51E-01	1.23E-01	2.72E-02	6.04E-03
BA140	1.01E-01	6.28E-01	6.28E-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	8.96E-02	1.16E-01	1.41E-01	1.64E-01	1.86E-01
BA141	1.96E+02	5.94E+01	5.89E+00	5.84E-01	5.79E-02	5.75E-04	5.61E-07	5.47E-10	5.33E-13	5.23E-16	5.09E-19
LA141	1.81E+00	3.84E+01	3.58E+01	3.04E+01	2.55E+01	1.79E+01	1.05E+01	6.12E+00	3.60E+00	2.11E+00	1.24E+00
CE141	2.24E-07	2.50E-02	5.84E-02	8.79E-02	1.13E-01	1.51E-01	1.87E-01	2.08E-01	2.21E-01	2.28E-01	2.31E-01
BA142	5.39E+02	2.14E+01	4.89E-01	1.11E-02	2.54E-04	1.32E-07	1.57E-12	1.86E-17	2.21E-22	2.62E-27	3.11E-32
LA142	1.24E+01	8.58E+01	5.66E+01	3.60E+01	2.29E+01	9.27E+00	2.39E+00	6.16E-01	1.59E-01	4.09E-02	1.05E-02
LA143	1.80E+02	3.51E+01	1.80E+00	9.25E-02	4.75E-03	1.24E-05	1.68E-09	2.26E-13	3.05E-17	4.11E-21	5.55E-25
CE143	7.19E-02	4.58E+00	4.75E+00	4.62E+00	4.54E+00	4.37E+00	4.10E+00	3.85E+00	3.61E+00	3.39E+00	3.18E+00
PR143	2.10E-08	7.02E-03	1.69E-02	2.68E-02	3.64E-02	5.51E-02	8.11E-02	1.06E-01	1.29E-01	1.50E-01	1.70E-01
CE144	2.68E-03	1.92E-02	1.92E-02	1.92E-02	1.92E-02	1.92E-02	1.91E-02	1.91E-02	1.91E-02	1.91E-02	
PR144	7.35E-07	1.75E-02	1.90E-02	1.91E-02	1.92E-02	1.92E-02	1.92E-02	1.91E-02	1.91E-02	1.91E-02	
PR145	1.21E-01	1.77E+01	1.58E+01	1.40E+01	1.25E+01	9.92E+00	7.00E+00	4.94E+00	3.50E+00	2.47E+00	1.75E+00
CE146	3.97E+02	2.03E+01	1.04E+00	5.33E-02	2.74E-03	7.23E-06	9.73E-10	1.31E-13	1.77E-17	2.38E-21	3.21E-25
PR146	8.20E+00	7.14E+01	1.62E+01	3.04E+00	5.47E-01	1.72E-02	9.50E-05	5.24E-07	2.90E-09	1.60E-11	8.76E-14
PR147	4.53E+01	1.31E+01	4.09E-01	1.28E-02	4.00E-04	3.90E-07	1.19E-11	3.64E-16	1.11E-20	3.39E-25	1.03E-29

BUSTER BAKER 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 = 1.497E-12

PAGE 7

DEBRIS DECAY FROM 1 TO 21 HOURS

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

ND147	1.62E-05	3.04E-01	3.13E-01	3.12E-01	3.11E-01	3.10E-01	3.07E-01	3.05E-01	3.03E-01	3.00E-01	2.98E-01
ND149	2.88E+01	1.96E+01	1.33E+01	9.09E+00	6.15E+00	2.86E+00	8.98E-01	2.84E-01	8.93E-02	2.81E-02	8.87E-03
PM149	4.01E-03	3.14E-01	5.21E-01	6.59E-01	7.46E-01	8.38E-01	8.71E-01	8.55E-01	8.33E-01	8.00E-01	7.73E-01
PM150	3.62E-01	2.80E-01	2.17E-01	1.67E-01	1.29E-01	7.76E-02	3.59E-02	1.66E-02	7.70E-03	3.56E-03	1.65E-03
ND151	1.47E+02	4.60E+00	1.44E-01	4.49E-03	1.41E-04	1.37E-07	4.19E-12	1.28E-16	3.90E-21	1.19E-25	3.64E-30
PM151	9.33E-02	1.09E+00	1.10E+00	1.07E+00	1.04E+00	9.92E-01	9.20E-01	8.54E-01	7.95E-01	7.36E-01	6.83E-01
PM152	2.49E+02	2.43E-01	2.37E-04	2.32E-07	2.26E-10	2.16E-16	2.01E-25	1.88E-34	1.75E-43	1.63E-52	1.52E-61
SM153	3.52E-01	3.47E-01	3.42E-01	3.37E-01	3.32E-01	3.22E-01	3.08E-01	2.95E-01	2.82E-01	2.70E-01	2.58E-01
SM155	2.55E+01	4.19E+00	6.87E-01	1.12E-01	1.84E-02	4.96E-04	2.19E-06	9.63E-09	4.25E-11	1.89E-13	4.65E-16
EU155	1.88E-05	5.35E-04	6.19E-04	6.33E-04	6.35E-04						
SM156	5.32E-01	4.94E-01	4.58E-01	4.26E-01	3.95E-01	3.41E-01	2.73E-01	2.19E-01	1.76E-01	1.41E-01	1.13E-01
EU156	1.55E-03	2.54E-03	3.44E-03	4.29E-03	5.07E-03	6.47E-03	8.23E-03	9.52E-03	1.07E-02	1.15E-02	1.21E-02
EU157	8.47E-02	2.81E-01	2.68E-01	2.56E-01	2.44E-01	2.23E-01	1.95E-01	1.70E-01	1.48E-01	1.29E-01	1.13E-01
EU158	3.82E+00	1.55E+00	6.26E-01	2.53E-01	1.03E-01	1.68E-02	1.12E-03	7.42E-05	4.93E-06	3.27E-07	2.17E-08
EU159	4.56E+00	4.53E-01	4.49E-02	4.46E-03	4.42E-04	4.36E-06	4.26E-09	4.16E-12	4.06E-15	3.97E-18	3.88E-21
GD159	1.95E-02	8.56E-02	8.90E-02	8.63E-02	8.31E-02	7.69E-02	6.86E-02	6.11E-02	5.44E-02	4.84E-02	4.32E-02
TB161	2.72E-04	1.96E-03	1.94E-03	1.94E-03	1.93E-03	1.91E-03	1.89E-03	1.87E-03	1.84E-03	1.82E-03	1.80E-03

TOTAL 1.12E+04 2.20E+03 8.66E+02 5.40E+02 3.99E+02 2.70E+02 1.85E+02 1.40E+02 1.12E+02 9.22E+01 7.79E+01

BUSTER BAKER 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 = 1.497E-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	3.46E-07	3.42E-07	3.37E-07	3.24E-07	3.04E-07	2.67E-07	2.34E-07	1.80E-07	9.43E-08	2.56E-08	6.97E-09
*NA 24	5.21E-02	1.72E-02	5.67E-03	2.03E-04	7.95E-07	1.22E-11	1.85E-16	4.32E-26	0.	0.	0.
MN 54	2.43E-05	2.41E-05	2.41E-05	2.36E-05	2.34E-05	2.30E-05	2.26E-05	2.15E-05	1.92E-05	1.53E-05	1.22E-05
FE 55	7.00E-04	7.00E-04	7.00E-04	6.97E-04	6.95E-04	6.91E-04	6.84E-04	6.76E-04	6.49E-04	6.06E-04	5.62E-04
FE 59	5.23E-04	5.15E-04	5.07E-04	4.84E-04	4.48E-04	3.84E-04	3.29E-04	2.42E-04	1.12E-04	2.40E-05	5.15E-06
CG 57	4.10E-05	4.10E-05	4.07E-05	4.07E-05	4.01E-05	3.89E-05	3.80E-05	3.62E-05	3.19E-05	2.46E-05	1.91E-05
CG 58	8.87E-02	8.79E-02	8.70E-02	8.43E-02	8.06E-02	7.30E-02	6.62E-02	5.45E-02	3.36E-02	1.27E-02	4.79E-03
CG 60	1.95E-04	1.95E-04	1.95E-04	1.95E-04	1.94E-04	1.94E-04	1.93E-04	1.91E-04	1.87E-04	1.81E-04	1.74E-04
*CU 64	2.72E+00	7.41E-01	2.02E-01	4.11E-03	6.16E-06	1.40E-11	3.17E-17	1.63E-28	0.	0.	0.
*CU 67	1.23E-04	9.35E-05	7.14E-05	3.18E-05	8.27E-06	5.58E-07	3.76E-08	1.71E-10	2.39E-16	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	4.76E-07	4.72E-07	4.63E-07	4.54E-07	4.35E-07	3.95E-07	3.61E-07	3.00E-07	1.89E-07	7.52E-08	2.99E-08
W187	9.82E-03	4.90E-03	2.43E-03	3.03E-04	9.30E-06	8.87E-09	8.38E-12	7.56E-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	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	6.33E-04	5.71E-04	5.15E-04	3.79E-04	2.27E-04	8.11E-05	2.91E-05	3.72E-06	2.20E-08	2.36E-12	1.59E-12
U240	2.05E-04	6.32E-05	1.94E-05	5.62E-07	1.54E-09	1.16E-14	8.72E-20	4.92E-30	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP239	3.07E-05	4.68E-02	3.49E-02	1.44E-02	3.29E-03	1.72E-04	9.01E-06	2.47E-08	9.72E-15	2.32E-24	2.32E-24
NP240M	3.25E-07	6.36E-05	1.95E-05	5.66E-07	1.55E-09	1.17E-14	8.80E-20	4.96E-30	0.	0.	0.
*AM241	1.11E-06										
*CM242	1.42E-05	1.41E-05	1.40E-05	1.39E-05	1.36E-05	1.30E-05	1.25E-05	1.14E-05	9.32E-06	6.06E-06	3.96E-06
GE 77	6.28E-03	3.95E-03	9.05E-04	1.09E-05	6.95E-09	2.81E-15	1.13E-21	1.85E-34	0.	0.	0.
AS 77	6.49E-05	9.58E-03	6.93E-03	2.00E-03	2.35E-04	3.19E-06	4.33E-08	7.98E-12	3.70E-21	7.93E-40	1.70E-58
SE 77M	2.56E-09	2.88E-05	2.08E-05	6.02E-06	7.02E-07	9.56E-09	1.30E-10	2.40E-14	1.11E-23	2.37E-42	5.12E-61
AS 78	1.88E-02	1.67E-04	4.90E-09	4.13E-23	0.	0.	0.	0.	0.	0.	0.
BR 82	3.73E-04	2.33E-04	1.45E-04	3.53E-05	3.35E-06	3.01E-08	2.70E-10	2.18E-14	1.27E-24	4.37E-45	1.49E-65
BR 83	2.60E-01	6.86E-03	6.90E-06	7.01E-15	7.15E-30	0.	0.	0.	0.	0.	0.
KR 83M	1.35E-05	3.00E-02	3.41E-05	3.06E-14	3.14E-29	0.	0.	0.	0.	0.	0.
KR 85M	2.09E-03	1.19E-01	2.72E-03	3.23E-08	1.99E-16	7.57E-33	2.87E-49	0.	0.	0.	0.
KR 85	2.16E-06	5.68E-05	5.79E-05	5.79E-05	5.79E-05	5.79E-05	5.79E-05	5.76E-05	5.71E-05	5.59E-05	5.51E-05
KR 87	3.40E+01	6.72E-05	1.33E-10	1.03E-27	0.	0.	0.	0.	0.	0.	0.
KR 88	1.73E+01	4.55E-02	1.19E-04	2.17E-12	2.73E-25	0.	0.	0.	0.	0.	0.
RB 88	4.39E+00	5.07E-02	1.34E-04	2.43E-12	3.04E-25	0.	0.	0.	0.	0.	0.
SR 89	1.83E-06	5.48E-02	5.40E-02	5.19E-02	4.86E-02	4.25E-02	3.72E-02	2.86E-02	1.46E-02	3.85E-03	1.02E-03
SR 90	3.57E-06	3.67E-04	3.63E-04	3.63E-04	3.60E-04						
Y 90	5.29E-12	8.41E-05	1.49E-04	2.67E-04	3.41E-04	3.63E-04	3.67E-04	3.67E-04	3.63E-04	3.63E-04	3.60E-04
SR 91	5.31E-01	1.90E+00	3.41E-01	1.95E-03	3.57E-07	1.21E-14	4.11E-22	4.68E-37	0.	0.	0.

BUSTER BAKER 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 = 1.497E-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	3.57E-05	1.23E+00	2.20E-01	1.26E-03	2.32E-07	7.82E-15	2.65E-22	3.02E-37	0.	0.	0.
Y 91	1.46E-08	5.85E-02	6.91E-02	6.91E-02	6.51E-02	5.78E-02	5.14E-02	4.08E-02	2.25E-02	6.95E-03	2.13E-03
SR 92	7.37E+00	9.19E-02	1.98E-04	1.99E-12	9.32E-26	0.	0.	0.	0.	0.	0.
Y 92	3.40E-01	9.63E-01	1.07E-02	8.23E-09	4.80E-19	1.64E-39	5.62E-60	0.	0.	0.	0.
Y 93	4.20E-01	2.84E+00	5.53E-01	4.16E-03	1.20E-06	9.89E-14	8.16E-21	5.57E-35	0.	0.	0.
ZR 95	8.99E-04	1.12E-01	1.11E-01	1.08E-01	1.02E-01	9.14E-02	8.24E-02	6.66E-02	3.90E-02	1.34E-02	4.61E-03
NB 95M	1.91E-11	3.80E-04	6.94E-04	1.32E-03	1.79E-03	1.88E-03	1.74E-03	1.41E-03	8.28E-04	2.85E-04	9.81E-05
NB 95	1.00E-10	2.17E-03	4.30E-03	1.03E-02	1.91E-02	3.30E-02	4.26E-02	5.28E-02	5.08E-02	2.44E-02	9.38E-03
ZR 97	2.43E+00	4.14E+00	1.56E+00	8.24E-02	6.19E-04	3.48E-08	1.96E-12	6.19E-21	3.49E-42	0.	0.
NB 97M	1.25E-02	3.97E+00	1.49E+00	7.95E-02	5.94E-04	3.35E-08	1.88E-12	5.94E-21	3.36E-42	0.	0.
NB 97	1.22E+00	4.15E+00	1.56E+00	8.28E-02	6.23E-04	3.75E-08	2.11E-12	6.69E-21	3.76E-42	0.	0.
M0 99	8.32E-03	2.71E+00	2.12E+00	1.00E+00	2.90E-01	2.42E-02	2.02E-03	1.41E-05	5.73E-11	9.44E-22	1.55E-32
TC 99M	7.74E-08	2.38E+00	2.00E+00	9.60E-01	2.77E-01	2.31E-02	1.93E-03	1.35E-05	5.46E-11	9.01E-22	1.48E-32
RU103	1.16E-04	2.65E-01	2.60E-01	2.46E-01	2.26E-01	1.90E-01	1.59E-01	1.12E-01	4.67E-02	8.11E-03	1.41E-03
RH103M	7.74E-09	2.65E-01	2.60E-01	2.47E-01	2.26E-01	1.90E-01	1.59E-01	1.12E-01	4.68E-02	8.11E-03	1.41E-03
RU105	1.12E+00	1.07E+00	2.52E-02	3.31E-07	2.42E-15	1.29E-31	6.92E-48	0.	0.	0.	0.
RH105M	7.36E-03	1.07E+00	2.52E-02	3.32E-07	2.43E-15	1.30E-31	6.94E-48	0.	0.	0.	0.
RH105	1.21E-08	3.86E+00	2.52E+00	6.29E-01	6.20E-02	6.03E-04	5.86E-06	5.53E-10	4.80E-20	3.60E-40	2.70E-60
RU106	1.06E-03	2.01E-02	2.00E-02	1.99E-02	1.98E-02	1.94E-02	1.90E-02	1.83E-02	1.66E-02	1.38E-02	1.14E-02
RH106	1.15E-05	2.01E-02	2.00E-02	1.99E-02	1.98E-02	1.94E-02	1.90E-02	1.83E-02	1.66E-02	1.38E-02	1.14E-02
PD109	2.00E-02	5.10E-01	1.48E-01	3.68E-03	7.76E-06	3.46E-11	1.54E-16	3.05E-27	0.	0.	0.
AG109M	1.15E-04	5.10E-01	1.49E-01	3.69E-03	7.79E-06	3.46E-11	1.54E-16	3.05E-27	0.	0.	0.
PD111M	2.35E+00	1.14E-01	5.54E-03	6.35E-07	1.72E-13	1.25E-26	9.20E-40	0.	0.	0.	0.
PD111	8.36E-01	9.20E-02	4.45E-03	5.11E-07	1.38E-13	1.01E-26	7.39E-40	0.	0.	0.	0.
AG111M	6.64E-03	1.20E-01	5.84E-03	6.72E-07	1.81E-13	1.33E-26	9.73E-40	0.	0.	0.	0.
AG111	2.37E-09	6.53E-02	6.27E-02	4.78E-02	3.01E-02	1.19E-02	4.73E-03	7.46E-04	7.33E-06	7.11E-10	6.89E-14
PD1112	4.20E-01	1.91E-01	8.63E-02	8.01E-03	1.52E-04	5.53E-08	2.01E-11	2.64E-18	1.66E-35	0.	0.
AG112	1.26E-05	2.21E-01	1.02E-01	9.45E-03	1.81E-04	6.53E-08	2.37E-11	3.12E-18	1.96E-35	0.	0.
AG113	3.12E-03	3.30E-02	1.43E-03	1.16E-07	1.77E-14	4.15E-28	9.70E-42	0.	0.	0.	0.
CD1115M	7.19E-09	2.08E-04	2.05E-04	1.95E-04	1.80E-04	1.53E-04	1.31E-04	9.42E-05	4.22E-05	8.38E-06	1.68E-06
CD1115	2.78E-06	4.18E-02	3.06E-02	1.21E-02	2.55E-03	1.14E-04	5.08E-06	1.01E-08	1.79E-15	5.60E-29	1.75E-42
IN1115M	3.46E-11	4.41E-02	3.34E-02	1.32E-02	2.78E-03	1.24E-04	5.54E-06	1.10E-08	1.95E-15	6.12E-29	1.91E-42
CD1117	6.08E-02	1.33E-03	1.29E-06	1.20E-15	1.07E-30	0.	0.	0.	0.	0.	0.
IN1117M	2.92E-06	5.50E-03	6.37E-06	6.15E-15	5.46E-30	0.	0.	0.	0.	0.	0.
IN1117	1.18E-10	3.63E-03	4.30E-06	4.16E-15	3.69E-30	0.	0.	0.	0.	0.	0.
SN121	1.25E-03	7.14E-02	3.85E-02	6.07E-03	2.79E-04	5.88E-07	1.24E-09	5.52E-15	2.31E-28	0.	0.
SN123	7.07E-06	7.39E-04	7.33E-04	7.20E-04	7.00E-04	6.61E-04	6.28E-04	5.62E-04	4.25E-04	2.44E-04	1.41E-04
SN125	2.05E-02	1.91E-02	1.77E-02	1.42E-02	9.79E-03	4.69E-03	2.24E-03	5.13E-04	1.28E-05	8.08E-09	5.06E-12
SB125	1.23E-04	1.36E-04	1.49E-04	1.82E-04	2.24E-04	2.71E-04	2.92E-04	3.04E-04	2.98E-04	2.78E-04	2.60E-04
SB126	3.67E-03	3.47E-03	3.28E-03	2.78E-03	2.11E-03	1.21E-03	6.96E-04	2.29E-04	1.43E-05	6.96E-08	1.40E-08

BUSTER BAKER 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 = 1.497E-12

PAGE 10

DEBRIS DECAY FROM 1 TO 300 DAYS

ZERO TIME 1.00E+00 2.00E+00 5.00E+00 1.00E+01 2.00E+01 3.00E+01 5.00E+01 1.00E+02 2.00E+02 3.00E+02

SN127	3.71E+00	1.35E-03	4.89E-07	2.33E-17	1.46E-34	0.	0.	0.	0.	0.	0.	0.
SB127	4.33E-02	1.78E-01	1.49E-01	8.69E-02	3.56E-02	5.95E-03	9.94E-04	2.78E-05	3.63E-09	6.19E-17	1.05E-24	
TE127M	3.51E-10	2.71E-04	4.97E-04	9.64E-04	1.33E-03	1.47E-03	1.42E-03	1.26E-03	9.17E-04	4.84E-04	2.56E-04	
TE127	2.45E-02	1.27E-01	1.25E-01	7.62E-02	3.22E-02	6.61E-03	2.26E-03	1.27E-03	9.05E-04	4.79E-04	2.53E-04	
SB128	1.07E+00	1.82E-01	2.87E-02	1.12E-04	1.09E-08	1.02E-16	9.59E-25	8.45E-41	0.	0.	0.	
SB129	5.64E+00	2.88E-01	6.02E-03	5.48E-08	2.18E-16	3.44E-33	5.43E-50	0.	0.	0.	0.	
TE129M	1.06E-07	1.12E-02	1.12E-02	1.06E-02	9.57E-03	7.80E-03	6.34E-03	4.22E-03	1.52E-03	1.98E-04	2.58E-05	
TE129	4.06E+00	3.38E-01	1.41E-02	6.78E-03	6.12E-03	4.99E-03	4.07E-03	2.71E-03	9.76E-04	1.27E-04	1.65E-05	
1130	2.79E-02	7.29E-03	1.91E-03	3.41E-05	4.17E-08	6.21E-14	9.26E-20	2.06E-31	0.	0.	0.	
TE131M	1.05E-04	3.66E-01	2.10E-01	3.98E-02	2.49E-03	9.71E-06	3.80E-08	5.80E-13	5.27E-25	0.	0.	
TE131	9.64E+01	6.68E-02	3.83E-02	7.28E-03	4.54E-04	1.77E-06	6.93E-09	1.06E-13	9.64E-26	0.	0.	
1131	1.40E-02	7.56E-01	7.14E-01	5.74E-01	3.78E-01	1.59E-01	6.75E-02	1.21E-02	1.63E-04	2.97E-08	5.41E-12	
XE131M	3.80E-11	3.50E-04	6.65E-04	1.39E-03	1.98E-03	1.96E-03	1.46E-03	6.01E-04	4.01E-05	1.20E-07	3.38E-10	
TE132	9.54E-01	1.89E+00	1.53E+00	8.04E-01	2.77E-01	3.28E-02	3.89E-03	5.46E-05	1.28E-09	7.00E-19	3.82E-28	
1132	2.34E+00	1.95E+00	1.57E+00	8.27E-01	2.86E-01	3.38E-02	4.01E-03	5.63E-05	1.32E-09	7.17E-19	3.93E-28	
1133	9.74E-01	5.43E+00	2.45E+00	2.27E-01	4.33E-03	1.57E-06	5.70E-10	7.51E-17	4.72E-34	0.	0.	
XE133M	4.15E-08	5.13E-02	6.07E-02	3.56E-02	8.36E-03	3.92E-04	1.83E-05	3.96E-08	8.68E-15	4.15E-28	1.99E-41	
XE133	7.24E-07	9.85E-01	1.32E+00	1.18E+00	6.44E-01	1.74E-01	4.68E-02	3.37E-03	4.70E-06	9.11E-12	1.77E-17	
1135	1.64E+01	2.68E+00	2.24E-01	1.30E-04	5.29E-10	8.74E-21	1.44E-31	3.90E-53	0.	0.	0.	
XE135M	1.82E-03	8.36E-01	6.99E-02	4.07E-05	1.65E-10	2.72E-21	4.48E-32	1.22E-53	0.	0.	0.	
XE135	1.89E+00	7.23E+00	1.77E+00	1.01E-02	1.24E-06	1.74E-14	2.44E-22	4.82E-38	0.	0.	0.	
CS136	1.86E-02	1.76E-02	1.67E-02	1.42E-02	1.09E-02	6.39E-03	3.76E-03	1.29E-03	8.97E-05	4.32E-07	2.10E-09	
CS137	8.53E-05	9.19E-04	9.14E-04	9.09E-04	9.04E-04							
BA137M	1.80E-07	8.58E-04	8.53E-04	8.48E-04	8.43E-04							
BA139	1.21E+01	1.29E-03	7.61E-09	1.57E-24	0.	0.	0.	0.	0.	0.	0.	
BA140	1.01E-01	5.94E-01	5.66E-01	4.79E-01	3.66E-01	2.13E-01	1.24E-01	4.19E-02	2.80E-03	1.25E-05	5.51E-08	
LA140	2.39E-07	2.07E-01	3.33E-01	4.61E-01	4.09E-01	2.45E-01	1.42E-01	4.84E-02	3.22E-03	1.43E-05	6.38E-08	
LA141	1.81E+00	7.20E-01	1.01E-02	2.79E-08	1.53E-17	4.56E-36	1.36E-54	0.	0.	0.	0.	
CE141	2.24E-07	2.49E-01	2.47E-01	2.32E-01	2.08E-01	1.68E-01	1.36E-01	8.83E-02	3.03E-02	3.57E-03	4.21E-04	
LA142	1.24E+01	2.71E-03	5.25E-08	3.86E-22	0.	0.	0.	0.	0.	0.	0.	
CE143	7.19E-02	2.96E+00	1.79E+00	3.94E-01	3.17E-02	2.05E-04	1.32E-06	5.55E-11	6.26E-22	0.	0.	
PR143	2.10E-08	1.89E-01	2.94E-01	3.80E-01	3.26E-01	1.98E-01	1.20E-01	4.33E-02	3.46E-03	2.20E-05	1.40E-07	
CE144	2.68E-03	1.91E-02	1.91E-02	1.89E-02	1.87E-02	1.83E-02	1.78E-02	1.70E-02	1.50E-02	1.18E-02	9.23E-03	
PR144	7.35E-07	1.91E-02	1.91E-02	1.89E-02	1.87E-02	1.83E-02	1.78E-02	1.70E-02	1.50E-02	1.18E-02	9.23E-03	
PR145	1.21E-01	1.23E+00	7.64E-02	1.81E-05	1.65E-11	1.37E-23	1.13E-35	0.	0.	0.	0.	
ND147	1.62E-05	2.71E-01	2.55E-01	2.12E-01	1.55E-01	8.32E-02	4.44E-02	1.28E-02	5.59E-04	1.09E-06	2.11E-09	
PM147	4.48E-14	2.03E-04	3.93E-04	8.98E-04	1.55E-03	2.37E-03	2.80E-03	3.12E-03	3.15E-03	2.93E-03	2.73E-03	
ND149	2.88E+01	2.79E-03	2.70E-07	2.46E-19	2.10E-39	0.	0.	0.	0.	0.	0.	
PM149	4.01E-03	7.40E-01	5.42E-01	2.12E-01	4.42E-02	1.93E-03	8.38E-05	1.60E-07	2.52E-14	6.21E-28	1.55E-41	
PM150	3.62E-01	7.64E-04	1.61E-06	1.51E-14	6.32E-28	0.	0.	0.	0.	0.	0.	

BUSTER BAKER 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 = 1.497E-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	9.33E-02	6.36E-01	3.51E-01	5.91E-02	3.03E-03	7.95E-06	2.10E-08	1.45E-13	1.81E-26	0.	0.
SM153	3.52E-01	2.47E-01	1.74E-01	6.00E-02	1.02E-02	2.97E-04	8.62E-06	7.24E-09	1.49E-16	6.36E-32	2.70E-47
SM156	5.32E-01	9.06E-02	1.55E-02	7.62E-05	1.10E-08	2.25E-16	4.65E-24	1.98E-39	0.	0.	0.
EU155	1.88E-05	6.35E-04	6.35E-04	6.35E-04	6.33E-04	6.30E-04	6.28E-04	6.23E-04	6.11E-04	5.86E-04	5.64E-04
EU156	1.55E-03	1.26E-02	1.40E-02	1.26E-02	9.98E-03	6.27E-03	3.95E-03	1.57E-03	1.55E-04	1.53E-06	1.51E-08
EU157	8.47E-02	9.79E-02	3.29E-02	1.23E-03	5.19E-06	9.15E-11	1.62E-15	5.04E-25	0.	0.	0.
GD159	1.95E-02	3.85E-02	1.53E-02	9.54E-04	9.39E-06	9.10E-10	8.82E-14	8.28E-22	7.07E-42	0.	0.
TB161	2.72E-04	1.78E-03	1.60E-03	1.19E-03	7.18E-04	2.63E-04	9.62E-05	1.29E-05	8.53E-08	3.69E-12	1.60E-16
TOTAL	2.66E+02	6.61E+01	2.93E+01	1.03E+01	4.80E+00	2.18E+00	1.41E+00	8.13E-01	3.71E-01	1.41E-01	7.41E-02

BUSTER BAKER 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 = 1.497E-12

PAGE 12

DEBRIS DECAY FROM 1 TO 50 YEARS

ZERO TIME 1.00E+00 1.50E+00 2.00E+00 3.50E+00 5.00E+00 7.00E+00 1.00E+01 2.00E+01 3.50E+01 5.00E+01

* BE 7	3.46E-07	2.99E-09	2.78E-10	2.58E-11	2.08E-14	1.66E-17	1.24E-21	7.96E-28	0.	0.	0.	0.
MN 54	2.43E-05	1.05E-05	6.90E-06	4.53E-06	1.30E-06	3.70E-07	6.96E-08	5.69E-09	1.34E-12	4.83E-16	1.75E-23	
FE 59	5.23E-04	1.89E-06	1.13E-07	6.81E-09	1.48E-12	3.19E-16	4.16E-21	1.95E-28	0.	0.	0.	
CD 57	4.10E-05	1.62E-05	1.01E-05	6.35E-06	1.57E-06	3.86E-07	5.96E-09	3.62E-09	3.16E-13	2.60E-19	0.	
CD 58	8.87E-02	2.55E-03	4.32E-04	7.32E-05	3.57E-07	1.74E-09	1.43E-12	3.40E-17	1.30E-32	0.	0.	
CD 60	1.95E-04	1.71E-04	1.59E-04	1.49E-04	1.22E-04	1.00E-04	7.71E-05	5.20E-05	1.39E-05	1.94E-06	2.67E-07	
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
W185	4.76E-07	1.64E-08	3.03E-09	5.61E-10	3.57E-12	2.28E-14	2.69E-17	1.09E-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	6.33E-04	1.58E-12	1.54E-12	1.50E-12	1.40E-12	1.30E-12	1.18E-12	1.03E-12	6.38E-13	3.13E-13	1.54E-13	
* AM241	1.11E-06	1.11E-06	1.11E-06	1.11E-06	1.12E-06	1.12E-06	1.12E-06	1.13E-06	1.13E-06	1.12E-06	1.11E-06	
* CM242	1.42E-05	3.00E-06	1.38E-06	6.35E-07	6.18E-08	6.02E-09	2.70E-10	2.55E-12	7.34E-17	6.84E-17	6.38E-17	
KR 85	2.16E-06	5.37E-05	5.21E-05	5.04E-05	4.59E-05	4.15E-05	3.65E-05	3.01E-05	1.59E-05	6.07E-06	2.32E-06	
SR 89	1.83E-06	4.28E-04	3.74E-05	3.29E-06	2.21E-09	1.49E-12	8.82E-17	4.01E-23	2.91E-44	0.	0.	
SR 90	3.57E-06	3.57E-04	3.54E-04	3.50E-04	3.37E-04	3.25E-04	3.09E-04	2.87E-04	2.24E-04	1.55E-04	1.07E-04	
Y 90	5.29E-12	3.57E-04	3.54E-04	3.50E-04	3.37E-04	3.25E-04	3.09E-04	2.87E-04	2.24E-04	1.55E-04	1.07E-04	
Y 91	1.46E-06	9.89E-04	1.15E-04	1.34E-05	2.09E-08	3.29E-11	6.01E-15	1.48E-20	2.98E-39	0.	0.	
ZR 95	8.99E-04	2.31E-03	3.29E-04	4.69E-05	1.37E-07	3.98E-10	1.65E-13	1.39E-18	1.70E-35	0.	0.	
NB 95M	1.91E-11	4.89E-05	6.98E-06	9.97E-07	2.90E-09	8.43E-12	3.49E-15	2.95E-20	3.61E-37	0.	0.	
NB 95	1.00E-10	4.97E-03	7.13E-04	1.02E-04	2.95E-07	8.55E-10	3.57E-13	3.01E-18	3.69E-35	0.	0.	
RU103	1.16E-04	4.51E-04	1.84E-05	7.59E-07	5.18E-11	3.55E-15	9.97E-21	4.69E-29	0.	0.	0.	
RH103M	7.74E-09	4.52E-04	1.84E-05	7.59E-07	5.18E-11	3.56E-15	9.97E-21	4.69E-29	0.	0.	0.	
RU106	1.06E-03	1.01E-02	7.15E-03	5.07E-03	1.80E-03	6.40E-04	1.61E-04	2.04E-05	2.06E-08	6.61E-13	2.12E-17	
RH106	1.15E-05	1.01E-02	7.15E-03	5.07E-03	1.80E-03	6.40E-04	1.61E-04	2.04E-05	2.06E-08	6.61E-13	2.12E-17	
SN123	7.07E-06	9.79E-05	3.55E-05	1.29E-05	6.19E-07	2.97E-08	5.18E-10	1.19E-12	1.91E-21	1.23E-34	7.91E-48	
SB125	1.23E-04	2.48E-04	2.18E-04	1.92E-04	1.31E-04	8.88E-05	5.31E-05	2.46E-05	1.89E-06	4.02E-08	8.56E-10	
TE125M	3.31E-12	1.01E-04	8.99E-05	7.92E-05	5.41E-05	3.68E-05	2.20E-05	1.02E-05	7.81E-07	1.66E-08	3.54E-10	
TE127M	3.51E-10	1.68E-04	5.25E-05	1.64E-05	5.05E-07	1.55E-08	1.49E-10	1.40E-13	1.15E-23	8.63E-39	6.43E-54	
TE127	2.45E-02	1.66E-04	5.19E-05	1.63E-05	4.99E-07	1.54E-08	1.48E-10	1.39E-13	1.14E-23	8.51E-39	6.37E-54	
CS137	8.53E-05	8.99E-04	8.89E-04	8.79E-04	8.48E-04	8.17E-04	7.82E-04	7.30E-04	5.77E-04	4.10E-04	2.90E-04	
BA137M	1.80E-07	8.43E-04	8.33E-04	8.22E-04	7.92E-04	7.66E-04	7.30E-04	6.84E-04	5.41E-04	3.83E-04	2.71E-04	
CE141	2.24E-07	9.67E-05	1.94E-06	3.91E-08	3.18E-13	2.59E-18	4.25E-25	2.82E-35	0.	0.	0.	
CE144	2.68E-03	7.87E-03	5.06E-03	3.23E-03	8.47E-04	2.23E-04	3.75E-05	2.59E-06	3.48E-10	5.46E-16	8.51E-22	
PR144	7.35E-07	7.87E-03	5.06E-03	3.23E-03	8.47E-04	2.23E-04	3.75E-05	2.59E-06	3.48E-10	5.46E-16	8.51E-22	
PM147	4.48E-14	2.60E-03	2.28E-03	2.00E-03	1.34E-03	9.03E-04	5.30E-04	2.41E-04	1.71E-05	3.24E-07	6.12E-09	
EU155	1.88E-05	5.49E-04	5.10E-04	4.75E-04	3.82E-04	3.07E-04	2.29E-04	1.48E-04	3.46E-05	3.89E-06	4.38E-07	

TOTAL 1.20E-01 5.49E-02 3.20E-02 2.22E-02 9.70E-03 5.44E-03 3.48E-03 2.54E-03 1.65E-03 1.12E-03 7.79E-04

APPENDIX B
DETAILED RESULTS FOR EVENT BUSTER CHARLIE

BUSTER CHARLIE
 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 = 3.216E-13

PAGE 2

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.03E+02	1.18E+04
1.00E+00	3.12E+01	2.49E+03
2.00E+00	1.25E+01	9.07E+02
3.00E+00	6.88E+00	5.43E+02
4.00E+00	4.40E+00	4.02E+02
5.00E+00	2.36E+00	2.78E+02
6.00E+00	1.39E+00	1.96E+02
7.00E+00	1.00E+00	1.52E+02
8.00E+00	7.84E-01	1.24E+02
9.00E+00	6.43E-01	1.04E+02
1.00E+01	5.42E-01	8.94E+01
1.10E+01	4.60E-01	7.75E+01
1.20E+01	2.10E-01	3.82E+01
1.30E+01	7.82E-02	1.41E+01
1.40E+01	3.58E-02	5.49E+00
1.50E+01	1.52E-02	2.06E+00
1.60E+01	9.38E-03	1.29E+00
1.70E+01	4.95E-03	7.44E-01
1.80E+01	2.16E-03	3.44E-01
1.90E+01	8.01E-04	1.30E-01
2.00E+01	3.09E-04	6.34E-02
1.00E+00 DAYS	1.73E-04	4.49E-02
1.50E+00	4.54E-05	2.39E-02
2.00E+00	2.31E-05	1.62E-02
2.50E+00	1.33E-05	7.39E-03
3.00E+00	1.05E-05	4.60E-03
3.50E+00	8.79E-06	3.32E-03
4.00E+00	7.38E-06	2.64E-03
4.50E+00	4.94E-06	1.83E-03
5.00E+00	3.27E-06	1.25E-03
	2.27E-06	8.67E-04
YEARS		

BUSTER CHARLIE 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 = 3.216E-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	2.97E-07	2.97E-07	2.97E-07	2.97E-07	2.96E-07	2.96E-07	2.95E-07	2.94E-07	2.94E-07	2.94E-07	
*NA 24	4.48E-02	4.28E-02	4.09E-02	3.90E-02	3.72E-02	3.39E-02	2.95E-02	2.58E-02	2.24E-02	1.95E-02	
*MN 54	2.04E-05	2.02E-05	2.02E-05	2.02E-05							
*FE 55	3.60E-05										
*FE 59	2.99E-05	2.99E-05	2.99E-05	2.99E-05	2.99E-05	2.99E-05	2.98E-05	2.98E-05	2.97E-05	2.96E-05	
*CO 57	3.65E-05										
*CO 58	8.46E-02	8.46E-02	8.46E-02	8.46E-02	8.45E-02	8.45E-02	8.43E-02	8.43E-02	8.41E-02	8.41E-02	
*CO 60	1.52E-04										
*CU 64	2.34E+00	2.21E+00	2.10E+00	1.99E+00	1.88E+00	1.69E+00	1.43E+00	1.22E+00	1.04E+00	8.82E-01	
*CU 67	1.05E-04	1.04E-04	1.03E-04	1.02E-04	1.01E-04	9.82E-05	9.46E-05	9.19E-05	8.90E-05	8.55E-05	
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
W187	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
PB203	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
U237	1.53E-01	1.52E-01	1.51E-01	1.50E-01	1.49E-01	1.47E-01	1.45E-01	1.43E-01	1.41E-01	1.40E-01	
U239	3.26E+03	5.56E+02	9.49E+01	1.62E+01	2.74E+00	7.99E-02	3.96E-04	1.96E-06	9.68E-09	4.79E-11	2.37E-13
U240	5.22E-01	4.97E-01	4.73E-01	4.51E-01	4.29E-01	3.89E-01	3.35E-01	2.89E-01	2.49E-01	2.15E-01	1.85E-01
NP239	1.12E-02	1.87E+01	2.16E+01	2.20E+01	2.18E+01	2.13E+01	2.04E+01	1.97E+01	1.90E+01	1.84E+01	1.77E+01
NP240M	8.25E-04	4.99E-01	4.77E-01	4.55E-01	4.33E-01	3.91E-01	3.38E-01	2.92E-01	2.51E-01	2.17E-01	1.87E-01
NP240	2.09E-11	1.07E-11	5.58E-12	2.88E-12	1.49E-12	3.98E-13	5.49E-14	7.58E-15	1.05E-15	1.44E-16	1.99E-17
* AM241	9.55E-06										
* CM242	1.30E-06										
GE 75	5.93E-06	2.88E-02	1.73E-02	1.04E-02	6.28E-03	2.28E-03	4.97E-04	1.09E-04	2.38E-05	5.18E-06	1.13E-06
GE 77	3.79E-03	9.77E-03	9.19E-03	8.64E-03	8.14E-03	7.20E-03	5.99E-03	4.98E-03	4.15E-03	3.44E-03	2.87E-03
AS 77	3.92E-05	6.20E-03	6.27E-03	6.31E-03	6.35E-03	6.39E-03	6.39E-03	6.35E-03	6.25E-03	6.13E-03	5.97E-03
SE 77M	1.55E-09	1.86E-05	1.88E-05	1.90E-05	1.90E-05	1.91E-05	1.93E-05	1.91E-05	1.88E-05	1.84E-05	1.78E-05
GE 78	5.80E-01	3.62E-01	2.26E-01	1.41E-01	8.80E-02	3.42E-02	8.32E-03	2.01E-03	4.91E-04	1.19E-04	2.90E-05
AS 78	1.04E-02	1.73E-01	2.13E-01	2.00E-01	1.67E-01	9.87E-02	3.66E-02	1.22E-02	3.77E-03	1.13E-03	3.26E-04
AS 79	1.17E+01	1.15E-01	1.13E-03	1.11E-05	1.10E-07	1.06E-11	1.01E-17	9.67E-24	9.22E-30	8.80E-36	8.41E-42
SE 79M	1.73E-02	2.03E-01	2.00E-03	1.97E-05	1.94E-07	1.87E-11	1.79E-17	1.71E-23	1.63E-29	1.55E-35	1.48E-41
BR 80	7.42E-02	7.00E-03	6.58E-04	6.19E-05	5.83E-06	5.17E-08	4.33E-11	3.61E-14	3.00E-17	2.51E-20	2.09E-23
SE 81M	6.17E-02	2.88E+00	1.39E+00	6.68E-01	3.21E-01	7.51E-02	8.40E-03	9.42E-04	1.06E-04	1.18E-05	1.33E-06
SE 81	7.54E-01	3.40E+00	1.97E+00	9.83E-01	4.77E-01	1.11E-01	1.25E-02	1.40E-03	1.57E-04	1.76E-05	1.97E-06
BR 82	3.82E-04	3.74E-04	3.67E-04	3.60E-04	3.53E-04	3.39E-04	3.20E-04	3.02E-04	2.85E-04	2.68E-04	2.53E-04
SE 83	3.53E+01	6.69E+00	1.27E+00	2.40E-01	4.54E-02	1.64E-03	1.11E-05	7.56E-08	5.16E-10	3.50E-12	2.22E-14
BR 83	2.93E-01	4.38E+00	4.05E+00	3.19E+00	2.42E+00	1.37E+00	5.78E-01	2.43E-01	1.03E-01	4.34E-02	1.83E-02
KR 83M	1.52E-05	9.91E-01	2.02E+00	2.51E+00	2.59E+00	2.16E+00	1.28E+00	6.56E-01	3.16E-01	1.46E-01	6.56E-02

BUSTER CHARLIE 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 = 3.216E-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	7.48E-02	1.29E+01	3.49E+00	9.45E-01	2.55E-01	1.87E-02	3.69E-04	7.28E-06	1.44E-07	2.85E-09	5.63E-11
KR 85M	3.63E-03	7.78E+00	6.62E+00	5.65E+00	4.83E+00	3.53E+00	2.20E+00	1.37E+00	8.55E-01	5.32E-01	3.32E-01
KR 87	6.07E+01	3.51E+01	2.03E+01	1.17E+01	6.77E+00	2.27E+00	4.40E-01	8.53E-02	1.65E-02	3.20E-03	6.18E-04
KR 88	3.48E+01	2.72E+01	2.12E+01	1.65E+01	1.29E+01	7.85E+00	3.75E+00	1.78E+00	8.48E-01	4.04E-01	1.92E-01
RB 88	8.85E+00	2.75E+01	2.34E+01	1.85E+01	1.44E+01	8.79E+00	4.20E+00	2.00E+00	9.53E-01	4.53E-01	2.15E-01
RB 89	4.21E+01	3.95E+01	2.66E+00	1.79E-01	1.20E-02	5.42E-05	1.64E-08	4.95E-12	1.51E-15	4.57E-19	1.39E-22
SR 89	3.22E-06	1.13E-01	1.21E-01	1.21E-01	1.21E-01	1.21E-01	1.21E-01	1.20E-01	1.20E-01	1.20E-01	1.20E-01
SR 90	6.49E-06	6.67E-04									
SR 91	8.69E-01	1.62E+01	1.51E+01	1.41E+01	1.31E+01	1.13E+01	9.13E+00	7.38E+00	5.96E+00	4.78E+00	3.86E+00
YY 91M	5.85E-05	5.58E+00	7.60E+00	8.15E+00	8.04E+00	7.22E+00	5.91E+00	4.75E+00	3.83E+00	3.09E+00	2.49E+00
YY 91	2.39E-08	4.96E-03	1.14E-02	1.83E-02	2.49E-02	3.73E-02	5.30E-02	6.56E-02	7.60E-02	8.42E-02	9.08E-02
SR 92	1.11E+01	4.94E+01	3.83E+01	2.96E+01	2.29E+01	1.37E+01	6.38E+00	2.96E+00	1.37E+00	6.38E-01	2.97E-01
YY 92	5.10E-01	1.04E+01	1.63E+01	1.94E+01	2.06E+01	1.96E+01	1.50E+01	1.02E+01	6.58E+00	4.05E+00	2.44E+00
SR 93	4.42E+02	7.60E+00	4.20E-02	2.32E-04	1.28E-06	3.91E-11	6.60E-18	1.11E-24	1.88E-31	3.17E-38	5.34E-45
YY 93	5.39E-01	1.74E+01	1.64E+01	1.53E+01	1.43E+01	1.25E+01	1.02E+01	8.31E+00	6.75E+00	5.54E+00	4.50E+00
YY 94	6.41E+01	8.76E+01	1.13E+01	1.45E+00	1.88E-01	3.12E-03	6.68E-06	1.43E-08	3.06E-11	6.68E-14	3.70E-15
YY 95	2.76E+02	2.60E+01	5.72E-01	1.26E-02	2.78E-04	1.35E-07	1.44E-12	1.54E-17	1.65E-22	1.76E-27	1.88E-32
ZR 95	1.04E-03	1.35E-01	1.38E-01	1.37E-01	1.37E-01						
NB 95	1.15E-10	8.35E-05	1.95E-04	3.06E-04	4.18E-04	6.40E-04	9.72E-04	1.31E-03	1.63E-03	1.97E-03	2.29E-03
ZR 97	2.47E+00	1.08E+01	1.03E+01	9.92E+00	9.50E+00	8.77E+00	7.75E+00	6.86E+00	6.09E+00	5.37E+00	4.77E+00
NB 97M	1.27E-02	1.04E+01	9.92E+00	9.54E+00	9.16E+00	8.43E+00	7.45E+00	6.60E+00	5.84E+00	5.15E+00	4.56E+00
NB 97	1.24E+00	5.41E+00	7.62E+00	8.69E+00	9.12E+00	9.07E+00	8.26E+00	7.37E+00	6.52E+00	5.75E+00	5.11E+00
NB 98	1.40E+01	6.18E+00	2.73E+00	1.21E+00	5.36E-01	1.05E-01	9.07E-03	7.83E-04	6.82E-05	5.91E-06	5.08E-07
MD 99	7.35E-03	3.03E+00	3.00E+00	2.97E+00	2.94E+00	2.88E+00	2.79E+00	2.71E+00	2.63E+00	2.55E+00	2.47E+00
TC 99M	6.84E-08	2.89E-01	5.43E-01	7.68E-01	9.64E-01	1.29E+00	1.63E+00	1.85E+00	1.99E+00	2.06E+00	2.10E+00
MD101	1.04E+02	4.67E+01	2.71E+00	1.57E-01	9.13E-03	3.06E-05	5.94E-09	1.16E-12	2.25E-16	4.37E-20	8.52E-24
TC101	4.37E+00	1.31E+02	1.43E+01	1.18E+00	8.56E-02	3.86E-04	9.65E-08	2.16E-11	4.59E-15	9.44E-19	1.91E-22
MD102	8.44E+02	1.92E+01	4.38E-01	1.00E-02	2.28E-04	1.19E-07	1.41E-12	1.67E-17	1.98E-22	2.35E-27	2.79E-32
TC102M	5.43E-01	1.63E+01	3.73E-01	8.52E-03	1.94E-04	1.00E-07	1.19E-12	1.41E-17	1.68E-22	1.99E-27	2.36E-32
TC102	2.54E+03	9.68E+00	2.21E-01	5.02E-03	1.15E-04	5.99E-08	7.11E-13	8.44E-18	1.00E-22	1.19E-27	1.41E-32
RU103	5.92E-05	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.37E-01	1.36E-01	1.36E-01	1.36E-01	1.35E-01	1.35E-01
RH103M	3.95E-09	7.09E-02	1.05E-01	1.22E-01	1.30E-01	1.35E-01	1.36E-01	1.36E-01	1.36E-01	1.35E-01	1.35E-01
TC104	4.99E+01	3.59E+01	3.59E+00	3.55E-01	3.51E-02	3.46E-04	3.38E-07	3.30E-10	3.22E-13	3.15E-16	3.08E-19
RU105	3.85E-01	1.33E+01	1.14E+01	9.74E+00	8.34E+00	6.09E+00	3.82E+00	2.39E+00	1.49E+00	9.35E-01	5.87E-01
RH105M	2.53E-03	1.33E+01	1.14E+01	9.77E+00	8.34E+00	6.12E+00	3.82E+00	2.39E+00	1.50E+00	9.38E-01	5.87E-01
RH105	4.15E-09	2.71E-01	5.02E-01	6.93E-01	8.53E-01	1.09E+00	1.31E+00	1.40E+00	1.43E+00	1.42E+00	1.38E+00
RU106	3.23E-04	6.12E-03									
RH106	3.49E-06	6.12E-03									
RH107	7.02E-02	9.53E+00	1.44E+00	2.17E-01	3.28E-02	7.49E-04	2.58E-06	8.89E-09	3.06E-11	1.05E-14	1.04E-17
PD107M	1.46E-04	1.94E+00	2.93E-01	4.43E-02	6.68E-03	1.52E-04	5.25E-07	1.81E-09	6.22E-12	2.15E-14	7.33E-17

BUSTER CHARLIE 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 = 3.216E-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	4.14E-03	3.43E-01	3.26E-01	3.09E-01	2.94E-01	2.65E-01	2.28E-01	1.95E-01	1.67E-01	1.43E-01	1.23E-01
AG109M	2.39E-05	3.43E-01	3.26E-01	3.10E-01	2.94E-01	2.66E-01	2.28E-01	1.95E-01	1.67E-01	1.43E-01	1.23E-01
PD111M	5.15E-01	4.53E-01	4.00E-01	3.53E-01	3.11E-01	2.42E-01	1.66E-01	1.14E-01	7.78E-02	5.32E-02	3.65E-02
AG111	1.83E-01	3.30E-01	3.17E-01	2.82E-01	2.50E-01	1.94E-01	1.33E-01	9.13E-02	6.24E-02	4.28E-02	2.94E-02
AG111	1.46E-03	4.46E-01	4.19E-01	3.75E-01	3.30E-01	2.56E-01	1.75E-01	1.20E-01	8.20E-02	5.63E-02	3.84E-02
PD112	1.02E-01	9.88E-02	9.54E-02	9.23E-02	8.95E-02	8.36E-02	7.58E-02	6.87E-02	6.22E-02	5.63E-02	5.10E-02
AG112	3.07E-06	1.95E-02	3.45E-02	4.63E-02	5.50E-02	6.59E-02	7.24E-02	7.21E-02	6.87E-02	6.40E-02	5.91E-02
AG113	1.02E-03	2.18E-01	1.91E-01	1.68E-01	1.47E-01	1.13E-01	7.65E-02	5.17E-02	3.49E-02	3.35E-02	1.59E-02
AG115	3.81E-01	4.08E-01	5.08E-02	6.35E-03	7.96E-04	1.24E-05	2.43E-08	4.75E-11	9.20E-14	9.14E-163	8.47E-17
CD115M	3.12E-09	8.29E-05	9.32E-05	9.44E-05	9.44E-05	9.44E-05	9.41E-05	9.41E-05	9.38E-05	9.35E-05	9.35E-05
CD115	1.20E-06	2.27E-02	2.44E-02	2.44E-02	2.41E-02	2.34E-02	2.26E-02	2.17E-02	2.09E-02	2.01E-02	1.93E-02
IN115M	1.50E-11	2.50E-03	5.57E-03	8.26E-03	1.05E-02	1.40E-02	1.73E-02	1.91E-02	1.99E-02	2.01E-02	1.99E-02
CD117	2.69E-02	4.47E-01	3.37E-01	2.52E-01	1.89E-01	1.06E-01	4.44E-02	1.87E-02	7.87E-03	3.31E-03	1.39E-03
IN117M	1.29E-06	1.56E-01	2.25E-01	2.44E-01	2.36E-01	1.86E-01	1.06E-01	5.45E-02	2.62E-02	2.21E-02	5.48E-03
IN117	5.20E-11	2.84E-02	6.87E-02	9.54E-02	1.06E-01	9.80E-02	6.24E-02	3.34E-02	1.66E-02	7.81E-03	3.59E-03
CD118	1.78E+00	7.64E-01	3.28E-01	1.40E-01	5.99E-02	1.10E-02	8.60E-04	6.72E-05	5.29E-06	4.14E-07	3.25E-08
IN118	1.18E-01	7.64E-01	3.28E-01	1.40E-01	5.99E-02	1.10E-02	8.60E-04	6.75E-05	5.29E-06	4.14E-07	3.25E-08
CD119	4.44E+00	6.92E-02	1.08E-03	1.69E-05	2.64E-07	6.46E-11	2.46E-16	9.41E-22	3.58E-27	1.37E-32	5.23E-38
IN119M	6.69E-03	7.49E-01	8.15E-02	8.22E-03	8.18E-04	8.05E-06	7.85E-09	7.69E-12	7.49E-15	7.32E-18	7.16E-21
IN119	3.30E-01	3.94E-02	4.57E-03	4.64E-04	4.64E-05	4.54E-07	4.44E-10	4.34E-13	4.24E-16	4.14E-19	4.04E-22
SN121	5.46E-04	5.62E-02	5.46E-02	5.33E-02	5.20E-02	4.94E-02	4.56E-02	4.24E-02	3.92E-02	3.63E-02	3.37E-02
SN123M	3.08E-01	5.75E-01	2.04E-01	7.21E-02	2.55E-02	3.18E-03	1.41E-04	6.23E-06	2.76E-07	1.22E-08	5.38E-10
SN123	2.89E-06	3.02E-04	3.02E-04								
SN125	8.15E-03	8.13E-03	8.11E-03	8.09E-03	8.04E-03	8.00E-03	7.94E-03	7.85E-03	7.79E-03	7.70E-03	7.64E-03
SB125	4.89E-05	4.91E-05	4.94E-05	4.96E-05	4.98E-05	5.02E-05	5.11E-05	5.17E-05	5.23E-05	5.30E-05	5.36E-05
SB126	1.55E-03	1.54E-03	1.54E-03	1.54E-03	1.53E-03	1.52E-03	1.51E-03	1.50E-03	1.49E-03	1.48E-03	1.47E-03
SN127	2.40E+00	1.72E+00	1.24E+00	8.91E-01	6.41E-01	3.31E-01	1.23E-01	4.57E-02	1.69E-02	6.30E-03	2.34E-03
SB127	2.80E-02	9.64E-02	1.07E-01	1.14E-01	1.19E-01	1.24E-01	1.26E-01	1.24E-01	1.22E-01	1.20E-01	1.17E-01
TE127	1.58E-02	1.97E-02	2.39E-02	2.83E-02	3.28E-02	4.11E-02	5.26E-02	6.14E-02	6.83E-02	7.37E-02	7.72E-02
SN128	1.61E+01	7.92E+00	3.92E+00	1.94E+00	9.58E-01	2.34E-01	2.82E-02	3.41E-03	4.11E-04	4.98E-05	6.01E-06
SB128M	8.18E-03	9.03E+00	4.69E+00	2.31E+00	1.14E+00	2.79E-01	3.36E-02	4.06E-03	4.90E-04	5.92E-05	7.16E-06
SB128	6.77E-01	6.52E-01	6.13E-01	5.75E-01	5.37E-01	4.60E-01	3.67E-01	2.91E-01	2.31E-01	1.84E-01	1.46E-01
SN129M	1.04E+01	5.19E+00	2.60E+00	1.30E+00	6.51E-01	1.63E-01	2.04E-02	2.55E-03	3.18E-04	3.98E-05	4.97E-06
SN129	6.95E+01	6.82E-01	6.73E-03	6.64E-05	6.51E-07	6.33E-11	6.02E-17	5.76E-23	5.50E-29	5.23E-35	5.01E-41
SB129	3.91E+00	6.55E+00	6.16E+00	5.50E+00	4.84E+00	3.59E+00	2.24E+00	1.39E+00	8.53E-01	5.28E-01	3.25E-01
TE129M	7.39E-08	8.18E-04	1.68E-03	2.48E-03	3.18E-03	4.31E-03	5.45E-03	6.16E-03	6.60E-03	6.86E-03	7.04E-03
TE129	2.81E+00	3.87E+00	4.53E+00	4.71E+00	4.53E+00	3.75E+00	2.50E+00	1.57E+00	9.81E-01	6.07E-01	3.76E-01
SB130M	3.92E-01	7.41E-01	1.94E-03	5.11E-06	1.34E-08	9.28E-14	1.69E-21	3.07E-29	5.58E-37	1.01E-44	1.84E-52
SB130	6.72E+01	2.03E+01	5.79E+00	1.64E+00	4.64E-01	3.73E-02	8.51E-04	1.94E-05	4.43E-07	1.01E-08	2.30E-10

BUSTER CHARLIE 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 = 3.216E-13

PAGE 6

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	1.87E-02	1.77E-02	1.68E-02	1.58E-02	1.50E-02	1.34E-02	1.13E-02	9.58E-03	8.09E-03	6.85E-03	5.79E-03
SB131	1.57E+02	4.10E+01	6.71E+00	1.10E+00	1.81E-01	4.87E-03	2.14E-05	9.46E-08	4.16E-10	1.84E-12	9.16E-15
TE131M	7.56E-05	3.95E-01	4.51E-01	4.51E-01	4.43E-01	4.23E-01	3.95E-01	3.68E-01	3.44E-01	3.21E-01	2.99E-01
TE131	6.96E+01	7.56E+01	2.46E+01	6.41E+00	1.56E+00	1.46E-01	7.26E-02	6.71E-02	6.26E-02	5.86E-02	5.46E-02
I131	1.01E-02	3.50E-01	5.16E-01	5.66E-01	5.76E-01	5.81E-01	5.81E-01	5.76E-01	5.71E-01	5.71E-01	5.71E-01
TE132	8.21E-01	1.99E+00	1.98E+00	1.96E+00	1.94E+00	1.91E+00	1.86E+00	1.81E+00	1.76E+00	1.71E+00	1.67E+00
I132	2.01E+00	2.01E+00	2.00E+00	1.99E+00	1.98E+00	1.96E+00	1.91E+00	1.86E+00	1.81E+00	1.77E+00	1.72E+00
TE133M	1.00E-01	3.47E+01	2.51E+01	6.57E+00	2.86E+00	5.43E-01	4.46E-02	3.68E-03	3.04E-04	2.50E-05	2.07E-06
TE133	5.62E+02	3.18E+01	3.54E+00	1.17E+00	4.95E-01	9.38E-02	7.76E-03	6.38E-04	5.28E-05	4.35E-06	3.58E-07
I133	8.71E-01	9.38E+00	1.01E+01	1.01E+01	9.95E+00	9.42E+00	8.57E+00	7.76E+00	7.00E+00	6.38E+00	5.76E+00
XE133M	3.71E-08	2.11E-03	5.09E-03	8.14E-03	1.11E-02	1.67E-02	2.41E-02	3.06E-02	3.61E-02	4.08E-02	4.47E-02
XE133	6.47E-07	3.68E-02	8.95E-02	1.43E-01	1.96E-01	2.97E-01	4.36E-01	5.57E-01	6.66E-01	7.62E-01	8.47E-01
TE134	1.76E+02	8.17E+01	3.04E+01	1.13E+01	4.19E+00	5.81E-01	2.97E-02	1.52E-03	7.80E-05	4.00E-06	2.05E-07
I134	8.07E+01	1.08E+02	3.57E+01	4.43E+01	2.38E+01	6.04E+00	6.64E-01	6.78E-02	6.64E-03	6.37E-04	6.04E-05
I135	1.48E+01	2.60E+01	2.35E+01	2.11E+01	1.91E+01	1.55E+01	1.14E+01	8.32E+00	6.11E+00	4.50E+00	3.28E+00
XE135M	1.63E-03	7.51E+00	7.30E+00	6.62E+00	5.94E+00	4.84E+00	3.55E+00	2.60E+00	1.91E+00	1.40E+00	1.03E+00
XE135	1.70E+00	3.36E+00	4.92E+00	6.19E+00	7.21E+00	8.65E+00	9.59E+00	9.63E+00	9.16E+00	8.36E+00	7.47E+00
CS136	3.48E-03	3.47E-03	3.47E-03	3.46E-03	3.45E-03	3.43E-03	3.41E-03	3.39E-03	3.37E-03	3.34E-03	3.32E-03
CS137	7.19E-05	7.75E-04									
BA137M	1.52E-07	7.23E-04									
XE138	5.71E+02	4.91E+01	4.27E+00	3.70E-01	3.21E-02	2.40E-04	1.56E-07	1.01E-10	6.60E-14	4.29E-17	2.78E-20
CS138	8.50E+01	1.43E+02	4.96E+01	1.46E+01	4.08E+00	3.11E-01	6.46E-03	1.34E-04	2.78E-06	5.80E-08	1.20E-09
CS139	5.25E+02	1.68E+01	2.10E-01	2.64E-03	3.31E-05	5.20E-09	1.04E-14	2.05E-20	4.05E-26	8.03E-32	1.59E-37
BA139	9.70E+00	1.08E+02	6.67E+01	4.05E+01	2.45E+01	8.99E+00	1.99E+00	4.43E-01	9.85E-02	2.18E-02	4.85E-03
BA140	1.03E-01	6.44E-01	6.44E-01	6.39E-01	6.39E-01	6.34E-01	6.34E-01	6.29E-01	6.24E-01	6.19E-01	6.15E-01
LA140	2.45E-07	1.10E-02	1.18E-02	3.24E-02	4.28E-02	6.29E-02	9.19E-02	1.19E-01	1.45E-01	1.69E-01	1.91E-01
BA141	1.97E+02	5.96E+01	5.91E+00	5.87E-01	5.82E-02	5.77E-04	5.63E-07	5.49E-10	5.35E-13	5.26E-16	5.12E-19
LA141	1.82E+00	3.86E+01	3.60E+01	3.05E+01	2.56E+01	1.79E+01	1.05E+01	6.15E+00	3.62E+00	2.12E+00	1.24E+00
CE141	2.25E-07	2.51E-02	5.87E-02	8.82E-02	1.13E-01	1.52E-01	1.88E-01	2.09E-01	2.22E-01	2.29E-01	2.32E-01
BA142	5.23E+02	2.08E+01	4.74E-01	1.08E-02	2.46E-04	1.28E-07	1.52E-12	1.80E-17	2.14E-22	2.54E-27	3.01E-32
LA142	1.20E+01	8.33E+01	5.50E+01	3.50E+01	2.22E+01	9.00E+00	2.32E+00	5.98E-01	1.54E-01	3.97E-02	1.02E-02
LA143	2.00E+02	3.90E+01	2.00E+00	1.03E-01	5.28E-03	1.38E-05	1.86E-09	2.51E-13	3.39E-17	4.57E-21	6.17E-25
CE143	7.99E-02	5.09E+00	5.28E+00	5.14E+00	5.05E+00	4.86E+00	4.55E+00	4.28E+00	4.01E+00	3.77E+00	3.54E+00
PR143	2.34E-08	7.80E-03	1.88E-02	2.98E-02	4.05E-02	6.12E-02	9.02E-02	1.18E-01	1.43E-01	1.67E-01	1.89E-01
CE144	3.22E-03	2.31E-02	2.31E-02	2.31E-02	2.31E-02	2.31E-02	2.30E-02	2.30E-02	2.30E-02	2.30E-02	2.30E-02
PR144	8.83E-07	2.10E-02	2.29E-02	2.30E-02	2.31E-02	2.31E-02	2.31E-02	2.31E-02	2.30E-02	2.30E-02	2.30E-02
PR145	1.28E-01	1.88E+01	1.67E+01	1.48E+01	1.32E+01	1.05E+01	7.39E+00	5.22E+00	3.70E+00	2.61E+00	1.85E+00
CE146	3.68E+02	1.89E+01	9.68E-01	4.95E-02	2.55E-03	6.71E-06	9.04E-10	1.22E-13	1.64E-17	2.21E-21	2.98E-25
PR146	7.62E+00	6.63E+01	1.50E+01	2.82E+00	5.08E-01	1.60E-02	8.82E-05	4.86E-07	2.69E-09	1.49E-11	8.13E-14
PR147	4.29E+01	1.24E+01	3.87E-01	1.21E-02	3.78E-04	3.69E-07	1.13E-11	3.44E-16	1.05E-20	3.21E-25	9.78E-30

BUSTER CHARLIE 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 = 3.216E-13

PAGE 7

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO	TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
ND147	1.53E-05	2.88E-01	2.96E-01	2.96E-01	2.95E-01	2.93E-01	2.91E-01	2.89E-01	2.86E-01	2.84E-01	2.82E-01	
ND149	2.13E+01	1.45E+01	9.86E+00	6.72E+00	4.55E+00	2.11E+00	6.64E-01	2.10E-01	6.60E-02	2.08E-02	6.56E-03	
PM149	2.97E-03	2.32E-01	3.85E-01	4.87E-01	5.52E-01	6.20E-01	6.44E-01	6.32E-01	6.16E-01	5.92E-01	5.72E-01	
PM150	2.41E-01	1.86E-01	1.44E-01	1.11E-01	8.61E-02	5.17E-02	2.39E-02	1.11E-02	5.13E-03	2.37E-03	1.10E-03	
ND151	7.90E+01	2.47E+00	7.72E-02	2.41E-03	7.55E-05	7.37E-08	2.25E-12	6.88E-17	2.10E-21	6.38E-26	1.95E-30	
PM151	5.01E-02	5.85E-01	5.89E-01	5.75E-01	5.61E-01	5.33E-01	4.94E-01	4.59E-01	4.27E-01	3.95E-01	3.67E-01	
PM152	1.26E+02	1.23E-01	1.20E-04	1.17E-07	1.14E-10	1.09E-16	1.02E-25	9.49E-35	8.84E-44	8.25E-53	7.67E-62	
SM153	1.65E-01	1.63E-01	1.61E-01	1.58E-01	1.56E-01	1.52E-01	1.45E-01	1.39E-01	1.33E-01	1.27E-01	1.22E-01	
SM155	8.38E+00	1.38E+00	2.26E-01	3.69E-02	6.05E-03	1.63E-04	7.19E-07	3.16E-09	1.40E-11	6.22E-14	1.53E-16	
EU155	6.16E-06	1.76E-04	2.03E-04	2.08E-04	2.09E-04							
SM156	1.33E-01	1.23E-01	1.14E-01	1.06E-01	9.85E-02	8.51E-02	6.82E-02	5.47E-02	4.39E-02	3.51E-02	2.81E-02	
EU156	3.87E-04	6.32E-04	8.58E-04	1.07E-03	1.26E-03	1.61E-03	2.05E-03	2.37E-03	2.66E-03	2.87E-03	3.02E-03	
EU157	2.19E-02	7.27E-02	6.94E-02	6.63E-02	6.32E-02	5.78E-02	5.05E-02	4.41E-02	3.84E-02	3.34E-02	2.91E-02	
EU158	7.01E-01	2.84E-01	1.15E-01	4.66E-02	1.88E-02	3.08E-03	2.06E-04	1.36E-05	9.05E-07	6.01E-08	3.99E-09	
EU159	8.58E-01	8.52E-02	8.44E-03	8.39E-04	8.31E-05	8.20E-07	8.01E-10	7.82E-13	7.63E-16	7.46E-19	7.29E-22	
GD159	3.67E-03	1.61E-02	1.67E-02	1.62E-02	1.56E-02	1.45E-02	1.29E-02	1.15E-02	1.02E-02	9.11E-03	8.12E-03	
TB161	4.31E-05	3.10E-04	3.08E-04	3.07E-04	3.06E-04	3.03E-04	3.00E-04	2.96E-04	2.92E-04	2.89E-04	2.85E-04	
TOTAL	1.18E+04	2.49E+03	9.07E+02	5.43E+02	4.02E+02	2.78E+02	1.96E+02	1.52E+02	1.24E+02	1.04E+02	8.94E+01	

BUSTER CHARLIE 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 = 3.216E-13

PAGE 8

DEBRIS DECAY FROM 1 TO 300 DAYS

ZERO TIME 1.00E+00 2.00E+00 5.00E+00 1.00E+01 2.00E+01 3.00E+01 5.00E+01 1.00E+02 2.00E+02 3.00E+02

*BE 7	2.97E-07	2.94E-07	2.90E-07	2.79E-07	2.61E-07	2.29E-07	2.01E-07	1.55E-07	8.10E-08	2.20E-08	5.99E-09
*NA 24	4.48E-02	1.48E-02	4.87E-03	1.75E-04	6.83E-07	1.04E-11	1.59E-16	3.71E-26	0.	0.	0.
*MN 54	0.04E-05	2.02E-05	2.02E-05	1.98E-05	1.96E-05	1.93E-05	1.89E-05	1.80E-05	1.61E-05	1.28E-05	1.02E-05
*FE 55	3.60E-05	3.60E-05	3.60E-05	3.58E-05	3.58E-05	3.56E-05	3.52E-05	3.48E-05	3.34E-05	3.12E-05	2.89E-05
*FE 59	0.99E-05	2.95E-05	2.90E-05	2.77E-05	2.57E-05	2.20E-05	1.89E-05	1.39E-05	6.44E-06	1.37E-06	2.95E-07
*CD 57	0.65E-05	3.65E-05	3.62E-05	3.62E-05	3.57E-05	3.46E-05	3.38E-05	3.21E-05	2.84E-05	2.19E-05	1.70E-05
*CD 58	8.46E-02	8.39E-02	8.30E-02	8.05E-02	7.69E-02	6.97E-02	6.32E-02	5.20E-02	3.21E-02	1.21E-02	4.57E-03
*CD 60	1.52E-04	1.52E-04	1.52E-04	1.52E-04	1.51E-04	1.51E-04	1.50E-04	1.49E-04	1.46E-04	1.41E-04	1.36E-04
*CU 64	2.34E+00	6.37E-01	1.74E-01	3.53E-03	5.29E-06	1.20E-11	2.73E-17	1.40E-28	0.	0.	0.
*CU 67	1.05E-04	8.03E-05	6.13E-05	2.73E-05	7.10E-06	4.79E-07	3.23E-08	1.47E-10	2.05E-16	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W187	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PB203	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	1.53E-01	1.38E-01	1.24E-01	9.15E-02	5.47E-02	1.96E-02	7.03E-03	8.98E-04	5.30E-06	5.70E-10	3.84E-10
U240	5.22E-01	1.61E-01	4.93E-02	1.43E-03	3.92E-06	2.95E-11	2.22E-16	1.25E-26	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP239	1.12E-02	1.70E+01	1.27E+01	5.23E+00	1.20E+00	6.26E-02	3.28E-03	8.99E-06	3.53E-12	8.44E-22	8.44E-22
NP240M	8.25E-04	1.62E-01	4.97E-02	1.44E-03	3.95E-06	2.98E-11	2.24E-16	1.26E-26	0.	0.	0.
*AM241	9.55E-08										
*CM242	1.30E-06	1.30E-06	1.29E-06	1.28E-06	1.25E-06	1.20E-06	1.15E-06	1.05E-06	8.58E-07	5.58E-07	3.65E-07
GE 77	3.79E-03	2.39E-03	5.47E-04	6.61E-06	4.20E-09	1.70E-15	6.86E-22	1.12E-34	0.	0.	0.
AS 77	3.92E-05	5.79E-03	4.19E-03	1.21E-03	1.42E-04	1.93E-06	2.61E-08	4.82E-12	2.23E-21	4.79E-40	1.03E-58
SE 77M	1.55E-09	1.74E-05	1.26E-05	3.64E-06	4.24E-07	5.78E-09	7.84E-11	1.45E-14	6.70E-24	1.43E-42	3.09E-61
AS 78	1.04E-02	9.28E-05	2.72E-09	2.30E-23	0.	0.	0.	0.	0.	0.	0.
BR 82	3.82E-04	2.38E-04	1.49E-04	3.62E-05	3.43E-06	3.08E-08	2.76E-10	2.23E-14	1.30E-24	4.47E-45	1.52E-65
BR 83	3.93E-01	7.72E-03	7.76E-06	7.89E-15	8.05E-30	0.	0.	0.	0.	0.	0.
KR 83M	1.52E-05	3.38E-02	3.84E-05	3.45E-14	3.54E-29	0.	0.	0.	0.	0.	0.
KR 85M	3.63E-03	2.07E-01	4.72E-03	5.61E-08	3.46E-16	1.31E-32	4.98E-49	0.	0.	0.	0.
KR 85	3.75E-06	9.86E-05	1.01E-04	1.01E-04	1.01E-04	1.01E-04	1.01E-04	1.00E-04	9.91E-05	9.71E-05	9.57E-05
KR 87	6.07E+01	1.20E-04	2.37E-10	1.84E-27	0.	0.	0.	0.	0.	0.	0.
KR 88	3.48E+01	9.16E-02	2.40E-04	4.37E-12	5.50E-25	0.	0.	0.	0.	0.	0.
RB 88	8.85E+00	1.02E-01	2.69E-04	4.88E-12	6.12E-25	0.	0.	0.	0.	0.	0.
SR 89	3.22E-06	9.66E-02	9.52E-02	9.14E-02	8.58E-02	7.49E-02	6.55E-02	5.04E-02	2.58E-02	6.79E-03	1.79E-03
SR 90	6.49E-06	6.67E-04	6.61E-04	6.61E-04	6.55E-04						
Y 90	9.62E-12	1.53E-04	2.70E-04	4.86E-04	6.20E-04	6.61E-04	6.67E-04	6.67E-04	6.61E-04	6.61E-04	6.55E-04
SR 91	8.69E-01	3.11E+00	5.58E-01	3.20E-03	5.85E-07	1.98E-14	6.73E-22	7.65E-37	0.	0.	0.

BUSTER CHARLIE 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 = 3.216E-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	5.85E-05	2.01E+00	3.60E-01	2.07E-03	3.79E-07	1.28E-14	4.33E-22	4.94E-37	0.	0.	0.
YY 91	2.39E-08	9.57E-02	1.13E-01	1.13E-01	1.07E-01	9.46E-02	8.42E-02	6.67E-02	3.69E-02	1.14E-02	3.49E-03
SR 92	1.11E+01	1.38E-01	2.97E-04	2.99E-12	1.40E-25	0.	0.	0.	0.	0.	0.
YY 92	5.10E-01	1.44E+00	1.60E-02	1.23E-08	7.20E-19	2.46E-39	8.43E-60	0.	0.	0.	0.
ZR 95	1.04E-03	1.29E-01	1.28E-01	1.24E-01	1.18E-01	1.05E-01	9.49E-02	7.67E-02	4.50E-02	1.55E-02	5.31E-03
NB 95M	2.20E-11	4.38E-04	7.99E-04	1.53E-03	2.06E-03	2.17E-03	2.00E-03	1.63E-03	9.54E-04	3.28E-04	1.13E-04
NB 95	1.15E-10	2.50E-03	4.95E-03	1.19E-02	2.20E-02	3.80E-02	4.90E-02	6.08E-02	5.86E-02	2.82E-02	1.08E-02
ZR 97	2.47E+00	4.21E+00	1.58E+00	8.39E-02	6.30E-04	3.55E-08	1.99E-12	6.30E-21	3.56E-42	0.	0.
NB 97M	1.27E-02	4.05E+00	1.52E+00	8.09E-02	6.05E-04	3.41E-08	1.92E-12	6.05E-21	3.42E-42	0.	0.
NB 97	1.24E+00	4.23E+00	1.59E+00	8.43E-02	6.35E-04	3.82E-08	2.15E-12	6.82E-21	3.83E-42	0.	0.
M0 99	7.35E-03	2.39E+00	1.87E+00	8.85E-01	2.56E-01	2.14E-02	1.78E-03	1.25E-05	5.06E-11	8.33E-22	1.37E-32
TC 99M	6.84E-08	2.10E+00	1.77E+00	8.47E-01	2.44E-01	2.04E-02	1.70E-03	1.19E-05	4.82E-11	7.96E-22	1.31E-32
RU103	5.92E-05	1.35E-01	1.32E-01	1.26E-01	1.15E-01	9.67E-02	8.12E-02	5.73E-02	2.38E-02	4.13E-03	7.21E-04
RH103M	3.95E-09	1.35E-01	1.33E-01	1.26E-01	1.15E-01	9.67E-02	8.12E-02	5.73E-02	2.39E-02	4.13E-03	7.21E-04
RU105	3.85E-01	3.68E-01	8.65E-03	1.14E-07	8.31E-16	4.43E-32	2.38E-48	0.	0.	0.	0.
RH105M	2.53E-03	3.68E-01	8.67E-03	1.14E-07	8.34E-16	4.46E-32	2.38E-48	0.	0.	0.	0.
RH105	4.15E-09	1.33E+00	8.67E-01	2.16E-01	2.13E-02	2.07E-04	2.01E-06	1.90E-10	1.65E-20	1.24E-40	9.29E-61
RU106	3.23E-04	6.12E-03	6.09E-03	6.06E-03	6.01E-03	5.90E-03	5.77E-03	5.56E-03	5.06E-03	4.18E-03	3.47E-03
RH106	3.49E-06	6.12E-03	6.09E-03	6.06E-03	6.01E-03	5.90E-03	5.77E-03	5.56E-03	5.06E-03	4.18E-03	3.47E-03
PD109	4.14E-03	1.05E-01	3.07E-02	7.62E-04	1.60E-06	7.15E-12	3.19E-17	6.30E-28	0.	0.	0.
AG109M	2.39E-05	1.05E-01	3.08E-02	7.63E-04	1.61E-06	7.16E-12	3.19E-17	6.31E-28	0.	0.	0.
PD111M	5.15E-01	2.50E-02	1.21E-03	1.39E-07	3.77E-14	2.75E-27	2.02E-40	0.	0.	0.	0.
PD111	1.33E-01	2.02E-02	9.76E-04	1.12E-07	3.04E-14	2.21E-27	1.62E-40	0.	0.	0.	0.
AG111M	1.46E-03	2.63E-02	1.28E-03	1.47E-07	3.98E-14	2.92E-27	2.13E-40	0.	0.	0.	0.
AG111	5.19E-10	1.43E-02	1.38E-02	1.05E-02	6.59E-03	2.61E-03	1.04E-03	1.63E-04	1.61E-06	1.56E-10	1.51E-14
PD112	1.02E-01	4.63E-02	2.09E-02	1.95E-03	3.70E-05	1.34E-08	4.88E-12	6.40E-19	4.04E-36	0.	0.
AG112	3.07E-06	5.38E-02	2.47E-02	2.29E-03	4.38E-05	1.59E-08	5.75E-12	7.58E-19	4.76E-36	0.	0.
AG113	1.02E-03	1.08E-02	4.65E-04	3.78E-08	5.78E-15	1.35E-28	3.16E-42	0.	0.	0.	0.
CD115M	3.12E-09	9.02E-05	8.86E-05	8.44E-05	7.80E-05	6.63E-05	5.66E-05	4.08E-05	1.83E-05	3.63E-06	7.26E-07
CD115	1.20E-06	1.81E-02	1.33E-02	5.23E-03	1.10E-03	4.93E-05	2.20E-06	4.39E-09	7.74E-16	2.43E-29	7.59E-43
IN115M	1.50E-11	1.91E-02	1.45E-02	5.72E-03	1.20E-03	5.38E-05	2.40E-06	4.78E-09	8.47E-16	2.65E-29	8.29E-43
CD117	2.69E-02	5.86E-04	5.70E-07	5.32E-16	4.72E-31	0.	0.	0.	0.	0.	0.
IN117M	1.29E-06	2.43E-03	2.82E-06	2.72E-15	2.41E-30	0.	0.	0.	0.	0.	0.
IN117	5.20E-11	1.60E-03	1.90E-06	1.84E-15	1.63E-30	0.	0.	0.	0.	0.	0.
SN121	5.46E-04	3.11E-02	1.68E-02	2.64E-03	1.21E-04	2.56E-07	5.39E-10	2.40E-15	1.00E-28	0.	0.
SN123	2.89E-06	3.02E-04	3.00E-04	2.94E-04	2.86E-04	2.70E-04	2.57E-04	2.30E-04	1.74E-04	1.00E-04	5.75E-05
SN125	8.15E-03	7.57E-03	7.04E-03	5.64E-03	3.89E-03	1.87E-03	8.92E-04	2.04E-04	5.11E-06	3.21E-09	2.01E-12
SB125	4.89E-05	5.43E-05	5.94E-05	7.26E-05	8.89E-05	1.08E-04	1.16E-04	1.21E-04	1.19E-04	1.11E-04	1.03E-04
SB126	1.55E-03	1.46E-03	1.38E-03	1.17E-03	8.88E-04	5.09E-04	2.94E-04	9.66E-05	6.04E-06	2.94E-08	5.90E-09

BUSTER CHARLIE 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 = 3.216E-13

PAGE 10

DEBRIS DECAY FROM 1 TO 300 DAYS

ZERO TIME 1.00E+00 2.00E+00 5.00E+00 1.00E+01 2.00E+01 3.00E+01 5.00E+01 1.00E+02 2.00E+02 3.00E+02

SN127	2.40E+00	8.68E-04	3.15E-07	1.51E-17	9.45E-35	0.	0.	0.	0.	0.
SB127	2.80E-02	1.15E-01	9.60E-02	5.61E-02	2.30E-02	3.84E-03	6.41E-04	1.79E-05	2.34E-09	3.99E-17
TE127M	2.26E-10	1.75E-04	3.21E-04	6.22E-04	8.60E-04	9.48E-04	9.14E-04	8.10E-04	5.91E-04	3.12E-04
TE127	1.58E-02	8.22E-02	8.06E-02	4.91E-02	2.08E-02	4.26E-03	1.46E-03	8.18E-04	5.84E-04	3.09E-04
SB128	6.77E-01	1.15E-01	1.82E-02	7.11E-05	6.90E-09	6.47E-17	6.09E-25	5.37E-41	0.	0.
SB129	3.91E+00	2.00E-01	4.18E-03	3.80E-03	1.51E-16	2.39E-33	3.77E-50	0.	0.	0.
TE129M	7.39E-08	7.78E-03	7.78E-03	7.34E-03	6.64E-03	5.41E-03	4.40E-03	2.93E-03	1.06E-03	1.38E-04
TE129	2.81E+00	2.34E-01	9.76E-03	4.71E-03	4.24E-03	3.46E-03	2.82E-03	1.88E-03	6.77E-04	8.84E-05
I130	1.87E-02	4.89E-03	1.28E-03	2.29E-05	2.80E-08	4.17E-14	6.21E-20	1.38E-31	0.	0.
TE131M	7.56E-05	2.64E-01	1.52E-01	2.87E-02	1.80E-03	7.01E-06	2.74E-08	4.18E-13	3.80E-25	0.
TE131	6.96E+01	4.82E-02	2.77E-02	5.26E-03	3.28E-04	1.28E-06	5.00E-09	7.66E-14	6.96E-26	0.
I131	1.01E-02	5.46E-01	5.16E-01	4.14E-01	2.73E-01	1.15E-01	4.88E-02	8.71E-03	1.18E-04	2.14E-08
XE131M	2.74E-11	2.53E-04	4.80E-04	1.00E-03	1.43E-03	1.42E-03	1.05E-03	4.34E-04	2.89E-05	8.66E-08
TE132	8.21E-01	1.63E+00	1.31E+00	6.92E-01	2.38E-01	2.83E-02	3.35E-03	4.70E-05	1.10E-09	6.02E-19
I132	2.01E+00	1.68E+00	1.35E+00	7.11E-01	2.46E-01	2.91E-02	3.45E-03	4.85E-05	1.13E-09	6.17E-19
I133	8.71E-01	4.86E+00	2.19E+00	2.03E-01	3.87E-03	1.40E-06	5.09E-10	6.71E-17	4.22E-34	0.
XE133M	3.71E-08	4.58E-02	5.43E-02	3.18E-02	7.47E-03	3.51E-04	1.63E-05	3.54E-08	7.76E-15	3.71E-28
XE133	6.47E-07	8.81E-01	1.18E+00	1.06E+00	5.76E-01	1.56E-01	4.18E-02	3.01E-03	4.20E-06	8.14E-12
I133	1.48E+01	2.41E+00	2.01E-01	1.17E-04	4.75E-10	7.85E-21	1.29E-31	3.50E-53	0.	0.
XE135M	1.63E-03	7.51E-01	6.28E-02	3.65E-05	1.48E-10	2.44E-21	4.03E-32	1.09E-53	0.	0.
XE135	1.70E+00	6.49E+00	1.59E+00	9.08E-03	1.11E-06	1.56E-14	2.19E-22	4.33E-38	0.	0.
CS136	3.48E-03	3.30E-03	3.13E-03	2.67E-03	2.04E-03	1.20E-03	7.05E-04	2.42E-04	1.68E-05	8.11E-08
CS137	7.19E-05	7.75E-04	7.71E-04	7.67E-04						
BA137M	1.52E-07	7.23E-04	7.19E-04	7.15E-04						
BA139	9.70E+00	1.04E-03	6.11E-09	1.26E-24	0.	0.	0.	0.	0.	0.
BA140	1.03E-01	6.10E-01	5.80E-01	4.92E-01	3.75E-01	2.18E-01	1.27E-01	4.30E-02	2.87E-03	1.28E-05
LA140	2.45E-07	2.12E-01	3.42E-01	4.72E-01	4.20E-01	2.51E-01	1.46E-01	4.97E-02	3.30E-03	1.47E-05
LA141	1.82E+00	7.23E-01	1.01E-02	2.81E-08	1.53E-17	4.58E-36	1.37E-54	0.	0.	0.
CE141	2.25E-07	2.50E-01	2.48E-01	2.33E-01	2.09E-01	1.69E-01	1.36E-01	8.87E-02	3.05E-02	3.59E-03
LA142	1.20E+01	2.63E-03	5.10E-08	3.75E-22	0.	0.	0.	0.	4.22E-04	0.
CE143	7.99E-02	3.28E+00	1.99E+00	4.37E-01	3.52E-02	2.28E-04	1.47E-06	6.17E-11	6.96E-22	0.
PR143	2.34E-08	2.10E-01	3.27E-01	4.22E-01	3.62E-01	2.21E-01	1.33E-01	4.81E-02	3.85E-03	2.44E-05
CE144	3.22E-03	2.30E-02	2.29E-02	2.28E-02	2.25E-02	2.19E-02	2.14E-02	2.04E-02	1.80E-02	1.41E-02
PR144	8.83E-07	2.30E-02	2.29E-02	2.28E-02	2.25E-02	2.19E-02	2.14E-02	2.04E-02	1.80E-02	1.41E-02
PR145	1.28E-01	1.30E+00	8.07E-02	1.91E-05	1.74E-11	1.45E-23	1.20E-35	0.	0.	0.
ND147	1.53E-05	2.57E-01	2.42E-01	2.00E-01	1.47E-01	7.87E-02	4.20E-02	1.21E-02	5.29E-04	1.03E-06
PM147	4.24E-14	1.92E-04	3.72E-04	8.51E-04	1.47E-03	2.24E-03	2.65E-03	2.96E-03	2.98E-03	2.78E-03
ND149	2.13E+01	2.06E-03	2.00E-07	1.82E-19	1.55E-39	0.	0.	0.	0.	0.
PM149	2.97E-03	5.48E-01	4.01E-01	1.57E-01	3.27E-02	1.43E-03	6.20E-05	1.18E-07	1.86E-14	4.59E-28
PM150	2.41E-01	5.09E-04	1.07E-06	1.01E-14	4.21E-28	0.	0.	0.	0.	0.

BUSTER CHARLIE 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 = 3.216E-13

PAGE 11

DEBRIS DECAY FROM 1 TO 300 DAYS

ZERO TIME 1.00E+00 2.00E+00 5.00E+00 1.00E+01 2.00E+01 3.00E+01 5.00E+01 1.00E+02 2.00E+02 3.00E+02

PM151	5.01E-02	3.41E-01	1.88E-01	3.17E-02	1.63E-03	4.27E-06	1.13E-08	7.76E-14	9.73E-27	0.	0.
SM153	1.65E-01	1.16E-01	8.16E-02	2.82E-02	4.79E-03	1.39E-04	4.05E-06	3.40E-09	7.02E-17	2.99E-32	1.27E-47
SM156	1.33E-01	2.26E-02	3.85E-03	1.90E-05	2.73E-09	5.62E-17	1.16E-24	4.94E-40	0.	0.	0.
EU155	6.16E-06	2.09E-04	2.08E-04	2.08E-04	2.08E-04	2.07E-04	2.06E-04	2.05E-04	2.01E-04	1.93E-04	1.85E-04
EU156	3.87E-04	3.15E-03	3.49E-03	3.13E-03	2.49E-03	1.56E-03	9.85E-04	3.91E-04	3.87E-05	3.82E-07	3.76E-09
EU157	2.19E-02	2.53E-02	8.53E-03	3.20E-04	1.34E-06	2.37E-11	4.19E-16	1.31E-25	0.	0.	0.
GD159	3.67E-03	7.23E-03	2.88E-03	1.79E-04	1.77E-06	1.71E-10	1.66E-14	1.56E-22	1.33E-42	0.	0.
TB161	4.31E-05	2.82E-04	2.54E-04	1.88E-04	1.14E-04	4.17E-05	1.53E-05	2.04E-06	1.35E-08	5.85E-13	2.54E-17

TOTAL 2.71E+02 7.75E+01 3.82E+01 1.41E+01 5.49E+00 2.06E+00 1.29E+00 7.44E-01 3.44E-01 1.30E-01 6.34E-02

BUSTER CHARLIE 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 = 3.216E-13

PAGE 12

DEBRIS DECAY FROM 1 TO 50 YEARS

ZERO TIME 1.00E+00 1.50E+00 2.00E+00 3.50E+00 5.00E+00 7.00E+00 1.00E+01 2.00E+01 3.50E+01 5.00E+01

*BE 7	2.97E-07	2.57E-09	2.39E-10	2.22E-11	1.78E-14	1.43E-17	1.07E-21	6.84E-28	0.	0.	0.
*MN 54	2.04E-05	8.77E-06	5.78E-06	3.80E-06	1.09E-06	3.10E-07	5.64E-08	4.77E-09	1.12E-12	4.05E-18	1.47E-23
*FE 59	2.99E-05	1.08E-07	6.48E-09	3.90E-10	8.46E-14	1.83E-17	2.38E-22	1.12E-29	0.	0.	0.
*CO 57	3.65E-05	1.44E-05	9.00E-06	5.65E-06	1.39E-06	3.43E-07	5.29E-09	3.21E-09	2.81E-13	2.31E-19	0.
*CO 58	8.46E-02	2.43E-03	4.12E-04	6.99E-05	3.40E-07	1.66E-09	1.37E-12	3.24E-17	1.24E-32	0.	0.
*CO 60	1.52E-04	1.33E-04	1.24E-04	1.16E-04	9.55E-05	7.84E-05	6.02E-05	4.06E-05	1.09E-05	1.51E-06	2.09E-07
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	1.53E-01	3.81E-10	3.71E-10	3.61E-10	3.38E-10	3.14E-10	2.85E-10	2.48E-10	1.54E-10	7.56E-11	3.71E-11
*AM241	9.55E-08	9.55E-08	9.55E-08	9.55E-08	9.59E-08	9.64E-08	9.64E-08	9.68E-08	9.73E-08	9.64E-08	9.50E-08
*CM242	1.30E-06	2.76E-07	1.27E-07	5.84E-08	5.69E-09	5.54E-10	2.49E-11	2.35E-13	6.75E-18	6.29E-18	5.88E-18
KR 85	3.75E-06	9.33E-05	9.04E-05	8.75E-05	7.97E-05	7.20E-05	6.33E-05	5.22E-05	2.76E-05	1.05E-05	4.03E-06
SR 89	3.22E-06	7.54E-04	6.60E-05	5.80E-06	3.90E-09	2.63E-12	1.55E-16	7.07E-23	5.14E-44	0.	0.
SR 90	6.49E-06	6.49E-04	6.43E-04	6.38E-04	6.14E-04	5.90E-04	5.62E-04	5.22E-04	4.08E-04	2.82E-04	1.95E-04
Y 90	9.62E-12	6.49E-04	6.43E-04	6.38E-04	6.14E-04	5.90E-04	5.62E-04	5.22E-04	4.08E-04	2.82E-04	1.95E-04
Y 91	2.39E-08	1.62E-03	1.88E-04	2.19E-05	3.43E-08	5.38E-11	9.84E-15	2.42E-20	4.88E-39	0.	0.
ZR 95	1.04E-03	2.66E-03	3.80E-04	5.40E-05	1.58E-07	4.59E-10	1.90E-13	1.60E-18	1.96E-35	0.	0.
NB 95M	2.20E-11	5.63E-05	8.04E-06	1.15E-06	3.34E-09	9.72E-12	4.02E-15	3.40E-20	4.16E-37	0.	0.
NB 95	1.15E-10	5.72E-03	8.22E-04	1.17E-04	3.40E-07	9.85E-10	4.11E-13	3.47E-18	4.25E-35	0.	0.
RU103	5.92E-05	2.30E-04	9.41E-06	3.87E-07	2.64E-11	1.81E-15	5.08E-21	2.39E-29	0.	0.	0.
RH103M	3.95E-09	2.30E-04	9.41E-06	3.87E-07	2.64E-11	1.81E-15	5.08E-21	2.39E-29	0.	0.	0.
RU106	3.23E-04	3.07E-03	2.17E-03	1.54E-03	5.48E-04	1.95E-04	4.90E-05	6.19E-06	6.25E-09	2.01E-13	6.46E-18
RH106	3.49E-06	3.07E-03	2.17E-03	1.54E-03	5.48E-04	1.95E-04	4.90E-05	6.19E-06	6.25E-09	2.01E-13	6.46E-18
SN123	2.89E-06	4.00E-05	1.45E-05	5.28E-06	2.53E-07	1.21E-08	2.12E-10	4.88E-13	7.82E-22	5.04E-35	3.23E-48
SB125	4.89E-05	9.85E-05	8.66E-05	7.62E-05	5.19E-05	3.53E-05	2.11E-05	9.77E-06	7.51E-07	1.60E-08	3.40E-10
TE125M	1.32E-12	4.02E-05	3.57E-05	3.15E-05	2.15E-05	1.46E-05	8.74E-06	4.04E-06	3.11E-07	6.62E-09	1.41E-10
TE127M	2.26E-10	1.08E-04	3.39E-05	1.06E-05	3.26E-07	1.00E-08	9.64E-11	9.06E-14	7.45E-24	5.57E-39	4.15E-54
TE127	1.58E-02	1.07E-04	3.35E-05	1.05E-05	3.22E-07	9.91E-09	9.52E-11	8.98E-14	7.37E-24	5.49E-39	4.11E-54
CS137	7.19E-05	7.58E-04	7.49E-04	7.41E-04	7.15E-04	6.89E-04	6.59E-04	6.16E-04	4.87E-04	3.46E-04	2.44E-04
BA137M	1.52E-07	7.11E-04	7.02E-04	6.93E-04	6.68E-04	6.46E-04	6.16E-04	5.77E-04	4.56E-04	3.23E-04	2.29E-04
CE141	2.26E-07	9.71E-05	1.95E-06	3.92E-08	3.20E-13	2.60E-18	4.27E-25	2.83E-35	0.	0.	0.
CE144	3.22E-03	9.45E-03	6.08E-03	3.88E-03	1.02E-03	2.68E-04	4.50E-05	3.11E-06	4.18E-10	6.56E-16	1.02E-21
PR144	8.83E-07	9.45E-03	6.08E-03	3.88E-03	1.02E-03	2.68E-04	4.50E-05	3.11E-06	4.18E-10	6.56E-16	1.02E-21
PM147	4.24E-14	2.47E-03	2.16E-03	1.89E-03	1.27E-03	8.55E-04	5.02E-04	2.28E-04	1.62E-05	3.06E-07	5.79E-09
EU155	6.16E-06	1.80E-04	1.68E-04	1.56E-04	1.25E-04	1.01E-04	7.52E-05	4.86E-05	1.13E-05	1.28E-06	1.44E-07

TOTAL	2.58E-01	4.49E-02	2.39E-02	1.62E-02	7.39E-03	4.60E-03	3.32E-03	2.64E-03	1.83E-03	1.25E-03	8.67E-04
-------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------	----------

APPENDIX C
DETAILED RESULTS FOR EVENT BUSTER DOG

BUSTER DOG
 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 = 2.141E-13

PAGE 2

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.04E+02	1.29E+04
1.00E+00	3.11E+01	2.65E+03
2.00E+00	1.24E+01	9.32E+02
3.00E+00	6.82E+00	5.47E+02
4.00E+00	4.36E+00	4.03E+02
5.00E+00	2.34E+00	2.80E+02
6.00E+00	1.38E+00	1.99E+02
7.00E+00	1.00E+00	1.56E+02
8.00E+00	7.87E-01	1.28E+02
9.00E+00	6.48E-01	1.08E+02
1.00E+01	5.48E-01	9.38E+01
1.10E+01	4.67E-01	8.19E+01
1.20E+01	2.18E-01	4.19E+01
1.30E+01	8.18E-02	1.56E+01
1.40E+01	3.65E-02	5.82E+00
1.50E+01	1.51E-02	2.06E+00
1.60E+01	9.27E-03	1.28E+00
1.70E+01	4.90E-03	7.37E-01
1.80E+01	2.13E-03	3.40E-01
1.90E+01	7.86E-04	1.29E-01
2.00E+01	3.04E-04	6.34E-02
2.10E+01	1.72E-04	4.53E-02
2.20E+01	4.68E-05	2.44E-02
2.30E+01	2.45E-05	1.67E-02
2.40E+01	1.39E-05	7.53E-03
2.50E+01	1.08E-05	4.60E-03
2.60E+01	8.88E-06	3.26E-03
2.70E+01	7.41E-06	2.56E-03
2.80E+01	4.95E-06	1.76E-03
2.90E+01	3.27E-06	1.20E-03
3.00E+01	2.28E-06	8.34E-04

C-2

BUSTER DOG 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 = 2.141E-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	2.97E-07	2.96E-07	2.96E-07	2.96E-07	2.96E-07	2.95E-07	2.94E-07	2.94E-07	2.94E-07	2.93E-07	
*NA 24	6.70E-02	6.41E-02	6.12E-02	5.84E-02	5.57E-02	5.08E-02	4.42E-02	3.86E-02	3.36E-02	2.93E-02	
*MN 54	2.03E-05	2.03E-05	2.03E-05	2.03E-05	2.03E-05	2.03E-05	2.01E-05	2.01E-05	2.01E-05	2.01E-05	
*FE 55	3.60E-05										
*FE 59	2.99E-05	2.98E-05									
*CD 57	3.64E-05										
*CD 58	8.45E-02	8.45E-02	8.45E-02	8.45E-02	8.43E-02	8.43E-02	8.42E-02	8.42E-02	8.40E-02	8.40E-02	
*CD 60	1.52E-04										
*CU 64	2.33E+00	2.21E+00	2.09E+00	1.99E+00	1.88E+00	1.69E+00	1.43E+00	1.22E+00	1.04E+00	8.81E-01	
*CU 67	1.05E-04	1.04E-04	1.02E-04	1.02E-04	1.01E-04	9.80E-05	9.44E-05	9.17E-05	8.88E-05	8.54E-05	
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
W187	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
PB203	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
U237	1.82E-01	1.81E-01	1.80E-01	1.79E-01	1.79E-01	1.77E-01	1.75E-01	1.73E-01	1.70E-01	1.68E-01	
U239	4.19E+03	7.15E+02	1.22E+02	2.08E+01	3.53E+00	1.03E-01	5.10E-04	2.52E-06	1.24E-08	6.16E-11	3.05E-13
U240	7.28E-01	6.93E-01	6.60E-01	6.29E-01	5.98E-01	5.42E-01	4.68E-01	4.03E-01	3.48E-01	3.00E-01	2.59E-01
NP239	1.43E-02	2.41E+01	2.78E+01	2.83E+01	2.80E+01	2.74E+01	2.63E+01	2.54E+01	2.45E+01	2.36E+01	2.27E+01
NP240M	1.15E-03	6.96E-01	6.66E-01	6.34E-01	6.04E-01	5.46E-01	4.72E-01	4.07E-01	3.51E-01	3.03E-01	2.61E-01
NP240	2.92E-11	1.50E-11	7.79E-12	4.02E-12	2.08E-12	5.56E-13	7.66E-14	1.06E-14	1.46E-15	2.01E-16	2.78E-17
*AM241	7.05E-09										
*CM242	1.82E-07	1.82E-07	1.82E-07	1.82E-07	1.82E-07	1.82E-07	1.81E-07	1.81E-07	1.81E-07	1.81E-07	1.81E-07
GE 75	5.97E-06	2.89E-02	1.74E-02	1.05E-02	6.31E-03	2.29E-03	5.00E-04	1.09E-04	2.39E-05	5.21E-06	1.14E-06
GE 77	4.02E-03	1.04E-02	9.74E-03	9.16E-03	8.62E-03	7.63E-03	6.35E-03	5.27E-03	4.39E-03	3.65E-03	3.04E-03
AS 77	4.16E-05	6.57E-03	6.64E-03	6.69E-03	6.73E-03	6.78E-03	6.78E-03	6.73E-03	6.63E-03	6.49E-03	6.33E-03
SE 77M	1.64E-09	1.97E-05	2.00E-05	2.01E-05	2.01E-05	2.03E-05	2.04E-05	2.03E-05	2.00E-05	1.95E-05	1.89E-05
GE 78	6.26E-01	3.91E-01	2.43E-01	1.52E-01	9.49E-02	3.69E-02	8.97E-03	2.17E-03	5.30E-04	1.29E-04	3.13E-05
AS 78	1.13E-02	1.87E-01	2.30E-01	2.16E-01	1.80E-01	1.06E-01	3.95E-02	1.31E-02	4.06E-03	1.21E-03	3.52E-04
AS 79	1.22E+01	1.20E-01	1.19E-03	1.17E-05	1.15E-07	1.11E-11	1.06E-17	1.01E-23	9.67E-30	9.23E-36	8.82E-42
SE 79M	1.81E-02	2.12E-01	2.10E-03	2.07E-05	2.03E-07	1.96E-11	1.87E-17	1.79E-23	1.71E-29	1.63E-35	1.55E-41
BR 80	7.55E-02	7.12E-03	6.70E-04	6.30E-05	5.93E-06	5.26E-08	4.40E-11	3.67E-14	3.06E-17	2.55E-20	2.13E-23
SE 81M	6.18E-02	2.88E+00	1.39E+00	6.69E-01	3.22E-01	7.52E-02	8.42E-03	9.44E-04	1.06E-04	1.19E-05	1.33E-06
SE 81	7.55E-01	3.41E+00	1.97E+00	9.85E-01	4.78E-01	1.12E-01	1.25E-02	1.40E-03	1.57E-04	1.76E-05	1.97E-06
BR 82	3.71E-04	3.64E-04	3.57E-04	3.50E-04	3.43E-04	3.30E-04	3.11E-04	2.93E-04	2.77E-04	2.61E-04	2.46E-04
SE 83	3.39E+01	6.43E+00	1.22E+00	2.31E-01	4.37E-02	1.57E-03	1.07E-05	7.27E-08	4.96E-10	3.36E-12	2.14E-14
BR 83	2.82E-01	4.21E+00	3.89E+00	3.07E+00	2.33E+00	1.31E+00	5.56E-01	2.34E-01	9.89E-02	4.17E-02	1.76E-02
KR 83M	1.46E-05	9.53E-01	1.95E+00	2.42E+00	2.49E+00	2.08E+00	1.23E+00	6.31E-01	3.04E-01	1.41E-01	6.31E-02

BUSTER DOG 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 = 2.141E-13

PAGE 4

DEBRIS DECAY FROM 1 TO 21 HOURS

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

BR 84	7.09E-02	1.22E+01	3.31E+00	8.96E-01	2.42E-01	1.77E-02	3.50E-04	6.91E-06	1.37E-07	2.70E-09	5.34E-11
KR 85M	3.34E-03	7.15E+00	6.09E+00	5.20E+00	4.44E+00	3.24E+00	2.02E+00	1.26E+00	7.86E-01	4.89E-01	3.05E-01
KR 87	5.56E+01	3.21E+01	1.86E+01	1.07E+01	6.19E+00	2.08E+00	4.03E-01	7.80E-02	1.51E-02	2.93E-03	5.66E-04
KR 88	3.16E+01	2.47E+01	1.92E+01	1.50E+01	1.17E+01	7.13E+00	3.40E+00	1.62E+00	7.70E-01	3.67E-01	1.74E-01
RB 88	8.03E+00	2.49E+01	2.13E+01	1.68E+01	1.31E+01	7.98E+00	3.81E+00	1.81E+00	8.65E-01	4.11E-01	1.95E-01
RB 89	3.86E+01	3.63E+01	2.44E+00	1.64E-01	1.10E-02	4.97E-05	1.50E-08	4.54E-12	1.38E-15	4.19E-19	1.27E-22
SR 89	2.96E-06	1.04E-01	1.11E-01	1.11E-01							
SR 90	5.94E-06	6.10E-04	6.10E-04								
SR 91	8.02E-01	1.49E+01	1.39E+01	1.30E+01	1.21E+01	1.04E+01	8.43E+00	6.81E+00	5.50E+00	4.42E+00	3.56E+00
Y 91M	5.40E-05	5.15E+00	7.01E+00	7.52E+00	7.42E+00	6.66E+00	5.45E+00	4.39E+00	3.54E+00	2.85E+00	2.30E+00
Y 91	2.21E-08	4.58E-03	1.05E-02	1.69E-02	2.30E-02	3.45E-02	4.90E-02	6.06E-02	7.01E-02	7.77E-02	8.38E-02
SR 92	1.03E+01	4.59E+01	3.56E+01	2.76E+01	2.13E+01	1.28E+01	5.93E+00	2.76E+00	1.28E+00	5.93E-01	2.76E-01
Y 92	4.74E-01	9.67E+00	1.52E+01	1.80E+01	1.91E+01	1.82E+01	1.40E+01	9.52E+00	6.12E+00	3.77E+00	2.27E+00
SR 93	4.18E+02	7.20E+00	3.97E-02	2.20E-04	1.21E-06	3.70E-11	6.24E-18	1.05E-24	1.78E-31	3.00E-38	5.05E-45
Y 93	5.10E-01	1.65E+01	1.55E+01	1.45E+01	1.35E+01	1.18E+01	9.63E+00	7.86E+00	6.39E+00	5.24E+00	4.26E+00
Y 94	6.09E+01	8.33E+01	1.07E+01	1.38E+00	1.78E-01	2.96E-03	6.35E-06	1.36E-08	2.91E-11	6.35E-14	3.52E-15
Y 95	2.64E+02	2.49E+01	5.48E-01	1.21E-02	2.66E-04	1.29E-07	1.38E-12	1.48E-17	1.58E-22	1.69E-27	1.81E-32
ZR 95	9.92E-04	1.30E-01	1.32E-01	1.31E-01	1.31E-01						
NB 95	1.11E-10	8.01E-05	1.87E-04	2.93E-04	4.00E-04	6.14E-04	9.31E-04	1.25E-03	1.57E-03	1.88E-03	2.20E-03
ZR 97	2.41E+00	1.05E+01	1.00E+01	9.67E+00	9.26E+00	8.55E+00	7.55E+00	6.68E+00	5.94E+00	5.23E+00	4.65E+00
NB 97M	1.24E-02	1.01E+01	9.67E+00	9.30E+00	8.92E+00	8.22E+00	7.26E+00	6.43E+00	5.69E+00	5.02E+00	4.44E+00
NB 97	1.21E+00	5.27E+00	7.43E+00	6.47E+00	6.88E+00	8.84E+00	8.05E+00	7.18E+00	6.35E+00	5.60E+00	4.98E+00
NB 98	1.37E+01	6.08E+00	2.69E+00	1.19E+00	5.27E-01	1.03E-01	8.91E-03	7.70E-04	6.71E-05	5.81E-06	5.00E-07
MO 99	7.31E-03	3.02E+00	2.98E+00	2.96E+00	2.92E+00	2.86E+00	2.78E+00	2.69E+00	2.61E+00	2.53E+00	2.45E+00
TC 99M	6.80E-08	2.88E-01	5.40E-01	7.64E-01	9.59E-01	1.28E+00	1.63E+00	1.84E+00	1.98E+00	2.05E+00	2.09E+00
MO101	1.07E+02	4.81E+01	2.79E+00	1.62E-01	9.39E-03	3.15E-05	6.11E-09	1.19E-12	2.31E-16	4.49E-20	8.76E-24
TC101	4.49E+00	1.35E+02	1.47E+01	1.21E+00	8.81E-02	3.97E-04	9.93E-08	2.22E-11	4.72E-15	9.71E-19	1.96E-22
MO102	8.96E+02	2.04E+01	4.65E-01	1.06E-02	2.42E-04	1.26E-07	1.50E-12	1.78E-17	2.10E-22	2.50E-27	2.97E-32
TC102M	5.76E-01	1.73E+01	3.96E-01	9.05E-03	2.06E-04	1.07E-07	1.27E-12	1.50E-17	1.78E-22	2.11E-27	2.51E-32
TC102	2.70E+03	1.03E+01	2.35E-01	5.34E-03	1.22E-04	6.36E-08	7.55E-13	8.96E-18	1.06E-22	1.26E-27	1.49E-32
RU103	6.56E-05	1.52E-01	1.52E-01	1.52E-01	1.52E-01	1.51E-01	1.51E-01	1.51E-01	1.51E-01	1.50E-01	1.50E-01
RH103M	4.38E-09	7.87E-02	1.17E-01	1.35E-01	1.44E-01	1.50E-01	1.51E-01	1.51E-01	1.51E-01	1.50E-01	1.50E-01
TC104	5.75E+01	4.13E+01	4.13E+00	4.09E-01	4.04E-02	3.98E-04	3.89E-07	3.80E-10	3.71E-13	3.63E-16	3.54E-19
RU105	4.75E-01	1.64E+01	1.40E+01	1.20E+01	1.03E+01	7.52E+00	4.71E+00	2.95E+00	1.84E+00	1.15E+00	7.24E-01
RH105M	3.12E-03	1.65E+01	1.41E+01	1.21E+01	1.03E+01	7.55E+00	4.71E+00	2.96E+00	1.85E+00	1.16E+00	7.24E-01
RH105	5.13E-09	3.34E-01	6.20E-01	8.56E-01	1.05E+00	1.35E+00	1.61E+00	1.73E+00	1.77E+00	1.75E+00	1.70E+00
RU106	4.15E-04	7.87E-03	7.87E-03								
RH106	4.49E-06	7.87E-03	7.87E-03								
RH107	1.06E-01	1.44E+01	2.19E+00	3.29E-01	4.97E-02	1.13E-03	3.90E-06	1.35E-08	4.63E-11	1.58E-146	1.58E-17
PD107M	2.21E-04	2.94E+00	4.43E-01	6.70E-02	1.01E-02	2.31E-04	7.94E-07	2.74E-09	9.42E-12	3.25E-14	1.11E-16

BUSTER DOG 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 = 2.141E-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	6.17E-03	5.12E-01	4.87E-01	4.61E-01	4.38E-01	3.95E-01	3.40E-01	2.91E-01	2.50E-01	2.14E-01	1.84E-01
AG109M	3.56E-05	5.12E-01	4.87E-01	4.62E-01	4.39E-01	3.96E-01	3.40E-01	2.91E-01	2.50E-01	2.14E-01	1.84E-01
PD111M	7.46E-01	6.57E-01	5.79E-01	5.12E-01	4.51E-01	3.51E-01	2.40E-01	1.64E-01	1.13E-01	7.71E-02	5.29E-02
PD111	2.65E-01	4.79E-01	4.59E-01	4.09E-01	3.62E-01	2.81E-01	1.93E-01	1.32E-01	9.04E-02	6.20E-02	4.26E-02
AG111M	2.11E-03	6.45E-01	6.07E-01	5.43E-01	4.79E-01	3.70E-01	2.53E-01	1.73E-01	1.19E-01	8.15E-02	5.56E-02
AG111	7.51E-10	2.23E-03	4.67E-03	6.87E-03	8.82E-03	1.20E-02	1.54E-02	1.77E-02	1.92E-02	2.01E-02	2.06E-02
PD112	1.42E-01	1.38E-01	1.33E-01	1.29E-01	1.25E-01	1.16E-01	1.06E-01	9.57E-02	8.66E-02	7.84E-02	7.10E-02
AG112	4.28E-06	2.72E-02	4.81E-02	6.45E-02	7.66E-02	9.18E-02	1.01E-01	1.00E-01	9.57E-02	8.92E-02	8.23E-02
AG113	1.27E-03	2.72E-01	2.39E-01	2.10E-01	1.84E-01	1.41E-01	9.58E-02	6.47E-02	4.36E-02	2.95E-02	1.99E-02
AG115	4.38E-01	4.69E-01	5.84E-02	7.30E-03	9.14E-04	1.43E-05	2.79E-08	5.46E-11	1.06E-13	1.05E-162	9.73E-17
CD115M	3.58E-09	9.52E-05	1.07E-04	1.08E-04	1.08E-04	1.08E-04	1.08E-04	1.08E-04	1.08E-04	1.07E-04	1.07E-04
CD115	1.38E-06	2.61E-02	2.80E-02	2.80E-02	2.76E-02	2.69E-02	2.59E-02	2.49E-02	2.40E-02	2.31E-02	2.22E-02
IN115M	1.72E-11	2.88E-03	6.39E-03	9.49E-03	1.21E-02	1.61E-02	1.99E-02	2.19E-02	2.29E-02	2.31E-02	2.29E-02
CD117	3.07E-02	5.11E-01	3.85E-01	2.88E-01	2.16E-01	1.21E-01	5.08E-02	2.14E-02	9.00E-03	3.78E-03	1.59E-03
IN117M	1.48E-06	1.78E-01	2.57E-01	2.79E-01	2.70E-01	2.13E-01	1.22E-01	6.23E-02	2.99E-02	1.39E-02	6.26E-03
IN117	5.94E-11	3.24E-02	7.85E-02	1.09E-01	1.22E-01	1.12E-01	7.13E-02	3.82E-02	1.90E-02	8.93E-03	4.10E-03
CD118	2.03E+00	8.69E-01	3.73E-01	1.59E-01	6.81E-02	1.25E-02	9.77E-04	7.64E-05	6.01E-06	4.71E-07	3.69E-08
IN118	1.34E-01	8.69E-01	3.73E-01	1.59E-01	6.81E-02	1.25E-02	9.77E-04	7.67E-05	6.01E-06	4.71E-07	3.69E-08
CD119	5.05E+00	7.88E-02	1.23E-03	1.92E-05	3.01E-07	7.36E-11	2.80E-16	1.07E-21	4.07E-27	1.56E-32	5.96E-38
IN119M	7.62E-03	8.53E-01	9.28E-02	9.36E-03	9.32E-04	9.17E-06	8.94E-09	8.75E-12	8.53E-15	8.34E-18	8.15E-21
IN119	3.76E-01	4.49E-02	5.21E-03	5.28E-04	5.28E-05	5.17E-07	5.05E-10	4.94E-13	4.83E-16	4.72E-19	4.60E-22
SN121	6.26E-04	6.44E-02	6.26E-02	6.11E-02	5.96E-02	5.67E-02	5.23E-02	4.86E-02	4.49E-02	4.16E-02	3.87E-02
SN123M	3.59E-01	6.71E-01	2.38E-01	8.41E-02	2.97E-02	3.71E-03	1.64E-04	7.27E-06	3.22E-07	1.42E-08	6.28E-10
SN123	3.37E-06	3.53E-04	3.53E-04								
SN125	9.57E-03	9.55E-03	9.52E-03	9.50E-03	9.45E-03	9.40E-03	9.32E-03	9.22E-03	9.15E-03	9.05E-03	8.97E-03
SB125	5.75E-05	5.77E-05	5.80E-05	5.82E-05	5.85E-05	5.90E-05	6.00E-05	6.07E-05	6.15E-05	6.22E-05	6.30E-05
SB126	1.78E-03	1.78E-03	1.78E-03	1.77E-03	1.77E-03	1.76E-03	1.75E-03	1.74E-03	1.72E-03	1.71E-03	1.70E-03
SN127	2.50E+00	1.80E+00	1.29E+00	9.30E-01	6.69E-01	3.45E-01	1.28E-01	4.77E-02	1.77E-02	6.57E-03	2.44E-03
SB127	2.92E-02	1.01E-01	1.11E-01	1.19E-01	1.24E-01	1.29E-01	1.31E-01	1.30E-01	1.28E-01	1.25E-01	1.23E-01
TE127	1.65E-02	2.05E-02	2.49E-02	2.96E-02	3.42E-02	4.29E-02	5.49E-02	6.41E-02	7.13E-02	7.69E-02	8.05E-02
SN128	1.68E+01	8.30E+00	4.11E+00	2.03E+00	1.00E+00	2.45E-01	2.96E-02	3.57E-03	4.30E-04	5.22E-05	6.29E-06
SB128M	8.56E-03	9.46E+00	4.91E+00	2.42E+00	1.20E+00	2.93E-01	3.52E-02	4.25E-03	5.13E-04	6.20E-05	7.49E-06
SB128	7.09E-01	6.82E-01	6.42E-01	6.02E-01	5.62E-01	4.82E-01	3.84E-01	3.05E-01	2.42E-01	1.92E-01	1.53E-01
SN129M	1.07E+01	5.35E+00	2.68E+00	1.34E+00	6.71E-01	1.68E-01	2.10E-02	2.62E-03	3.28E-04	4.10E-05	5.12E-06
SN129	7.16E+01	7.02E-01	6.93E-03	6.84E-05	6.71E-07	6.53E-11	6.21E-17	5.94E-23	5.66E-29	5.39E-35	5.17E-41
SB129	4.03E+00	6.75E+00	6.34E+00	5.66E+00	4.98E+00	3.70E+00	2.31E+00	1.43E+00	8.79E-01	5.44E-01	3.34E-01
TE129M	7.61E-08	8.43E-04	1.74E-03	2.55E-03	3.28E-03	4.44E-03	5.62E-03	6.34E-03	6.80E-03	7.07E-03	7.25E-03
TE129	2.90E+00	3.99E+00	4.67E+00	4.85E+00	4.67E+00	3.87E+00	2.57E+00	1.62E+00	1.01E+00	6.25E-01	3.88E-01
SB130M	4.08E-01	7.70E-01	2.02E-03	5.31E-06	1.40E-08	9.64E-14	1.76E-21	3.19E-29	5.79E-37	1.05E-44	1.91E-52
SB130	6.99E+01	2.11E+01	6.01E+00	1.70E+00	4.82E-01	3.88E-02	8.84E-04	2.02E-05	4.60E-07	1.05E-08	2.39E-10

BUSTER DOG 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 = 2.141E-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	1.95E-02	1.84E-02	1.74E-02	1.65E-02	1.56E-02	1.39E-02	1.18E-02	9.95E-03	8.40E-03	7.12E-03	6.01E-03
SB131	1.61E+02	4.22E+01	6.89E+00	1.13E+00	1.86E-01	5.00E-03	2.20E-05	9.72E-08	4.28E-10	1.89E-12	9.41E-15
TE131M	7.76E-05	4.06E-01	4.63E-01	4.64E-01	4.55E-01	4.35E-01	4.06E-01	3.78E-01	3.53E-01	3.30E-01	3.07E-01
TE131	7.15E+01	7.76E+01	2.53E+01	6.58E+00	1.60E+00	1.50E-01	7.45E-02	6.89E-02	6.43E-02	6.02E-02	5.60E-02
I131	1.04E-02	3.60E-01	5.30E-01	5.81E-01	5.91E-01	5.96E-01	5.96E-01	5.91E-01	5.91E-01	5.86E-01	5.86E-01
TE132	8.20E-01	1.99E+00	1.97E+00	1.96E+00	1.94E+00	1.90E+00	1.85E+00	1.80E+00	1.76E+00	1.71E+00	1.66E+00
I132	2.01E+00	2.01E+00	2.00E+00	1.99E+00	1.98E+00	1.95E+00	1.91E+00	1.86E+00	1.81E+00	1.76E+00	1.72E+00
TE133M	9.91E-02	3.44E+01	1.50E+01	6.51E+00	2.83E+00	5.38E-01	4.43E-02	3.65E-03	3.01E-04	2.48E-05	2.05E-06
TE133	5.57E+02	3.16E+01	3.51E+00	1.16E+00	4.91E-01	9.30E-02	7.69E-03	6.33E-04	5.24E-05	4.31E-06	3.55E-07
I133	8.64E-01	9.30E+00	1.01E+01	1.01E+01	9.87E+00	9.35E+00	8.50E+00	7.69E+00	6.94E+00	6.33E+00	5.71E+00
XE133M	3.68E-02	2.09E-03	5.05E-03	8.07E-03	1.10E-02	1.65E-02	2.39E-02	3.04E-02	3.58E-02	4.05E-02	4.43E-02
XE133	6.42E-07	3.65E-02	8.87E-02	1.42E-01	1.94E-01	2.95E-01	4.32E-01	5.52E-01	6.51E-01	7.55E-01	8.40E-01
TE134	1.76E+02	8.16E+01	3.04E+01	1.13E+01	4.19E+00	5.81E-01	2.97E-02	1.52E-03	7.79E-05	4.00E-06	2.05E-07
I134	8.07E+01	1.08E+02	7.56E+01	4.43E+01	2.38E+01	6.04E+00	6.64E-01	6.77E-02	6.64E-03	6.36E-04	6.04E-05
I135	1.46E+01	2.58E+01	2.33E+01	2.09E+01	1.89E+01	1.54E+01	1.13E+01	8.24E+00	6.06E+00	4.46E+00	3.26E+00
XE135M	1.62E-03	7.45E+00	7.24E+00	6.56E+00	5.89E+00	4.80E+00	3.52E+00	2.58E+00	1.89E+00	1.39E+00	1.02E+00
XE135	1.69E+00	3.34E+00	4.88E+00	6.14E+00	7.15E+00	8.58E+00	9.51E+00	9.55E+00	9.09E+00	8.29E+00	7.40E+00
CS136	5.37E-03	5.35E-03	5.34E-03	5.34E-03	5.32E-03	5.29E-03	5.26E-03	5.23E-03	5.19E-03	5.16E-03	5.12E-03
CS137	7.20E-05	7.76E-04									
BA137M	1.52E-07	7.24E-04									
XE138	5.51E+02	4.74E+01	4.12E+00	3.57E-01	3.09E-02	2.32E-04	1.51E-07	9.78E-11	6.36E-14	4.13E-17	2.69E-20
CS138	8.20E+01	1.38E+02	4.78E+01	1.40E+01	3.94E+00	3.00E-01	6.23E-03	1.29E-04	2.69E-06	5.59E-08	1.16E-09
CS139	5.29E+02	1.69E+01	2.12E-01	2.66E-03	3.34E-05	5.24E-09	1.04E-14	2.06E-20	4.08E-26	8.09E-32	1.60E-37
BA139	9.77E+00	1.09E+02	6.72E+01	4.08E+01	2.47E+01	9.06E+00	2.01E+00	4.46E-01	9.92E-02	2.20E-02	4.89E-03
BA140	1.01E-01	6.27E-01	6.27E-01	6.22E-01	6.22E-01	6.18E-01	6.18E-01	6.13E-01	6.08E-01	6.03E-01	5.99E-01
LA140	2.39E-07	1.07E-02	2.13E-02	3.16E-02	4.17E-02	6.13E-02	8.95E-02	1.16E-01	1.41E-01	1.64E-01	1.86E-01
BA141	1.92E+02	5.81E+01	5.77E+00	5.72E-01	5.68E-02	5.63E-04	5.49E-07	5.36E-10	5.22E-13	5.13E-16	4.99E-19
LA141	1.78E+00	3.76E+01	3.51E+01	2.98E+01	2.49E+01	1.75E+01	1.03E+01	6.00E+00	3.53E+00	2.07E+00	1.21E+00
CE141	2.20E-07	2.44E-02	5.72E-02	8.61E-02	1.10E-01	1.48E-01	1.84E-01	2.04E-01	2.16E-01	2.23E-01	2.27E-01
BA142	5.13E+02	2.04E+01	4.65E-01	1.06E-02	2.41E-04	1.26E-07	1.49E-12	1.77E-17	2.10E-22	2.49E-27	2.95E-32
LA142	1.18E+01	8.17E+01	5.39E+01	3.43E+01	2.18E+01	8.82E+00	2.28E+00	5.86E-01	1.51E-01	3.89E-02	1.00E-02
LA143	1.93E+02	3.76E+01	1.93E+00	9.89E-02	5.08E-03	1.33E-05	1.79E-09	2.42E-13	3.26E-17	4.40E-21	5.94E-25
CE143	7.69E-02	4.90E+00	5.08E+00	4.95E+00	4.86E+00	4.68E+00	4.38E+00	4.12E+00	3.86E+00	3.63E+00	3.40E+00
PR143	2.25E-08	7.51E-03	1.81E-02	2.87E-02	3.89E-02	5.89E-02	8.68E-02	1.13E-01	1.38E-01	1.61E-01	1.82E-01
CE144	3.07E-03	2.20E-02									
PR144	8.43E-07	2.00E-02	2.18E-02	2.20E-02							
PR145	1.24E-01	1.82E+01	1.62E+01	1.44E+01	1.28E+01	1.02E+01	7.17E+00	5.06E+00	3.59E+00	2.53E+00	1.79E+00
CE146	3.64E+02	1.87E+01	9.57E-01	4.89E-02	2.52E-03	6.64E-06	8.93E-10	1.20E-13	1.62E-17	2.19E-21	2.95E-25
PR146	7.53E+00	6.55E+01	1.48E+01	2.79E+00	5.02E-01	1.58E-02	8.72E-05	4.81E-07	2.66E-09	1.47E-11	8.04E-14
PR147	4.22E+01	1.22E+01	3.81E-01	1.19E-02	3.73E-04	3.64E-07	1.11E-11	3.40E-16	1.04E-20	3.16E-25	9.64E-30

BUSTER DOG 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 = 2.141E-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	1.51E-05	2.84E-01	2.92E-01	2.91E-01	2.90E-01	2.89E-01	2.87E-01	2.85E-01	2.82E-01	2.80E-01	2.78E-01
ND149	2.19E+01	1.49E+01	1.01E+01	6.91E+00	4.68E+00	2.17E+00	6.83E-01	2.16E-01	6.79E-02	2.14E-02	6.75E-03
PM149	3.05E-03	2.38E-01	3.96E-01	5.01E-01	5.67E-01	6.37E-01	6.62E-01	6.50E-01	6.33E-01	6.08E-01	5.88E-01
PM150	2.53E-01	1.95E-01	1.51E-01	1.17E-01	9.02E-02	5.41E-02	2.51E-02	1.16E-02	5.37E-03	2.49E-03	1.15E-03
ND151	8.67E+01	2.71E+00	8.47E-02	2.65E-03	8.28E-05	8.09E-08	2.47E-12	7.54E-17	2.30E-21	7.00E-26	2.14E-30
PM151	5.49E-02	6.42E-01	6.46E-01	6.31E-01	6.15E-01	5.84E-01	5.42E-01	5.03E-01	4.68E-01	4.33E-01	4.02E-01
PM152	1.40E+02	1.37E-01	1.33E-04	1.30E-07	1.27E-10	1.21E-16	1.13E-25	1.06E-34	9.83E-44	9.18E-53	8.53E-62
SM153	1.87E-01	1.85E-01	1.82E-01	1.79E-01	1.77E-01	1.72E-01	1.64E-01	1.57E-01	1.50E-01	1.44E-01	1.38E-01
SM155	1.05E+01	1.72E+00	2.82E-01	4.62E-02	7.57E-03	2.04E-04	8.99E-07	3.96E-09	1.75E-11	7.78E-14	1.91E-16
EU155	7.71E-06	2.20E-04	2.54E-04	2.60E-04	2.61E-04						
SM156	1.83E-01	1.70E-01	1.58E-01	1.47E-01	1.36E-01	1.17E-01	9.41E-02	7.55E-02	6.06E-02	4.85E-02	3.88E-02
EU156	5.35E-04	8.73E-04	1.19E-03	1.48E-03	1.75E-03	2.23E-03	2.83E-03	3.28E-03	3.67E-03	3.96E-03	4.17E-03
EU157	2.98E-02	9.87E-02	9.42E-02	9.00E-02	8.58E-02	7.84E-02	6.84E-02	5.98E-02	5.21E-02	4.53E-02	3.95E-02
EU158	1.10E+00	4.44E-01	1.80E-01	7.28E-02	2.95E-02	4.82E-03	3.22E-04	2.13E-05	1.42E-06	9.39E-06	6.24E-09
EU159	1.33E+00	1.32E-01	1.31E-02	1.30E-03	1.29E-04	1.27E-06	1.24E-09	1.21E-12	1.18E-15	1.15E-18	1.13E-21
GD159	5.69E-03	2.49E-02	2.59E-02	2.51E-02	2.42E-02	2.24E-02	2.00E-02	1.78E-02	1.58E-02	1.41E-02	1.26E-02
TB161	7.23E-05	5.20E-04	5.17E-04	5.15E-04	5.13E-04	5.08E-04	5.03E-04	4.96E-04	4.89E-04	4.84E-04	4.78E-04
TOTAL	1.29E+04	2.65E+03	9.32E+02	5.47E+02	4.03E+02	2.80E+02	1.99E+02	1.56E+02	1.28E+02	1.08E+02	9.38E+01

BUSTER DOG 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 = 2.141E-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	2.97E-07	2.93E-07	2.89E-07	2.78E-07	2.61E-07	2.29E-07	2.01E-07	1.55E-07	8.09E-08	2.20E-08	5.98E-09
*NA 24	6.70E-02	2.21E-02	7.30E-03	2.62E-04	1.02E-06	1.56E-11	2.39E-16	5.56E-26	0.	0.	0.
*MN 54	2.03E-05	2.01E-05	2.01E-05	1.98E-05	1.96E-05	1.92E-05	1.89E-05	1.80E-05	1.61E-05	1.28E-05	1.02E-05
*FE 55	3.60E-05	3.60E-05	3.60E-05	3.58E-05	3.57E-05	3.55E-05	3.52E-05	3.47E-05	3.34E-05	3.11E-05	2.89E-05
*FE 59	2.99E-05	2.94E-05	2.90E-05	2.77E-05	2.56E-05	2.20E-05	1.88E-05	1.38E-05	6.43E-06	1.37E-06	2.94E-07
*CO 57	3.64E-05	3.64E-05	3.61E-05	3.61E-05	3.56E-05	3.45E-05	3.37E-05	3.21E-05	2.83E-05	2.19E-05	1.69E-05
*CO 58	8.45E-02	8.38E-02	8.29E-02	8.04E-02	7.68E-02	6.96E-02	6.31E-02	5.20E-02	3.20E-02	1.21E-02	4.57E-03
*CO 60	1.52E-04	1.52E-04	1.52E-04	1.52E-04	1.51E-04	1.51E-04	1.50E-04	1.49E-04	1.46E-04	1.41E-04	1.36E-04
*CU 64	2.33E+00	6.36E-01	1.73E-01	3.52E-03	5.29E-06	1.20E-11	2.72E-17	1.40E-28	0.	0.	0.
*CU 67	1.05E-04	8.02E-05	6.12E-05	2.72E-05	7.09E-06	4.78E-07	3.23E-08	1.47E-10	2.05E-16	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W187	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PB203	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	1.82E-01	1.64E-01	1.48E-01	1.09E-01	6.50E-02	2.33E-02	8.36E-03	1.07E-03	6.31E-06	6.78E-10	4.57E-10
U240	7.28E-01	2.24E-01	6.88E-02	1.99E-03	5.47E-06	4.11E-11	3.10E-16	1.75E-26	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP239	1.43E-02	2.19E+01	1.63E+01	6.73E+00	1.54E+00	8.06E-02	4.22E-03	1.16E-05	4.55E-12	1.09E-21	1.09E-21
NP240M	1.15E-03	2.26E-01	6.93E-02	2.01E-03	5.52E-06	4.15E-11	3.12E-16	1.76E-26	0.	0.	0.
*AM241	7.05E-09										
*CM242	1.82E-07	1.81E-07	1.80E-07	1.78E-07	1.75E-07	1.67E-07	1.60E-07	1.47E-07	1.20E-07	7.80E-08	5.10E-08
GE 77	4.02E-03	2.53E-03	5.79E-04	7.00E-06	4.45E-09	1.80E-15	7.27E-22	1.19E-34	0.	0.	0.
AS 77	4.16E-05	6.14E-03	4.44E-03	1.28E-03	1.50E-04	2.04E-06	2.77E-08	5.11E-12	2.37E-21	5.08E-40	1.09E-58
SE 77M	1.64E-09	1.85E-05	1.33E-05	3.86E-06	4.50E-07	6.12E-09	8.31E-11	1.53E-14	7.11E-24	1.52E-42	3.28E-61
AS 78	1.13E-02	1.00E-04	2.93E-09	2.48E-23	0.	0.	0.	0.	0.	0.	0.
BR 82	3.71E-04	2.32E-04	1.45E-04	3.52E-05	3.33E-06	3.00E-08	2.69E-10	2.17E-14	1.27E-24	4.35E-45	1.48E-65
BR 83	2.82E-01	7.42E-03	7.46E-06	7.58E-15	7.74E-30	0.	0.	0.	0.	0.	0.
KR 83M	1.46E-05	3.25E-02	3.69E-05	3.32E-14	3.40E-29	0.	0.	0.	0.	0.	0.
KR 85M	3.34E-03	1.91E-01	4.34E-03	5.15E-08	3.18E-16	1.21E-32	4.58E-49	0.	0.	0.	0.
KR 85	3.45E-06	9.06E-05	9.24E-05	9.24E-05	9.24E-05	9.24E-05	9.20E-05	9.11E-05	8.93E-05	8.80E-05	8.80E-05
KR 87	5.56E+01	1.10E-04	2.17E-10	1.68E-27	0.	0.	0.	0.	0.	0.	0.
KR 88	3.16E+01	8.31E-02	2.18E-04	3.96E-12	4.99E-25	0.	0.	0.	0.	0.	0.
RB 88	8.03E+00	9.26E-02	2.44E-04	4.43E-12	5.56E-25	0.	0.	0.	0.	0.	0.
SR 89	2.96E-06	8.86E-02	8.73E-02	8.39E-02	7.87E-02	6.87E-02	6.01E-02	4.62E-02	2.36E-02	6.22E-03	1.64E-03
SR 90	5.94E-06	6.10E-04	6.10E-04	6.10E-04	6.10E-04	6.10E-04	6.10E-04	6.05E-04	6.05E-04	5.99E-04	5.99E-04
Y 90	8.80E-12	1.40E-04	2.47E-04	4.44E-04	5.67E-04	6.05E-04	6.10E-04	6.10E-04	6.05E-04	6.05E-04	5.99E-04
SR 91	8.02E-01	2.87E+00	5.15E-01	2.95E-03	5.40E-07	1.83E-14	6.21E-22	7.07E-37	0.	0.	0.

BUSTER D6G 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 = 2.141E-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	5.40E-05	1.86E+00	3.32E-01	1.91E-03	3.50E-07	1.18E-14	4.00E-22	4.56E-37	0.	0.	0.
Y 91	2.21E-08	8.83E-02	1.04E-01	1.04E-01	9.84E-02	8.73E-02	7.77E-02	6.16E-02	3.41E-02	1.05E-02	3.22E-03
SR 92	1.03E+01	1.28E-01	2.77E-04	2.78E-12	1.30E-25	0.	0.	0.	0.	0.	0.
YY 92	4.74E-01	1.34E+00	1.49E-02	1.15E-08	6.70E-19	2.29E-39	7.85E-60	0.	0.	0.	0.
Y 93	5.10E-01	3.45E+00	6.72E-01	5.05E-03	1.45E-06	1.20E-13	9.91E-21	6.77E-35	0.	0.	0.
ZR 95	9.92E-04	1.24E-01	1.23E-01	1.19E-01	1.13E-01	1.01E-01	9.10E-02	7.36E-02	4.31E-02	1.48E-02	5.09E-03
NB 95M	2.11E-11	4.20E-04	7.66E-04	1.46E-03	1.97E-03	2.08E-03	1.92E-03	1.56E-03	9.14E-04	3.15E-04	1.08E-04
NB 95	1.11E-10	2.40E-03	4.74E-03	1.14E-02	2.11E-02	3.64E-02	4.70E-02	5.83E-02	5.61E-02	2.70E-02	1.04E-02
ZR 97	2.41E+00	4.11E+00	1.54E+00	8.18E-02	6.14E-04	3.46E-08	1.94E-12	6.14E-21	3.47E-42	0.	0.
NB 97M	1.24E-02	3.94E+00	1.48E+00	7.89E-02	5.89E-04	3.32E-08	1.87E-12	5.89E-21	3.33E-42	0.	0.
NB 97	1.21E+00	4.12E+00	1.55E+00	8.22E-02	6.19E-04	3.72E-08	2.09E-12	6.64E-21	3.74E-42	0.	0.
M9 99	7.31E-03	2.38E+00	1.86E+00	8.80E-01	2.55E-01	2.13E-02	1.77E-03	1.24E-05	5.03E-11	8.29E-22	1.36E-32
TC 99M	6.80E-08	2.09E+00	1.76E+00	8.43E-01	2.43E-01	2.03E-02	1.69E-03	1.18E-05	4.80E-11	7.92E-22	1.30E-32
RU103	6.56E-05	1.50E-01	1.47E-01	1.39E-01	1.28E-01	1.07E-01	9.00E-02	6.35E-02	2.64E-02	4.59E-03	7.99E-04
RH103M	4.38E-09	1.50E-01	1.47E-01	1.40E-01	1.28E-01	1.07E-01	9.00E-02	6.35E-02	2.65E-02	4.59E-03	7.99E-04
RU105	4.75E-01	4.54E-01	1.07E-02	1.40E-07	1.03E-15	5.47E-32	2.93E-48	0.	0.	0.	0.
RH105M	3.12E-03	4.54E-01	1.07E-02	1.41E-07	1.03E-15	5.51E-32	2.94E-48	0.	0.	0.	0.
RH105	5.13E-09	1.64E+00	1.07E-00	2.67E-01	2.63E-02	2.56E-04	2.48E-06	2.35E-10	2.03E-20	1.53E-40	1.15E-60
RU106	4.15E-04	7.87E-03	7.83E-03	7.80E-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	7.87E-03	7.83E-03	7.80E-03	7.73E-03	7.59E-03	7.42E-03	7.15E-03	6.50E-03	5.38E-03	4.46E-03
PD109	6.17E-03	1.57E-01	4.58E-02	1.14E-03	2.39E-06	1.07E-11	4.75E-17	9.40E-28	0.	0.	0.
AG109M	3.56E-05	1.57E-01	4.59E-02	1.14E-03	2.40E-06	1.07E-11	4.75E-17	9.41E-28	0.	0.	0.
PD111M	7.46E-01	3.62E-02	1.76E-03	2.02E-07	5.45E-14	3.98E-27	2.92E-40	0.	0.	0.	0.
PD111	2.65E-01	2.92E-02	1.41E-03	1.62E-07	4.40E-14	3.20E-27	2.35E-40	0.	0.	0.	0.
AG111M	2.11E-03	3.81E-02	1.86E-03	2.13E-07	5.76E-14	4.23E-27	3.09E-40	0.	0.	0.	0.
AG111	7.51E-10	2.07E-02	1.99E-02	1.52E-02	9.54E-03	3.78E-03	1.50E-03	2.37E-04	2.33E-06	2.26E-10	2.19E-14
PD112	1.42E-01	6.45E-02	2.92E-02	2.71E-03	5.15E-05	1.87E-08	6.80E-12	8.92E-19	5.63E-36	0.	0.
AG112	4.28E-06	7.49E-02	3.44E-02	3.19E-03	6.10E-05	2.21E-08	8.01E-12	1.06E-18	6.62E-36	0.	0.
AG113	1.27E-03	1.35E-02	5.82E-04	4.73E-08	7.23E-15	1.69E-28	3.96E-42	0.	0.	0.	0.
CD115M	3.58E-09	1.04E-04	1.02E-04	9.70E-05	8.97E-05	7.61E-05	6.50E-05	4.69E-05	2.10E-05	4.17E-06	8.34E-07
CD115	1.38E-06	2.06E-02	1.53E-02	6.01E-03	1.27E-03	5.66E-05	2.53E-06	5.04E-09	8.90E-16	2.79E-29	8.72E-43
IN115M	1.72E-11	2.20E-02	1.66E-02	6.57E-03	1.38E-03	6.19E-05	2.76E-06	5.49E-09	9.73E-16	3.04E-29	9.52E-43
CD117	3.07E-02	6.70E-04	6.52E-07	6.08E-16	5.40E-31	0.	0.	0.	0.	0.	0.
IN117M	1.48E-06	2.78E-03	3.22E-06	3.10E-15	2.76E-30	0.	0.	0.	0.	0.	0.
IN117	5.94E-11	1.83E-03	2.17E-06	2.10E-15	1.86E-30	0.	0.	0.	0.	0.	0.
SN121	6.26E-04	3.57E-02	1.93E-02	3.03E-03	1.39E-04	2.94E-07	6.18E-10	2.76E-15	1.15E-28	0.	0.
SN123	3.37E-06	3.53E-04	3.49E-04	3.43E-04	3.34E-04	3.15E-04	2.99E-04	2.68E-04	2.03E-04	1.17E-04	6.71E-05
N125	9.57E-03	8.90E-03	8.27E-03	6.62E-03	4.57E-03	2.19E-03	1.05E-03	2.40E-04	6.00E-06	3.77E-09	2.36E-12
S125	5.75E-05	6.37E-05	6.97E-05	8.52E-05	1.04E-04	1.26E-04	1.36E-04	1.42E-04	1.39E-04	1.30E-04	1.21E-04
26	1.78E-03	1.69E-03	1.60E-03	1.35E-03	1.02E-03	5.87E-04	3.39E-04	1.12E-04	6.97E-06	3.39E-08	6.80E-09

BUSTER DOG 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 = 2.141E-13

PAGE 10

DEBRIS DECAY FROM 1 TO 300 DAYS

ZERO TIME 1.00E+00 2.00E+00 5.00E+00 1.00E+01 2.00E+01 3.00E+01 5.00E+01 1.00E+02 2.00E+02 3.00E+02

SN127	2.50E+00	9.06E-04	3.29E-07	1.57E-17	9.86E-35	0.	0.	0.	0.	0.
SB127	2.92E-02	1.20E-01	1.00E-01	5.85E-02	2.40E-02	4.00E-03	6.69E-04	1.87E-05	2.44E-09	4.17E-17
TE127M	2.36E-10	1.83E-04	3.35E-04	6.49E-04	8.98E-04	9.90E-04	9.54E-04	8.45E-04	6.17E-04	3.26E-04
TE127	1.65E-02	8.57E-02	8.41E-02	5.13E-02	2.17E-02	4.45E-03	1.52E-03	8.53E-04	6.09E-04	3.22E-04
SB128	7.09E-01	1.21E-01	1.91E-02	7.45E-05	7.23E-09	6.78E-17	6.38E-25	5.62E-41	0.	0.
SB129	4.03E+00	2.06E-01	4.30E-03	3.92E-08	1.56E-16	2.46E-33	3.88E-50	0.	0.	0.
TE129M	7.61E-08	8.02E-03	8.02E-03	7.57E-03	6.84E-03	5.57E-03	4.53E-03	3.02E-03	1.09E-03	1.42E-04
TE129	2.90E+00	2.42E-01	1.01E-02	4.85E-03	4.37E-03	3.57E-03	2.91E-03	1.93E-03	6.98E-04	9.11E-05
I130	1.95E-02	5.09E-03	1.33E-03	2.38E-05	2.91E-08	4.33E-14	6.46E-20	1.44E-31	0.	0.
TE131M	7.76E-05	2.71E-01	1.56E-01	2.95E-02	1.85E-03	7.20E-06	2.82E-08	4.30E-13	3.91E-25	0.
TE131	7.15E+01	4.95E-02	2.84E-02	5.40E-03	3.37E-04	1.32E-06	5.14E-09	7.87E-14	7.15E-26	0.
I131	1.04E-02	5.60E-01	5.30E-01	4.26E-01	2.80E-01	1.18E-01	5.01E-02	8.95E-03	1.21E-04	2.20E-08
XE131M	2.82E-11	2.60E-04	4.93E-04	1.03E-03	1.47E-03	1.45E-03	1.08E-03	4.46E-04	2.97E-05	8.89E-08
TE132	8.20E-01	1.62E+00	1.31E+00	6.90E-01	2.38E-01	2.82E-02	3.34E-03	4.69E-05	1.10E-09	6.01E-19
I132	2.01E+00	1.67E+00	1.35E+00	7.10E-01	2.45E-01	2.91E-02	3.44E-03	4.84E-05	1.13E-09	6.16E-19
I133	8.64E-01	4.81E+00	2.17E+00	2.02E-01	3.84E-03	1.39E-06	5.05E-10	6.66E-17	4.18E-34	0.
XE133M	3.68E-08	4.55E-02	5.38E-02	3.16E-02	7.41E-03	3.48E-04	1.62E-05	3.51E-08	7.69E-15	3.68E-28
XE133	6.42E-07	8.73E-01	1.17E+00	1.05E+00	5.71E-01	1.54E-01	4.15E-02	2.99E-03	4.16E-06	8.07E-12
I135	1.46E+01	2.39E+00	1.99E-01	1.16E-04	4.71E-10	7.78E-21	1.28E-31	3.47E-53	0.	0.
XE135M	1.62E-03	7.45E-01	6.23E-02	3.62E-05	1.47E-10	2.42E-21	3.99E-32	1.09E-53	0.	0.
XE135	1.69E+00	6.44E+00	1.57E+00	9.00E-03	1.10E-06	1.55E-14	2.17E-22	4.29E-38	0.	0.
CS136	5.37E-03	5.09E-03	4.82E-03	4.11E-03	3.15E-03	1.85E-03	1.09E-03	3.73E-04	2.60E-05	1.25E-07
CS137	7.20E-05	7.76E-04	7.71E-04	7.67E-04						
BA137M	1.52E-07	7.24E-04	7.20E-04	7.15E-04						
BA139	9.77E+00	1.04E-03	6.16E-09	1.27E-24	0.	0.	0.	0.	0.	0.
BA140	1.01E-01	5.94E-01	5.65E-01	4.79E-01	3.65E-01	2.13E-01	1.24E-01	4.19E-02	2.80E-03	1.24E-05
LA140	2.39E-07	2.07E-01	3.33E-01	4.60E-01	4.09E-01	2.45E-01	1.42E-01	4.84E-02	3.21E-03	1.43E-05
LA141	1.78E+00	7.05E-01	9.89E-03	2.74E-08	1.50E-17	4.47E-36	1.33E-54	0.	0.	0.
CE141	2.20E-07	2.44E-01	2.42E-01	2.27E-01	2.04E-01	1.65E-01	1.33E-01	8.65E-02	2.97E-02	3.50E-03
LA142	1.18E+01	2.58E-03	4.99E-08	3.67E-22	0.	0.	0.	0.	0.	0.
CE143	7.69E-02	3.16E+00	1.91E+00	4.21E-01	3.39E-02	2.19E-04	1.42E-06	5.94E-11	6.70E-22	0.
PR143	2.25E-08	2.02E-01	3.15E-01	4.07E-01	3.49E-01	2.12E-01	1.28E-01	4.63E-02	3.71E-03	2.35E-05
CE144	3.07E-03	2.20E-02	2.19E-02	2.17E-02	2.15E-02	2.10E-02	2.04E-02	1.95E-02	1.72E-02	1.35E-02
PR144	8.43E-07	2.20E-02	2.19E-02	2.17E-02	2.15E-02	2.10E-02	2.04E-02	1.95E-02	1.72E-02	1.35E-02
PR145	1.24E-01	1.27E+00	7.83E-02	1.86E-05	1.69E-11	1.40E-23	1.16E-35	0.	0.	0.
ND147	1.51E-05	2.53E-01	2.38E-01	1.98E-01	1.45E-01	7.76E-02	4.14E-02	1.19E-02	5.22E-04	1.02E-06
PM147	4.18E-14	1.90E-04	3.67E-04	8.39E-04	1.45E-03	2.21E-03	2.61E-03	2.91E-03	2.94E-03	2.74E-03
ND149	2.19E+01	2.12E-03	2.05E-07	1.87E-19	1.60E-39	0.	0.	0.	0.	0.
PM149	3.05E-03	5.63E-01	4.12E-01	1.61E-01	3.36E-02	1.46E-03	6.37E-05	1.21E-07	1.91E-14	4.72E-28
PM150	2.53E-01	5.33E-04	1.12E-06	1.05E-14	4.41E-28	0.	0.	0.	0.	0.

BUSTER DOG 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 = 2.141E-13

PAGE 11

DEBRIS DECAY FROM 1 TO 300 DAYS

ZERO TIME 1.00E+00 2.00E+00 5.00E+00 1.00E+01 2.00E+01 3.00E+01 5.00E+01 1.00E+02 2.00E+02 3.00E+02

PM151	5.49E-02	3.75E-01	2.07E-01	3.48E-02	1.78E-03	4.68E-06	1.23E-08	8.51E-14	1.07E-26	0.	0.
SM153	1.87E-01	1.32E-01	9.25E-02	3.20E-02	5.43E-03	1.58E-04	4.59E-06	3.85E-09	7.95E-17	3.39E-32	1.44E-47
SM156	1.83E-01	3.12E-02	5.32E-03	2.62E-05	3.78E-09	7.76E-17	1.60E-24	6.82E-40	0.	0.	0.
EU155	7.71E-06	2.61E-04	2.61E-04	2.61E-04	2.60E-04	2.59E-04	2.58E-04	2.56E-04	2.51E-04	2.41E-04	2.32E-04
EU156	5.35E-04	4.35E-03	4.83E-03	4.33E-03	3.44E-03	2.16E-03	1.36E-03	5.40E-04	5.35E-05	5.27E-07	5.19E-09
EU157	2.98E-02	3.44E-02	1.16E-02	4.34E-04	1.82E-06	3.21E-11	5.69E-16	1.77E-25	0.	0.	0.
GD159	5.69E-03	1.12E-02	4.45E-03	2.78E-04	2.73E-06	2.65E-10	2.57E-14	2.41E-22	2.06E-42	0.	0.
TB161	7.23E-05	4.72E-04	4.26E-04	3.16E-04	1.91E-04	6.99E-05	2.56E-05	3.43E-06	2.27E-08	9.81E-13	4.26E-17

TOTAL 2.64E+02 8.19E+01 4.19E+01 1.56E+01 5.82E+00 2.06E+00 1.28E+00 7.37E-01 3.40E-01 1.29E-01 6.34E-02

BUSTER DOG 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 = 2.141E-13

PAGE 12

DEBRIS DECAY FROM 1 TO 50 YEARS

ZERO TIME 1.00E+00 1.50E+00 2.00E+00 3.50E+00 5.00E+00 7.00E+00 1.00E+01 2.00E+01 3.50E+01 5.00E+01

*BE 7	2.97E-07	2.56E-09	2.38E-10	2.21E-11	1.78E-14	1.43E-17	1.07E-21	6.83E-28	0.	0.
*MN 54	2.03E-05	8.76E-06	5.77E-06	3.79E-06	1.08E-06	3.09E-07	5.83E-08	4.77E-09	1.12E-12	4.05E-18 1.46E-23
*FE 59	2.99E-05	1.08E-07	6.47E-09	3.89E-10	8.45E-14	1.83E-17	2.38E-22	1.11E-29	0.	0.
*CO 57	3.64E-05	1.43E-05	8.98E-06	5.64E-06	1.39E-06	3.43E-07	5.29E-09	3.21E-09	2.81E-13	2.30E-19 0.
*CO 58	8.45E-02	2.43E-03	4.12E-04	6.98E-05	3.40E-07	1.65E-09	1.36E-12	3.24E-17	1.24E-32	0.
*CO 60	1.52E-04	1.33E-04	1.24E-04	1.16E-04	9.53E-05	7.83E-05	6.01E-05	4.05E-05	1.09E-05	1.51E-06 2.09E-07
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	1.82E-01	4.53E-10	4.42E-10	4.30E-10	4.02E-10	3.73E-10	3.39E-10	2.94E-10	1.83E-10	8.99E-11 4.42E-11
*AM241	7.05E-09	7.05E-09	7.05E-09	7.05E-09	7.09E-09	7.12E-09	7.12E-09	7.15E-09	7.19E-09	7.12E-09 7.02E-09
*CM242	1.82E-07	3.86E-08	1.77E-08	8.17E-09	7.96E-10	7.75E-11	3.47E-12	3.29E-14	9.44E-19	8.80E-19 8.21E-19
KR 85	3.45E-06	8.58E-05	8.31E-05	8.04E-05	7.33E-05	6.62E-05	5.82E-05	4.80E-05	2.54E-05	9.69E-06 3.70E-06
SR 89	2.96E-06	6.92E-04	6.05E-05	5.32E-06	3.58E-09	2.42E-12	1.43E-16	6.48E-23	4.71E-44	0.
SR 90	5.94E-06	5.94E-04	5.89E-04	5.83E-04	5.62E-04	5.40E-04	5.14E-04	4.77E-04	3.73E-04	2.58E-04 1.78E-04
Y 90	8.80E-12	5.94E-04	8.89E-04	5.83E-04	5.62E-04	5.40E-04	5.14E-04	4.77E-04	3.73E-04	2.58E-04 1.78E-04
Y 91	2.21E-08	1.49E-03	1.74E-04	2.02E-05	3.16E-08	4.97E-11	9.08E-15	2.23E-20	4.51E-39	0.
ZR 95	9.92E-04	2.55E-03	3.64E-04	5.18E-05	1.51E-07	4.40E-10	1.82E-13	1.54E-18	1.88E-35	0.
NB 95M	2.11E-11	5.40E-05	7.70E-06	1.10E-06	3.20E-09	9.31E-12	3.86E-15	3.26E-20	3.99E-37	0.
NB 95	1.11E-10	5.48E-03	7.88E-04	1.12E-04	3.26E-07	9.45E-10	3.94E-13	3.33E-18	4.08E-35	0.
RU103	6.56E-05	2.55E-04	1.04E-05	4.29E-07	2.93E-11	2.01E-15	5.64E-21	2.65E-29	0.	0.
RH103M	4.38E-09	2.55E-04	1.04E-05	4.29E-07	2.93E-11	2.01E-15	5.64E-21	2.66E-29	0.	0.
RU106	4.15E-04	3.95E-03	2.80E-03	1.98E-03	7.05E-04	2.50E-04	6.30E-05	7.97E-06	8.04E-09	2.58E-13 8.31E-18
RH106	4.49E-06	3.95E-03	2.80E-03	1.98E-03	7.05E-04	2.50E-04	6.30E-05	7.97E-06	8.04E-09	2.58E-13 8.31E-18
SN123	3.37E-06	4.67E-05	1.69E-05	6.15E-06	2.95E-07	1.42E-08	2.47E-10	5.69E-13	9.12E-22	5.88E-35 3.77E-48
SB125	5.75E-05	1.16E-04	1.02E-04	8.95E-05	6.10E-05	4.15E-05	2.48E-05	1.15E-05	8.82E-07	1.88E-08 4.00E-10
TE125M	1.55E-12	4.72E-05	4.20E-05	3.70E-05	2.52E-05	1.72E-05	1.03E-05	4.75E-06	3.65E-07	7.77E-09 1.65E-10
TE127M	2.36E-10	1.13E-04	3.53E-05	1.11E-05	3.40E-07	1.05E-08	1.01E-10	9.46E-14	7.77E-24	5.81E-39 4.33E-54
TE127	1.65E-02	1.12E-04	3.49E-05	1.09E-05	3.36E-07	1.03E-08	9.94E-11	9.38E-14	7.69E-24	5.73E-39 4.29E-54
CS137	7.20E-05	7.58E-04	7.50E-04	7.41E-04	7.15E-04	6.89E-04	6.59E-04	6.16E-04	4.87E-04	3.46E-04 2.44E-04
BA137M	1.52E-07	7.11E-04	7.02E-04	6.94E-04	6.68E-04	6.46E-04	6.16E-04	5.77E-04	4.57E-04	3.23E-04 2.29E-04
CE141	2.20E-07	9.48E-05	1.90E-06	3.83E-08	3.12E-13	2.54E-18	4.16E-25	2.76E-35	0.	0.
CE144	3.07E-03	9.03E-03	5.80E-03	3.70E-03	9.72E-04	2.56E-04	4.30E-05	2.97E-06	3.99E-10	6.26E-16 9.76E-22
PR144	8.43E-07	9.03E-03	5.80E-03	3.70E-03	9.72E-04	2.56E-04	4.30E-05	2.97E-06	3.99E-10	6.26E-16 9.76E-22
PM147	4.18E-14	2.43E-03	2.13E-03	1.86E-03	1.25E-03	8.43E-04	4.95E-04	2.25E-04	1.60E-05	3.02E-07 5.71E-09
EU155	7.71E-06	2.26E-04	2.10E-04	1.95E-04	1.57E-04	1.26E-04	9.41E-05	6.07E-05	1.42E-05	1.60E-06 1.80E-07

TOTAL 2.88E-01 4.53E-02 2.44E-02 1.67E-02 7.53E-03 4.60E-03 3.26E-03 2.56E-03 1.76E-03 1.20E-03 8.34E-04

APPENDIX D
DETAILED RESULTS FOR EVENT BUSTER EASY

BUSTER EASY
 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 = 1.516E-13

PAGE 2

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.06E+02	1.06E+04
1.00E+00	3.21E+01	2.25E+03
2.00E+00	1.29E+01	8.71E+02
3.00E+00	7.08E+00	5.38E+02
4.00E+00	4.51E+00	4.00E+02
6.00E+00	2.40E+00	2.74E+02
9.00E+00	1.40E+00	1.90E+02
1.20E+01	1.00E+00	1.45E+02
1.50E+01	7.79E-01	1.16E+02
1.80E+01	6.35E-01	9.65E+01
2.10E+01	5.20E-01	8.20E+01
1.00E+00 DAYS	4.48E-01	7.02E+01
2.00E+00	3.99E-01	6.23E+01
3.00E+00	3.34E-01	5.66E+01
4.00E+00	2.94E-01	5.16E+01
6.00E+00	1.57E-02	4.99E+00
9.00E+00	7.00E-03	2.10E+00
1.20E+01	1.13E-03	1.34E+00
1.50E+01	2.13E-03	7.71E-01
2.00E+02	2.03E-03	3.56E-01
3.00E+02	1.19E-04	1.35E-01
4.00E+02	1.80E-04	6.63E-02
1.00E+00 YEARS	4.86E-05	4.72E-02
2.00E+00	5.33E-05	2.54E-02
3.00E+00	4.44E-05	1.73E-02
5.00E+00	1.12E-05	7.83E-03
7.00E+00	2.26E-06	4.81E-03
1.00E+01	7.73E-06	3.42E-03
2.00E+01	1.17E-06	2.69E-03
3.00E+01	4.42E-06	1.85E-03
6.00E+01	3.38E-06	1.26E-03
		8.79E-04

BUSTER EASY 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 = 1.516E-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	3.10E-07	3.10E-07	3.10E-07	3.10E-07	3.10E-07	3.09E-07	3.09E-07	3.08E-07	3.07E-07	3.07E-07	3.06E-07
*NA 24	2.34E-05	2.23E-05	2.13E-05	2.03E-05	1.94E-05	1.77E-05	1.54E-05	1.34E-05	1.17E-05	1.02E-05	8.83E-06
*MN 54	2.12E-05	2.12E-05	2.12E-05	2.12E-05	2.12E-05	2.12E-05	2.12E-05	2.11E-05	2.11E-05	2.11E-05	2.11E-05
*FE 55	3.76E-05	3.76E-05	3.76E-05	3.76E-05	3.76E-05	3.76E-05	3.76E-05	3.76E-05	3.76E-05	3.76E-05	3.76E-05
*FEE 59	3.12E-05	3.12E-05	3.12E-05	3.12E-05	3.12E-05	3.12E-05	3.11E-05	3.11E-05	3.10E-05	3.09E-05	3.09E-05
*CDB 57	3.81E-05	3.81E-05	3.81E-05	3.81E-05	3.81E-05	3.81E-05	3.81E-05	3.81E-05	3.81E-05	3.81E-05	3.81E-05
*CD 58	8.83E-02	8.83E-02	8.83E-02	8.83E-02	8.81E-02	8.81E-02	8.80E-02	8.80E-02	8.78E-02	8.78E-02	8.76E-02
*CD 60	1.59E-04	1.59E-04	1.59E-04	1.59E-04	1.59E-04	1.59E-04	1.59E-04	1.59E-04	1.59E-04	1.59E-04	1.59E-04
*CU 64	2.44E+00	2.31E+00	2.19E+00	2.08E+00	1.96E+00	1.76E+00	1.50E+00	1.27E+00	1.08E+00	9.21E-01	7.83E-01
*CU 67	1.10E-04	1.09E-04	1.07E-04	1.06E-04	1.05E-04	1.02E-04	9.87E-05	9.59E-05	9.28E-05	8.93E-05	8.67E-05
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W187	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PB203	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	1.20E-01	1.19E-01	1.19E-01	1.18E-01	1.18E-01	1.17E-01	1.15E-01	1.14E-01	1.12E-01	1.11E-01	1.10E-01
U239	1.46E+03	2.50E+02	4.26E+01	7.26E+00	1.23E+00	3.59E-02	1.78E-04	8.78E-07	4.35E-09	2.15E-11	1.06E-13
U240	3.53E-01	3.36E-01	3.20E-01	3.05E-01	2.90E-01	2.63E-01	2.27E-01	1.95E-01	1.69E-01	1.45E-01	1.25E-01
NP239	5.01E-03	8.40E+00	9.71E+00	9.86E+00	9.79E+00	9.56E+00	9.17E+00	8.86E+00	8.55E+00	8.25E+00	7.94E+00
NP240M	5.58E-04	3.38E-01	3.23E-01	3.08E-01	2.93E-01	2.65E-01	2.29E-01	1.97E-01	1.70E-01	1.47E-01	1.27E-01
NP240	1.41E-11	7.27E-12	3.78E-12	1.95E-12	1.01E-12	2.70E-13	3.72E-14	5.13E-15	7.07E-16	9.74E-17	1.35E-17
*AM241	8.57E-09	8.57E-09	8.57E-09	8.57E-09	8.57E-09	8.57E-09	8.57E-09	8.57E-09	8.57E-09	8.57E-09	8.57E-09
*CM242	3.45E-08	3.45E-08	3.45E-08	3.45E-08	3.45E-08	3.45E-08	3.43E-08	3.43E-08	3.43E-08	3.43E-08	3.43E-08
GE 75	6.23E-06	3.02E-02	1.82E-02	1.09E-02	6.59E-03	2.39E-03	5.22E-04	1.14E-04	2.49E-05	5.44E-06	1.19E-06
GE 77	4.15E-03	1.07E-02	1.00E-02	9.45E-03	8.89E-03	7.86E-03	6.54E-03	5.44E-03	4.53E-03	3.76E-03	3.13E-03
AS 77	4.29E-05	6.77E-03	6.85E-03	6.90E-03	6.94E-03	6.99E-03	6.99E-03	6.94E-03	6.84E-03	6.70E-03	6.53E-03
SE 77M	1.69E-09	2.03E-05	2.06E-05	2.07E-05	2.07E-05	2.09E-05	2.10E-05	2.09E-05	2.06E-05	2.01E-05	1.95E-05
GE 78	6.43E-01	4.02E-01	2.50E-01	1.56E-01	9.75E-02	3.79E-02	9.22E-03	2.23E-03	5.44E-04	1.32E-04	3.21E-05
AS 78	1.16E-02	1.92E-01	2.37E-01	2.22E-01	1.85E-01	1.09E-01	4.06E-02	1.35E-02	4.17E-03	1.25E-03	3.61E-04
AS 79	1.26E+01	1.24E-01	1.23E-03	1.21E-05	1.19E-07	1.15E-11	1.10E-17	1.05E-23	9.99E-30	9.54E-36	9.12E-42
SE 79M	1.87E-02	2.20E-01	2.17E-03	2.13E-05	2.10E-07	2.03E-11	1.94E-17	1.85E-23	1.76E-29	1.68E-35	1.61E-41
BR 80	7.86E-02	7.41E-03	6.97E-04	6.55E-05	6.17E-06	5.47E-08	4.58E-11	3.82E-14	3.18E-17	2.66E-20	2.22E-23
SE 81M	6.46E-02	3.01E+00	1.45E+00	6.99E-01	3.36E-01	7.86E-02	8.79E-03	9.85E-04	1.11E-04	1.24E-05	1.39E-06
SE 81	7.89E-01	3.56E+00	2.06E+00	1.03E+00	4.99E-01	1.17E-01	1.30E-02	1.46E-03	1.64E-04	1.84E-05	2.06E-06
BR 82	3.90E-04	3.83E-04	3.75E-04	3.68E-04	3.61E-04	3.47E-04	3.27E-04	3.08E-04	2.91E-04	2.74E-04	2.59E-04
SE 83	3.58E+01	6.78E+00	1.29E+00	2.44E-01	4.61E-02	1.66E-03	1.13E-05	7.66E-08	5.23E-10	3.55E-12	2.25E-14
BR 83	2.97E-01	4.44E+00	4.11E+00	3.23E+00	2.45E+00	1.39E+00	5.86E-01	2.47E-01	1.04E-01	4.40E-02	1.85E-02
KR 83M	1.54E-05	1.00E+00	2.05E+00	2.55E+00	2.63E+00	2.19E+00	1.29E+00	6.66E-01	3.21E-01	1.48E-01	6.66E-02

BUSTER EASY 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 = 1.516E-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	7.50E-02	1.30E+01	3.50E+00	9.48E-01	2.56E-01	1.87E-02	3.70E-04	7.31E-06	1.45E-07	2.86E-09	5.65E-11
KR 85M	3.56E-03	7.63E+00	6.49E+00	5.54E+00	4.74E+00	3.46E+00	2.16E+00	1.35E+00	8.38E-01	5.21E-01	3.25E-01
KR 87	5.93E+01	3.42E+01	1.98E+01	1.15E+01	6.61E+00	2.22E+00	4.30E-01	8.33E-02	1.61E-02	3.12E-03	6.04E-04
KR 88	3.38E+01	2.64E+01	2.06E+01	1.61E+01	1.25E+01	7.62E+00	3.64E+00	1.73E+00	8.23E-01	3.92E-01	1.86E-01
RB 88	8.59E+00	2.67E+01	2.28E+01	1.79E+01	1.40E+01	8.54E+00	4.07E+00	1.94E+00	9.25E-01	4.39E-01	2.09E-01
RB 89	4.12E+01	3.87E+01	2.60E+00	1.75E+01	1.17E-02	5.30E-05	1.60E-08	4.84E-12	1.48E-15	4.47E-19	1.36E-22
SR 89	3.15E-06	1.11E-01	1.18E-01	1.17E-01	1.17E-01						
SR 90	6.34E-06	6.51E-04	6.51E-04								
SR 91	8.55E-01	1.59E+01	1.48E+01	1.38E+01	1.28E+01	1.11E+01	8.98E+00	7.26E+00	5.86E+00	4.70E+00	3.79E+00
Y 91M	5.75E-05	5.48E+00	7.47E+00	8.01E+00	7.90E+00	7.09E+00	5.80E+00	4.67E+00	3.77E+00	3.04E+00	2.45E+00
Y 91	2.35E-08	4.87E-03	1.12E-02	1.80E-02	2.45E-02	3.67E-02	5.21E-02	6.45E-02	7.47E-02	8.28E-02	8.92E-02
SR 92	1.09E+01	4.88E+01	3.78E+01	2.93E+01	2.27E+01	1.36E+01	6.31E+00	2.93E+00	1.36E+00	6.31E-01	2.93E-01
Y 92	5.04E-01	1.03E+01	1.61E+01	1.92E+01	2.03E+01	1.94E+01	1.49E+01	1.01E+01	6.51E+00	4.01E+00	2.42E+00
SR 93	4.42E+02	7.62E+00	4.21E-02	2.33E-04	1.28E-06	3.92E-11	6.61E-18	1.11E-24	1.88E-31	3.17E-38	5.35E-45
Y 93	5.40E-01	1.75E+01	1.64E+01	1.53E+01	1.43E+01	1.25E+01	1.02E+01	8.32E+00	6.76E+00	5.55E+00	4.51E+00
Y 94	6.44E+01	8.81E+01	1.13E+01	1.46E+00	1.88E-01	3.13E-03	6.71E-06	1.44E-08	3.08E-11	6.71E-14	3.72E-15
Y 95	2.79E+02	2.63E+01	5.79E-01	1.28E-02	2.81E-04	1.36E-07	1.46E-12	1.56E-17	1.67E-22	1.78E-27	1.91E-32
ZR 95	1.05E-03	1.37E-01	1.40E-01	1.40E-01	1.40E-01	1.40E-01	1.40E-01	1.39E-01	1.39E-01	1.39E-01	1.39E-01
NB 95	1.17E-10	8.45E-05	1.97E-04	3.10E-04	4.23E-04	6.48E-04	9.83E-04	1.32E-03	1.65E-03	1.99E-03	2.32E-03
ZR 97	2.54E+00	1.10E+01	1.06E+01	1.02E+01	9.73E+00	8.99E+00	7.94E+00	7.03E+00	6.24E+00	5.50E+00	4.89E+00
NB 97M	1.30E-02	1.06E+01	1.02E+01	9.77E+00	9.38E+00	8.64E+00	7.64E+00	6.76E+00	5.98E+00	5.28E+00	4.67E+00
NB 97	1.27E+00	5.54E+00	7.81E+00	8.90E+00	9.34E+00	9.29E+00	8.46E+00	7.55E+00	6.68E+00	5.89E+00	5.24E+00
NB 98	1.44E+01	6.38E+00	2.82E+00	1.25E+00	5.53E-01	1.08E-01	9.35E-03	8.08E-04	7.04E-05	6.09E-06	5.24E-07
M0 99	7.65E-03	3.16E+00	3.12E+00	3.09E+00	3.06E+00	3.00E+00	2.91E+00	2.82E+00	2.73E+00	2.65E+00	2.57E+00
TC 99M	7.11E-08	3.01E+01	5.65E-01	7.99E-01	1.00E+00	1.34E+00	1.70E+00	1.93E+00	2.07E+00	2.15E+00	2.18E+00
M0101	1.11E+02	4.99E+01	2.90E+00	1.68E-01	9.75E-03	3.27E-05	6.35E-09	1.24E-12	2.40E-16	4.67E-20	9.10E-24
TC101	4.67E+00	1.40E+02	1.53E+01	1.26E+00	9.14E-02	4.12E-04	1.03E-07	2.31E-11	4.90E-15	1.01E-18	2.04E-22
M0102	9.24E+02	2.11E+01	4.80E-01	1.10E-02	2.50E-04	1.30E-07	1.54E-12	1.83E-17	2.17E-22	2.57E-27	3.06E-32
TC102M	5.94E-01	1.78E+01	4.08E-01	9.33E-03	1.22E-04	1.10E-07	1.31E-12	1.55E-17	1.83E-22	2.18E-27	2.59E-32
TC102	2.78E+03	1.06E+01	2.42E-01	5.50E-03	1.26E-04	6.56E-08	7.79E-13	9.24E-18	1.10E-22	1.30E-27	1.54E-32
RU103	6.70E-05	1.56E-01	1.55E-01	1.55E-01	1.55E-01	1.55E-01	1.54E-01	1.54E-01	1.54E-01	1.53E-01	1.53E-01
RH103M	4.47E-09	8.03E-02	1.19E-01	1.38E-01	1.47E-01	1.53E-01	1.54E-01	1.54E-01	1.54E-01	1.53E-01	1.53E-01
TC104	5.82E+01	4.18E+01	4.18E+00	4.14E-01	4.10E-02	4.03E-04	3.94E-07	3.85E-10	3.76E-13	3.67E-16	3.59E-19
RU105	4.74E-01	1.64E+01	1.40E+01	1.20E+01	1.03E+01	7.51E+00	4.71E+00	2.94E+00	1.84E+00	1.15E+00	7.24E-01
RH105M	3.12E-03	1.64E+01	1.41E+01	1.20E+01	1.03E+01	7.55E+00	4.71E+00	2.95E+00	1.85E+00	1.16E+00	7.24E-01
RH105	5.12E-09	3.34E-01	6.20E-01	8.55E-01	1.05E+00	1.35E+00	1.61E+00	1.73E+00	1.77E+00	1.75E+00	1.70E+00
RU106	4.12E-04	7.80E-03	7.80E-03								
RH106	4.46E-06	7.80E-03	7.80E-03								
RH107	1.02E-01	1.39E+01	2.11E+00	3.17E-01	4.78E-02	1.09E-03	3.76E-06	1.30E-08	4.46E-11	1.53E-146	1.52E-17
PD107M	2.13E-04	2.83E+00	4.27E-01	6.45E-02	9.74E-03	2.22E-04	7.65E-07	2.64E-09	9.07E-12	3.13E-14	1.07E-16

BUSTER EASY 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 = 1.516E-13

PAGE 5

DEBRIS DECAY FROM 1 TO 21 HOURS

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

PD109	5.96E-03	4.94E-01	4.70E-01	4.45E-01	4.23E-01	3.82E-01	3.28E-01	2.81E-01	2.41E-01	2.06E-01	1.77E-01
AG109M	3.44E-05	4.94E-01	4.70E-01	4.46E-01	4.24E-01	3.83E-01	3.28E-01	2.81E-01	2.41E-01	2.06E-01	1.77E-01
PD111M	7.23E-01	6.37E-01	5.62E-01	4.97E-01	4.37E-01	3.40E-01	2.33E-01	1.60E-01	1.09E-01	7.48E-02	5.13E-02
PD111	2.58E-01	4.64E-01	4.45E-01	3.97E-01	3.51E-01	2.73E-01	1.87E-01	1.28E-01	8.77E-02	6.02E-02	4.13E-02
AG111M	2.05E-03	6.26E-01	5.89E-01	5.26E-01	4.64E-01	3.59E-01	2.45E-01	1.68E-01	1.15E-01	7.91E-02	5.40E-02
AG111	7.29E-10	2.16E-03	4.54E-03	6.67E-03	8.56E-03	1.17E-02	1.50E-02	1.72E-02	1.86E-02	1.95E-02	2.00E-02
PD112	1.39E-01	1.34E-01	1.30E-01	1.26E-01	1.22E-01	1.14E-01	1.03E-01	9.35E-02	8.46E-02	7.66E-02	6.94E-02
AG112	4.18E-06	2.66E-02	4.69E-02	6.30E-02	7.49E-02	8.97E-02	9.85E-02	9.81E-02	9.35E-02	8.71E-02	8.04E-02
AG113	1.27E-03	2.71E-01	2.38E-01	2.09E-01	1.83E-01	1.41E-01	9.54E-02	6.44E-02	4.35E-02	2.94E-02	1.99E-02
AG115	4.44E-01	4.76E-01	5.92E-02	7.40E-03	9.26E-04	1.45E-05	2.83E-08	5.53E-11	1.07E-13	1.06E-162	9.86E-17
CD115M	3.63E-09	9.65E-05	1.08E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.10E-04	1.09E-04	1.09E-04	1.09E-04
CD115	1.40E-06	2.64E-02	2.84E-02	2.80E-02	2.73E-02	2.63E-02	2.53E-02	2.43E-02	2.34E-02	2.25E-02	2.15E-02
IN115M	1.75E-11	2.92E-03	6.48E-03	9.62E-03	1.23E-02	1.63E-02	2.02E-02	2.22E-02	2.32E-02	2.34E-02	2.32E-02
CD117	3.12E-02	5.19E-01	3.91E-01	2.92E-01	2.19E-01	1.23E-01	5.15E-02	2.17E-02	9.13E-03	3.84E-03	1.61E-03
IN117M	1.50E-06	1.80E-01	2.61E-01	2.83E-01	2.74E-01	2.16E-01	1.23E-01	6.32E-02	3.04E-02	1.41E-02	6.36E-03
IN117	6.03E-11	3.29E-02	7.96E-02	1.11E-01	1.23E-01	1.14E-01	7.23E-02	3.87E-02	1.93E-02	9.06E-03	4.16E-03
CD118	2.06E+00	8.83E-01	3.79E-01	1.61E-01	6.91E-02	1.26E-02	9.93E-04	7.76E-05	6.10E-06	4.78E-07	3.75E-08
IN118	1.36E-01	8.83E-01	3.79E-01	1.62E-01	6.91E-02	1.27E-02	9.93E-04	7.80E-05	6.10E-06	4.78E-07	3.75E-08
CD119	5.13E+00	8.01E-02	1.25E-03	1.95E-05	3.05E-07	7.47E-11	2.85E-16	1.09E-21	4.14E-27	1.58E-32	6.05E-38
IN119M	7.74E-03	8.66E-01	9.42E-02	9.50E-03	9.46E-04	9.31E-06	9.08E-09	8.89E-12	8.66E-15	8.47E-18	8.27E-21
IN119	3.82E-01	4.56E-02	5.29E-03	5.36E-04	5.36E-05	5.25E-07	5.13E-10	5.02E-13	4.90E-16	4.79E-19	4.67E-22
SN121	6.35E-04	6.53E-02	6.35E-02	6.20E-02	6.05E-02	5.75E-02	5.30E-02	4.93E-02	4.55E-02	4.22E-02	3.92E-02
SN123M	3.63E-01	6.78E-01	2.40E-01	8.50E-02	3.00E-02	3.75E-03	1.66E-04	7.34E-06	3.25E-07	1.43E-08	6.34E-10
SN123	3.41E-06	3.56E-04	3.56E-04								
SN125	9.66E-03	9.63E-03	9.61E-03	9.58E-03	9.53E-03	9.48E-03	9.41E-03	9.31E-03	9.23E-03	9.13E-03	9.05E-03
SB125	5.80E-05	5.83E-05	5.85E-05	5.88E-05	5.90E-05	5.95E-05	6.05E-05	6.13E-05	6.20E-05	6.28E-05	6.36E-05
SB126	1.81E-03	1.80E-03	1.80E-03	1.79E-03	1.78E-03	1.77E-03	1.76E-03	1.74E-03	1.73E-03	1.72E-03	1.72E-03
SN127	2.59E+00	1.86E+00	1.34E+00	9.62E-01	6.92E-01	3.57E-01	1.33E-01	4.93E-02	1.83E-02	6.80E-03	2.53E-03
SB127	3.02E-02	1.04E-01	1.15E-01	1.23E-01	1.28E-01	1.34E-01	1.36E-01	1.34E-01	1.32E-01	1.29E-01	1.27E-01
TE127	1.70E-02	2.12E-02	2.58E-02	3.06E-02	3.54E-02	4.44E-02	5.68E-02	6.63E-02	7.38E-02	7.96E-02	8.33E-02
SN128	1.74E+01	8.58E+00	4.25E+00	2.10E+00	1.04E+00	2.53E-01	3.06E-02	3.69E-03	4.45E-04	5.40E-05	6.50E-06
SB128M	8.85E-03	9.78E+00	5.07E+00	2.50E+00	1.24E+00	3.03E-01	3.64E-02	4.40E-03	5.30E-04	6.41E-05	7.75E-06
SB128	7.33E-01	7.06E-01	6.64E-01	6.23E-01	5.81E-01	4.98E-01	3.98E-01	3.15E-01	2.50E-01	1.99E-01	1.58E-01
SN129M	1.11E+01	5.55E+00	2.78E+00	1.39E+00	6.96E-01	1.74E-01	2.18E-02	2.72E-03	3.40E-04	4.25E-05	5.31E-06
SN129	7.43E+01	7.29E-01	7.19E-03	7.10E-05	6.96E-07	6.77E-11	6.44E-17	6.16E-23	5.88E-29	5.60E-35	5.36E-41
SB129	4.18E+00	7.01E+00	6.58E+00	5.88E+00	5.17E+00	3.84E+00	2.39E+00	1.48E+00	9.12E-01	5.64E-01	3.47E-01
TE129M	7.90E-08	8.75E-04	1.80E-03	2.65E-03	3.40E-03	4.61E-03	5.83E-03	6.58E-03	7.05E-03	7.34E-03	7.52E-03
TE129	3.01E+00	4.14E+00	4.84E+00	5.03E+00	4.84E+00	4.01E+00	2.67E+00	1.68E+00	1.05E+00	6.49E-01	4.03E-01
SB130M	2.22E-01	7.97E-01	2.09E-03	5.50E-06	1.45E-08	9.99E-14	1.82E-21	3.31E-29	6.00E-37	1.09E-44	1.98E-52
SB130	7.24E+01	2.19E+01	6.23E+00	1.76E+00	4.99E-01	4.02E-02	9.16E-04	2.09E-05	4.76E-07	1.09E-08	2.48E-10

BUSTER EASY 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 = 1.516E-13

PAGE 6

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

I 130	2.02E-02	1.91E-02	1.80E-02	1.70E-02	1.61E-02	1.44E-02	1.22E-02	1.03E-02	8.70E-03	7.37E-03	6.23E-03
SB131	1.68E+02	4.38E+01	7.15E+00	1.17E+00	1.93E-01	5.19E-03	2.29E-05	1.01E-07	4.44E-10	1.96E-12	9.77E-15
TE131M	8.06E-05	4.22E-01	4.81E-01	4.82E-01	4.73E-01	4.52E-01	4.21E-01	3.93E-01	3.67E-01	3.42E-01	3.19E-01
TE131	7.42E+01	8.06E+01	2.63E+01	6.83E+00	1.66E+00	1.56E-01	7.74E-02	7.15E-02	6.67E-02	6.25E-02	5.82E-02
I 131	1.08E-02	3.74E-01	5.50E-01	6.03E-01	6.14E-01	6.19E-01	6.19E-01	6.14E-01	6.14E-01	6.09E-01	6.09E-01
TE132	8.57E-01	2.08E+00	2.06E+00	2.05E+00	2.02E+00	1.99E+00	1.94E+00	1.88E+00	1.84E+00	1.79E+00	1.74E+00
I 132	2.10E+00	2.10E+00	2.09E+00	2.08E+00	2.07E+00	2.04E+00	1.99E+00	1.94E+00	1.89E+00	1.84E+00	1.80E+00
TE133M	1.04E-01	3.60E+01	1.57E+01	6.82E+00	2.96E+00	5.63E-01	4.64E-02	3.82E-03	3.15E-04	2.60E-05	2.14E-06
TE133	5.83E+02	3.31E+01	3.68E+01	1.22E+00	5.14E-01	9.73E-02	8.05E-03	6.62E-04	5.49E-05	4.51E-06	3.72E-07
I 133	9.04E-01	9.73E+00	1.05E+01	1.05E+01	1.03E+01	9.78E+00	8.89E+00	8.05E+00	7.26E+00	6.62E+00	5.98E+00
XE133M	3.85E-08	2.19E-03	5.29E-03	8.45E-03	1.15E-02	1.73E-02	2.51E-02	3.18E-02	3.75E-02	4.23E-02	4.64E-02
XE133	6.72E-07	3.82E-02	9.29E-02	1.48E-01	2.04E-01	3.08E-01	4.52E-01	5.78E-01	6.92E-01	7.91E-01	8.80E-01
TE134	1.84E+02	8.53E+01	3.17E+01	1.18E+01	4.38E+00	6.07E-01	3.10E-02	1.59E-03	8.14E-05	4.18E-06	2.14E-07
I 134	8.43E+01	1.13E+02	7.90E+01	4.63E+01	2.49E+01	6.31E+00	6.94E-01	7.08E-02	6.94E-03	6.65E-04	6.31E-05
I 135	1.53E+01	2.70E+01	2.44E+01	2.19E+01	1.98E+01	1.61E+01	1.18E+01	8.63E+00	6.34E+00	4.67E+00	3.41E+00
XE135M	1.70E-03	7.79E+00	7.57E+00	6.87E+00	6.17E+00	5.02E+00	3.69E+00	2.70E+00	1.98E+00	1.45E+00	1.07E+00
XE135	1.77E+00	3.49E+00	5.11E+00	6.43E+00	7.49E+00	8.98E+00	9.95E+00	1.00E+01	9.51E+00	8.68E+00	7.75E+00
CS136	5.16E-03	5.14E-03	5.13E-03	5.12E-03	5.11E-03	5.08E-03	5.05E-03	5.02E-03	4.98E-03	4.95E-03	4.92E-03
CS137	7.52E-05	8.10E-04									
BA137M	1.58E-07	7.56E-04									
XE138	5.80E+02	4.99E+01	4.34E+00	3.76E-01	3.26E-02	2.44E-04	1.59E-07	1.03E-10	6.70E-14	4.36E-17	2.83E-20
CS138	8.64E+01	1.45E+02	5.04E+01	1.48E+01	4.15E+00	3.16E-01	6.57E-03	1.36E-04	2.83E-06	5.89E-08	1.22E-09
CS139	5.52E+02	1.76E+01	2.21E-01	2.78E-03	3.48E-05	5.47E-09	1.09E-14	2.15E-20	4.26E-26	8.44E-32	1.67E-37
BA139	1.02E+01	1.14E+02	7.01E+01	4.26E+01	2.57E+01	9.45E+00	2.10E+00	4.66E-01	1.04E-01	2.29E-02	5.10E-03
BA140	1.06E-01	6.59E-01	6.59E-01	6.54E-01	6.54E-01	6.49E-01	6.49E-01	6.44E-01	6.39E-01	6.34E-01	6.29E-01
LA140	2.51E-07	1.13E-02	2.23E-02	3.32E-02	4.38E-02	6.44E-02	9.41E-02	1.22E-01	1.48E-01	1.73E-01	1.96E-01
BA141	2.02E+02	6.11E+01	6.06E+00	6.01E-01	5.97E-02	5.92E-04	5.77E-07	5.63E-10	5.48E-13	5.39E-16	5.24E-19
LA141	1.87E+00	3.95E+01	3.69E+01	3.13E+01	2.62E+01	1.84E+01	1.08E+01	6.30E+00	3.71E+00	2.17E+00	1.27E+00
CE141	2.31E-07	2.57E-02	6.01E-02	9.04E-02	1.16E-01	1.55E-01	1.93E-01	2.15E-01	2.27E-01	2.34E-01	2.38E-01
BA142	5.38E+02	2.14E+01	4.88E-01	1.11E-02	2.54E-04	1.32E-07	1.56E-12	1.86E-17	2.20E-22	2.61E-27	3.10E-32
LA142	1.24E+01	8.57E+01	5.65E+01	3.60E+01	2.29E+01	9.26E+00	2.39E+00	6.16E-01	1.59E-01	4.09E-02	1.05E-02
LA143	2.03E+02	3.96E+01	2.03E+00	1.04E-01	5.36E-03	1.40E-05	1.89E-09	2.55E-13	3.44E-17	4.64E-21	6.26E-25
CE143	8.11E-02	5.17E+00	5.36E+00	5.22E+00	5.12E+00	4.93E+00	4.62E+00	4.34E+00	4.07E+00	3.82E+00	3.59E+00
PR143	2.37E-08	7.92E-03	1.91E-02	3.02E-02	4.11E-02	6.21E-02	9.15E-02	1.19E-01	1.45E-01	1.69E-01	1.92E-01
CE144	3.24E-03	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.32E-02	2.32E-02	2.32E-02	2.32E-02
PR144	8.90E-07	2.12E-02	2.31E-02	2.32E-02	2.33E-02	2.33E-02	2.33E-02	2.33E-02	2.32E-02	2.32E-02	2.32E-02
PR145	1.30E-01	1.91E+01	1.70E+01	1.51E+01	1.35E+01	1.07E+01	7.55E+00	5.33E+00	3.77E+00	2.66E+00	1.88E+00
CE146	3.82E+02	1.96E+01	1.00E+00	5.13E-02	2.64E-03	6.95E-06	9.36E-10	1.26E-13	1.70E-17	2.29E-21	3.09E-25
PR146	7.89E+00	6.86E+01	1.56E+01	2.92E+00	5.26E-01	1.65E-02	9.14E-05	5.04E-07	2.79E-09	1.54E-11	8.42E-14
PR147	4.43E+01	1.28E+01	4.00E-01	1.25E-02	3.91E-04	3.82E-07	1.16E-11	3.56E-16	1.09E-20	3.32E-25	1.01E-29

BUSTER EASY 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 = 1.516E-13

PAGE 7

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
ND147	1.58E-05	2.97E-01	3.06E-01	3.05E-01	3.04E-01	3.03E-01	3.01E-01	2.98E-01	2.96E-01	2.94E-01	2.91E-01
ND149	2.27E+01	1.55E+01	1.05E+01	7.18E+00	4.86E+00	2.26E+00	7.09E-01	2.24E-01	7.05E-02	2.22E-02	7.00E-03
PM149	3.17E-03	2.47E-01	4.11E-01	5.20E-01	5.89E-01	6.62E-01	6.87E-01	6.75E-01	6.57E-01	6.32E-01	6.10E-01
PM150	2.61E-01	2.02E-01	1.56E-01	1.21E-01	9.33E-02	5.60E-02	2.59E-02	1.20E-02	5.56E-03	2.57E-03	1.19E-03
ND151	8.87E+01	2.77E+00	8.67E-02	2.71E-03	8.47E-05	8.28E-08	2.53E-12	7.72E-17	2.35E-21	7.17E-26	2.19E-30
PM151	5.62E-02	6.57E-01	6.61E-01	6.45E-01	6.30E-01	5.98E-01	5.54E-01	5.15E-01	4.79E-01	4.44E-01	4.12E-01
PM152	1.43E+02	1.40E-01	1.36E-04	1.33E-07	1.30E-10	1.24E-16	1.15E-25	1.08E-34	1.00E-43	9.37E-53	8.71E-62
SM153	1.91E-01	1.88E-01	1.85E-01	1.82E-01	1.80E-01	1.75E-01	1.67E-01	1.60E-01	1.53E-01	1.46E-01	1.40E-01
SM155	1.04E+01	1.72E+00	2.81E-01	4.60E-02	7.54E-03	2.03E-04	8.96E-07	3.94E-09	1.74E-11	7.75E-14	1.90E-16
EU155	7.68E-06	2.19E-04	2.54E-04	2.59E-04	2.60E-04						
SM156	1.79E-01	1.66E-01	1.54E-01	1.43E-01	1.33E-01	1.15E-01	9.21E-02	7.39E-02	5.93E-02	4.75E-02	3.80E-02
EU156	5.23E-04	8.54E-04	1.16E-03	1.44E-03	1.71E-03	2.18E-03	2.77E-03	3.21E-03	3.59E-03	3.87E-03	4.08E-03
EU157	2.92E-02	9.68E-02	9.24E-02	8.83E-02	8.42E-02	7.70E-02	6.72E-02	5.87E-02	5.11E-02	4.45E-02	3.88E-02
EU158	1.05E+00	4.26E-01	1.72E-01	6.98E-02	2.82E-02	4.62E-03	3.08E-04	2.04E-05	1.36E-06	9.00E-08	5.98E-09
EU159	1.27E+00	1.27E-01	1.25E-02	1.25E-03	1.23E-04	1.22E-06	1.19E-09	1.16E-12	1.13E-15	1.11E-18	1.08E-21
GD159	5.46E-03	2.39E-02	2.49E-02	2.41E-02	2.32E-02	2.15E-02	1.92E-02	1.71E-02	1.52E-02	1.35E-02	1.21E-02
TB161	6.85E-05	4.93E-04	4.90E-04	4.88E-04	4.86E-04	4.82E-04	4.77E-04	4.70E-04	4.64E-04	4.59E-04	4.53E-04
TOTAL	1.06E+04	2.25E+03	8.71E+02	5.38E+02	4.00E+02	2.74E+02	1.90E+02	1.45E+02	1.16E+02	9.65E+01	8.20E+01

BUSTER EASY 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 = 1.516E-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	3.10E-07	3.06E-07	3.02E-07	2.91E-07	2.73E-07	2.39E-07	2.10E-07	1.62E-07	8.46E-08	2.30E-08	6.25E-09
*NA 24	2.34E-05	7.71E-06	2.54E-06	9.12E-08	3.57E-10	5.45E-15	8.32E-20	1.94E-29	0.	0.	0.
*MN 54	2.12E-05	2.11E-05	2.11E-05	2.07E-05	2.05E-05	2.01E-05	1.97E-05	1.88E-05	1.68E-05	1.33E-05	1.06E-05
*FE 55	3.76E-05	3.76E-05	3.76E-05	3.74E-05	3.73E-05	3.71E-05	3.67E-05	3.63E-05	3.49E-05	3.25E-05	3.02E-05
*FE 59	3.12E-05	3.08E-05	3.03E-05	2.89E-05	2.68E-05	2.30E-05	1.97E-05	1.45E-05	6.72E-06	1.43E-06	3.08E-07
*CO 57	3.81E-05	3.81E-05	3.78E-05	3.78E-05	3.72E-05	3.61E-05	3.52E-05	3.35E-05	2.96E-05	2.29E-05	1.77E-05
*CO 58	8.83E-02	8.76E-02	8.66E-02	8.40E-02	8.03E-02	7.27E-02	6.60E-02	5.43E-02	3.35E-02	1.26E-02	4.77E-03
*CO 60	1.59E-04	1.59E-04	1.59E-04	1.59E-04	1.58E-04	1.58E-04	1.57E-04	1.56E-04	1.52E-04	1.48E-04	1.42E-04
*CU 64	2.44E+00	6.64E-01	1.81E-01	3.68E-03	5.53E-06	1.26E-11	2.85E-17	1.46E-28	0.	0.	0.
*CU 67	1.10E-04	8.38E-05	6.40E-05	2.85E-05	7.41E-06	5.00E-07	3.37E-08	1.53E-10	2.14E-16	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W187	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU198	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AU199	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
PB203	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	1.20E-01	1.08E-01	9.76E-02	7.18E-02	4.30E-02	1.54E-02	5.52E-03	7.05E-04	4.16E-06	4.48E-10	3.02E-10
U240	3.53E-01	1.09E-01	3.34E-02	9.67E-04	2.66E-06	1.99E-11	1.50E-16	8.47E-27	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP239	5.01E-03	7.64E+00	5.69E+00	2.35E+00	5.38E-01	2.81E-02	1.47E-03	4.04E-06	1.59E-12	3.79E-22	3.79E-22
NP240M	5.58E-04	1.09E-01	3.36E-02	9.74E-04	2.68E-06	2.01E-11	1.51E-16	8.54E-27	0.	0.	0.
*AM241	8.57E-09										
*CMN42	3.45E-08	3.43E-08	3.41E-08	3.37E-08	3.30E-08	3.16E-08	3.04E-08	2.79E-08	2.27E-08	1.47E-08	9.64E-09
GE 77	4.15E-03	2.61E-03	5.98E-04	7.22E-06	4.59E-09	1.86E-15	7.50E-22	1.22E-34	0.	0.	0.
AS 77	4.29E-05	6.33E-03	4.58E-03	1.32E-03	1.55E-04	2.10E-06	2.86E-08	5.27E-12	2.44E-21	5.24E-40	1.12E-58
SE 77M	1.69E-09	1.90E-05	1.37E-05	3.98E-06	4.64E-07	6.31E-09	8.57E-11	1.58E-14	7.33E-24	1.57E-42	3.38E-61
AS 78	1.16E-02	1.03E-04	3.01E-09	2.54E-23	0.	0.	0.	0.	0.	0.	0.
BR 82	3.90E-04	2.44E-04	1.52E-04	3.70E-05	3.50E-06	3.15E-08	2.83E-10	2.28E-14	1.33E-24	4.57E-45	1.56E-65
BR 83	2.97E-01	7.83E-03	7.87E-06	8.00E-15	8.16E-30	0.	0.	0.	0.	0.	0.
KR 83M	1.54E-05	3.42E-02	3.89E-05	3.50E-14	3.59E-29	0.	0.	0.	0.	0.	0.
KR 85M	3.56E-03	2.03E-01	4.63E-03	5.49E-08	3.39E-16	1.29E-32	4.88E-49	0.	0.	0.	0.
KR 85	3.68E-06	9.66E-05	9.85E-05	9.85E-05	9.85E-05	9.85E-05	9.85E-05	9.80E-05	9.71E-05	9.52E-05	9.38E-05
KR 87	5.93E+01	1.17E-04	2.32E-10	1.80E-27	0.	0.	0.	0.	0.	0.	0.
KR 88	3.38E+01	8.89E-02	2.33E-04	4.24E-12	5.33E-25	0.	0.	0.	0.	0.	0.
RB 88	8.59E+00	9.91E-02	2.61E-04	4.74E-12	5.94E-25	0.	0.	0.	0.	0.	0.
SR 89	3.15E-06	9.45E-02	9.31E-02	8.94E-02	8.39E-02	7.33E-02	6.41E-02	4.93E-02	2.52E-02	6.64E-03	1.75E-03
SR 90	6.34E-06	6.51E-04	6.45E-04	6.45E-04	6.40E-04						
Y 90	9.39E-12	1.49E-04	2.64E-04	4.74E-04	6.05E-04	6.45E-04	6.51E-04	6.51E-04	6.45E-04	6.45E-04	6.40E-04
SR 91	8.55E-01	3.06E+00	5.48E-01	3.14E-03	5.75E-07	1.95E-14	6.61E-22	7.52E-37	0.	0.	0.

BUSTER EASY MICRECURIES/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 = 1.516E-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	5.75E-05	1.98E+00	3.54E-01	2.03E-03	3.73E-07	1.26E-14	4.26E-22	4.86E-37	0.	0.	0.
Y 91	2.35E-08	9.41E-02	1.11E-01	1.11E-01	1.05E-01	9.30E-02	8.28E-02	6.56E-02	3.63E-02	1.12E-02	3.43E-03
SR 92	1.09E+01	1.36E-01	2.94E-04	2.95E-12	1.38E-25	0.	0.	0.	0.	0.	0.
Y 92	5.04E-01	1.43E+00	1.59E-02	1.22E-08	7.12E-19	2.44E-39	8.34E-60	0.	0.	0.	0.
Y 93	5.40E-01	3.65E+00	7.11E-01	5.35E-03	1.54E-06	1.27E-13	1.05E-20	7.16E-35	0.	0.	0.
ZR 95	1.05E-03	1.31E-01	1.30E-01	1.25E-01	1.19E-01	1.07E-01	9.60E-02	7.76E-02	4.55E-02	1.57E-02	5.37E-03
NB 95M	2.23E-11	4.43E-04	8.08E-04	1.54E-03	2.08E-03	2.20E-03	2.03E-03	1.64E-03	9.65E-04	3.32E-04	1.14E-04
NB 95	1.17E-10	2.53E-03	5.01E-03	1.20E-02	2.23E-02	3.84E-02	4.96E-02	6.15E-02	5.93E-02	2.85E-02	1.09E-02
ZR 97	2.54E+00	4.32E+00	1.62E+00	8.60E-02	6.46E-04	3.63E-08	2.04E-12	6.46E-21	3.64E-42	0.	0.
NB 97M	1.30E-02	4.15E+00	1.56E+00	8.29E-02	6.20E-04	3.49E-08	1.96E-12	6.20E-21	3.50E-42	0.	0.
NB 97	1.27E+00	4.33E+00	1.63E+00	8.64E-02	6.50E-04	3.91E-08	2.20E-12	6.98E-21	3.93E-42	0.	0.
M0 99	7.65E-03	2.49E+00	1.94E+00	9.21E-01	2.66E-01	2.23E-02	1.86E-03	1.30E-05	5.26E-11	8.67E-22	1.43E-32
TC 99M	7.11E-08	2.19E+00	1.84E+00	8.82E-01	2.54E-01	2.12E-02	1.77E-03	1.24E-05	5.02E-11	8.28E-22	1.36E-32
RU103	6.70E-05	1.53E-01	1.50E-01	1.42E-01	1.31E-01	1.10E-01	9.20E-02	6.49E-02	2.70E-02	4.68E-03	8.16E-04
RH103M	4.47E-09	1.53E-01	1.50E-01	1.43E-01	1.31E-01	1.10E-01	9.20E-02	6.49E-02	2.70E-02	4.68E-03	8.16E-04
RU105	4.74E-01	4.54E-01	1.07E-02	1.40E-07	1.02E-15	5.47E-32	2.93E-48	0.	0.	0.	0.
RH105M	3.12E-03	4.54E-01	1.07E-02	1.41E-07	1.03E-15	5.50E-32	2.94E-48	0.	0.	0.	0.
RH105	5.12E-09	1.64E+00	1.07E+00	2.67E-01	2.63E-02	2.55E-04	2.48E-06	2.34E-10	2.03E-20	1.53E-40	1.15E-60
RU106	4.12E-04	7.80E-03	7.76E-03	7.73E-03	7.66E-03	7.53E-03	7.36E-03	7.09E-03	6.45E-03	5.33E-03	4.42E-03
RH106	4.46E-06	7.80E-03	7.76E-03	7.73E-03	7.66E-03	7.53E-03	7.36E-03	7.09E-03	6.45E-03	5.33E-03	4.42E-03
PD109	5.96E-03	1.52E-01	4.42E-02	1.10E-03	2.31E-06	1.03E-11	4.59E-17	9.07E-28	0.	0.	0.
AG109M	3.44E-05	1.52E-01	4.43E-02	1.10E-03	2.32E-06	1.03E-11	4.59E-17	9.08E-28	0.	0.	0.
PD111M	7.23E-01	3.51E-02	1.71E-03	1.96E-07	5.29E-14	3.86E-27	2.83E-40	0.	0.	0.	0.
PD111	2.58E-01	2.83E-02	1.37E-03	1.57E-07	4.27E-14	3.10E-27	2.28E-40	0.	0.	0.	0.
AG111M	2.05E-03	3.70E-02	1.80E-03	2.07E-07	5.59E-14	4.10E-27	3.00E-40	0.	0.	0.	0.
AG111	7.29E-10	2.01E-02	1.93E-02	1.47E-02	9.26E-03	3.67E-03	1.46E-03	2.30E-04	2.26E-06	2.19E-10	2.12E-14
PD112	1.39E-01	6.30E-02	2.85E-02	2.65E-03	5.03E-05	1.83E-08	6.64E-12	8.71E-19	5.50E-36	0.	0.
AG112	4.18E-06	7.32E-02	3.36E-02	3.12E-03	5.96E-05	2.16E-08	7.82E-12	1.03E-18	6.47E-36	0.	0.
AG113	1.27E-03	1.34E-02	5.80E-04	4.71E-08	7.21E-15	1.69E-28	3.94E-42	0.	0.	0.	0.
CD115M	3.63E-09	1.05E-04	1.03E-04	9.83E-05	9.09E-05	7.71E-05	6.59E-05	4.76E-05	2.13E-05	4.23E-06	8.45E-07
CD115	1.40E-06	2.11E-02	1.55E-02	6.09E-03	1.29E-03	5.74E-05	2.56E-06	5.11E-09	9.02E-16	2.83E-29	8.84E-43
IN115M	1.75E-11	2.23E-02	1.69E-02	6.66E-03	1.40E-03	6.27E-05	2.79E-06	5.57E-09	9.86E-16	3.09E-29	9.65E-43
CD117	3.12E-02	6.79E-04	6.61E-07	6.17E-16	5.48E-31	0.	0.	0.	0.	0.	0.
IN117M	1.50E-06	2.82E-03	3.27E-06	3.15E-15	2.80E-30	0.	0.	0.	0.	0.	0.
IN117	6.03E-11	1.86E-03	2.20E-06	2.13E-15	1.89E-30	0.	0.	0.	0.	0.	0.
SN121	6.35E-04	3.62E-02	1.95E-02	3.08E-03	1.41E-04	2.98E-07	6.27E-10	2.80E-15	1.17E-28	0.	0.
SN123	3.41E-06	3.56E-04	3.53E-04	3.47E-04	3.38E-04	3.19E-04	3.03E-04	2.71E-04	2.05E-04	1.18E-04	6.78E-05
SN125	9.66E-03	8.98E-03	8.35E-03	6.68E-03	4.62E-03	2.21E-03	1.06E-03	2.42E-04	6.05E-06	3.81E-09	2.39E-12
SB125	5.80E-05	6.43E-05	7.04E-05	8.60E-05	1.05E-04	1.28E-04	1.37E-04	1.43E-04	1.40E-04	1.31E-04	1.22E-04
SB126	1.81E-03	1.71E-03	1.62E-03	1.37E-03	1.04E-03	5.95E-04	3.43E-04	1.13E-04	7.06E-06	3.43E-08	6.89E-09

BUSTER EASY 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 = 1.516E-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	2.59E+00	9.37E-04	3.40E-07	1.63E-17	1.02E-34	0.	0.	0.	0.	0.
SB127	3.02E-02	1.24E-01	1.04E-01	6.05E-02	2.48E-02	4.14E-03	6.92E-04	1.94E-05	2.53E-09	4.31E-17
TE127M	2.44E-10	1.89E-04	3.46E-04	6.72E-04	9.29E-04	1.02E-03	9.87E-04	8.75E-04	6.39E-04	3.37E-04
TE127	1.70E-02	8.87E-02	8.71E-02	5.31E-02	2.24E-02	4.60E-03	1.58E-03	8.83E-04	6.30E-04	3.33E-04
SB128	7.33E-01	1.25E-01	1.97E-02	7.70E-05	7.47E-09	7.01E-17	6.59E-25	5.81E-41	0.	0.
SB129	4.18E+00	2.14E-01	4.47E-03	4.07E-08	1.62E-16	2.55E-33	4.03E-50	0.	0.	0.
TE129M	7.90E-08	8.32E-03	6.32E-03	7.85E-03	7.10E-03	5.78E-03	4.70E-03	3.13E-03	1.13E-03	1.47E-04
TE129	3.01E+00	5.51E-01	1.04E-02	5.03E-03	4.54E-03	3.70E-03	3.02E-03	2.01E-03	7.24E-04	9.45E-05
I130	2.02E-02	5.27E-03	1.38E-03	2.46E-05	3.01E-08	4.48E-14	6.69E-20	1.49E-31	0.	0.
TE131M	8.06E-05	2.82E-01	1.62E-01	3.06E-02	1.92E-03	7.47E-06	2.93E-08	4.46E-13	4.06E-25	0.
TE131	7.42E+01	5.14E-02	2.95E-02	5.61E-03	3.50E-04	1.37E-06	5.33E-09	8.17E-14	7.42E-26	0.
I131	1.08E-02	5.82E-01	5.50E-01	4.42E-01	2.91E-01	1.23E-01	5.20E-02	9.29E-03	1.25E-04	2.29E-08
XE131M	2.93E-11	2.70E-04	5.12E-04	1.07E-03	1.53E-03	1.51E-03	1.12E-03	4.63E-04	3.09E-05	9.24E-08
TE132	8.57E-01	1.70E+00	1.37E+00	7.22E-01	2.49E-01	2.95E-02	3.49E-03	4.91E-05	1.15E-09	6.28E-19
I132	2.10E+00	1.75E+00	1.41E+00	7.42E-01	2.56E-01	3.04E-02	3.60E-03	5.06E-05	1.18E-09	6.44E-19
I133	9.04E-01	5.04E+00	2.27E+00	2.11E-01	4.02E-03	1.46E-06	5.29E-10	6.97E-17	4.38E-34	0.
XE133M	3.85E-08	4.76E-02	5.63E-02	3.31E-02	7.76E-03	3.64E-04	1.69E-05	3.68E-08	8.05E-15	3.85E-28
XE133	6.72E-07	9.14E-01	1.23E+00	1.10E+00	5.98E-01	1.62E-01	4.34E-02	3.13E-03	4.36E-06	8.45E-12
I135	1.53E+01	2.50E+00	2.09E-01	1.22E-04	4.93E-10	8.15E-21	1.34E-31	3.64E-53	0.	0.
XE135M	1.70E-03	7.79E-01	6.52E-02	3.79E-05	1.54E-10	2.54E-21	4.18E-32	1.14E-53	0.	0.
XE135	1.77E+00	6.74E+00	1.65E+00	9.42E-03	1.15E-06	1.62E-14	2.27E-22	4.49E-38	0.	0.
CS136	5.16E-03	4.89E-03	4.63E-03	3.95E-03	3.03E-03	1.78E-03	1.04E-03	3.59E-04	2.49E-05	1.20E-07
CS137	7.52E-05	8.10E-04	8.06E-04	8.01E-04						
BA137M	1.58E-07	7.56E-04	7.52E-04	7.47E-04						
BA139	1.02E+01	1.09E-03	6.42E-09	1.32E-24	0.	0.	0.	0.	0.	0.
BA140	1.06E-01	6.24E-01	5.94E-01	5.03E-01	3.84E-01	2.23E-01	1.30E-01	4.40E-02	2.94E-03	1.31E-05
LA140	2.51E-07	2.17E-01	3.50E-01	4.84E-01	4.30E-01	2.57E-01	1.50E-01	5.08E-02	3.38E-03	1.51E-05
LA141	1.87E+00	7.41E-01	1.04E-02	2.88E-08	1.57E-17	4.70E-36	1.40E-54	0.	0.	0.
CE141	2.31E-07	2.56E-01	2.54E-01	2.39E-01	2.14E-01	1.73E-01	1.40E-01	9.09E-02	3.12E-02	3.68E-03
LA142	1.24E+01	2.71E-03	5.24E-08	3.86E-22	0.	0.	0.	0.	0.	0.
CE143	8.11E-02	3.33E+00	2.02E+00	4.44E-01	3.57E-02	2.31E-04	1.49E-06	6.26E-11	7.06E-22	0.
PR143	2.37E-08	2.13E-01	3.32E-01	4.29E-01	3.67E-01	2.24E-01	1.35E-01	4.88E-02	3.91E-03	2.48E-05
CE144	3.24E-03	2.32E-02	2.31E-02	2.30E-02	2.27E-02	2.21E-02	2.16E-02	2.06E-02	1.82E-02	1.43E-02
PR144	8.90E-07	2.32E-02	2.31E-02	2.30E-02	2.27E-02	2.21E-02	2.16E-02	2.06E-02	1.82E-02	1.43E-02
PR145	1.30E-01	1.33E+00	8.24E-02	1.95E-05	1.78E-11	1.48E-23	1.22E-35	0.	0.	0.
ND147	1.58E-05	2.66E-01	2.50E-01	2.07E-01	1.52E-01	8.14E-02	4.34E-02	1.25E-02	5.47E-04	1.07E-06
PM147	4.39E-14	1.99E-04	3.85E-04	8.79E-04	1.52E-03	2.32E-03	2.74E-03	3.05E-03	3.08E-03	2.87E-03
ND149	2.27E+01	2.20E-03	2.13E-07	1.94E-19	1.66E-39	0.	0.	0.	0.	0.
PM149	3.17E-03	5.84E-01	4.28E-01	1.67E-01	3.49E-02	1.52E-03	6.62E-05	1.26E-07	1.99E-14	4.90E-28
PM150	2.61E-01	5.51E-04	1.16E-06	1.09E-14	4.56E-28	0.	0.	0.	0.	0.

BUSTER EASY 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 = 1.516E-13

PAGE 11

DEBRIS DECAY FROM 1 TO 300 DAYS

ZERO TIME 1.00E+00 2.00E+00 5.00E+00 1.00E+01 2.00E+01 3.00E+01 5.00E+01 1.00E+02 2.00E+02 3.00E+02

PM151	5.62E-02	3.83E-01	2.11E-01	3.56E-02	1.83E-03	4.79E-06	1.26E-08	8.71E-14	1.09E-26	0.	0.
SM153	1.91E-01	1.34E-01	9.40E-02	3.25E-02	5.52E-03	1.61E-04	4.67E-06	3.92E-09	8.08E-17	3.44E-32	1.46E-47
SM156	1.79E-01	3.05E-02	5.21E-03	2.57E-05	3.69E-09	7.59E-17	1.57E-24	6.67E-40	0.	0.	0.
EU155	7.68E-06	2.60E-04	2.60E-04	2.60E-04	2.59E-04	2.58E-04	2.57E-04	2.55E-04	2.50E-04	2.40E-04	2.31E-04
EU156	5.23E-04	4.26E-03	4.72E-03	4.23E-03	3.36E-03	2.11E-03	1.33E-03	5.29E-04	5.23E-05	5.16E-07	5.08E-09
EU157	2.92E-02	3.37E-02	1.14E-02	4.26E-04	1.79E-06	3.15E-11	5.58E-16	1.74E-25	0.	0.	0.
GD159	5.46E-03	1.07E-02	4.27E-03	2.67E-04	2.62E-06	2.54E-10	2.46E-14	2.31E-22	1.97E-42	0.	0.
TB161	6.85E-05	4.48E-04	4.04E-04	2.99E-04	1.81E-04	6.63E-05	2.42E-05	3.25E-06	2.15E-08	9.29E-13	4.04E-17
TOTAL	2.77E+02	7.02E+01	3.23E+01	1.16E+01	4.99E+00	2.10E+00	1.34E+00	7.71E-01	3.56E-01	1.35E-01	6.63E-02

BUSTER EASY
 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 = 1.516E-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	3.10E-07	2.68E-09	2.49E-10	2.31E-11	1.86E-14	1.49E-17	1.11E-21	7.14E-28	0.	0.
*MN 54	2.12E-05	9.15E-06	6.03E-06	3.97E-06	1.13E-06	3.23E-07	6.09E-08	4.98E-09	1.17E-12	4.23E-18 1.53E-23
*FE 59	3.12E-05	1.13E-07	6.77E-09	4.07E-10	8.83E-14	1.91E-17	2.49E-22	1.17E-29	0.	0.
*CD 57	3.81E-05	1.50E-05	9.39E-06	5.89E-06	1.45E-06	3.58E-07	5.53E-09	3.35E-09	2.93E-13	2.41E-19 0.
*CD 58	8.83E-02	2.54E-03	4.30E-04	7.29E-05	3.55E-07	1.73E-09	1.43E-12	3.38E-17	1.29E-32	0.
*CD 60	1.59E-04	1.39E-04	1.30E-04	1.21E-04	9.96E-05	8.19E-05	6.29E-05	4.24E-05	1.14E-05	1.58E-06 2.18E-07
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	1.20E-01	2.99E-10	2.92E-10	2.84E-10	2.66E-10	2.47E-10	2.24E-10	1.94E-10	1.21E-10	5.93E-11 2.92E-11
*AM241	8.57E-09	8.57E-09	8.57E-09	8.57E-09	8.61E-09	8.65E-09	8.65E-09	8.69E-09	8.73E-09	8.65E-09 8.53E-09
*CM242	3.45E-08	7.30E-09	9.36E-09	1.54E-09	1.51E-10	1.47E-11	6.57E-13	6.21E-15	1.79E-19	1.66E-19 1.55E-19
KR 85	3.68E-06	9.14E-05	8.86E-05	8.57E-05	7.82E-05	7.06E-05	6.20E-05	5.12E-05	2.70E-05	1.03E-05 3.95E-06
SR 89	3.15E-06	7.38E-04	6.45E-05	6.67E-06	3.82E-09	2.58E-12	1.55E-16	6.91E-23	5.02E-44	0.
SR 90	6.34E-06	6.34E-04	6.28E-04	6.22E-04	5.99E-04	5.76E-04	5.49E-04	5.09E-04	3.98E-04	2.75E-04 1.90E-04
Y 90	9.39E-12	6.34E-04	6.28E-04	6.22E-04	5.99E-04	5.76E-04	5.49E-04	5.09E-04	3.98E-04	2.75E-04 1.90E-04
Y 91	2.35E-08	1.59E-03	1.85E-04	2.15E-05	3.37E-08	5.29E-11	9.67E-15	2.38E-20	4.80E-39	0.
ZR 95	1.05E-03	2.69E-03	3.84E-04	5.47E-05	1.59E-07	4.64E-10	1.92E-13	1.62E-18	1.98E-35	0.
NB 95M	2.23E-11	5.70E-05	8.13E-06	1.16E-06	3.38E-09	9.83E-12	4.07E-15	3.44E-20	4.21E-37	0.
NB 95	1.17E-10	5.79E-03	8.31E-04	1.19E-04	3.44E-07	9.97E-10	4.16E-13	3.51E-18	4.30E-35	0.
RU103	6.70E-05	2.60E-04	1.07E-05	4.38E-07	2.99E-11	2.05E-15	5.76E-21	2.71E-29	0.	0.
RH103M	4.47E-09	2.61E-04	1.07E-05	4.38E-07	2.99E-11	2.05E-15	5.76E-21	2.71E-29	0.	0.
RU106	4.12E-04	3.92E-03	2.77E-03	1.96E-03	6.99E-04	2.48E-04	6.24E-05	7.90E-06	7.97E-09	2.56E-13 8.24E-18
RH106	1.46E-06	3.92E-03	2.77E-03	1.96E-03	6.99E-04	2.48E-04	6.24E-05	7.90E-06	7.97E-09	2.56E-13 8.24E-18
SN123	3.41E-06	4.72E-05	1.71E-05	6.22E-06	2.98E-07	1.43E-08	2.49E-10	5.75E-13	9.22E-22	5.94E-35 3.81E-48
SB125	5.80E-05	1.17E-04	1.03E-04	9.03E-05	6.15E-05	4.19E-05	2.50E-05	1.16E-05	8.90E-07	1.89E-08 4.04E-10
TE125M	1.56E-12	4.77E-05	4.24E-05	3.73E-05	2.55E-05	1.73E-05	1.04E-05	4.79E-06	3.68E-07	7.84E-09 1.67E-10
TE127M	2.44E-10	1.17E-04	3.66E-05	1.14E-05	3.52E-07	1.08E-08	1.04E-10	9.79E-14	8.04E-24	6.01E-39 4.48E-54
TE127	1.70E-02	1.16E-04	3.62E-05	1.13E-05	3.48E-07	1.07E-08	1.03E-10	9.70E-14	7.96E-24	5.93E-39 4.44E-54
CS137	7.52E-05	7.92E-04	7.83E-04	7.74E-04	7.47E-04	7.20E-04	6.89E-04	6.44E-04	5.09E-04	3.61E-04 2.55E-04
BA137M	1.58E-07	7.43E-04	7.34E-04	7.25E-04	6.98E-04	6.75E-04	6.44E-04	6.03E-04	4.77E-04	3.38E-04 2.39E-04
CE141	2.31E-07	9.96E-05	2.00E-06	4.02E-08	3.28E-13	2.67E-18	4.37E-25	2.90E-35	0.	0.
CE144	3.24E-03	9.53E-03	6.13E-03	3.91E-03	1.03E-03	2.70E-04	4.54E-05	3.13E-06	4.22E-10	6.62E-16 1.03E-21
PR144	8.90E-07	9.53E-03	6.13E-03	3.91E-03	1.03E-03	2.70E-04	4.54E-05	3.13E-06	4.22E-10	6.62E-16 1.03E-21
PM147	4.39E-14	2.55E-03	2.23E-03	1.95E-03	1.31E-03	8.84E-04	5.19E-04	2.36E-04	1.67E-05	3.17E-07 5.99E-09
EU155	7.68E-06	2.25E-04	2.09E-04	1.94E-04	1.56E-04	1.26E-04	9.37E-05	6.05E-05	1.41E-05	1.59E-06 1.79E-07

TOTAL 2.31E-01 4.72E-02 2.54E-02 1.73E-02 7.83E-03 4.81E-03 3.42E-03 2.69E-03 1.85E-03 1.26E-03 8.79E-04

APPENDIX E
DETAILED RESULTS FOR EVENT JANGLE SUGAR

JANGLE SUGAR
 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 = 4.985E-12

PAGE 2

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.04E+02	1.20E+04
1.00E+00	3.45E+01	2.54E+03
2.00E+00	1.37E+01	9.41E+02
3.00E+00	7.25E+00	5.49E+02
4.00E+00	4.46E+00	3.93E+02
6.00E+00	2.31E+00	2.60E+02
9.00E+00	1.37E+00	1.78E+02
1.20E+01	1.00E+00	1.37E+02
1.50E+01	7.88E-01	1.11E+02
1.80E+01	6.46E-01	9.28E+01
2.10E+01	5.42E-01	7.96E+01
1.00E+00 DAYS	4.58E-01	6.87E+01
2.00E+00	3.08E-01	3.33E+01
5.00E+00	8.33E-02	1.28E+01
1.00E+01	3.83E-02	1.26E+00
2.00E+01	1.49E-02	1.96E+00
3.00E+01	8.35E-03	1.18E+00
5.00E+01	3.64E-03	6.39E-01
1.00E+02	1.11E-03	3.69E-01
2.00E+02	3.67E-04	9.09E-01
3.00E+02	1.42E-04	4.26E-00
1.00E+00 YEARS	8.24E-05	3.02E-00
2.00E+00	2.71E-05	1.71E-00
3.00E+00	1.70E-05	1.23E-00
5.00E+00	1.13E-05	6.66E-03
1.00E+01	9.45E-06	4.79E-03
2.00E+01	8.45E-06	3.89E-03
3.00E+01	7.68E-06	3.35E-03
5.00E+01	5.99E-06	2.49E-03
1.00E+02	4.25E-06	1.72E-03
2.00E+02	3.00E-06	1.20E-03

JANGLE SUGAR 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 = 4.985E-12

PAGE 3

DEBRIS DECAY FROM 1 TO 21 HOURS

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

BE 7	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NA 24	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
*MN 54	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.08E-05	1.07E-05	1.07E-05	1.07E-05	1.07E-05	1.07E-05	1.07E-05
FE 55	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FW 56	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD 64	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD 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	2.12E-01	2.11E-01	2.10E-01	2.09E-01	2.08E-01	2.06E-01	2.04E-01	2.01E-01	1.98E-01	1.96E-01	1.93E-01	1.90E-01
* U239	2.73E+03	4.65E+02	7.94E+01	1.35E+01	2.30E+00	6.69E-02	3.32E-04	1.64E-06	8.10E-09	4.01E-11	1.98E-13	0.
U240	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
*NP239	9.33E-03	1.56E+01	1.81E+01	1.84E+01	1.82E+01	1.78E+01	1.71E+01	1.65E+01	1.59E+01	1.54E+01	1.48E+01	1.42E+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	7.82E-06	3.79E-02	2.28E-02	1.38E-02	8.27E-03	3.00E-03	6.55E-04	1.43E-04	3.13E-05	6.83E-06	1.49E-06	1.49E-06
GE 77	4.68E-03	1.21E-02	1.13E-02	1.07E-02	1.00E-02	8.88E-03	7.39E-03	6.14E-03	5.12E-03	4.25E-03	3.54E-03	3.54E-03
AS 77	4.84E-05	7.65E-03	7.74E-03	7.79E-03	7.84E-03	7.89E-03	7.89E-03	7.84E-03	7.72E-03	7.56E-03	7.37E-03	7.37E-03
SE 77M	1.91E-09	2.29E-05	2.32E-05	2.34E-05	2.34E-05	2.36E-05	2.38E-05	2.36E-05	2.32E-05	2.27E-05	2.20E-05	2.20E-05
GE 78	6.99E-01	4.37E-01	2.72E-01	1.70E-01	1.06E-01	4.13E-02	1.00E-02	2.43E-03	5.92E-04	1.44E-04	3.49E-05	3.49E-05
AS 78	1.26E-02	2.09E-01	2.57E-01	2.41E-01	2.01E-01	1.19E-01	4.42E-02	1.47E-02	4.54E-03	1.36E-03	3.93E-04	3.93E-04
AS 79	1.46E+01	1.44E-01	1.42E-03	1.39E-05	1.37E-07	1.33E-11	1.27E-17	1.21E-23	1.15E-29	1.10E-35	1.05E-41	1.05E-41
SE 79M	2.16E-02	2.54E-01	2.50E-03	2.47E-05	2.43E-07	2.35E-11	2.24E-17	2.14E-23	2.04E-29	1.95E-35	1.86E-41	1.86E-41
BR 80	9.64E-02	9.09E-03	8.55E-04	8.04E-05	7.57E-06	6.71E-08	5.62E-11	4.68E-14	3.90E-17	3.26E-20	2.72E-23	2.72E-23
SE 81M	8.16E-02	3.81E+00	1.84E+00	8.84E-01	4.25E-01	9.93E-02	1.11E-02	1.25E-03	1.40E-04	1.57E-05	1.75E-06	1.75E-06
SE 81	9.97E-01	4.50E+00	2.60E+00	1.30E+00	6.31E-01	1.47E-01	1.65E-02	1.85E-03	2.07E-04	2.32E-05	2.60E-06	2.60E-06
BR 82	5.22E-04	5.12E-04	5.02E-04	4.93E-04	4.83E-04	4.64E-04	4.38E-04	4.13E-04	3.89E-04	3.67E-04	3.46E-04	3.46E-04
SE 83	4.89E+01	9.26E+00	1.76E+00	3.33E-01	6.29E-02	2.26E-03	1.54E-05	1.05E-07	7.15E-10	4.84E-12	3.08E-14	3.08E-14
BR 83	4.06E-01	6.06E+00	5.61E+00	4.41E+00	3.35E+00	1.89E+00	8.01E-01	3.37E-01	1.42E-01	6.00E-02	2.53E-02	2.53E-02
KR 83M	2.10E-05	1.37E+00	2.80E+00	3.48E+00	3.59E+00	3.00E+00	1.77E+00	9.09E-01	4.38E-01	2.02E-01	9.09E-02	9.09E-02

JANGLE SUGAR 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 = 4.985E-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	1.05E-01	1.81E+01	4.90E+00	1.33E+00	3.58E-01	2.62E-02	5.18E-04	1.02E-05	2.02E-07	4.00E-09	7.91E-11
KR 85M	5.26E-03	1.13E+01	9.60E+00	8.20E+00	7.01E+00	5.11E+00	3.19E+00	1.99E+00	1.24E+00	7.71E-01	4.81E-01
KR 87	8.84E+01	5.10E+01	2.96E+01	1.71E+01	9.85E+00	3.30E+00	6.41E-01	1.24E-01	2.40E-02	4.65E-03	9.00E-04
KR 88	5.11E+01	3.99E+01	3.11E+01	2.43E+01	1.90E+01	1.15E+01	5.50E+00	2.62E+00	1.24E+00	5.93E-01	2.82E-01
RB 88	1.30E+01	4.03E+01	3.44E+01	2.71E+01	2.12E+01	1.29E+01	6.16E+00	2.93E+00	1.40E+00	6.65E-01	3.16E-01
RB 89	6.11E+01	5.74E+01	3.86E+00	2.60E-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	1.74E-01	1.74E-01						
SR 90	9.46E-06	9.72E-04	9.72E-04								
SR 91	1.07E+00	1.99E+01	1.85E+01	1.73E+01	1.60E+01	1.39E+01	1.12E+01	9.06E+00	7.32E+00	5.87E+00	4.74E+00
Y 91M	7.18E-05	6.85E+00	9.33E+00	1.00E+01	9.87E+00	8.86E+00	7.25E+00	5.83E+00	4.71E+00	3.79E+00	3.06E+00
Y 91	2.94E-08	6.09E-03	1.40E-02	2.24E-02	3.06E-02	4.58E-02	6.51E-02	8.06E-02	9.33E-02	1.03E-01	1.11E-01
SR 92	6.34E+00	2.83E+01	2.19E+01	1.70E+01	1.31E+01	7.87E+00	3.65E+00	1.70E+00	7.87E-01	3.65E-01	1.70E-01
Y 92	2.92E-01	5.95E+00	9.34E+00	1.11E+01	1.18E+01	1.12E+01	8.61E+00	5.86E+00	3.77E+00	2.32E+00	1.40E+00
SR 93	2.49E+02	4.28E+00	2.37E-02	1.31E-04	7.20E-07	2.20E-11	3.72E-18	6.27E-25	1.06E-31	1.78E-38	3.01E-45
Y 93	3.04E-01	9.81E+00	9.22E+00	8.62E+00	8.06E+00	7.03E+00	5.73E+00	4.68E+00	3.80E+00	3.12E+00	2.54E+00
Y 94	3.60E+01	4.92E+01	6.33E+00	8.16E-01	1.05E-01	1.75E-03	3.75E-06	8.04E-09	1.72E-11	3.75E-14	2.08E-15
Y 95	1.53E+02	1.44E+01	3.18E-01	7.02E-03	1.54E-04	7.50E-08	8.03E-13	8.58E-18	9.16E-23	9.79E-28	1.05E-32
ZR 95	5.76E-04	7.52E-02	7.67E-02	7.67E-02	7.67E-02	7.67E-02	7.65E-02	7.65E-02	7.62E-02	7.62E-02	7.62E-02
NB 95	6.41E-11	4.64E-05	1.08E-04	1.70E-04	2.32E-04	3.56E-04	5.40E-04	7.27E-04	9.09E-04	1.09E-03	1.27E-03
ZR 97	1.35E+00	5.88E+00	5.63E+00	5.42E+00	5.19E+00	4.79E+00	4.23E+00	3.74E+00	3.33E+00	2.93E+00	2.61E+00
NB 97M	6.95E-03	5.63E+00	5.42E+00	5.21E+00	5.00E+00	4.61E+00	4.07E+00	3.61E+00	3.19E+00	2.81E+00	2.49E+00
NB 97	6.77E-01	2.95E+00	4.16E+00	4.75E+00	4.98E+00	4.95E+00	4.51E+00	4.02E+00	3.56E+00	3.14E+00	2.79E+00
NB 98	7.56E+00	3.34E+00	1.43E+00	6.54E-01	2.90E-01	5.67E-02	4.91E-03	4.24E-04	3.69E-05	3.20E-06	2.75E-07
MO 99	3.92E-03	1.62E+00	1.60E+00	1.59E+00	1.57E+00	1.54E+00	1.49E+00	1.44E+00	1.40E+00	1.36E+00	1.32E+00
TC 99M	3.65E-08	1.54E-01	2.90E-01	4.10E-01	5.15E-01	6.87E-01	8.72E-01	9.90E-01	1.06E+00	1.10E+00	1.12E+00
MO101	1.33E+02	5.99E+01	3.40E+00	2.02E-01	1.17E-02	3.92E-05	7.61E-09	1.48E-12	2.88E-16	5.60E-20	1.09E-23
TC101	5.60E+00	1.66E+02	1.04E+01	1.51E+00	1.10E-01	4.95E-04	1.24E-07	2.77E-11	5.88E-15	1.21E-18	2.45E-22
MO102	1.04E+03	2.37E+01	5.39E-01	1.23E-02	2.61E-04	1.45E-07	1.74E-12	2.06E-17	2.44E-22	2.89E-27	3.44E-32
TC102M	6.68E-01	2.00E+01	4.59E-01	1.05E-02	2.39E-04	1.24E-07	1.47E-12	1.74E-17	2.06E-22	2.45E-27	2.91E-32
TC102	3.13E+03	1.19E+01	2.72E-01	6.18E-03	1.41E-04	7.37E-08	8.75E-13	1.04E-17	1.23E-22	1.46E-27	1.73E-32
RU103	6.85E-05	1.59E-01	1.39E-01	1.59E-01	1.59E-01	1.58E-01	1.58E-01	1.57E-01	1.57E-01	1.56E-01	1.56E-01
RH103M	4.57E-09	8.22E-02	1.22E-01	1.41E-01	1.50E-01	1.56E-01	1.58E-01	1.58E-01	1.57E-01	1.57E-01	1.57E-01
TC104	5.46E-01	3.92E+01	3.92E+00	3.88E-01	3.84E-02	3.78E-04	3.70E-07	3.61E-10	3.53E-13	3.45E-16	3.36E-19
RU105	3.72E-01	1.29E+01	1.10E+01	9.41E+00	8.05E+00	5.88E+00	3.69E+00	2.31E+00	1.44E+00	9.03E-01	5.67E-01
RH105M	2.44E-03	1.29E+01	1.10E+01	9.44E+00	8.05E+00	5.91E+00	3.69E+00	2.31E+00	1.45E+00	9.06E-01	5.67E-01
RH105	4.01E-09	2.61E-01	4.85E-01	6.70E-01	8.24E-01	1.05E+00	1.26E+00	1.36E+00	1.38E+00	1.37E+00	1.33E+00
RU106	2.86E-04	5.42E-03	5.42E-03								
RH106	3.10E-06	5.42E-03	5.42E-03								
RH107	3.77E-02	5.12E+00	7.77E-01	1.17E-01	1.76E-02	4.02E-04	1.39E-06	4.78E-09	1.64E-11	5.63E-147	5.60E-18
PD107M	7.84E-05	1.04E+00	1.57E-01	2.38E-02	3.59E-03	8.19E-05	2.82E-07	9.73E-10	3.34E-12	1.15E-14	3.94E-17

JANGLE SUGAR 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 = 4.985E-12

PAGE 5

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
PD109	2.36E-03	1.96E-01	1.86E-01	1.77E-01	1.68E-01	1.51E-01	1.30E-01	1.12E-01	9.56E-02	8.19E-02	7.04E-02
AG109M	1.36E-05	1.96E-01	1.86E-01	1.77E-01	1.68E-01	1.52E-01	1.30E-01	1.12E-01	9.56E-02	8.19E-02	7.04E-02
PD111M	3.28E-01	2.89E-01	2.55E-01	2.26E-01	1.99E-01	1.59E-01	1.24E-01	8.49E-02	5.82E-02	3.98E-02	2.73E-02
PD111	1.17E-01	2.11E-01	2.02E-01	1.80E-01	1.59E-01	1.24E-01	1.06E-01	7.24E-02	4.96E-02	3.39E-02	2.33E-02
AG111M	9.29E-04	2.84E-01	2.67E-01	2.39E-01	2.11E-01	1.63E-01	1.11E-01	7.64E-02	5.23E-02	3.59E-02	2.45E-02
AG111	3.31E-10	9.80E-04	2.06E-03	3.03E-03	3.88E-03	5.29E-03	6.80E-03	7.79E-03	8.44E-03	8.85E-03	9.09E-03
PD112	7.37E-02	7.14E-02	6.90E-02	6.67E-02	6.47E-02	6.04E-02	5.48E-02	4.96E-02	4.49E-02	4.07E-02	3.68E-02
AG112	2.22E-06	1.41E-02	2.49E-02	3.35E-02	3.98E-02	4.76E-02	5.23E-02	5.21E-02	4.96E-02	4.63E-02	4.27E-02
AG113	9.56E-04	2.04E-01	1.79E-01	1.57E-01	1.38E-01	1.06E-01	7.19E-02	4.85E-02	3.28E-02	2.21E-02	1.50E-02
AG115	4.18E-01	4.48E-01	5.58E-02	6.97E-03	8.73E-04	1.36E-05	2.67E-08	5.21E-11	1.01E-13	1.00E-162	9.30E-17
CD115M	3.42E-09	9.10E-05	1.02E-04	1.04E-04	1.04E-04	1.04E-04	1.03E-04	1.03E-04	1.03E-04	1.03E-04	1.03E-04
CD115	1.32E-06	2.49E-02	2.68E-02	2.67E-02	2.64E-02	2.57E-02	2.48E-02	2.38E-02	2.29E-02	2.21E-02	2.12E-02
IN115M	1.65E-11	2.75E-03	6.11E-03	9.07E-03	1.16E-02	1.54E-02	1.90E-02	2.10E-02	2.19E-02	2.21E-02	2.19E-02
CD117	2.97E-02	4.95E-01	3.73E-01	2.79E-01	2.09E-01	1.17E-01	4.92E-02	2.07E-02	8.72E-03	3.66E-03	1.54E-03
IN117M	1.43E-06	1.72E-01	2.49E-01	2.71E-01	2.61E-01	2.06E-01	1.18E-01	6.03E-02	2.90E-02	1.34E-02	6.07E-03
IN117	5.75E-11	3.14E-02	7.60E-02	1.06E-01	1.18E-01	1.08E-01	6.90E-02	3.70E-02	1.84E-02	8.65E-03	3.97E-03
CD118	1.99E+00	8.53E-01	3.66E-01	1.56E-01	6.68E-02	1.22E-02	9.60E-04	7.50E-05	5.90E-06	4.62E-07	3.63E-08
IN118	1.32E-01	8.53E-01	3.66E-01	1.56E-01	6.68E-02	1.23E-02	9.60E-04	7.54E-05	5.90E-06	4.62E-07	3.63E-08
CD119	4.94E+00	7.71E-02	1.20E-03	1.88E-05	2.94E-07	7.19E-11	2.74E-16	1.05E-21	3.98E-27	1.52E-32	5.83E-38
IN119M	7.45E-03	8.33E-01	9.07E-02	9.14E-03	9.11E-04	8.96E-06	8.74E-09	8.55E-12	8.33E-15	8.15E-18	7.96E-21
IN119	3.67E-01	4.39E-02	5.09E-03	5.16E-04	5.16E-05	5.05E-07	4.94E-10	4.83E-13	4.72E-16	4.61E-19	4.50E-22
SN121	6.00E-04	6.18E-02	6.00E-02	5.86E-02	5.72E-02	5.44E-02	5.02E-02	4.66E-02	4.31E-02	3.99E-02	3.71E-02
SN123M	3.29E-01	6.16E-01	2.18E-01	7.72E-02	2.73E-02	3.41E-03	1.51E-04	6.67E-06	2.95E-07	1.30E-08	5.76E-10
SN123	3.09E-06	3.24E-04	3.24E-04								
SN125	8.62E-03	8.60E-03	8.58E-03	8.55E-03	8.51E-03	8.46E-03	8.40E-03	8.30E-03	8.24E-03	8.15E-03	8.08E-03
SB125	5.18E-05	5.20E-05	5.22E-05	5.24E-05	5.27E-05	5.31E-05	5.40E-05	5.47E-05	5.54E-05	5.60E-05	5.67E-05
SB126	1.68E-03	1.68E-03	1.68E-03	1.67E-03	1.67E-03	1.66E-03	1.65E-03	1.64E-03	1.63E-03	1.62E-03	1.60E-03
SN127	3.02E+00	2.17E+00	1.56E+00	1.12E+00	8.07E-01	4.16E-01	1.55E-01	5.75E-02	2.13E-02	7.93E-03	2.94E-03
SB127	3.52E-02	1.21E-01	1.34E-01	1.43E-01	1.49E-01	1.56E-01	1.58E-01	1.57E-01	1.54E-01	1.51E-01	1.48E-01
TE127	1.99E-02	2.48E-02	3.01E-02	3.57E-02	4.12E-02	5.17E-02	6.62E-02	7.74E-02	8.61E-02	9.28E-02	9.72E-02
SN128	2.01E+01	9.93E+00	4.92E+00	2.43E+00	1.20E+00	2.93E-01	3.54E-02	4.27E-03	5.15E-04	6.25E-05	7.53E-06
SB128M	1.03E-02	1.13E-01	5.87E-00	2.90E+00	1.43E+00	3.50E-01	4.22E-02	5.09E-03	6.14E-04	7.42E-05	8.97E-06
SB128	8.49E-01	8.17E-01	7.69E-01	7.21E-01	6.73E-01	5.77E-01	4.60E-01	3.65E-01	2.90E-01	2.30E-01	1.83E-01
SN129M	1.33E+01	6.64E+00	3.33E+00	1.66E+00	8.32E-01	2.08E-01	2.60E-02	3.26E-03	4.07E-04	5.08E-05	6.36E-06
SN129	8.89E+01	8.72E-01	8.61E-03	8.49E-05	8.32E-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	7.87E+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	6.97E-03	7.87E-03	8.44E-03	8.77E-03	9.00E-03
TE129	3.60E+00	4.95E+00	5.79E+00	6.02E+00	5.79E+00	4.80E+00	3.19E+00	2.01E+00	1.25E+00	7.76E-01	4.81E-01
SB130M	4.97E-01	9.37E-01	2.46E-03	6.47E-06	1.70E-08	1.17E-13	2.14E-21	3.89E-29	7.06E-37	1.28E-44	2.33E-52
SB130	6.51E+01	2.58E+01	7.33E+00	2.07E+00	5.87E-01	4.73E-02	1.08E-03	2.46E-05	5.60E-07	1.28E-08	2.91E-10

JANGLE SUGAR 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 = 4.985E-12

PAGE 6

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	2.37E-02	2.24E-02	2.12E-02	2.00E-02	1.90E-02	1.70E-02	1.43E-02	1.21E-02	1.02E-02	8.67E-03	7.33E-03
SB131	2.02E+02	5.27E+01	8.62E+00	1.41E+00	2.32E-01	6.25E-03	2.75E-05	1.22E-07	5.35E-10	2.36E-12	1.18E-14
TE131M	9.71E-05	5.08E-01	5.79E-01	5.80E-01	5.69E-01	5.44E-01	5.07E-01	4.73E-01	4.42E-01	4.12E-01	3.84E-01
TE131	8.94E+01	9.71E+01	3.16E+01	8.23E+00	2.00E+00	1.88E-01	9.32E-02	8.62E-02	8.04E-02	7.52E-02	7.01E-02
I131	1.30E-02	4.50E-01	6.62E-01	7.26E-01	7.39E-01	7.46E-01	7.46E-01	7.39E-01	7.33E-01	7.33E-01	7.33E-01
TE132	1.09E+00	2.65E+00	2.62E+00	2.60E+00	2.58E+00	2.53E+00	2.47E+00	2.40E+00	2.34E+00	2.27E+00	2.21E+00
I132	2.68E+00	2.67E+00	2.66E+00	2.65E+00	2.63E+00	2.60E+00	2.54E+00	2.47E+00	2.41E+00	2.35E+00	2.29E+00
TE133M	1.34E-01	4.64E+01	2.02E+01	8.80E+00	3.82E+00	7.27E-01	5.98E-02	4.93E-03	4.07E-04	3.35E-05	2.77E-06
TE133	7.52E+02	4.26E+01	4.74E+00	1.57E+00	6.63E-01	1.26E-01	1.04E-02	8.54E-04	7.07E-05	5.82E-06	4.80E-07
I133	1.17E+00	1.26E+01	1.36E+01	1.36E+01	1.33E+01	1.26E+01	1.15E+01	1.04E+01	9.37E+00	8.54E+00	7.71E+00
XE133M	4.96E-08	2.82E-03	6.82E-03	1.09E-02	1.48E-02	2.23E-02	3.23E-02	4.10E-02	4.83E-02	5.46E-02	5.98E-02
XE133	8.67E-07	4.93E-02	1.20E-01	1.91E-01	2.63E-01	3.98E-01	5.83E-01	7.46E-01	8.92E-01	1.02E+00	1.13E+00
TE134	2.34E+02	1.08E+02	4.04E+01	1.50E+01	5.57E+00	7.72E-01	3.94E-02	2.02E-03	1.04E-04	5.32E-06	2.73E-07
I134	1.07E+02	1.43E+02	1.00E+02	5.89E+01	3.16E+01	8.02E+00	8.82E-01	9.00E-02	8.82E-03	8.45E-04	8.02E-05
I135	1.98E+01	3.48E+01	3.14E+01	2.83E+01	2.56E+01	2.07E+01	1.52E+01	1.11E+01	8.18E+00	6.02E+00	4.40E+00
XE135M	2.19E-03	1.01E+01	9.77E+00	8.86E+00	7.95E+00	6.48E+00	4.75E+00	3.48E+00	2.56E+00	1.87E+00	1.37E+00
XE135	2.28E+00	4.50E+00	6.59E+00	8.29E+00	9.66E+00	1.16E+01	1.28E+01	1.29E+01	1.23E+01	1.12E+01	1.00E+01
CS136	1.72E-03	1.71E-03	1.71E-03	1.71E-03	1.70E-03	1.69E-03	1.68E-03	1.67E-03	1.66E-03	1.65E-03	1.64E-03
CS137	9.53E-05	1.03E-03									
BA137M	2.01E-07	9.59E-04									
XE138	7.89E+02	6.79E+01	5.90E+00	5.11E-01	4.43E-02	3.32E-04	2.16E-07	1.40E-10	9.11E-14	5.92E-17	3.84E-20
CS138	1.17E+02	1.97E+02	6.85E+01	2.01E+01	5.64E+00	4.29E-01	8.92E-03	1.85E-04	3.84E-06	8.01E-08	1.66E-09
CS139	6.90E+02	2.20E+01	2.76E-01	3.47E-03	4.35E-05	6.84E-09	1.36E-14	2.69E-20	5.32E-26	1.06E-31	2.08E-37
BA139	1.27E+01	1.42E+02	8.76E+01	5.32E+01	3.22E+01	1.18E+01	2.62E+00	5.82E-01	1.29E-01	2.87E-02	6.37E-03
BA140	1.16E-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	6.88E-01	
LA140	2.75E-07	1.23E-02	2.45E-02	3.63E-02	4.79E-02	7.05E-02	1.03E-01	1.33E-01	1.62E-01	1.89E-01	2.14E-01
BA141	1.61E+02	4.86E+01	4.82E+00	4.76E-01	4.75E-02	4.71E-04	4.59E-07	4.48E-10	4.36E-13	4.29E-16	4.17E-19
LA141	1.48E+00	3.15E+01	2.94E+01	2.49E+01	2.09E+01	1.46E+01	8.57E+00	5.01E+00	2.95E+00	1.73E+00	1.01E+00
CE141	1.84E-07	2.04E-02	4.76E-02	7.20E-02	9.22E-02	1.24E-01	1.53E-01	1.71E-01	1.81E-01	1.86E-01	1.89E-01
BA142	2.84E+02	1.13E+01	2.57E-01	5.87E-03	1.34E-04	6.95E-08	8.25E-13	9.79E-18	1.16E-22	1.38E-27	1.64E-32
LA142	6.52E+00	4.52E+01	2.98E+01	1.90E+01	1.21E+01	4.88E+00	1.26E+00	3.25E-01	8.37E-02	2.15E-02	5.56E-03
LA143	1.11E+02	2.16E+01	1.11E+00	5.69E-02	2.32E-03	7.65E-06	1.03E-09	1.39E-13	1.87E-17	2.53E-21	3.41E-25
CE143	4.42E-02	2.82E+00	2.92E+00	2.84E+00	2.79E+00	2.69E+00	2.52E+00	2.37E+00	2.22E+00	2.08E+00	1.96E+00
PR143	1.29E-08	4.32E-03	1.04E-02	1.65E-02	2.24E-02	3.39E-02	4.99E-02	6.52E-02	7.91E-02	9.23E-02	1.04E-01
CE144	1.80E-03	1.29E-02	1.29E-02	1.29E-02	1.29E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02
PR144	4.93E-07	1.17E-02	1.28E-02	1.28E-02	1.29E-02	1.29E-02	1.29E-02	1.29E-02	1.28E-02	1.28E-02	1.28E-02
PR145	7.00E-02	1.03E+01	9.15E+00	8.14E+00	7.27E+00	5.76E+00	4.06E+00	2.86E+00	2.03E+00	1.43E+00	1.01E+00
CE146	1.98E+02	1.02E+01	5.20E-01	2.66E-02	1.37E-03	3.61E-06	4.86E-10	6.55E-14	8.81E-18	1.19E-21	1.60E-25
PR146	4.09E+00	3.56E+01	8.07E+00	1.52E+00	2.73E-01	8.58E-03	4.74E-05	2.61E-07	1.45E-09	8.00E-12	4.37E-14
PR147	2.31E+01	6.69E+00	2.09E-01	6.51E-03	2.04E-04	1.99E-07	6.08E-12	1.86E-16	5.66E-21	1.73E-25	5.27E-30

JANGLE SUGAR 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 = 4.985E-12

PAGE 7

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO	TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
ND147	8.25E-06	1.55E-01	1.60E-01	1.59E-01	1.59E-01	1.58E-01	1.57E-01	1.56E-01	1.54E-01	1.53E-01	1.52E-01	
ND149	1.09E+01	7.44E+00	5.06E+00	3.45E+00	2.34E+00	1.08E+00	3.41E-01	1.08E-01	3.39E-02	1.07E-02	3.37E-03	
PM149	1.52E-03	1.19E-01	1.98E-01	2.50E-01	2.83E-01	3.18E-01	3.31E-01	3.24E-01	3.16E-01	3.04E-01	2.93E-01	
PM150	1.21E-01	9.35E-02	7.24E-02	5.59E-02	4.32E-02	2.59E-02	1.20E-02	5.55E-03	2.57E-03	1.19E-03	5.51E-04	
ND151	3.72E+01	1.16E+00	3.64E-02	1.14E-03	3.55E-05	3.47E-08	1.06E-12	3.24E-17	9.87E-22	3.01E-26	9.20E-31	
PM151	2.36E-02	2.76E-01	2.77E-01	2.71E-01	2.64E-01	2.51E-01	2.33E-01	2.16E-01	2.01E-01	1.86E-01	1.73E-01	
PM152	5.80E+01	5.67E-02	5.53E-05	5.41E-08	5.28E-11	5.04E-17	4.69E-26	4.38E-35	4.08E-44	3.81E-53	3.54E-62	
SM153	7.42E-02	7.31E-02	7.22E-02	7.11E-02	7.01E-02	6.80E-02	6.51E-02	6.22E-02	5.95E-02	5.70E-02	5.45E-02	
SM155	3.15E+00	5.18E-01	8.49E-02	1.39E-02	2.28E-03	6.13E-05	2.71E-07	1.19E-09	5.25E-12	2.34E-14	5.74E-17	
EU155	2.32E-06	6.61E-05	7.66E-05	7.82E-05	7.85E-05							
SM156	3.93E-02	3.65E-02	3.39E-02	3.15E-02	2.92E-02	2.52E-02	2.02E-02	1.62E-02	1.30E-02	1.04E-02	8.33E-03	
EU156	1.15E-04	1.87E-04	2.54E-04	3.17E-04	3.75E-04	4.78E-04	6.08E-04	7.03E-04	7.88E-04	8.50E-04	8.95E-04	
EU157	6.83E-03	2.27E-02	2.16E-02	2.07E-02	1.97E-02	1.80E-02	1.57E-02	1.37E-02	1.20E-02	1.04E-02	9.07E-03	
EU158	1.29E-01	5.23E-02	2.12E-02	8.57E-03	3.47E-03	5.68E-04	3.79E-05	2.51E-06	1.67F-07	1.11E-08	7.35E-10	
EU159	1.66E-01	1.65E-02	1.64E-03	1.63E-04	1.61E-05	1.59E-07	1.55E-10	1.52E-13	1.48E-16	1.45E-19	1.41E-22	
GD159	7.13E-04	3.12E-03	3.25E-03	3.15E-03	3.03E-03	2.81E-03	2.50E-03	2.23E-03	1.98E-03	1.77E-03	1.58E-03	
TB161	4.96E-06	3.56E-05	3.54E-05	3.53E-05	3.52E-05	3.48E-05	3.45E-05	3.40E-05	3.35E-05	3.32E-05	3.27E-05	
TOTAL	1.20E+04	2.54E+03	9.41E+02	5.49E+02	3.93E+02	2.60E+02	1.78E+02	1.37E+02	1.11E+02	9.28E+01	7.96E+01	

JANGLE SUGAR 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 = 4.985E-12

PAGE 8

DEBRIS DECAY FROM 1 TO 300 DAYS

ZERO TIME 1.00E+00 2.00E+00 5.00E+00 1.00E+01 2.00E+01 3.00E+01 5.00E+01 1.00E+02 2.00E+02 3.00E+02

BE 7	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NA 24	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
* MN 54	1.08E-05	1.07E-05	1.07E-05	1.05E-03	1.04E-05	1.02E-05	1.00E-05	9.57E-06	6.55E-06	6.80E-06	5.42E-06	
FE 55	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
FE 59	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
CG 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
CG 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
CB 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	
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	2.12E-01	1.91E-01	1.72E-01	1.27E-01	7.58E-02	2.72E-02	9.74E-03	1.24E-03	7.35E-06	7.90E-10	5.33E-10	
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	9.33E-03	1.42E+01	1.06E+01	4.33E+00	1.00E+00	5.24E-02	2.74E-03	7.52E-06	2.96E-12	7.06E-22	7.06E-22	
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	4.68E-03	2.95E-03	6.75E-04	8.15E-06	5.19E-09	2.10E-15	8.46E-22	1.38E-34	0.	0.	0.	
AS 77	4.84E-05	7.15E-03	5.17E-03	1.50E-03	1.75E-04	2.38E-06	3.23E-08	5.95E-12	2.76E-21	5.91E-40	1.27E-58	
SE 77M	1.91E-09	2.15E-05	1.55E-05	4.49E-06	5.24E-07	7.13E-09	9.68E-11	1.79E-14	8.27E-24	1.77E-42	3.82E-61	
AS 78	1.26E-02	1.12E-04	3.28E-09	2.77E-23	0.	0.	0.	0.	0.	0.	0.	
BR 82	5.22E-04	3.26E-04	2.04E-04	4.95E-05	4.69E-06	4.22E-08	3.78E-10	3.06E-14	1.78E-24	6.12E-45	2.08E-65	
BR 83	4.06E-01	1.07E-02	1.08E-05	1.09E-14	1.12E-29	0.	0.	0.	0.	0.	0.	
KR 83M	2.10E-05	4.68E-02	5.31E-05	4.78E-14	4.90E-29	0.	0.	0.	0.	0.	0.	
KR 85M	5.26E-03	3.01E-01	6.84E-03	8.13E-08	5.01E-16	1.91E-32	7.22E-49	0.	0.	0.	0.	
KR 85	5.44E-06	1.43E-04	1.46E-04	1.46E-04	1.46E-04	1.46E-04	1.46E-04	1.45E-04	1.44E-04	1.41E-04	1.39E-04	
KR 87	8.84E+01	1.75E-04	3.45E-10	2.68E-27	0.	0.	0.	0.	0.	0.	0.	
KR 88	5.11E+01	1.34E-01	3.53E-04	6.41E-12	8.07E-25	0.	0.	0.	0.	0.	0.	
RB 88	1.30E+01	1.50E-01	3.95E-04	7.17E-12	8.99E-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	9.52E-02	7.33E-02	3.75E-02	9.86E-03	2.60E-03	
SR 90	9.46E-06	9.72E-04	9.63E-04	9.63E-04	9.55E-04							
Y 90	1.40E-11	2.23E-04	3.94E-04	7.08E-04	9.03E-04	9.63E-04	9.72E-04	9.72E-04	9.63E-04	9.63E-04	9.55E-04	
SR 91	1.07E+00	3.82E+00	6.85E-01	3.93E-03	7.18E-07	2.44E-14	8.26E-22	9.40E-37	0.	0.	0.	

JANGLE SUGAR MICRORCURIES/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 = 4.985E-12

PAGE 9

DEBRIS DECAY FROM 1 TO 300 DAYS

ZERO TIME 1.00E+00 2.00E+00 5.00E+00 1.00E+01 2.00E+01 3.00E+01 5.00E+01 1.00E+02 2.00E+02 3.00E+02

Y 91M	7.18E-05	2.47E+00	4.42E-01	2.54E-03	4.66E-07	1.57E-14	5.32E-22	6.07E-37	0.	0.	0.
Y 91	2.94E-08	1.17E-01	1.39E-01	1.39E-01	1.31E-01	1.16E-01	1.03E-01	8.19E-02	4.53E-02	1.40E-02	4.29E-03
SR 92	6.34E+00	7.90E-02	1.70E-04	1.71E-12	8.02E-26	0.	0.	0.	0.	0.	0.
Y 92	2.92E-01	8.28E-01	9.19E-03	7.07E-09	4.13E-19	1.41E-39	4.83E-60	0.	0.	0.	0.
Y 93	3.04E-01	2.05E+00	4.00E-01	3.01E-03	8.65E-07	7.15E-14	5.90E-21	4.03E-35	0.	0.	0.
ZR 95	5.76E-04	7.19E-02	7.12E-02	6.89E-02	6.54E-02	5.86E-02	5.28E-02	4.27E-02	2.50E-02	8.61E-03	2.95E-03
NB 95M	1.22E-11	2.44E-04	4.44E-04	8.48E-04	1.14E-03	1.21E-03	1.11E-03	9.04E-04	5.30E-04	1.82E-04	6.29E-05
NB 95	6.41E-11	1.39E-03	2.75E-03	6.59E-03	1.22E-02	2.11E-02	2.73E-02	3.38E-02	3.26E-02	1.56E-02	6.01E-03
ZR 97	1.35E+00	2.30E+00	8.65E-01	4.58E-02	3.44E-04	1.94E-08	1.09E-12	3.44E-21	1.94E-42	0.	0.
NB 97M	6.95E-03	2.21E+00	8.30E-01	4.42E-02	3.30E-04	1.86E-08	1.05E-12	3.30E-21	1.87E-42	0.	0.
NB 97	6.77E-01	2.31E+00	8.68E-01	4.61E-02	3.47E-04	2.09E-08	1.17E-12	3.72E-21	2.09E-42	0.	0.
MG 99	3.92E-03	1.28E+00	9.97E-01	4.72E-01	1.37E-01	1.14E-02	9.52E-04	6.65E-06	2.70E-11	4.45E-22	7.32E-33
TC 99M	3.65E-08	1.12E+00	9.45E-01	4.52E-01	1.30E-01	1.09E-02	9.10E-04	6.35E-06	2.57E-11	4.25E-22	7.00E-33
RU103	6.85E-05	1.56E-01	1.53E-01	1.45E-01	1.34E-01	1.12E-01	9.40E-02	6.64E-02	2.76E-02	4.79E-03	8.35E-04
RH103M	4.57E-09	1.56E-01	1.54E-01	1.46E-01	1.34E-01	1.12E-01	9.40E-02	6.64E-02	2.76E-02	4.79E-03	8.35E-04
RU105	3.72E-01	3.55E-01	8.35E-03	1.10E-07	8.03E-16	4.28E-32	2.30E-48	0.	0.	0.	0.
RH105M	2.44E-03	3.55E-01	8.38E-03	1.10E-07	8.05E-16	4.31E-32	2.30E-48	0.	0.	0.	0.
RH105	4.01E-09	1.28E+00	8.38E-01	2.09E-01	2.06E-02	2.00E-04	1.94E-06	1.84E-10	1.59E-20	1.20E-40	8.98E-61
RU106	2.86E-04	5.42E-03	5.40E-03	5.38E-03	5.33E-03	5.23E-03	5.12E-03	4.93E-03	4.48E-03	3.71E-03	3.07E-03
RH106	3.10E-06	5.42E-03	5.40E-03	5.38E-03	5.33E-03	5.23E-03	5.12E-03	4.93E-03	4.48E-03	3.71E-03	3.07E-03
PD109	2.36E-03	6.02E-02	1.75E-02	4.35E-04	9.17E-07	4.09E-12	1.82E-17	3.60E-28	0.	0.	0.
AG109M	1.36E-05	6.02E-02	1.76E-02	4.36E-04	9.21E-07	4.09E-12	1.82E-17	3.60E-28	0.	0.	0.
PD111M	3.28E-01	1.59E-02	7.75E-04	8.89E-08	2.40E-14	1.75E-27	1.29E-40	0.	0.	0.	0.
PD111	1.17E-01	1.29E-02	6.23E-04	7.14E-08	1.94E-14	1.41E-27	1.03E-40	0.	0.	0.	0.
AG111M	9.29E-04	1.68E-02	8.17E-04	9.40E-08	2.54E-14	1.86E-27	1.36E-40	0.	0.	0.	0.
AG111	3.31E-10	9.13E-03	8.77E-03	6.68E-03	4.20E-03	1.67E-03	6.62E-04	1.04E-04	1.03E-06	9.94E-11	9.63E-15
PD112	7.37E-02	3.35E-02	1.51E-02	1.41E-03	2.67E-05	9.70E-09	3.53E-12	4.63E-19	2.92E-36	0.	0.
AG112	2.22E-06	3.89E-02	1.79E-02	1.66E-03	3.17E-05	1.15E-08	4.16E-12	5.48E-19	3.44E-36	0.	0.
AG113	9.56E-04	1.01E-02	4.37E-04	3.55E-08	5.43E-15	1.27E-28	2.97E-42	0.	0.	0.	0.
CD115M	3.42E-09	9.90E-05	9.73E-05	9.27E-05	8.57E-05	7.27E-05	6.21E-05	4.48E-05	2.01E-05	3.99E-06	7.97E-07
CD115	1.32E-06	1.99E-02	1.46E-02	5.75E-03	1.21E-03	5.41E-05	2.41E-06	4.82E-09	8.50E-16	2.66E-29	8.34E-43
IN115M	1.65E-11	2.10E-02	1.59E-02	6.28E-03	1.32E-03	5.91E-05	2.63E-06	5.25E-09	9.30E-16	2.91E-29	9.10E-43
CD117	2.97E-02	6.48E-04	6.31E-07	5.89E-16	5.23E-31	0.	0.	0.	0.	0.	0.
IN117M	1.43E-06	2.69E-03	3.12E-06	3.01E-15	2.67E-30	0.	0.	0.	0.	0.	0.
IN117	5.75E-11	1.77E-03	2.10E-06	2.04E-15	1.81E-30	0.	0.	0.	0.	0.	0.
SN121	6.00E-04	3.42E-02	1.85E-02	2.91E-03	1.34E-04	2.82E-07	5.93E-10	2.65E-15	1.11E-28	0.	0.
SN123	3.09E-06	3.24E-04	3.21E-04	3.15E-04	3.07E-04	2.90E-04	2.75E-04	2.46E-04	1.86E-04	1.07E-04	6.16E-05
SN125	8.62E-03	8.01E-03	7.45E-03	5.96E-03	4.12E-03	1.97E-03	9.43E-04	2.16E-04	5.40E-06	3.40E-09	2.13E-12
SB125	5.18E-05	5.74E-05	6.28E-05	7.67E-05	9.41E-05	1.14E-04	1.23E-04	1.28E-04	1.25E-04	1.17E-04	1.09E-04
SB126	1.68E-03	1.59E-03	1.51E-03	1.28E-03	9.68E-04	5.54E-04	3.20E-04	1.05E-04	6.58E-06	3.20E-08	6.42E-09

JANGLE SUGAR 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 = 4.985E-12

PAGE 10

DEBRIS DECAY FROM 1 TO 300 DAYS

ZERO TIME 1.00E+00 2.00E+00 5.00E+00 1.00E+01 2.00E+01 3.00E+01 5.00E+01 1.00E+02 2.00E+02 3.00E+02

SN127	3.02E+00	1.09E-03	3.97E-07	1.90E-17	1.19E-34	0.	0.	0.	0.	0.	0.	0.	0.
SB127	3.52E-02	1.45E-01	1.21E-01	7.06E-02	2.89E-02	4.83E-03	6.07E-04	2.26E-05	2.94E-09	5.03E-17	8.56E-25		
TE127M	2.85E-10	2.20E-04	4.04E-04	7.83E-04	1.08E-03	1.19E-03	1.15E-03	1.02E-03	7.45E-04	3.93E-04	2.08E-04		
TE127	1.99E-02	1.03E-01	1.02E-01	6.19E-02	2.62E-02	5.37E-03	1.84E-03	1.03E-03	7.35E-04	3.89E-04	2.05E-04		
SB128	8.49E-01	1.45E-01	2.29E-02	8.92E-05	8.65E-09	8.12E-17	7.64E-25	6.73E-41	0.	0.	0.		
SB129	5.00E+00	2.56E-01	5.34E-03	4.87E-08	1.93E-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	5.62E-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	2.37E-02	6.20E-03	1.62E-03	2.90E-05	3.54E-08	5.27E-14	7.87E-20	1.75E-31	0.	0.	0.		
TE131M	9.71E-05	3.39E-01	1.95E-01	3.69E-02	2.31E-03	9.00E-06	3.52E-08	5.37E-13	4.89E-25	0.	0.		
TE131	8.94E+01	6.19E-02	3.55E-02	6.75E-03	4.21E-04	1.65E-06	6.42E-09	9.84E-14	6.94E-26	0.	0.		
I131	1.30E-02	7.01E-01	6.62E-01	5.32E-01	3.50E-01	1.48E-01	6.26E-02	1.12E-02	1.51E-04	2.75E-08	5.01E-12		
XE131M	3.52E-11	3.25E-04	6.17E-04	1.29E-03	1.84E-03	1.82E-03	1.35E-03	5.57E-04	3.72E-05	1.11E-07	3.14E-10		
TE132	1.09E+00	2.16E+00	1.74E+00	9.19E-01	3.17E-01	3.75E-02	4.45E-03	6.25E-05	1.46E-09	8.00E-19	4.36E-28		
I132	2.68E+00	2.23E+00	1.80E+00	9.45E-01	3.27E-01	3.87E-02	4.58E-03	6.44E-05	1.51E-09	8.20E-19	4.49E-28		
I133	1.17E+00	6.50E+00	2.93E+00	2.72E-01	5.19E-03	1.88E-06	6.82E-10	8.99E-17	5.65E-34	0.	0.		
XE133M	4.96E-08	6.14E-02	7.27E-02	4.26E-02	1.00E-02	4.70E-04	2.19E-05	4.74E-08	1.04E-14	4.96E-28	2.38E-41		
XE133	8.67E-07	1.18E+00	1.58E+00	1.41E+00	7.71E-01	2.08E-01	5.60E-02	4.03E-03	5.62E-06	1.09E-11	2.12E-17		
I135	1.98E+01	3.23E+00	2.69E-01	1.57E-04	6.36E-10	1.05E-20	1.73E-31	4.69E-53	0.	0.	0.		
XE135M	2.19E-03	1.01E+00	8.41E-02	4.89E-05	1.99E-10	3.27E-21	5.39E-32	1.47E-53	0.	0.	0.		
XE135	2.28E+00	8.69E+00	2.12E+00	1.22E-02	1.49E-06	2.09E-14	2.93E-22	5.79E-36	0.	0.	0.		
CS136	1.72E-03	1.63E-03	1.54E-03	1.32E-03	1.01E-03	5.92E-04	3.48E-04	1.20E-04	8.31E-06	4.00E-08	1.94E-10		
CS137	9.53E-05	1.03E-03	1.02E-03	1.02E-03	1.01E-03								
BA137M	2.01E-07	9.59E-04	9.53E-04	9.47E-04	9.42E-04								
BA139	1.27E+01	1.36E-03	8.03E-09	1.65E-24	0.	0.	0.	0.	0.	0.	0.		
BA140	1.16E-01	6.83E-01	6.50E-01	5.51E-01	4.20E-01	2.45E-01	1.42E-01	4.82E-02	3.22E-03	1.43E-05	6.33E-08		
LA140	2.75E-07	2.38E-01	3.83E-01	5.29E-01	4.70E-01	2.81E-01	1.64E-01	5.56E-02	3.70E-03	1.65E-05	7.32E-08		
LA141	1.48E+00	5.89E-01	8.27E-03	2.29E-08	1.25E-17	3.74E-36	1.11E-54	0.	0.	0.	0.		
CE141	1.84E-07	2.04E-01	2.02E-01	1.90E-01	1.70E-01	1.38E-01	1.11E-01	7.23E-02	2.48E-02	2.92E-03	3.44E-04		
LA142	6.52E+00	1.43E-03	2.77E-08	2.03E-22	0.	0.	0.	0.	0.	0.	0.		
CE143	4.42E-02	1.82E+00	1.10E+00	2.42E-01	1.95E-02	1.26E-04	8.14E-07	3.41E-11	3.85E-22	0.	0.		
PR143	1.29E-08	1.16E-01	1.81E-01	2.34E-01	2.00E-01	1.22E-01	7.37E-02	2.66E-02	2.13E-03	1.35E-05	8.58E-08		
CE144	1.80E-03	1.28E-02	1.28E-02	1.27E-02	1.25E-02	1.23E-02	1.20E-02	1.14E-02	1.01E-02	7.89E-03	6.19E-03		
PR144	4.93E-07	1.28E-02	1.28E-02	1.27E-02	1.25E-02	1.23E-02	1.20E-02	1.14E-02	1.01E-02	7.89E-03	6.19E-03		
PR145	7.00E-02	7.16E-01	4.43E-02	1.05E-05	9.58E-12	7.93E-24	6.58E-36	0.	0.	0.	0.		
ND147	8.25E-06	1.39E-01	1.30E-01	1.08E-01	7.91E-02	4.25E-02	2.27E-02	6.51E-03	2.85E-04	5.56E-07	1.08E-09		
PM147	2.29E-14	1.04E-04	2.01E-04	4.59E-04	7.93E-04	1.21E-03	1.43E-03	1.59E-03	1.61E-03	1.50E-03	1.39E-03		
ND149	1.09E+01	1.06E-03	1.03E-07	9.34E-20	7.98E-40	0.	0.	0.	0.	0.	0.		
PM149	1.52E-03	2.81E-01	2.06E-01	8.04E-02	1.68E-02	7.32E-04	3.18E-05	6.05E-08	9.55E-15	2.36E-28	5.87E-42		
PM150	1.21E-01	2.55E-04	5.38E-07	5.05E-15	2.11E-28	0.	0.	0.	0.	0.	0.		

JANGLE SUGAR 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 = 4.965E-12

PAGE 11

DEBRIS DECAY FROM 1 TO 300 DAYS

ZERO TIME 1.00E+00 2.00E+00 5.00E+00 1.00E+01 2.00E+01 3.00E+01 5.00E+01 1.00E+02 2.00E+02 3.00E+02

PM151	2.36E-02	1.61E-01	8.87E-02	1.49E-02	7.66E-04	2.01E-06	5.30E-09	3.65E-14	4.58E-27	0.	0.
SM153	7.42E-02	5.22E-02	3.66E-02	1.27E-02	2.15E-03	6.26E-05	1.82E-06	1.53E-09	3.15E-17	1.34E-32	5.70E-48
SM156	3.93E-02	6.70E-03	1.14E-03	5.63E-06	8.10E-10	1.67E-17	3.44E-25	1.46E-40	0.	0.	0.
EU155	2.32E-06	7.85E-05	7.84E-05	7.84E-05	7.82E-05	7.79E-05	7.76E-05	7.70E-05	7.55E-05	7.25E-05	6.97E-05
EU156	1.15E-04	9.34E-04	1.04E-03	9.28E-04	7.37E-04	4.63E-04	2.92E-04	1.16E-04	1.15E-05	1.13E-07	1.11E-09
EU157	6.83E-03	7.89E-03	2.66E-03	9.96E-05	4.18E-07	7.38E-12	1.31E-16	4.07E-26	0.	0.	0.
GD159	7.13E-04	1.40E-03	5.58E-04	3.48E-05	3.43E-07	3.32E-11	3.22E-15	3.02E-23	2.58E-43	0.	0.
TB161	4.96E-06	3.24E-05	2.92E-05	2.16E-05	1.31E-05	4.79E-06	1.75E-06	2.35E-07	1.55E-09	6.72E-14	2.92E-18
TOTAL	3.25E+02	6.87E+01	3.33E+01	1.28E+01	5.26E+00	1.96E+00	1.18E+00	6.39E-01	2.69E-01	9.09E-02	4.26E-02

PAGE 12

JANGLE SUGAR 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 = 4.985E-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.	0.	0.
MN	54	1.08E-05	4.66E-06	3.07E-06	2.02E-06	5.77E-07	1.65E-07	3.10E-08	2.54E-09	5.95E-13	2.15E-18	7.79E-24			
FE	59	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CG	57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CG	58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CG	60	0.	0.	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.	0.	0.	0.
W185	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.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	2.12E-01	5.28E-10	5.15E-10	5.01E-10	4.69E-10	4.35E-10	3.96E-10	3.43E-10	2.14E-10	1.05E-10	5.15E-11				
AM241	0.	0.	0.	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.	0.	0.	0.
KR	85	5.44E-06	1.35E-04	1.31E-04	1.27E-04	1.16E-04	1.04E-04	9.18E-05	7.57E-05	4.00E-05	1.53E-05	5.84E-06			
SR	89	4.68E-06	1.10E-03	9.59E-05	8.42E-06	5.67E-09	3.83E-12	2.26E-16	1.03E-22	7.46E-44	0.	0.			
SR	90	9.46E-06	9.46E-04	9.37E-04	9.29E-04	8.94E-04	8.60E-04	8.19E-04	7.60E-04	5.94E-04	4.10E-04	2.84E-04			
Y	90	1.40E-11	9.46E-04	9.37E-04	9.29E-04	8.94E-04	8.60E-04	8.19E-04	7.60E-04	5.94E-04	4.10E-04	2.84E-04			
Y	91	2.94E-03	1.99E-03	2.31E-04	2.63E-05	4.21E-06	6.61E-11	1.21E-14	2.97E-20	5.99E-39	0.	0.			
ZR	95	5.76E-04	1.48E-03	2.11E-04	3.00E-05	8.76E-08	2.55E-10	1.06E-13	8.91E-19	1.09E-35	0.	0.			
NB	95M	1.22E-11	3.13E-05	4.47E-06	6.39E-07	1.86E-09	5.40E-12	2.24E-15	1.89E-20	2.31E-37	0.	0.			
NB	95	6.41E-11	3.18E-03	4.57E-04	6.51E-05	1.89E-07	5.48E-10	2.29E-13	1.93E-18	2.37E-35	0.	0.			
RU	103	6.85E-05	2.66E-04	1.09E-05	4.48E-07	3.06E-11	2.10E-15	5.89E-21	2.77E-29	0.	0.	0.			
RH	103M	4.57E-09	2.67E-04	1.09E-05	4.43E-07	3.06E-11	2.10E-15	5.89E-21	2.77E-29	0.	0.	0.			
RU	106	2.86E-04	2.72E-03	1.93E-03	1.37E-03	4.86E-04	1.73E-04	4.34E-05	5.49E-06	5.54E-09	1.78E-13	5.73E-18			
RH	106	3.10E-06	2.72E-03	1.93E-03	1.37E-03	4.86E-04	1.73E-04	4.34E-05	5.49E-06	5.54E-09	1.78E-13	5.73E-18			
SN	123	3.09E-06	4.29E-05	1.56E-05	5.65E-06	2.71E-07	1.30E-08	2.27E-10	5.22E-13	8.37E-22	5.39E-35	3.46E-48			
SB	125	5.18E-05	1.04E-04	9.16E-05	8.06E-05	5.49E-05	3.74E-05	2.23E-05	1.03E-05	7.94E-07	1.69E-08	3.60E-10			
TE	125M	1.39E-12	4.25E-05	3.78E-05	3.33E-05	2.27E-05	1.55E-05	9.25E-06	4.28E-06	3.29E-07	7.00E-09	1.49E-10			
TE	127M	2.85E-10	1.36E-04	4.26E-05	1.33E-05	4.10E-07	1.26E-08	1.21E-10	1.14E-13	9.38E-24	7.01E-39	5.22E-54			
TE	127	1.99E-02	1.35E-04	4.22E-05	1.32E-05	4.06E-07	1.25E-08	1.20E-10	1.13E-13	9.28E-24	6.91E-39	5.17E-54			
CS	137	9.53E-05	1.00E-03	9.93E-04	9.82E-04	9.47E-04	9.13E-04	8.73E-04	8.16E-04	6.45E-04	4.58E-04	3.24E-04			
BA	137M	2.01E-07	9.42E-04	9.30E-04	9.19E-04	8.85E-04	8.56E-04	8.16E-04	7.65E-04	6.05E-04	4.28E-04	3.03E-04			
CE	141	1.84E-07	7.92E-05	1.59E-06	3.20E-08	2.61E-13	2.12E-18	3.48E-25	2.31E-35	0.	0.	0.			
CE	144	1.80E-03	5.28E-03	3.39E-03	2.16E-03	5.68E-04	1.49E-04	2.51E-05	1.73E-06	2.33E-10	3.66E-16	5.71E-22			
PR	144	4.93E-07	5.28E-03	3.39E-03	2.16E-03	5.68E-04	1.49E-04	2.51E-05	1.73E-06	2.33E-10	3.66E-16	5.71E-22			
PM	147	2.29E-14	1.33E-03	1.16E-03	1.02E-03	6.86E-04	4.61E-04	2.71E-04	1.23E-04	8.73E-06	1.65E-07	3.12E-09			
FU	155	2.32F-06	6.79F-05	6.31F-05	5.87F-05	4.72F-05	3.79F-05	2.83F-05	1.83F-05	4.27F-06	4.80F-07	5.41F-08			

TOTAL 2.35E-01 3.02E-02 1.71E-02 1.23E-02 6.66E-03 4.79E-03 3.89E-03 3.35E-03 2.49E-03 1.72E-03 1.20E-03

APPENDIX F
DETAILED RESULTS FOR EVENT JANGLE UNCLE

JANGLE UNCLE
 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 = 4.982E-12

TIME	MR/HR	MICROCURIES/SQ METER
ZERO TIME HOURS	1.04E+02	1.20E+04
1.00E+00	3.44E+01	0.54E+03
2.00E+00	1.37E+01	0.41E+02
3.00E+00	7.24E+00	0.49E+02
4.00E+00	4.46E+00	0.39E+02
5.00E+00	2.31E+00	0.26E+02
6.00E+00	1.37E+00	0.178E+02
7.00E+00	1.00E+00	0.137E+02
8.00E+00	7.88E-01	0.111E+01
9.00E+00	6.46E-01	0.30E+01
1.00E+01	5.42E-01	0.99E+01
1.10E+01	4.58E-01	0.90E+01
1.20E+01	4.09E-01	0.336E+01
1.30E+01	3.77E-02	0.37E+01
1.40E+01	3.65E-02	0.37E+00
1.50E+01	1.50E-02	0.01E+00
1.60E+01	8.38E-03	0.119E+00
1.70E+01	3.64E-03	0.41E-01
1.80E+01	1.11E-03	0.69E-01
1.90E+01	3.67E-04	0.08E-01
2.00E+01	1.42E-04	0.25E-01
2.10E+01	8.23E-05	0.02E-01
2.20E+01	2.71E-05	0.70E-02
2.30E+01	1.70E-05	0.23E-02
2.40E+01	1.12E-05	0.65E-03
2.50E+01	9.45E-06	0.79E-03
2.60E+01	8.44E-06	0.88E-03
2.70E+01	7.68E-06	0.35E-03
2.80E+01	5.99E-06	0.49E-03
2.90E+01	4.25E-06	0.72E-03
3.00E+01	3.00E-06	0.20E-03

JANGLE UNCLE 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 = 4.982E-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	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NA	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MN	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FL	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
54	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
55	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
56	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
64	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	5.1E-01	5.49E-01	5.46E-01	5.44E-01	5.42E-01	5.37E-01	5.30E-01	5.24E-01	5.16E-01	5.09E-01	5.03E-01
* U239	7.73E+03	4.65E+02	7.93E+01	1.35E+01	2.30E+00	6.69E-02	3.31E-04	1.64E-06	8.09E-09	4.00E-11	1.98E-13
* U240	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
* NP239	9.33E-03	1.56E+01	1.81E+01	1.84E+01	1.82E+01	1.78E+01	1.71E+01	1.65E+01	1.59E+01	1.54E+01	1.48E+01
NP240M	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP240	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AM241	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CM242	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
GE 75	8.1E-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	4.68E-03	1.20E-02	1.13E-02	1.07E-02	1.00E-02	8.87E-03	7.38E-03	6.14E-03	5.11E-03	4.25E-03	3.54E-03
AS 77	4.84E-05	7.64E-03	7.73E-03	7.78E-03	7.83E-03	7.89E-03	7.89E-03	7.83E-03	7.71E-03	7.56E-03	7.37E-03
SE 77M	1.91E-09	2.29E-05	2.32E-05	2.34E-05	2.34E-05	2.36E-05	2.37E-05	2.36E-05	2.32E-05	2.27E-05	2.20E-05
GE 78	6.98E-01	4.37E-01	2.72E-01	1.70E-01	1.06E-01	4.12E-02	1.00E-02	2.43E-03	5.92E-04	1.44E-04	3.49E-05
AS 78	1.26E-02	2.09E-01	2.57E-01	2.41E-01	2.01E-01	1.19E-01	4.41E-02	1.46E-02	4.54E-03	1.36E-03	3.93E-04
AS 79	1.46E+01	1.44E-01	1.42E-03	1.39E-05	1.37E-07	1.33E-11	1.27E-17	1.21E-23	1.15E-29	1.10E-35	1.05E-41
SE 79M	2.16E-02	2.54E-01	2.50E-03	2.46E-05	2.42E-07	2.34E-11	2.24E-17	2.14E-23	2.04E-29	1.94E-35	1.86E-41
BR 80	9.63E-02	9.09E-03	8.54E-04	8.03E-05	7.56E-06	6.71E-08	5.62E-11	4.68E-14	3.90E-17	3.26E-20	2.72E-23
SE 81M	8.16E-02	3.81E+00	1.84E+00	8.83E-01	4.25E-01	9.92E-02	1.11E-02	1.24E-03	1.40E-04	1.56E-05	1.75E-06
SE 81	9.97E-01	4.50E+00	2.60E+00	1.30E+00	6.31E-01	1.47E-01	1.65E-02	1.85E-03	2.07E-04	2.32E-05	2.60E-06
BR 82	5.22E-04	5.12E-04	5.02E-04	4.93E-04	4.83E-04	4.64E-04	4.38E-04	4.12E-04	3.89E-04	3.67E-04	3.46E-04
SE 83	4.89E+01	9.26E+00	1.75E+00	3.33E-01	6.29E-02	2.26E-03	1.54E-05	1.05E-07	7.14E-10	4.84E-12	3.07E-14
BR 83	4.06E-01	6.06E+00	5.61E+00	4.41E+00	3.35E+00	1.89E+00	8.00E-01	3.37E-01	1.42E-01	6.00E-02	2.53E-02
KR 83M	2.10E-05	1.37E+00	2.80E+00	3.48E+00	3.59E+00	2.99E+00	1.77E+00	9.09E-01	4.38E-01	2.02E-01	9.09E-02

JANGLE UNCLE 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 = 4.982E-12

PAGE 4

DEBRIS DECAY FROM 1 TO 21 HOURS

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

BR 84	1.05E-01	1.81E+01	4.90E+00	1.33E+00	3.58E-01	2.62E-02	5.18E-04	1.02E-05	2.02E-07	4.00E-09	7.90E-11
KR 85M	5.26E-03	1.13E+01	9.59E+00	8.19E+00	7.00E+00	5.11E+00	3.19E+00	1.99E+00	1.24E+00	7.70E-01	4.81E-01
KR 87	8.84E+01	5.10E+01	2.95E+01	1.71E+01	9.85E+00	3.30E+00	6.40E-01	1.24E-01	2.40E-02	4.65E-03	8.99E-04
KR 88	5.11E+01	3.98E+01	3.11E+01	2.43E+01	1.90E+01	1.15E+01	5.50E+00	2.62E+00	1.24E+00	5.93E-01	2.82E-01
RB 88	1.30E+01	4.03E+01	3.44E+01	2.71E+01	2.12E+01	1.29E+01	6.16E+00	2.93E+00	1.40E+00	6.64E-01	3.16E-01
RB 89	6.11E+01	5.74E+01	3.86E+00	2.59E-01	1.74E-02	7.87E-05	2.38E-08	7.18E-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	1.74E-01	1.74E-01	1.74E-01	1.74E-01
SR 90	9.45E-06	9.71E-04	9.71E-04								
SR 91	1.07E+00	1.99E+01	1.85E+01	1.72E+01	1.60E+01	1.39E+01	1.12E+01	9.06E+00	7.31E+00	5.87E+00	4.74E+00
Y 91M	7.18E-05	6.84E+00	9.32E+00	1.00E+01	9.86E+00	8.85E+00	7.24E+00	5.83E+00	4.70E+00	3.79E+00	3.06E+00
Y 91	2.94E-08	6.08E-03	1.40E-02	2.24E-02	3.06E-02	4.58E-02	6.51E-02	8.05E-02	9.32E-02	1.03E-01	1.11E-01
SR 92	6.33E+00	2.83E+01	2.19E+01	1.70E+01	1.31E+01	7.86E+00	3.65E+00	1.70E+00	7.86E-01	3.65E-01	1.70E-01
Y 92	2.92E-01	5.95E+00	9.34E+00	1.11E+01	1.18E+01	1.12E+01	8.60E+00	5.86E+00	3.77E+00	2.32E+00	1.40E+00
SR 93	2.49E+02	4.28E+00	2.36E-02	1.31E-04	7.20E-07	2.20E-11	3.71E-18	6.26E-25	1.06E-31	1.78E-36	3.00E-45
Y 93	3.03E-01	9.81E+00	9.21E+00	8.62E+00	8.05E+00	7.03E+00	5.73E+00	4.68E+00	3.80E+00	3.12E+00	2.53E+00
Y 94	3.60E+01	4.91E+01	6.32E+00	8.15E-01	1.05E-01	1.75E-03	3.75E-06	8.03E-09	1.72E-11	3.75E-14	2.08E-15
Y 95	1.53E+02	1.44E+01	3.18E-01	7.01E-03	1.54E-04	7.49E-08	8.02E-13	8.58E-18	9.16E-23	9.79E-28	1.05E-32
ZR 95	5.75E-04	7.52E-02	7.67E-02	7.67E-02	7.67E-02	7.67E-02	7.67E-02	7.64E-02	7.64E-02	7.62E-02	7.62E-02
NB 95	6.41E-11	4.64E-05	1.08E-04	1.70E-04	2.32E-04	3.56E-04	5.40E-04	7.26E-04	9.08E-04	1.09E-03	1.27E-03
ZR 97	1.35E+00	5.88E+00	5.63E+00	5.42E+00	5.18E+00	4.79E+00	4.23E+00	3.74E+00	3.32E+00	2.93E+00	2.60E+00
NB 97M	6.95E-03	5.65E+00	5.42E+00	5.21E+00	5.00E+00	4.60E+00	4.07E+00	3.60E+00	3.18E+00	2.81E+00	2.49E+00
NB 97	6.76E-01	2.95E+00	4.16E+00	4.74E+00	4.97E+00	4.95E+00	4.51E+00	4.02E+00	3.56E+00	3.14E+00	2.79E+00
NB 98	7.55E+00	3.34E+00	1.48E+00	6.54E-01	2.90E-01	5.67E-02	4.90E-03	4.23E-04	3.69E-05	3.19E-06	2.75E-07
M0 99	3.92E-03	1.62E+00	1.60E+00	1.59E+00	1.57E+00	1.54E+00	1.49E+00	1.44E+00	1.40E+00	1.36E+00	1.32E+00
TC 99M	3.65E-08	1.54E-01	2.90E-01	4.10E-01	5.14E-01	6.87E-01	8.72E-01	9.89E-01	1.06E+00	1.10E+00	1.12E+00
M0101	1.33E+02	5.99E+01	3.47E+00	2.01E-01	1.17E-02	3.92E-05	7.61E-09	1.48E-12	2.88E-16	5.60E-20	1.09E-23
TC101	5.60E+00	1.68E+02	1.84E+01	1.51E+00	1.10E-01	4.95E-04	1.24E-07	2.77E-11	5.87E-15	1.21E-18	2.45E-22
M0102	1.04E+03	2.37E+01	5.39E-01	1.23E-02	2.81E-04	1.46E-07	1.73E-12	2.06E-17	2.44E-22	2.89E-27	3.43E-32
TC102M	6.67E-01	2.00E+01	4.59E-01	1.05E-02	2.39E-04	1.24E-07	1.47E-12	1.74E-17	2.06E-22	2.45E-27	2.91E-32
TC102	3.12E+03	1.19E+01	2.72E-01	6.18E-03	1.41E-04	7.36E-08	8.75E-13	1.04E-17	1.23E-22	1.46E-27	1.73E-32
RU103	6.85E-05	1.59E-01	1.59E-01	1.59E-01	1.59E-01	1.58E-01	1.58E-01	1.58E-01	1.57E-01	1.57E-01	1.56E-01
RH103M	4.57E-09	8.21E-02	1.22E-01	1.41E-01	1.50E-01	1.56E-01	1.58E-01	1.58E-01	1.57E-01	1.57E-01	1.57E-01
TC104	5.46E+01	3.92E+01	3.92E+00	3.88E-01	3.84E-02	3.78E-04	3.69E-07	3.61E-10	3.52E-13	3.44E-16	3.36E-19
RU105	3.71E-01	1.28E+01	1.10E+01	9.40E+00	8.05E+00	5.88E+00	3.69E+00	2.30E+00	1.44E+00	9.02E-01	5.66E-01
RH105M	2.44E-03	1.29E+01	1.10E+01	9.43E+00	8.05E+00	5.91E+00	3.69E+00	2.31E+00	1.45E+00	9.05E-01	5.66E-01
RH105	4.01E-09	2.61E-01	4.85E-01	6.69E-01	8.24E-01	1.05E+00	1.26E+00	1.36E+00	1.38E+00	1.37E+00	1.33E+00
RU106	2.86E-04	5.42E-03	5.42E-03								
RH106	3.10E-06	5.42E-03	5.42E-03								
RH107	3.77E-02	5.12E+00	7.76E-01	1.17E-01	1.76E-02	4.02E-04	1.38E-06	4.78E-09	1.64E-11	5.62E-147	5.59E-18
PD107M	7.83E-05	1.04E+00	1.57E-01	2.38E-02	3.59E-03	8.18E-05	2.82E-07	9.72E-10	3.34E-12	1.15E-14	3.94E-17

JANGLE UNCLE 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 = 4.982E-12

PAGE 5

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO	TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
PD109	2.36E-03	1.96E-01	1.86E-01	1.77E-01	1.68E-01	1.51E-01	1.30E-01	1.12E-01	9.56E-02	8.19E-02	7.04E-02	
AG109M	1.36E-05	1.96E-01	1.86E-01	1.77E-01	1.68E-01	1.52E-01	1.30E-01	1.12E-01	9.56E-02	8.19E-02	7.04E-02	
PD111M	3.28E-01	2.89E-01	2.55E-01	2.25E-01	1.98E-01	1.54E-01	1.06E-01	7.24E-02	4.96E-02	3.39E-02	2.33E-02	
PD111	1.17E-01	2.11E-01	2.02E-01	1.80E-01	1.59E-01	1.24E-01	8.49E-02	5.82E-02	3.98E-02	2.73E-02	1.87E-02	
AG111M	9.28E-04	2.84E-01	2.67E-01	2.39E-01	2.11E-01	1.63E-01	1.11E-01	7.63E-02	5.23E-02	3.59E-02	2.45E-02	
AG111	3.31E-10	9.80E-04	2.06E-03	3.03E-03	3.88E-03	5.29E-03	6.80E-03	7.79E-03	8.44E-03	8.84E-03	9.09E-03	
PD112	7.36E-02	7.14E-02	6.89E-02	6.67E-02	6.46E-02	6.04E-02	5.48E-02	4.96E-02	4.49E-02	4.06E-02	3.68E-02	
AG112	2.22E-06	1.41E-02	2.49E-02	3.34E-02	3.97E-02	4.76E-02	5.23E-02	5.21E-02	4.96E-02	4.62E-02	4.27E-02	
AG113	9.55E-04	2.04E-01	1.79E-01	1.57E-01	1.38E-01	1.06E-01	7.18E-02	4.85E-02	3.27E-02	2.21E-02	1.49E-02	
AG115	4.18E-01	4.48E-01	5.58E-02	6.97E-03	8.73E-04	1.36E-05	2.67E-08	5.21E-11	1.01E-13	1.00E-162	9.29E-17	
CD115M	3.42E-09	9.09E-05	1.02E-04	1.04E-04	1.04E-04	1.04E-04	1.03E-04	1.03E-04	1.03E-04	1.03E-04	1.03E-04	
CD115	1.32E-06	2.49E-02	2.68E-02	2.67E-02	2.64E-02	2.57E-02	2.48E-02	2.38E-02	2.29E-02	2.20E-02	2.12E-02	
IN115M	1.65E-11	2.75E-03	6.11E-03	9.06E-03	1.15E-02	1.54E-02	1.90E-02	2.09E-02	2.18E-02	2.20E-02	2.19E-02	
CD117	2.97E-02	4.95E-01	3.73E-01	2.78E-01	2.09E-01	1.17E-01	4.91E-02	2.07E-02	8.71E-03	3.66E-03	1.54E-03	
IN117M	1.43E-06	1.72E-01	2.49E-01	2.70E-01	2.61E-01	2.06E-01	1.18E-01	6.03E-02	2.90E-02	1.34E-02	6.06E-03	
IN117	5.75E-11	3.14E-02	7.59E-02	1.06E-01	1.18E-01	1.08E-01	6.90E-02	3.69E-02	1.84E-02	8.64E-03	3.97E-03	
CD118	1.99E+00	8.53E-01	3.66E-01	1.56E-01	6.68E-02	1.22E-02	9.59E-04	7.49E-05	5.90E-06	4.62E-07	3.62E-08	
IN118	1.32E-01	8.53E-01	3.66E-01	1.56E-01	6.68E-02	1.23E-02	9.59E-04	7.53E-05	5.90E-06	4.62E-07	3.62E-08	
CD119	4.94E+00	7.70E-02	1.20E-03	1.88E-05	2.94E-07	7.18E-11	2.74E-16	1.05E-21	3.98E-27	1.52E-32	5.82E-38	
IN119M	7.44E-03	8.33E-01	9.06E-02	9.14E-03	9.10E-04	8.95E-06	6.73E-09	8.55E-12	8.33E-15	8.14E-18	7.96E-21	
IN119	3.67E-01	4.38E-02	5.08E-03	5.16E-04	5.16E-05	5.05E-07	4.94E-10	4.83E-13	4.72E-16	4.61E-19	4.50E-22	
SN121	6.00E-04	6.16E-02	6.00E-02	5.86E-02	5.72E-02	5.44E-02	5.01E-02	4.66E-02	4.31E-02	3.99E-02	3.71E-02	
SN123M	3.29E-01	6.16E-01	2.18E-01	7.72E-02	2.73E-02	3.40E-03	1.51E-04	6.67E-06	2.95E-07	1.30E-08	5.76E-10	
SN123	3.09E-06	3.23E-04	3.23E-04									
SN125	8.61E-03	8.59E-03	8.57E-03	8.55E-03	8.50E-03	8.46E-03	8.39E-03	8.30E-03	8.23E-03	8.14E-03	8.07E-03	
SB125	5.17E-05	5.20E-05	5.22E-05	5.24E-05	5.26E-05	5.31E-05	5.40E-05	5.47E-05	5.53E-05	5.60E-05	5.67E-05	
SB126	1.68E-03	1.68E-03	1.68E-03	1.67E-03	1.66E-03	1.65E-03	1.64E-03	1.62E-03	1.61E-03	1.60E-03		
SN127	3.01E+00	2.16E+00	1.56E+00	1.12E+00	8.07E-01	4.16E-01	1.55E-01	5.75E-02	2.13E-02	7.92E-03	2.94E-03	
SB127	3.52E-02	1.21E-01	1.34E-01	1.43E-01	1.49E-01	1.56E-01	1.58E-01	1.57E-01	1.54E-01	1.51E-01	1.48E-01	
TE127	1.99E-02	2.47E-02	3.01E-02	3.57E-02	4.12E-02	5.17E-02	6.62E-02	7.73E-02	8.60E-02	9.28E-02	9.71E-02	
SN128	2.01E+01	9.92E+00	4.91E+00	2.43E+00	1.20E+00	2.93E-01	3.54E-02	4.27E-03	5.15E-04	6.24E-05	7.52E-06	
SB128M	1.02E-02	1.13E+01	5.87E+00	2.90E+00	1.43E+00	3.50E-01	4.22E-02	5.09E-03	6.14E-04	7.42E-05	8.96E-06	
SB128	8.48E-01	8.16E-01	7.68E-01	7.20E-01	6.72E-01	5.76E-01	4.60E-01	3.65E-01	2.90E-01	2.30E-01	1.82E-01	
SN129M	1.33E+01	6.63E+00	3.33E+00	1.66E+00	8.32E-01	2.08E-01	2.60E-02	3.25E-03	4.06E-04	5.08E-05	6.35E-06	
SN129	8.88E+01	8.71E-01	8.60E-03	8.49E-05	8.32E-07	8.09E-11	7.70E-17	7.36E-23	7.03E-29	6.69E-35	6.41E-41	
SB129	5.00E+00	8.38E+00	7.87E+00	7.03E+00	6.18E+00	4.59E+00	2.86E+00	1.77E+00	1.09E+00	6.75E-01	4.15E-01	
TE129M	9.44E-08	1.05E-03	2.15E-03	3.16E-03	4.06E-03	5.51E-03	6.97E-03	7.87E-03	8.43E-03	8.77E-03	8.99E-03	
TE129	3.60E+00	4.95E+00	5.79E+00	6.01E+00	5.79E+00	4.79E+00	3.19E+00	2.01E+00	1.25E+00	7.76E-01	4.81E-01	
SB130M	4.96E-01	9.37E-01	2.46E-03	6.46E-06	1.70E-08	1.17E-13	2.14E-21	3.89E-29	7.05E-37	1.28E-44	2.33E-52	
SB130	6.51E+01	2.57E+01	7.32E+00	2.07E+00	5.87E-01	4.72E-02	1.08E-03	2.46E-05	5.60E-07	1.28E-08	2.91E-10	

JANGLE UNCLE 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 = 4.982E-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	2.37E-02	2.24E-02	2.12E-02	2.00E-02	1.90E-02	1.70E-02	1.43E-02	1.21E-02	1.02E-02	8.67E-03	7.32E-03
SB131	2.02E+02	5.27E+01	8.61E+00	1.41E+00	2.32E-01	6.24E-03	2.75E-05	1.21E-07	5.35E-10	2.36E-12	1.18E-14
TE131M	9.70E-05	5.08E-01	5.79E-01	5.80E-01	5.69E-01	5.44E-01	5.07E-01	4.73E-01	4.41E-01	4.12E-01	3.84E-01
TE131	8.93E+01	9.70E+01	3.16E+01	8.22E+00	2.00E+00	1.88E-01	9.32E-02	8.61E-02	8.03E-02	7.52E-02	7.00E-02
I131	1.30E-02	4.50E-01	6.62E-01	7.26E-01	7.39E-01	7.45E-01	7.45E-01	7.39E-01	7.39E-01	7.32E-01	7.32E-01
TE132	1.09E+00	2.65E+00	2.62E+00	2.60E+00	2.58E+00	2.53E+00	2.46E+00	2.40E+00	2.34E+00	2.27E+00	2.21E+00
I132	2.68E+00	2.67E+00	2.66E+00	2.65E+00	2.63E+00	2.60E+00	2.54E+00	2.47E+00	2.40E+00	2.34E+00	2.29E+00
TE133M	1.34E-01	4.64E+01	2.02E+01	8.79E+00	3.82E+00	7.26E-01	5.97E-02	4.93E-03	4.06E-04	3.35E-05	2.76E-06
TE133	7.52E+02	4.26E+01	4.74E+00	1.57E+00	6.62E-01	1.25E-01	1.04E-02	8.53E-04	7.07E-05	5.81E-06	4.80E-07
I133	1.17E+00	1.25E+01	1.36E+01	1.36E+01	1.33E+01	1.26E+01	1.15E+01	1.04E+01	9.36E+00	8.53E+00	7.71E+00
XE133M	4.96E-08	2.82E-03	6.81E-03	1.09E-02	1.48E-02	2.23E-02	3.23E-02	4.10E-02	4.83E-02	5.46E-02	5.98E-02
XE133	8.66E-07	4.93E-02	1.20E-01	1.91E-01	2.62E-01	3.97E-01	5.83E-01	7.45E-01	8.92E-01	1.02E+00	1.13E+00
TE134	2.34E+02	1.08E+02	4.03E+01	1.50E+01	5.56E+00	7.71E-01	3.94E-02	2.02E-03	1.03E-04	5.31E-06	2.72E-07
I134	1.07E+02	1.43E+02	1.00E+02	5.88E+01	3.16E+01	8.02E+00	8.81E-01	9.00E-02	8.81E-03	8.45E-04	8.02E-05
I135	1.98E+01	3.48E+01	3.14E+01	2.83E+01	2.55E+01	2.07E+01	1.52E+01	1.11E+01	8.18E+00	6.02E+00	4.39E+00
XE135M	2.19E-03	1.00E+01	9.76E+00	8.86E+00	7.95E+00	6.47E+00	4.75E+00	3.48E+00	2.55E+00	1.87E+00	1.37E+00
XE135	2.28E+00	4.50E+00	6.59E+00	8.29E+00	9.65E+00	1.16E+01	1.28E+01	1.29E+01	1.23E+01	1.12E+01	9.99E+00
CS136	1.72E-03	1.71E-03	1.71E-03	1.71E-03	1.70E-03	1.69E-03	1.68E-03	1.67E-03	1.66E-03	1.65E-03	1.64E-03
CS137	9.52E-05	1.03E-03									
BA137M	2.01E-07	9.58E-04									
XE138	7.88E+02	6.78E+01	5.89E+00	5.11E-01	4.42E-02	3.32E-04	2.16E-07	1.40E-10	9.10E-14	5.91E-17	3.84E-20
CS138	1.17E+02	1.97E+02	6.84E+01	2.01E+01	5.63E+00	4.29E-01	8.92E-03	1.85E-04	3.84E-06	8.00E-08	1.66E-09
CS139	6.90E+02	2.20E+01	2.76E-01	3.47E-03	4.35E-05	6.83E-09	1.36E-14	2.69E-20	5.32E-26	1.05E-31	2.08E-37
BA139	1.27E+01	1.42E+02	8.76E+01	5.32E+01	3.22E+01	1.18E+01	2.62E+00	5.82E-01	1.29E-01	2.87E-02	6.37E-03
BA140	1.16E-01	7.21E-01	7.21E-01	7.15E-01	7.15E-01	7.10E-01	7.10E-01	7.04E-01	6.99E-01	6.93E-01	6.88E-01
LA140	2.75E-07	1.23E-02	2.44E-02	3.63E-02	4.79E-02	7.04E-02	1.03E-01	1.33E-01	1.62E-01	1.89E-01	2.14E-01
BA141	1.61E+02	4.86E+01	4.82E+00	4.78E-01	4.74E-02	4.70E-04	4.59E-07	4.47E-10	4.36E-13	4.28E-16	4.17E-19
LA141	1.48E+00	3.14E+01	2.93E+01	2.49E+01	2.08E+01	1.46E+01	8.57E+00	5.01E+00	2.95E+00	1.73E+00	1.01E+00
CE141	1.84E-07	2.04E-02	4.78E-02	7.19E-02	9.22E-02	1.24E-01	1.53E-01	1.71E-01	1.81E-01	1.86E-01	1.89E-01
BA142	2.84E+02	1.13E+01	2.57E-01	5.86E-03	1.34E-04	6.95E-08	8.24E-13	9.78E-18	1.16E-22	1.38E-27	1.63E-32
LA142	6.51E+00	4.52E+01	2.98E+01	1.90E+01	1.21E+01	4.88E+00	1.26E+00	3.24E-01	8.36E-02	2.15E-02	5.55E-03
LA143	1.11E+02	2.16E+01	1.11E+00	5.68E-02	2.92E-03	7.65E-06	1.03E-09	1.39E-13	1.87E-17	2.53E-21	3.41E-25
CE143	4.42E-02	2.82E+00	2.92E+00	2.84E+00	2.79E+00	2.69E+00	2.52E+00	2.36E+00	2.22E+00	2.08E+00	1.96E+00
PR143	1.29E-08	4.31E-03	1.04E-02	1.65E-02	2.24E-02	3.38E-02	4.99E-02	6.51E-02	7.91E-02	9.22E-02	1.04E-01
CE144	1.79E-03	1.29E-02	1.29E-02	1.29E-02	1.29E-02	1.29E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02	1.28E-02
PR144	4.92E-07	1.17E-02	1.28E-02	1.28E-02	1.29E-02	1.29E-02	1.29E-02	1.29E-02	1.28E-02	1.28E-02	1.28E-02
PR145	7.00E-02	1.03E+01	9.14E+00	8.14E+00	7.26E+00	5.75E+00	4.06E+00	2.86E+00	2.03E+00	1.43E+00	1.01E+00
CE146	1.98E+02	1.01E+01	5.20E-01	2.66E-02	1.37E-03	3.61E-06	4.85E-10	6.54E-14	8.81E-18	1.19E-21	1.60E-25
PR146	4.09E+00	3.56E+01	8.07E+00	1.52E+00	2.73E-01	8.57E-03	4.74E-05	2.61E-07	1.45E-09	8.00E-12	4.37E-14
PR147	2.31E+01	6.68E+00	2.08E-01	6.51E-03	2.04E-04	1.99E-07	6.07E-12	1.86E-16	5.66E-21	1.73E-25	5.27E-30

JANGLE UNCLE 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 = 4.982E-12

PAGE 7

DEBRIS DECAY FROM 1 TO 21 HOURS

	ZERO	TIME	1.00E+00	2.00E+00	3.00E+00	4.00E+00	6.00E+00	9.00E+00	1.20E+01	1.50E+01	1.80E+01	2.10E+01
ND147	8.24E-06	1.55E-01	1.59E-01	1.59E-01	1.59E-01	1.58E-01	1.57E-01	1.56E-01	1.54E-01	1.53E-01	1.52E-01	
ND149	1.09E+01	7.43E+00	5.06E+00	3.45E+00	2.33E+00	1.08E+00	3.41E-01	1.08E-01	3.39E-02	1.07E-02	3.37E-03	
PM149	1.52E-03	1.19E-01	1.97E-01	2.50E-01	2.83E-01	3.18E-01	3.30E-01	3.24E-01	3.16E-01	3.04E-01	2.93E-01	
PM150	1.21E-01	9.34E-02	7.23E-02	5.58E-02	4.32E-02	2.59E-02	1.20E-02	5.55E-03	2.57E-03	1.19E-03	5.51E-04	
ND151	3.72E+01	1.16E+00	3.63E-02	1.14E-03	3.55E-05	3.47E-08	1.06E-12	3.24E-17	9.86E-22	3.00E-26	9.19E-31	
PM151	2.36E-02	2.76E-01	2.77E-01	2.71E-01	2.64E-01	2.51E-01	2.32E-01	2.16E-01	2.01E-01	1.86E-01	1.73E-01	
PM152	5.80E+01	5.67E-02	5.53E-05	5.40E-08	5.28E-11	5.04E-17	4.69E-26	4.38E-35	4.08E-44	3.81E-53	3.54E-62	
SM153	7.42E-02	7.31E-02	7.21E-02	7.10E-02	7.00E-02	6.80E-02	6.50E-02	6.21E-02	5.95E-02	5.70E-02	5.45E-02	
SM155	3.15E+00	5.18E-01	8.49E-02	1.39E-02	2.28E-03	6.13E-05	2.70E-07	1.19E-09	5.25E-12	2.34E-14	5.74E-17	
EU155	2.32E-06	6.61E-05	7.65E-05	7.82E-05	7.85E-05							
SM156	3.92E-02	3.64E-02	3.39E-02	3.14E-02	2.92E-02	2.52E-02	2.02E-02	1.62E-02	1.30E-02	1.04E-02	8.32E-03	
EU156	1.15E-04	1.87E-04	2.54E-04	3.17E-04	3.74E-04	4.77E-04	6.07E-04	7.03E-04	7.87E-04	8.49E-04	8.94E-04	
FU157	6.83E-03	2.26E-02	2.16E-02	2.06E-02	1.97E-02	1.80E-02	1.57E-02	1.37E-02	1.19E-02	1.04E-02	9.07E-03	
EU158	1.29E-01	5.23E-02	2.11E-02	8.57E-03	3.47E-03	5.67E-04	3.78E-05	2.51E-06	1.67E-07	1.11E-08	7.34E-10	
EU159	1.66E-01	1.65E-02	1.64E-03	1.63E-04	1.61E-05	1.59E-07	1.55E-10	1.52E-13	1.48E-16	1.45E-19	1.41E-22	
GD159	7.12E-04	3.12E-03	3.25E-03	3.15E-03	3.03E-03	2.80E-03	2.50E-03	2.23E-03	1.98E-03	1.77E-03	1.57E-03	
TB161	4.95E-06	3.56E-05	3.54E-05	3.53E-05	3.52E-05	3.48E-05	3.45E-05	3.40E-05	3.35E-05	3.32E-05	3.27E-05	
TOTAL	1.20E+04	2.54E+03	9.41E+02	5.49E+02	3.93E+02	2.60E+02	1.78E+02	1.37E+02	1.11E+02	9.30E+01	7.99E+01	

JANGLE UNCLE 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 = 4.982E-12

PAGE 8

DEBRIS DECAY FROM 1 TO 300 DAYS

ZERO TIME 1.00E+00 2.00E+00 5.00E+00 1.00E+01 2.00E+01 3.00E+01 5.00E+01 1.00E+02 2.00E+02 3.00E+02

BE 7	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NA 24	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MN 54	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE 55	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE 59	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 57	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CO 58	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CB 60	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
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	5.51E-01	4.97E-01	4.48E-01	3.30E-01	1.97E-01	7.07E-02	2.53E-02	3.24E-03	1.91E-05	2.06E-09	1.39E-09	0.
U240	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
NP237	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
* NP239	9.33E-03	1.42E+01	1.06E+01	4.38E+00	1.00E+00	5.24E-02	2.74E-03	7.52E-06	2.96E-12	7.06E-22	7.06E-22	0.
NP240M	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
AM241	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CM242	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
GE 77	4.68E-03	2.95E-03	6.74E-04	8.15E-06	5.18E-09	2.10E-15	8.46E-22	1.38E-34	0.	0.	0.	0.
AS 77	4.84E-05	7.14E-03	5.16E-03	1.49E-03	1.75E-04	2.37E-06	3.22E-08	5.94E-12	2.76E-21	5.91E-40	1.27E-58	0.
SE 77M	1.91E-09	2.15E-05	1.55E-05	4.49E-06	5.23E-07	7.12E-09	9.67E-11	1.79E-14	8.27E-24	1.77E-42	3.81E-61	0.
AS 78	1.26E-02	1.12E-04	3.27E-09	2.76E-23	0.	0.	0.	0.	0.	0.	0.	0.
BR 82	5.22E-04	3.26E-04	2.04E-04	4.95E-05	4.69E-06	4.21E-08	3.78E-10	3.05E-14	1.78E-24	6.12E-45	2.08E-65	0.
BR 83	4.06E-01	1.07E-02	1.07E-05	1.09E-14	1.11E-29	0.	0.	0.	0.	0.	0.	0.
KR 83M	2.10E-05	4.67E-02	5.31E-05	4.77E-14	4.90E-29	0.	0.	0.	0.	0.	0.	0.
KR 85M	5.26E-03	3.00E-01	6.84E-03	8.12E-08	5.01E-16	1.90E-32	7.21E-49	0.	0.	0.	0.	0.
KR 85	5.44E-06	1.43E-04	1.46E-04	1.46E-04	1.46E-04	1.46E-04	1.46E-04	1.45E-04	1.44E-04	1.41E-04	1.39E-04	0.
KR 87	8.84E+01	1.74E-04	3.45E-10	2.67E-27	0.	0.	0.	0.	0.	0.	0.	0.
KR 88	5.11E+01	1.34E-01	3.52E-04	6.40E-12	8.06E-25	0.	0.	0.	0.	0.	0.	0.
RB 88	1.30E+01	1.50E-01	3.95E-04	7.16E-12	8.98E-25	0.	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	9.85E-03	2.60E-03	0.
SR 90	9.45E-06	9.71E-04	9.63E-04	9.63E-04	9.54E-04	0.						
Y 90	1.40E-11	2.23E-04	3.94E-04	7.07E-04	9.02E-04	9.63E-04	9.71E-04	9.71E-04	9.63E-04	9.63E-04	9.54E-04	0.
SR 91	1.07E+00	3.82E+00	6.84E-01	3.92E-03	7.18E-07	2.44E-14	8.25E-22	9.39E-37	0.	0.	0.	0.

JANGLE UNCLE 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 = 4.982E-12

PAGE 9

DEBRIS DECAY FROM 1 TO 300 DAYS

	ZERO TIME	1.00E+00	2.00E+00	5.00E+00	1.00E+01	2.00E+01	3.00E+01	5.00E+01	1.00E+02	2.00E+02	3.00E+02
Y 91M	7.18E-05	2.47E+00	4.41E-01	2.54E-03	4.66E-07	1.57E-14	5.31E-22	6.06E-37	0.	0.	0.
Y 91	2.94E-08	1.17E-01	1.39E-01	1.39E-01	1.31E-01	1.16E-01	1.03E-01	8.18E-02	4.53E-02	1.40E-02	4.29E-03
SR 92	6.33E+00	7.89E-02	1.70E-04	1.71E-12	8.01E-26	0.	0.	0.	0.	0.	0.
Y 92	2.92E-01	8.28E-01	9.19E-03	7.07E-09	4.12E-19	1.41E-39	4.83E-60	0.	0.	0.	0.
Y 93	3.03E-01	2.05E+00	4.00E-01	3.00E-03	8.65E-07	7.14E-14	5.90E-21	4.03E-35	0.	0.	0.
ZR 95	5.75E-04	7.19E-02	7.11E-02	6.89E-02	6.53E-02	5.85E-02	5.27E-02	4.26E-02	2.50E-02	8.60E-03	2.95E-03
NB 95M	1.22E-11	2.43E-04	4.44E-04	8.48E-04	1.14E-03	1.21E-03	1.11E-03	9.03E-04	5.30E-04	1.82E-04	6.28E-05
NB 95	6.41E-11	1.39E-03	2.75E-03	6.58E-03	1.22E-02	2.11E-02	2.72E-02	3.38E-02	3.25E-02	1.56E-02	6.00E-03
NB 97M	1.35E+00	2.30E+00	8.65E-01	4.58E-02	3.44E-04	1.94E-08	1.09E-12	3.44E-21	1.94E-42	0.	0.
NB 97	6.95E-03	2.21E+00	8.30E-01	4.42E-02	3.30E-04	1.86E-08	1.05E-12	3.30E-21	1.87E-42	0.	0.
M0 99	6.76E-01	2.31E+00	8.67E-01	4.60E-02	3.46E-04	2.09E-08	1.17E-12	3.72E-21	2.09E-42	0.	0.
TC 99M	3.92E-03	1.28E+00	9.96E-01	4.72E-01	1.37E-01	1.14E-02	9.51E-04	6.64E-06	2.70E-11	4.45E-22	7.32E-33
RU103	3.65E-08	1.12E+00	9.44E-01	4.52E-01	1.30E-01	1.09E-02	9.09E-04	6.34E-06	2.57E-11	4.25E-22	6.99E-33
RH103M	6.85E-05	1.56E-01	1.53E-01	1.45E-01	1.33E-01	1.12E-01	9.40E-02	6.63E-02	2.76E-02	4.79E-03	8.34E-04
RU105	4.57E-09	1.56E-01	1.54E-01	1.46E-01	1.33E-01	1.12E-01	9.40E-02	6.63E-02	2.76E-02	4.79E-03	8.34E-04
RH105M	3.71E-01	3.55E-01	8.35E-03	1.10E-07	8.02E-16	4.28E-32	2.30E-48	0.	0.	0.	0.
RH105	2.44E-03	3.55E-01	8.37E-03	1.10E-07	8.05E-16	4.31E-32	2.30E-48	0.	0.	0.	0.
RU106	4.01E-09	1.28E+00	8.37E-01	2.09E-01	2.06E-02	2.00E-04	1.94E-06	1.83E-10	1.59E-20	1.20E-40	8.97E-61
RH106	2.86E-04	5.42E-03	5.39E-03	5.37E-03	5.32E-03	5.23E-03	5.11E-03	4.93E-03	4.48E-03	3.71E-03	3.07E-03
PD109	3.10E-06	5.42E-03	5.39E-03	5.37E-03	5.32E-03	5.23E-03	5.11E-03	4.93E-03	4.48E-03	3.71E-03	3.07E-03
AG109M	2.36E-03	6.02E-02	1.75E-02	4.35E-04	9.16E-07	4.08E-12	1.82E-17	3.60E-28	0.	0.	0.
PD111M	3.28E-01	1.59E-02	7.74E-04	8.88E-08	2.40E-14	1.75E-27	1.29E-40	0.	0.	0.	0.
PD111	1.17E-01	1.29E-02	6.22E-04	7.14E-08	1.94E-14	1.41E-27	1.03E-40	0.	0.	0.	0.
AG111M	9.28E-04	1.68E-02	8.17E-04	9.39E-08	2.54E-14	1.86E-27	1.36E-40	0.	0.	0.	0.
AG111	3.31E-10	9.12E-03	8.77E-03	6.67E-03	4.20E-03	1.67E-03	6.61E-04	1.04E-04	1.03E-06	9.93E-11	9.63E-15
PD112	7.36E-02	3.34E-02	1.51E-02	1.41E-03	2.67E-05	9.70E-09	3.52E-12	4.62E-19	2.92E-36	0.	0.
AG112	2.22E-06	3.88E-02	1.78E-02	1.66E-03	3.17E-05	1.14E-08	4.15E-12	5.48E-19	3.43E-36	0.	0.
AG113	9.55E-04	1.01E-02	4.37E-04	3.55E-08	5.43E-15	1.27E-28	2.97E-42	0.	0.	0.	0.
CD115M	3.42E-09	9.89E-05	9.72E-05	9.26E-05	8.56E-05	7.27E-05	6.21E-05	4.48E-05	2.00E-05	3.98E-06	7.97E-07
CD115	1.32E-06	1.99E-02	1.46E-02	5.74E-03	1.21E-03	5.41E-05	2.41E-06	4.81E-09	8.50E-16	2.66E-29	8.33E-43
IN115M	1.65E-11	2.10E-02	1.59E-02	6.27E-03	1.32E-03	5.91E-05	2.63E-06	5.24E-09	9.29E-16	2.91E-29	9.09E-43
CD117	2.97E-02	6.48E-04	6.31E-07	5.89E-16	5.23E-31	0.	0.	0.	0.	0.	0.
IN117M	1.43E-06	2.69E-03	3.11E-06	3.00E-15	2.67E-30	0.	0.	0.	0.	0.	0.
IN117	5.75E-11	1.77E-03	2.10E-06	2.03E-15	1.80E-30	0.	0.	0.	0.	0.	0.
SN121	6.00E-04	3.42E-02	1.85E-02	2.91E-03	1.33E-04	2.82E-07	5.93E-10	2.64E-15	1.10E-28	0.	0.
SN123	3.09E-06	3.23E-04	3.21E-04	3.15E-04	3.06E-04	2.89E-04	2.75E-04	2.46E-04	1.86E-04	1.07E-04	6.16E-05
SN125	8.61E-03	8.01E-03	7.44E-03	5.96E-03	4.12E-03	1.97E-03	9.42E-04	2.16E-04	5.40E-06	3.40E-09	2.13E-12
SB125	5.17E-05	5.74E-05	6.28E-05	7.67E-05	9.40E-05	1.14E-04	1.23E-04	1.28E-04	1.25E-04	1.17E-04	1.09E-04
SB126	1.68E-03	1.59E-03	1.51E-03	1.28E-03	9.67E-04	5.54E-04	3.20E-04	1.05E-04	6.58E-06	3.20E-08	6.42E-09

JANGLE UNCLE 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 = 4.982E-12

PAGE 10

DEBRIS DECAY FROM 1 TO 300 DAYS

ZERO TIME 1.00E+00 2.00E+00 5.00E+00 1.00E+01 2.00E+01 3.00E+01 5.00E+01 1.00E+02 2.00E+02 3.00E+02

SN127	3.01E+00	1.09E-03	3.97E-07	1.89E-17	1.19E-34	0.	0.	0.	0.	0.	0.	0.
SB127	3.52E-02	1.44E-01	1.21E-01	7.05E-02	2.89E-02	4.83E-03	8.07E-04	2.26E-05	2.94E-09	5.02E-17	8.55E-25	
TE127M	2.85E-10	2.20E-04	4.03E-04	7.83E-04	1.08E-03	1.19E-03	1.15E-03	1.02E-03	7.44E-04	3.93E-04	2.08E-04	
TE127	1.99E-02	1.03E-01	1.01E-01	6.18E-02	2.61E-02	5.36E-03	1.84E-03	1.03E-03	7.34E-04	3.88E-04	2.05E-04	
SB128	8.48E-01	1.45E-01	2.28E-02	8.91E-05	8.64E-09	8.11E-17	7.63E-25	6.72E-41	0.	0.	0.	
SB129	5.00E+00	2.56E-01	5.34E-03	4.86E-08	1.93E-16	3.05E-33	4.82E-50	0.	0.	0.	0.	
TE129M	9.44E-08	9.95E-03	9.95E-03	9.39E-03	8.49E-03	6.91E-03	5.62E-03	3.74E-03	1.35E-03	1.76E-04	2.29E-05	
TE129	3.60E+00	3.00E-01	1.25E-02	6.01E-03	5.42E-03	4.42E-03	3.61E-03	2.40E-03	8.66E-04	1.13E-04	1.47E-05	
I130	2.37E-02	6.19E-03	1.62E-03	2.90E-05	3.54E-08	5.27E-14	7.86E-20	1.75E-31	0.	0.	0.	
TE131M	9.70E-05	3.39E-01	1.95E-01	3.69E-02	2.31E-03	8.99E-06	3.52E-08	5.37E-13	4.88E-25	0.	0.	
TE131	8.93E+01	6.19E-02	3.55E-02	6.75E-03	4.21E-04	1.64E-06	6.42E-09	9.83E-14	8.93E-26	0.	0.	
I131	1.30E-02	7.00E-01	6.62E-01	5.32E-01	3.50E-01	1.46E-01	6.26E-02	1.12E-02	1.51E-04	2.75E-08	5.01E-12	
XE131M	3.52E-11	3.24E-04	6.16E-04	1.28E-03	1.84E-03	1.82E-03	1.35E-03	5.57E-04	3.71E-05	1.11E-07	3.14E-10	
TE132	1.09E+00	2.16E+00	1.74E+00	9.18E-01	3.16E-01	3.75E-02	4.45E-03	6.24E-05	1.46E-09	7.99E-19	4.36E-28	
I132	2.68E+00	2.23E+00	1.80E+00	9.45E-01	3.26E-01	3.86E-02	4.58E-03	6.43E-05	1.51E-09	8.19E-19	4.49E-28	
I133	1.17E+00	6.50E+00	2.93E+00	9.27E-01	5.18E-03	1.88E-06	6.81E-10	8.98E-17	5.64E-34	0.	0.	
XE133M	4.96E-08	6.13E-02	7.26E-02	4.26E-02	1.00E-02	4.69E-04	2.18E-05	4.74E-08	1.04E-14	4.96E-28	2.38E-41	
XE133	8.66E-07	1.18E+00	1.58E+00	1.41E+00	7.71E-01	2.08E-01	5.60E-02	4.03E-03	5.62E-06	1.09E-11	2.11E-17	
I135	1.98E+01	3.22E+00	2.69E-01	1.57E-04	6.36E-10	1.05E-20	1.73E-31	4.69E-53	0.	0.	0.	
XE135M	2.19E-03	1.00E+00	8.40E-02	4.89E-05	1.99E-10	3.27E-21	5.39E-32	1.46E-53	0.	0.	0.	
XE135	2.28E+00	8.69E+00	2.12E+00	1.21E-02	1.49E-06	2.09E-14	2.93E-22	5.79E-38	0.	0.	0.	
CS136	1.72E-03	1.63E-03	1.54E-03	1.32E-03	1.01E-03	5.92E-04	3.48E-04	1.19E-04	8.30E-06	4.00E-08	1.94E-10	
CS137	9.52E-05	1.03E-03	1.02E-03	1.02E-03	1.01E-03							
BA137M	2.01E-07	9.58E-04	9.52E-04	9.47E-04	9.41E-04							
BA139	1.27E+01	1.36E-03	8.03E-09	1.65E-24	0.	0.	0.	0.	0.	0.	0.	
BA140	1.16E-01	6.82E-01	6.49E-01	5.50E-01	4.20E-01	2.44E-01	1.42E-01	4.82E-02	3.21E-03	1.43E-05	6.33E-08	
LA140	2.75E-07	2.38E-01	3.82E-01	5.29E-01	4.70E-01	2.81E-01	1.63E-01	5.56E-02	3.69E-03	1.65E-05	7.32E-08	
LA141	1.48E+00	5.89E-01	8.26E-03	2.29E-08	1.25E-17	3.73E-36	1.11E-54	0.	0.	0.	0.	
CE141	1.84E-07	2.03E-01	2.02E-01	1.90E-01	1.70E-01	1.38E-01	1.11E-01	7.23E-02	2.48E-02	2.92E-03	3.44E-04	
LA142	6.51E+00	1.43E-03	2.76E-08	2.03E-22	0.	0.	0.	0.	0.	0.	0.	
CE143	4.42E-02	1.82E+00	1.10E+00	2.42E-01	1.95E-02	1.26E-04	8.14E-07	3.41E-11	3.85E-22	0.	0.	
PR143	1.29E-08	1.16E-01	1.81E-01	2.34E-01	2.00E-01	1.22E-01	7.36E-02	2.66E-02	2.13E-03	1.35E-05	8.58E-08	
CE144	1.79E-03	1.28E-02	1.28E-02	1.27E-02	1.25E-02	1.22E-02	1.19E-02	1.14E-02	1.01E-02	7.88E-03	6.19E-03	
PR144	4.92E-07	1.28E-02	1.28E-02	1.27E-02	1.25E-02	1.22E-02	1.19E-02	1.14E-02	1.01E-02	7.88E-03	6.19E-03	
PR145	7.00E-02	7.16E-01	4.43E-02	1.05E-05	9.57E-12	7.93E-24	6.57E-36	0.	0.	0.	0.	
ND147	8.24E-06	1.38E-01	1.30E-01	1.08E-01	7.90E-02	4.24E-02	2.27E-02	6.51E-03	2.85E-04	5.56E-07	1.08E-09	
PM147	2.29E-14	1.04E-04	2.01E-04	4.58E-04	7.92E-04	1.21E-03	1.43E-03	1.59E-03	1.61E-03	1.50E-03	1.39E-03	
ND149	1.09E+01	1.06E-03	1.02E-07	9.33E-20	7.97E-40	0.	0.	0.	0.	0.	0.	
PM149	1.52E-03	2.81E-01	2.06E-01	8.03E-02	1.68E-02	7.31E-04	3.18E-05	6.05E-08	9.54E-15	2.35E-28	5.87E-42	
PM150	1.21E-01	2.55E-04	5.37E-07	5.05E-15	2.11E-28	0.	0.	0.	0.	0.	0.	

JANGLE UNCLE 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 = 4.982E-12

PAGE 11

DEBRIS DECAY FROM 1 TO 300 DAYS

ZERO TIME 1.00E+00 2.00E+00 5.00E+00 1.00E+01 2.00E+01 3.00E+01 5.00E+01 1.00E+02 2.00E+02 3.00E+02

PM151	2.36E-02	1.61E-01	8.86E-02	1.49E-02	7.65E-04	2.01E-06	5.29E-09	3.65E-14	4.58E-27	0.	0.
SM153	7.42E-02	5.21E-02	3.66E-02	1.26E-02	2.15E-03	6.25E-05	1.82E-06	1.53E-09	3.15E-17	1.34E-32	5.70E-48
SM156	3.92E-02	6.69E-03	1.14E-03	5.62E-06	8.10E-10	1.66E-17	3.44E-25	1.46E-40	0.	0.	0.
EU155	2.32E-06	7.85E-05	7.84E-05	7.84E-05	7.82E-05	7.79E-05	7.75E-05	7.69E-05	7.55E-05	7.24E-05	6.96E-05
EU156	1.15E-04	9.33E-04	1.03E-03	9.28E-04	7.37E-04	4.63E-04	2.92E-04	1.16E-04	1.15E-05	1.13E-07	1.11E-09
EU157	6.83E-03	7.89E-03	2.65E-03	9.95E-05	4.18E-07	7.37E-12	1.31E-16	4.06E-26	0.	0.	0.
GD159	7.12E-04	1.40E-03	5.58E-04	3.48E-05	3.43E-07	3.32E-11	3.22E-15	3.02E-23	2.58E-43	0.	0.
TB161	4.95E-06	3.24E-05	2.92E-05	2.16E-05	1.31E-05	4.79E-06	1.75E-06	2.35E-07	1.55E-09	6.72E-14	2.92E-18
TOTAL	3.25E+02	6.90E+01	3.36E+01	1.30E+01	5.37E+00	2.01E+00	1.19E+00	6.41E-01	2.69E-01	9.08E-02	4.25E-02

JANGLE UNCLE 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 = 4.982E-12

PAGE 12

DEBRIS DECAY FROM 1 TO 50 YEARS

	ZERO TIME	1.00E+00	1.50E+00	2.00E+00	3.50E+00	5.00E+00	7.00E+00	1.00E+01	2.00E+01	3.50E+01	5.00E+01
BE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
MZ	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
FE	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CD	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W181	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W185	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
W188	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U234	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
U237	5.51E-01	1.37E-09	1.34E-09	1.30E-09	1.22E-09	1.13E-09	1.03E-09	8.93E-10	5.56E-10	2.73E-10	1.34E-10
AM241	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
CM242	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.	0.
KR	5.44E-06	1.35E-04	1.31E-04	1.27E-04	1.16E-04	1.04E-04	9.17E-05	7.56E-05	4.00E-05	1.53E-05	5.83E-06
SR	4.68E-06	1.09E-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	9.45E-06	9.45E-04	9.37E-04	9.28E-04	8.94E-04	8.59E-04	8.18E-04	7.60E-04	5.94E-04	4.10E-04	2.84E-04
YY	1.40E-11	9.45E-04	9.37E-04	9.28E-04	8.94E-04	8.59E-04	8.18E-04	7.60E-04	5.94E-04	4.10E-04	2.84E-04
NR	2.94E-08	1.99E-03	2.31E-04	2.68E-05	4.21E-08	6.60E-11	1.21E-14	2.96E-20	5.99E-39	0.	0.
NB	5.75E-04	1.48E-03	2.11E-04	3.00E-05	8.75E-08	2.55E-10	1.05E-13	8.90E-19	1.09E-35	0.	0.
NB	1.22E-11	3.13E-05	4.46E-06	6.38E-07	1.85E-09	5.40E-12	2.23E-15	1.89E-20	2.31E-37	0.	0.
NB	6.41E-11	3.18E-03	4.57E-04	6.51E-05	1.89E-07	5.47E-10	2.29E-13	1.93E-18	2.36E-35	0.	0.
RU103	6.85E-05	2.66E-04	1.09E-05	4.48E-07	3.06E-11	2.09E-15	6.88E-21	2.77E-29	0.	0.	0.
RU103M	4.57E-09	2.67E-04	1.09E-05	4.48E-07	3.06E-11	2.10E-15	5.88E-21	2.77E-29	0.	0.	0.
RU106	2.86E-04	2.72E-03	1.93E-03	1.37E-03	4.86E-04	1.72E-04	4.34E-05	5.49E-06	5.54E-09	1.78E-13	5.72E-18
RH106	3.10E-06	2.72E-03	1.93E-03	1.37E-03	4.86E-04	1.72E-04	4.34E-05	5.49E-06	5.54E-09	1.78E-13	5.72E-18
SN123	3.09E-06	4.28E-05	1.55E-05	5.64E-06	2.71E-07	1.30E-08	2.26E-10	5.22E-13	8.37E-22	5.39E-35	3.46E-48
SB125	5.17E-05	1.04E-04	9.15E-05	8.05E-05	5.49E-05	3.73E-05	2.23E-05	1.03E-05	7.94E-07	1.69E-08	3.60E-10
TE125M	1.39E-12	4.25E-05	3.78E-05	3.33E-05	2.27E-05	1.55E-05	9.24E-06	4.27E-06	3.28E-07	6.99E-09	1.49E-10
TE127M	2.85E-10	1.36E-04	4.26E-05	1.33E-05	4.10E-07	1.26E-08	1.21E-10	1.14E-13	9.37E-24	7.01E-39	5.22E-54
TE127	1.99E-02	1.35E-04	4.21E-05	1.32E-05	4.05E-07	1.25E-08	1.20E-10	1.13E-13	9.28E-24	6.91E-39	5.17E-54
CS137	9.52E-05	1.00E-03	9.92E-04	9.81E-04	9.47E-04	9.13E-04	8.73E-04	8.16E-04	6.44E-04	4.58E-04	3.23E-04
CS137M	2.01E-07	9.41E-04	9.30E-04	9.18E-04	8.84E-04	8.56E-04	8.16E-04	7.64E-04	6.05E-04	4.28E-04	3.03E-04
CE141	1.84E-07	7.92E-05	1.59E-06	3.20E-08	2.60E-13	2.12E-18	3.48E-25	2.31E-35	0.	0.	0.
CE144	1.79E-03	5.27E-03	3.39E-03	2.16E-03	5.68E-04	1.49E-04	2.51E-05	1.73E-06	2.33E-10	3.66E-16	5.70E-22
PR144	4.92E-07	5.27E-03	3.39E-03	2.16E-03	5.68E-04	1.49E-04	2.51E-05	1.73E-06	2.33E-10	3.66E-16	5.70E-22
PM147	2.29E-14	1.33E-03	1.16E-03	1.02E-03	6.85E-04	4.61E-04	2.71E-04	1.23E-04	8.73E-06	1.65E-07	3.12E-09
EU155	2.32E-06	6.78E-05	6.30E-05	5.87E-05	4.72E-05	3.79E-05	2.83E-05	1.83E-05	4.27E-06	4.80E-07	5.41E-08
TOTAL	5.74E-01	3.02E-02	1.70E-02	1.23E-02	6.65E-03	4.79E-03	3.88E-03	3.35E-03	2.49E-03	1.72E-03	1.20E-03

F-12