

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 1	0.000E+00	9.004E-03	9.004E-03	9.004E-03	9.004E-03	9.004E-03
H 3	0.000E+00	2.580E-02	2.580E-02	2.580E-02	2.580E-02	2.579E-02
HE 3	0.000E+00	2.743E-04	2.744E-04	2.746E-04	2.763E-04	2.782E-04
HE 4	0.000E+00	2.611E+00	2.611E+00	2.611E+00	2.611E+00	2.611E+00
LI 6	6.498E-02	1.220E-02	1.220E-02	1.220E-02	1.220E-02	1.220E-02
LI 7	9.350E-01	1.064E+00	1.064E+00	1.064E+00	1.064E+00	1.064E+00
BE 9	0.000E+00	6.659E-04	6.659E-04	6.659E-04	6.659E-04	6.659E-04
BE 10	0.000E+00	6.585E-05	6.585E-05	6.585E-05	6.585E-05	6.585E-05
B 10	1.852E-01	1.397E-04	1.397E-04	1.397E-04	1.397E-04	1.397E-04
B 11	8.148E-01	8.293E-01	8.293E-01	8.293E-01	8.293E-01	8.293E-01
C 12	8.833E+01	8.832E+01	8.832E+01	8.832E+01	8.832E+01	8.832E+01
C 13	1.074E+00	9.164E+00	9.164E+00	9.164E+00	9.164E+00	9.164E+00
C 14	0.000E+00	1.144E-01	1.144E-01	1.144E-01	1.144E-01	1.144E-01
N 14	2.490E+01	2.479E+01	2.479E+01	2.479E+01	2.479E+01	2.479E+01
N 15	9.801E-02	1.042E-01	1.042E-01	1.042E-01	1.042E-01	1.042E-01
O 16	1.341E+05	1.341E+05	1.341E+05	1.341E+05	1.341E+05	1.341E+05
O 17	5.427E+01	5.429E+01	5.429E+01	5.429E+01	5.429E+01	5.429E+01
O 18	3.085E+02	3.085E+02	3.085E+02	3.085E+02	3.085E+02	3.085E+02
F 19	1.070E+01	1.070E+01	1.070E+01	1.070E+01	1.070E+01	1.070E+01
NE 20	0.000E+00	3.536E-04	3.536E-04	3.536E-04	3.536E-04	3.536E-04
NE 22	0.000E+00	1.923E-05	1.923E-05	1.923E-05	1.923E-05	1.923E-05
NA 23	1.500E+01	1.497E+01	1.497E+01	1.497E+01	1.497E+01	1.497E+01
NA 24	0.000E+00	3.273E-05	3.125E-05	2.984E-05	1.880E-05	1.080E-05
MG 24	1.559E+00	1.589E+00	1.589E+00	1.589E+00	1.589E+00	1.589E+00
MG 25	2.056E-01	2.057E-01	2.057E-01	2.057E-01	2.057E-01	2.057E-01
MG 26	2.354E-01	2.355E-01	2.355E-01	2.355E-01	2.355E-01	2.355E-01
AL 27	1.670E+01	1.669E+01	1.669E+01	1.669E+01	1.669E+01	1.669E+01
SI 28	1.112E+01	1.112E+01	1.112E+01	1.112E+01	1.112E+01	1.112E+01
SI 29	5.830E-01	5.863E-01	5.863E-01	5.863E-01	5.863E-01	5.863E-01
SI 30	4.003E-01	4.006E-01	4.006E-01	4.006E-01	4.006E-01	4.006E-01
P 31	3.500E+01	3.499E+01	3.499E+01	3.499E+01	3.499E+01	3.499E+01
P 32	0.000E+00	3.103E-04	3.097E-04	3.090E-04	3.029E-04	2.956E-04
S 32	0.000E+00	1.199E-02	1.199E-02	1.199E-02	1.200E-02	1.201E-02
S 35	0.000E+00	6.132E-04	6.130E-04	6.128E-04	6.108E-04	6.084E-04

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CL 35	3.961E+00	3.659E+00	3.659E+00	3.659E+00	3.659E+00	3.659E+00
CL 36	0.000E+00	3.071E-01	3.071E-01	3.071E-01	3.071E-01	3.071E-01
CL 37	1.339E+00	1.341E+00	1.341E+00	1.341E+00	1.341E+00	1.341E+00
AR 38	0.000E+00	1.205E-03	1.205E-03	1.205E-03	1.205E-03	1.205E-03
K 40	0.000E+00	5.492E-04	5.492E-04	5.492E-04	5.492E-04	5.492E-04
K 41	0.000E+00	1.602E-05	1.602E-05	1.602E-05	1.602E-05	1.602E-05
CA 40	1.933E+00	1.931E+00	1.931E+00	1.931E+00	1.931E+00	1.931E+00
CA 41	0.000E+00	1.485E-03	1.485E-03	1.485E-03	1.485E-03	1.485E-03
CA 42	1.354E-02	1.352E-02	1.352E-02	1.352E-02	1.352E-02	1.352E-02
CA 43	2.787E-03	2.767E-03	2.767E-03	2.767E-03	2.767E-03	2.767E-03
CA 44	4.585E-02	4.580E-02	4.580E-02	4.580E-02	4.580E-02	4.580E-02
CA 45	0.000E+00	2.311E-05	2.310E-05	2.310E-05	2.306E-05	2.301E-05
CA 46	8.027E-05	8.045E-05	8.045E-05	8.045E-05	8.045E-05	8.045E-05
CA 48	4.547E-03	4.537E-03	4.537E-03	4.537E-03	4.537E-03	4.537E-03
SC 45	0.000E+00	6.658E-05	6.659E-05	6.659E-05	6.663E-05	6.668E-05
TI 46	7.920E-02	7.910E-02	7.910E-02	7.910E-02	7.910E-02	7.910E-02
TI 47	7.307E-02	7.289E-02	7.289E-02	7.289E-02	7.289E-02	7.289E-02

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
 1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
TI 48	7.383E-01	7.277E-01	7.277E-01	7.277E-01	7.277E-01	7.277E-01
TI 49	5.522E-02	6.599E-02	6.599E-02	6.599E-02	6.599E-02	6.599E-02
TI 50	5.426E-02	5.452E-02	5.452E-02	5.452E-02	5.452E-02	5.452E-02
V 50	7.353E-03	6.330E-03	6.330E-03	6.330E-03	6.330E-03	6.330E-03
V 51	2.993E+00	2.970E+00	2.970E+00	2.970E+00	2.970E+00	2.970E+00
CR 50	1.671E-01	1.622E-01	1.622E-01	1.622E-01	1.622E-01	1.622E-01
CR 51	0.000E+00	2.439E-04	2.436E-04	2.434E-04	2.408E-04	2.378E-04
CR 52	3.348E+00	3.363E+00	3.363E+00	3.363E+00	3.363E+00	3.363E+00
CR 53	3.869E-01	3.878E-01	3.878E-01	3.878E-01	3.878E-01	3.878E-01
CR 54	9.793E-02	1.117E-01	1.117E-01	1.117E-01	1.117E-01	1.117E-01
MN 54	0.000E+00	1.703E-04	1.703E-04	1.703E-04	1.701E-04	1.699E-04
MN 55	1.700E+00	1.645E+00	1.645E+00	1.645E+00	1.645E+00	1.645E+00
FE 54	1.010E+00	1.005E+00	1.005E+00	1.005E+00	1.005E+00	1.005E+00
FE 55	0.000E+00	3.561E-03	3.561E-03	3.561E-03	3.560E-03	3.559E-03

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FE 56	1.654E+01	1.652E+01	1.652E+01	1.652E+01	1.652E+01	1.652E+01
FE 57	3.945E-01	4.783E-01	4.783E-01	4.783E-01	4.783E-01	4.783E-01
FE 58	5.415E-02	6.156E-02	6.156E-02	6.156E-02	6.156E-02	6.156E-02
CO 58	0.000E+00	6.408E-04	6.406E-04	6.403E-04	6.377E-04	6.346E-04
CO 59	1.000E+00	8.416E-01	8.416E-01	8.416E-01	8.416E-01	8.416E-01
CO 60	0.000E+00	1.368E-01	1.368E-01	1.368E-01	1.368E-01	1.368E-01
NI 58	1.617E+01	1.603E+01	1.603E+01	1.603E+01	1.603E+01	1.603E+01
NI 59	0.000E+00	1.162E-01	1.162E-01	1.162E-01	1.162E-01	1.162E-01
NI 60	6.397E+00	6.405E+00	6.405E+00	6.405E+00	6.405E+00	6.405E+00
NI 61	2.816E-01	3.156E-01	3.156E-01	3.156E-01	3.156E-01	3.156E-01
NI 62	9.092E-01	8.866E-01	8.866E-01	8.866E-01	8.866E-01	8.866E-01
NI 63	0.000E+00	2.379E-02	2.379E-02	2.379E-02	2.379E-02	2.379E-02
NI 64	2.379E-01	2.421E-01	2.421E-01	2.421E-01	2.422E-01	2.422E-01
CU 63	6.853E-01	6.785E-01	6.785E-01	6.785E-01	6.785E-01	6.785E-01
CU 65	3.147E-01	3.408E-01	3.408E-01	3.408E-01	3.408E-01	3.408E-01
ZN 64	1.915E+01	1.911E+01	1.911E+01	1.911E+01	1.911E+01	1.911E+01
ZN 65	0.000E+00	1.429E-02	1.429E-02	1.429E-02	1.427E-02	1.425E-02
ZN 66	1.133E+01	1.132E+01	1.132E+01	1.132E+01	1.132E+01	1.132E+01
ZN 67	1.691E+00	1.673E+00	1.673E+00	1.673E+00	1.673E+00	1.673E+00
ZN 68	7.861E+00	7.871E+00	7.871E+00	7.871E+00	7.871E+00	7.871E+00
ZN 70	2.672E-01	2.671E-01	2.671E-01	2.671E-01	2.671E-01	2.671E-01
GA 69	0.000E+00	3.003E-02	3.003E-02	3.003E-02	3.003E-02	3.003E-02
GA 71	0.000E+00	4.639E-05	4.639E-05	4.639E-05	4.639E-05	4.639E-05
GE 70	0.000E+00	1.904E-04	1.904E-04	1.904E-04	1.904E-04	1.904E-04
ZR 92	0.000E+00	8.716E-05	8.716E-05	8.717E-05	8.719E-05	8.723E-05
MO 92	1.418E+00	1.417E+00	1.417E+00	1.417E+00	1.417E+00	1.417E+00
MO 93	0.000E+00	5.883E-04	5.883E-04	5.883E-04	5.883E-04	5.883E-04
MO 94	9.104E-01	9.093E-01	9.093E-01	9.093E-01	9.093E-01	9.093E-01
MO 95	1.573E+00	1.409E+00	1.409E+00	1.409E+00	1.409E+00	1.409E+00
MO 96	1.670E+00	1.803E+00	1.803E+00	1.803E+00	1.803E+00	1.803E+00
MO 97	9.697E-01	9.852E-01	9.852E-01	9.852E-01	9.852E-01	9.852E-01
MO 98	2.460E+00	2.392E+00	2.392E+00	2.392E+00	2.392E+00	2.392E+00
MO 99	0.000E+00	4.141E-04	4.098E-04	4.055E-04	3.651E-04	3.218E-04
MO100	9.997E-01	9.955E-01	9.955E-01	9.955E-01	9.955E-01	9.955E-01
TC 99	0.000E+00	9.486E-03	9.486E-03	9.487E-03	9.492E-03	9.497E-03
RU100	0.000E+00	1.249E-03	1.249E-03	1.249E-03	1.249E-03	1.249E-03
RU101	0.000E+00	4.080E-03	4.080E-03	4.080E-03	4.080E-03	4.080E-03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
 1 MTIHM 4.236% UO₂, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
RU102	0.000E+00	1.718E-04	1.718E-04	1.718E-04	1.718E-04	1.718E-04
PD108	0.000E+00	1.598E-04	1.598E-04	1.598E-04	1.598E-04	1.598E-04
PD110	0.000E+00	9.395E-05	9.395E-05	9.395E-05	9.395E-05	9.395E-05
AG107	5.137E-02	4.420E-02	4.420E-02	4.420E-02	4.420E-02	4.420E-02
AG108M	0.000E+00	4.558E-04	4.558E-04	4.558E-04	4.558E-04	4.558E-04
AG109	4.863E-02	1.651E-02	1.651E-02	1.651E-02	1.652E-02	1.652E-02
AG110M	0.000E+00	3.781E-04	3.781E-04	3.780E-04	3.776E-04	3.771E-04
CD106	3.062E-01	3.056E-01	3.056E-01	3.056E-01	3.056E-01	3.056E-01
CD108	2.136E-01	2.193E-01	2.193E-01	2.193E-01	2.193E-01	2.193E-01
CD109	0.000E+00	5.339E-04	5.338E-04	5.338E-04	5.335E-04	5.331E-04
CD110	3.055E+00	2.918E+00	2.918E+00	2.918E+00	2.918E+00	2.918E+00
CD111	3.157E+00	3.066E+00	3.066E+00	3.066E+00	3.066E+00	3.066E+00
CD112	6.000E+00	6.114E+00	6.114E+00	6.114E+00	6.114E+00	6.114E+00
CD113	3.063E+00	1.242E-03	1.242E-03	1.242E-03	1.242E-03	1.242E-03
CD114	7.270E+00	1.026E+01	1.026E+01	1.026E+01	1.026E+01	1.026E+01
CD115	0.000E+00	7.582E-04	7.484E-04	7.388E-04	6.490E-04	5.555E-04
CD115M	0.000E+00	1.119E-03	1.118E-03	1.117E-03	1.110E-03	1.101E-03
CD116	1.933E+00	1.927E+00	1.927E+00	1.927E+00	1.927E+00	1.927E+00
IN113	8.457E-02	6.204E-02	6.204E-02	6.204E-02	6.204E-02	6.204E-02
IN114M	0.000E+00	7.154E-04	7.149E-04	7.145E-04	7.104E-04	7.054E-04
IN115	1.915E+00	2.594E-02	2.595E-02	2.595E-02	2.595E-02	2.596E-02
SN112	3.772E-02	3.701E-02	3.701E-02	3.701E-02	3.701E-02	3.701E-02
SN113	0.000E+00	9.281E-05	9.278E-05	9.276E-05	9.253E-05	9.225E-05
SN114	2.572E-02	4.719E-02	4.719E-02	4.719E-02	4.720E-02	4.720E-02
SN115	1.472E-02	1.341E-02	1.341E-02	1.341E-02	1.341E-02	1.341E-02
SN116	5.742E-01	2.460E+00	2.460E+00	2.460E+00	2.460E+00	2.460E+00
SN117	3.053E-01	3.398E-01	3.398E-01	3.398E-01	3.399E-01	3.399E-01
SN117M	0.000E+00	4.255E-04	4.246E-04	4.237E-04	4.151E-04	4.049E-04
SN118	9.656E-01	9.615E-01	9.615E-01	9.615E-01	9.615E-01	9.615E-01
SN119	3.446E-01	3.514E-01	3.514E-01	3.514E-01	3.514E-01	3.514E-01
SN119M	0.000E+00	1.498E-03	1.497E-03	1.497E-03	1.495E-03	1.493E-03
SN120	1.309E+00	1.310E+00	1.310E+00	1.310E+00	1.310E+00	1.310E+00
SN122	1.890E-01	1.888E-01	1.888E-01	1.888E-01	1.888E-01	1.888E-01
SN123	0.000E+00	4.361E-05	4.360E-05	4.359E-05	4.350E-05	4.338E-05
SN124	2.338E-01	2.313E-01	2.313E-01	2.313E-01	2.313E-01	2.313E-01
SN125	0.000E+00	2.530E-05	2.522E-05	2.515E-05	2.440E-05	2.354E-05
SB121	0.000E+00	1.977E-03	1.977E-03	1.977E-03	1.978E-03	1.979E-03
SB123	0.000E+00	1.593E-04	1.593E-04	1.593E-04	1.594E-04	1.595E-04
SB125	0.000E+00	1.788E-03	1.788E-03	1.788E-03	1.788E-03	1.789E-03
TE122	0.000E+00	1.475E-04	1.475E-04	1.475E-04	1.476E-04	1.478E-04
TE125	0.000E+00	6.728E-04	6.729E-04	6.729E-04	6.734E-04	6.740E-04
TE125M	0.000E+00	2.163E-05	2.163E-05	2.163E-05	2.164E-05	2.166E-05

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TE126	0.000E+00	2.676E-05	2.676E-05	2.676E-05	2.678E-05	2.680E-05
EU153	0.000E+00	5.186E-04	5.187E-04	5.187E-04	5.192E-04	5.199E-04
EU154	0.000E+00	1.786E-04	1.786E-04	1.786E-04	1.785E-04	1.785E-04
EU155	0.000E+00	5.872E-05	5.872E-05	5.872E-05	5.871E-05	5.870E-05
GD152	4.831E-03	3.477E-03	3.477E-03	3.477E-03	3.477E-03	3.477E-03
GD153	0.000E+00	4.351E-04	4.350E-04	4.350E-04	4.345E-04	4.339E-04
GD154	5.139E-02	3.708E-02	3.708E-02	3.708E-02	3.708E-02	3.708E-02
GD155	3.645E-01	2.474E-04	2.474E-04	2.474E-04	2.474E-04	2.474E-04
GD156	5.107E-01	8.033E-01	8.033E-01	8.033E-01	8.033E-01	8.033E-01

□

OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
GD157	3.917E-01	4.095E-04	4.095E-04	4.095E-04	4.095E-04	4.095E-04
GD158	6.227E-01	1.056E+00	1.056E+00	1.056E+00	1.056E+00	1.056E+00
GD159	0.000E+00	7.373E-05	7.104E-05	6.844E-05	4.715E-05	3.015E-05
GD160	5.543E-01	5.486E-01	5.486E-01	5.486E-01	5.486E-01	5.486E-01
TB159	0.000E+00	4.237E-02	4.237E-02	4.237E-02	4.239E-02	4.241E-02
TB160	0.000E+00	1.636E-03	1.635E-03	1.634E-03	1.628E-03	1.620E-03
TB161	0.000E+00	1.013E-04	1.009E-04	1.005E-04	9.637E-05	9.166E-05
DY160	0.000E+00	4.282E-03	4.283E-03	4.283E-03	4.290E-03	4.297E-03
DY161	0.000E+00	4.730E-03	4.731E-03	4.731E-03	4.735E-03	4.740E-03
DY162	0.000E+00	2.335E-03	2.335E-03	2.335E-03	2.335E-03	2.335E-03
DY163	0.000E+00	1.317E-03	1.317E-03	1.317E-03	1.317E-03	1.317E-03
DY164	0.000E+00	2.287E-04	2.287E-04	2.287E-04	2.287E-04	2.287E-04
HO165	0.000E+00	2.368E-04	2.368E-04	2.369E-04	2.370E-04	2.370E-04
ER166	0.000E+00	2.504E-05	2.505E-05	2.505E-05	2.511E-05	2.516E-05
TA181	0.000E+00	2.060E-04	2.060E-04	2.060E-04	2.062E-04	2.063E-04
W180	2.545E-03	2.231E-03	2.231E-03	2.231E-03	2.231E-03	2.231E-03
W181	0.000E+00	5.972E-05	5.971E-05	5.969E-05	5.955E-05	5.938E-05
W182	5.206E-01	3.470E-01	3.470E-01	3.470E-01	3.470E-01	3.470E-01
W183	2.846E-01	3.798E-01	3.798E-01	3.798E-01	3.798E-01	3.798E-01
W184	6.137E-01	6.860E-01	6.860E-01	6.860E-01	6.860E-01	6.860E-01
W185	0.000E+00	1.022E-03	1.021E-03	1.021E-03	1.017E-03	1.012E-03
W186	5.785E-01	3.977E-01	3.977E-01	3.977E-01	3.977E-01	3.977E-01

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W187	0.000E+00	2.627E-04	2.552E-04	2.479E-04	1.855E-04	1.310E-04
W188	0.000E+00	5.916E-05	5.913E-05	5.911E-05	5.886E-05	5.857E-05
RE185	0.000E+00	3.884E-03	3.885E-03	3.885E-03	3.889E-03	3.894E-03
RE186	0.000E+00	3.316E-05	3.291E-05	3.266E-05	3.025E-05	2.760E-05
RE187	0.000E+00	1.546E-01	1.546E-01	1.546E-01	1.546E-01	1.547E-01
RE188	0.000E+00	6.008E-05	5.862E-05	5.640E-05	3.771E-05	2.334E-05
OS186	0.000E+00	2.536E-03	2.536E-03	2.536E-03	2.538E-03	2.541E-03
OS188	0.000E+00	2.634E-02	2.634E-02	2.634E-02	2.636E-02	2.637E-02
OS189	0.000E+00	7.662E-04	7.662E-04	7.662E-04	7.662E-04	7.662E-04
OS190	0.000E+00	1.041E-04	1.041E-04	1.041E-04	1.041E-04	1.041E-04
PB204	1.378E-02	1.375E-02	1.375E-02	1.375E-02	1.375E-02	1.375E-02
PB205	0.000E+00	2.937E-05	2.937E-05	2.937E-05	2.937E-05	2.937E-05
PB206	2.396E-01	2.282E-01	2.282E-01	2.282E-01	2.282E-01	2.282E-01
PB207	2.207E-01	2.319E-01	2.319E-01	2.319E-01	2.319E-01	2.319E-01
PB208	5.259E-01	5.262E-01	5.262E-01	5.262E-01	5.262E-01	5.262E-01
BI209	4.000E-01	3.999E-01	3.999E-01	3.999E-01	3.999E-01	3.999E-01
BI210M	0.000E+00	2.936E-05	2.936E-05	2.936E-05	2.936E-05	2.936E-05
SUMTOT	1.348E+05	1.348E+05	1.348E+05	1.348E+05	1.348E+05	1.348E+05
TOTAL	1.348E+05	1.348E+05	1.348E+05	1.348E+05	1.348E+05	1.348E+05

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	0.000E+00	3.481E-02	3.481E-02	3.481E-02	3.481E-02	3.480E-02
HE	0.000E+00	2.612E+00	2.612E+00	2.612E+00	2.612E+00	2.612E+00
LI	1.000E+00	1.076E+00	1.076E+00	1.076E+00	1.076E+00	1.076E+00
BE	0.000E+00	7.318E-04	7.318E-04	7.318E-04	7.318E-04	7.318E-04
B	1.000E+00	8.294E-01	8.294E-01	8.294E-01	8.294E-01	8.294E-01
C	8.940E+01	9.760E+01	9.760E+01	9.760E+01	9.760E+01	9.760E+01
N	2.500E+01	2.489E+01	2.489E+01	2.489E+01	2.489E+01	2.489E+01
O	1.345E+05	1.344E+05	1.344E+05	1.344E+05	1.344E+05	1.344E+05
F	1.070E+01	1.070E+01	1.070E+01	1.070E+01	1.070E+01	1.070E+01
NE	0.000E+00	3.858E-04	3.858E-04	3.858E-04	3.858E-04	3.858E-04
NA	1.500E+01	1.497E+01	1.497E+01	1.497E+01	1.497E+01	1.497E+01

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MG	2.000E+00	2.030E+00	2.030E+00	2.030E+00	2.030E+00	2.030E+00
AL	1.670E+01	1.669E+01	1.669E+01	1.669E+01	1.669E+01	1.669E+01
SI	1.210E+01	1.211E+01	1.211E+01	1.211E+01	1.211E+01	1.211E+01
P	3.500E+01	3.499E+01	3.499E+01	3.499E+01	3.499E+01	3.499E+01
S	0.000E+00	1.262E-02	1.262E-02	1.262E-02	1.263E-02	1.263E-02
CL	5.300E+00	5.307E+00	5.307E+00	5.307E+00	5.307E+00	5.307E+00
AR	0.000E+00	1.216E-03	1.216E-03	1.216E-03	1.216E-03	1.216E-03
K	0.000E+00	5.652E-04	5.652E-04	5.652E-04	5.652E-04	5.652E-04
CA	2.000E+00	1.999E+00	1.999E+00	1.999E+00	1.999E+00	1.999E+00
SC	0.000E+00	6.795E-05	6.796E-05	6.796E-05	6.799E-05	6.803E-05
TI	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00
V	3.000E+00	2.977E+00	2.977E+00	2.977E+00	2.977E+00	2.977E+00
CR	4.000E+00	4.025E+00	4.025E+00	4.025E+00	4.025E+00	4.025E+00
MN	1.700E+00	1.645E+00	1.645E+00	1.645E+00	1.645E+00	1.645E+00
FE	1.800E+01	1.806E+01	1.806E+01	1.806E+01	1.806E+01	1.806E+01
CO	1.000E+00	9.791E-01	9.791E-01	9.791E-01	9.791E-01	9.790E-01
NI	2.400E+01	2.402E+01	2.402E+01	2.402E+01	2.402E+01	2.402E+01
CU	1.000E+00	1.019E+00	1.019E+00	1.019E+00	1.019E+00	1.019E+00
ZN	4.030E+01	4.025E+01	4.025E+01	4.025E+01	4.025E+01	4.025E+01
GA	0.000E+00	3.007E-02	3.008E-02	3.008E-02	3.008E-02	3.008E-02
GE	0.000E+00	1.910E-04	1.910E-04	1.910E-04	1.910E-04	1.910E-04
ZR	0.000E+00	1.019E-04	1.019E-04	1.019E-04	1.019E-04	1.019E-04
MO	1.000E+01	9.913E+00	9.913E+00	9.913E+00	9.913E+00	9.913E+00
TC	0.000E+00	9.486E-03	9.487E-03	9.487E-03	9.492E-03	9.497E-03
RU	0.000E+00	5.501E-03	5.501E-03	5.501E-03	5.501E-03	5.501E-03
PD	0.000E+00	2.543E-04	2.543E-04	2.543E-04	2.543E-04	2.543E-04
AG	1.000E-01	6.155E-02	6.155E-02	6.155E-02	6.155E-02	6.155E-02
CD	2.500E+01	2.481E+01	2.481E+01	2.481E+01	2.481E+01	2.481E+01
IN	2.000E+00	8.871E-02	8.871E-02	8.871E-02	8.871E-02	8.871E-02
SN	4.000E+00	5.942E+00	5.942E+00	5.942E+00	5.942E+00	5.942E+00
SB	0.000E+00	3.928E-03	3.928E-03	3.929E-03	3.930E-03	3.931E-03
TE	0.000E+00	8.787E-04	8.788E-04	8.788E-04	8.795E-04	8.803E-04
EU	0.000E+00	7.678E-04	7.679E-04	7.679E-04	7.682E-04	7.685E-04
GD	2.500E+00	2.450E+00	2.450E+00	2.450E+00	2.450E+00	2.450E+00
TB	0.000E+00	4.410E-02	4.410E-02	4.411E-02	4.412E-02	4.412E-02
DY	0.000E+00	1.289E-02	1.289E-02	1.290E-02	1.291E-02	1.292E-02
HO	0.000E+00	2.384E-04	2.385E-04	2.385E-04	2.385E-04	2.385E-04
ER	0.000E+00	2.554E-05	2.554E-05	2.555E-05	2.560E-05	2.565E-05
TA	0.000E+00	2.117E-04	2.117E-04	2.118E-04	2.118E-04	2.120E-04
W	2.000E+00	1.814E+00	1.814E+00	1.814E+00	1.814E+00	1.814E+00
RE	0.000E+00	1.585E-01	1.585E-01	1.586E-01	1.586E-01	1.586E-01
OS	0.000E+00	2.974E-02	2.974E-02	2.975E-02	2.977E-02	2.979E-02
PB	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00
BI	4.000E-01	4.000E-01	4.000E-01	4.000E-01	4.000E-01	4.000E-01
SUMTOT	1.348E+05	1.348E+05	1.348E+05	1.348E+05	1.348E+05	1.348E+05
TOTAL	1.348E+05	1.348E+05	1.348E+05	1.348E+05	1.348E+05	1.348E+05

CUMULATIVE TABLE TOTALS

AP+FP	1.348E+05	1.348E+05	1.348E+05	1.348E+05	1.348E+05	1.348E+05
ACT+FP	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AP+ACT+FP	1.348E+05	1.348E+05	1.348E+05	1.348E+05	1.348E+05	1.348E+05

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
/CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	0.000E+00	2.491E+02	2.491E+02	2.491E+02	2.490E+02	2.490E+02
H 4	0.000E+00	5.644E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HE 6	0.000E+00	2.539E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LI 8	0.000E+00	2.384E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE 8	0.000E+00	2.407E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE 10	0.000E+00	1.472E-06	1.472E-06	1.472E-06	1.472E-06	1.472E-06
BE 11	0.000E+00	2.844E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
B 12	0.000E+00	1.689E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C 14	0.000E+00	5.101E-01	5.101E-01	5.101E-01	5.101E-01	5.101E-01
C 15	0.000E+00	3.698E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	2.316E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
O 19	0.000E+00	4.292E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
F 20	0.000E+00	4.071E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE 23	0.000E+00	1.923E+00	1.525E-29	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	2.850E+02	2.721E+02	2.598E+02	1.637E+02	9.402E+01
NA 24M	0.000E+00	1.176E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 25	0.000E+00	2.362E-02	1.550E-20	0.000E+00	0.000E+00	0.000E+00
MG 27	0.000E+00	2.920E+00	3.601E-02	4.441E-04	3.615E-23	0.000E+00
AL 28	0.000E+00	7.174E+01	6.226E-07	2.378E-09	1.707E-09	1.147E-09
AL 29	0.000E+00	7.863E-02	1.335E-04	2.264E-07	0.000E+00	0.000E+00
AL 30	0.000E+00	7.592E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SI 31	0.000E+00	5.109E+01	3.922E+01	3.011E+01	2.140E+00	8.965E-02
P 32	0.000E+00	8.858E+01	8.840E+01	8.822E+01	8.646E+01	8.439E+01
P 34	0.000E+00	6.257E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S 35	0.000E+00	2.601E+01	2.600E+01	2.599E+01	2.591E+01	2.580E+01
S 37	0.000E+00	1.256E-02	3.385E-06	9.121E-10	0.000E+00	0.000E+00

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CL 36	0.000E+00	1.013E-02	1.013E-02	1.013E-02	1.013E-02	1.013E-02
CL 38	0.000E+00	7.316E+00	2.393E+00	7.828E-01	1.098E-05	1.647E-11
CL 38M	0.000E+00	8.745E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AR 37	0.000E+00	5.166E-01	5.161E-01	5.157E-01	5.115E-01	5.064E-01
AR 39	0.000E+00	6.121E-05	6.121E-05	6.121E-05	6.121E-05	6.121E-05
AR 41	0.000E+00	7.853E-05	5.374E-05	3.677E-05	8.275E-07	8.720E-09
K 42	0.000E+00	1.002E-02	9.474E-03	8.957E-03	5.113E-03	2.609E-03
K 43	0.000E+00	3.146E-04	3.051E-04	2.959E-04	2.177E-04	1.507E-04
K 44	0.000E+00	1.197E-04	1.807E-05	2.729E-06	1.683E-14	2.367E-24
CA 41	0.000E+00	1.600E-04	1.600E-04	1.600E-04	1.600E-04	1.600E-04
CA 45	0.000E+00	4.116E-01	4.115E-01	4.115E-01	4.107E-01	4.099E-01
CA 47	0.000E+00	5.306E-04	5.272E-04	5.239E-04	4.915E-04	4.554E-04
CA 49	0.000E+00	4.490E-02	3.979E-04	3.526E-06	1.053E-26	0.000E+00
SC 46	0.000E+00	4.437E-02	4.436E-02	4.434E-02	4.419E-02	4.401E-02
SC 46M	0.000E+00	6.086E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SC 47	0.000E+00	4.972E-02	4.930E-02	4.888E-02	4.488E-02	4.052E-02
SC 48	0.000E+00	4.875E-03	4.798E-03	4.723E-03	4.032E-03	3.335E-03
SC 49	0.000E+00	4.936E-02	2.781E-02	1.353E-02	9.774E-06	1.662E-09
SC 50	0.000E+00	7.841E-05	2.097E-15	5.609E-26	0.000E+00	0.000E+00
TI 51	0.000E+00	9.878E-02	7.227E-05	5.287E-08	0.000E+00	0.000E+00
V 50	1.315E-15	1.132E-15	1.132E-15	1.132E-15	1.132E-15	1.132E-15
V 52	0.000E+00	1.272E+02	1.941E-03	2.961E-08	0.000E+00	0.000E+00
V 53	0.000E+00	1.044E-03	6.314E-15	3.818E-26	0.000E+00	0.000E+00
V 54	0.000E+00	1.191E-05	2.356E-25	0.000E+00	0.000E+00	0.000E+00
CR 51	0.000E+00	2.254E+01	2.252E+01	2.250E+01	2.226E+01	2.199E+01

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
CR 55	0.000E+00	3.953E-01	3.237E-06	2.644E-11	0.000E+00	0.000E+00
MN 54	0.000E+00	1.318E+00	1.318E+00	1.318E+00	1.317E+00	1.315E+00
MN 56	0.000E+00	2.356E+02	1.801E+02	1.376E+02	9.360E+00	3.718E-01
MN 57	0.000E+00	4.850E-03	2.932E-14	1.773E-25	0.000E+00	0.000E+00
MN 58	0.000E+00	1.527E-05	3.873E-22	0.000E+00	0.000E+00	0.000E+00
FE 55	0.000E+00	8.907E+00	8.907E+00	8.907E+00	8.904E+00	8.901E+00

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FE 59	0.000E+00	6.633E-01	6.629E-01	6.624E-01	6.582E-01	6.531E-01
CO 58	0.000E+00	2.039E+01	2.039E+01	2.038E+01	2.029E+01	2.019E+01
CO 60	0.000E+00	1.548E+02	1.548E+02	1.548E+02	1.548E+02	1.547E+02
CO 60M	0.000E+00	1.891E+02	3.560E+00	6.705E-02	3.762E-19	0.000E+00
CO 61	0.000E+00	3.108E+00	2.042E+00	1.341E+00	2.010E-02	1.300E-04
CO 62	0.000E+00	3.190E-03	2.901E-15	2.639E-27	0.000E+00	0.000E+00
NI 59	0.000E+00	8.804E-03	8.804E-03	8.804E-03	8.804E-03	8.804E-03
NI 63	0.000E+00	1.468E+00	1.468E+00	1.468E+00	1.468E+00	1.468E+00
NI 65	0.000E+00	2.673E+00	2.031E+00	1.542E+00	9.854E-02	3.632E-03
NI 66	0.000E+00	2.257E-05	2.229E-05	2.201E-05	1.938E-05	1.665E-05
CU 64	0.000E+00	2.543E+01	2.408E+01	2.280E+01	1.321E+01	6.862E+00
CU 66	0.000E+00	5.994E+00	1.745E-03	2.254E-05	1.941E-05	1.667E-05
CU 67	0.000E+00	9.474E-06	9.369E-06	9.264E-06	8.282E-06	7.240E-06
ZN 65	0.000E+00	1.178E+02	1.177E+02	1.177E+02	1.176E+02	1.174E+02
ZN 69	0.000E+00	1.009E+02	5.207E+01	2.835E+01	3.998E+00	2.175E+00
ZN 69M	0.000E+00	6.782E+00	6.449E+00	6.132E+00	3.706E+00	2.025E+00
ZN 71	0.000E+00	1.368E-01	6.074E-06	5.085E-06	8.677E-07	1.040E-07
ZN 71M	0.000E+00	1.434E-02	1.201E-02	1.007E-02	1.718E-03	2.058E-04
GA 70	0.000E+00	1.253E+00	1.746E-01	2.432E-02	6.697E-11	3.579E-21
GA 72	0.000E+00	4.122E-03	3.924E-03	3.736E-03	2.285E-03	1.267E-03
GA 72M	0.000E+00	1.274E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 71	0.000E+00	4.366E-03	4.355E-03	4.344E-03	4.239E-03	4.116E-03
GE 71M	0.000E+00	3.563E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 89M	0.000E+00	6.893E-04	6.833E-04	6.773E-04	6.200E-04	5.576E-04
Y 90	0.000E+00	2.007E-06	1.986E-06	1.964E-06	1.763E-06	1.548E-06
Y 92	0.000E+00	6.491E-07	5.336E-07	4.387E-07	6.188E-08	5.899E-09
ZR 89	0.000E+00	6.904E-04	6.844E-04	6.784E-04	6.210E-04	5.585E-04
ZR 95	0.000E+00	2.287E-03	2.286E-03	2.285E-03	2.275E-03	2.262E-03
ZR 97	0.000E+00	5.446E-05	5.227E-05	5.017E-05	3.329E-05	2.035E-05
NB 92	0.000E+00	1.374E-01	1.371E-01	1.367E-01	1.328E-01	1.284E-01
NB 94	0.000E+00	8.371E-07	8.371E-07	8.371E-07	8.371E-07	8.371E-07
NB 95	0.000E+00	6.160E-03	6.157E-03	6.153E-03	6.122E-03	6.084E-03
NB 95M	0.000E+00	1.615E-05	1.615E-05	1.615E-05	1.614E-05	1.611E-05
NB 96	0.000E+00	5.147E-03	4.997E-03	4.851E-03	3.605E-03	2.525E-03
NB 97	0.000E+00	1.956E-03	1.122E-03	6.524E-04	3.765E-05	2.049E-05
NB 97M	0.000E+00	5.154E-05	4.952E-05	4.753E-05	3.154E-05	1.928E-05
NB 98	0.000E+00	2.807E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100	0.000E+00	1.430E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 93M	0.000E+00	3.992E-02	3.608E-02	3.260E-02	1.185E-02	3.519E-03
MO 93	0.000E+00	6.467E-04	6.467E-04	6.467E-04	6.467E-04	6.467E-04
MO 99	0.000E+00	1.987E+02	1.966E+02	1.946E+02	1.752E+02	1.544E+02
MO101	0.000E+00	9.654E+00	5.614E-01	3.265E-02	1.444E-14	2.161E-29
TC 99	0.000E+00	1.609E-04	1.609E-04	1.609E-04	1.610E-04	1.611E-04
TC100	0.000E+00	5.525E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC101	0.000E+00	9.654E+00	2.093E+00	2.036E-01	3.249E-13	6.553E-28

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OUTPUT UNIT =

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* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
RU103	0.000E+00	2.254E-03	2.252E-03	2.251E-03	2.234E-03	2.215E-03
RH104	0.000E+00	1.145E-04	3.148E-10	2.169E-14	0.000E+00	0.000E+00
RH104M	0.000E+00	3.831E-06	2.640E-10	1.819E-14	0.000E+00	0.000E+00
RH106	0.000E+00	1.884E-05	1.909E-14	1.909E-14	1.908E-14	1.906E-14
PD109	0.000E+00	6.661E-02	6.327E-02	6.010E-02	3.591E-02	1.936E-02
PD109M	0.000E+00	9.891E-04	1.394E-07	1.963E-11	0.000E+00	0.000E+00
PD111	0.000E+00	1.605E-03	3.486E-04	1.463E-04	3.205E-05	7.063E-06
PD111M	0.000E+00	1.996E-04	1.759E-04	1.551E-04	4.399E-05	9.694E-06
AG106	0.000E+00	8.935E-04	8.905E-04	8.875E-04	8.578E-04	8.236E-04
AG108	0.000E+00	1.455E+01	1.058E-03	1.058E-03	1.058E-03	1.058E-03
AG108M	0.000E+00	1.189E-02	1.189E-02	1.189E-02	1.188E-02	1.188E-02
AG109M	0.000E+00	1.445E+00	1.442E+00	1.439E+00	1.414E+00	1.396E+00
AG110	0.000E+00	3.671E+01	2.390E-02	2.389E-02	2.387E-02	2.383E-02
AG110M	0.000E+00	1.797E+00	1.797E+00	1.797E+00	1.794E+00	1.792E+00
AG111	0.000E+00	2.474E-01	2.464E-01	2.455E-01	2.362E-01	2.254E-01
AG111M	0.000E+00	1.234E-01	4.163E-04	1.976E-04	4.591E-05	1.012E-05
AG112	0.000E+00	3.201E-04	2.565E-04	2.056E-04	2.246E-05	1.576E-06
CD107	0.000E+00	1.245E+00	1.119E+00	1.006E+00	3.456E-01	9.590E-02
CD109	0.000E+00	1.379E+00	1.379E+00	1.379E+00	1.378E+00	1.377E+00
CD111M	0.000E+00	2.375E+00	1.011E+00	4.304E-01	8.415E-05	2.982E-09
CD115	0.000E+00	3.866E+02	3.816E+02	3.767E+02	3.309E+02	2.832E+02
CD115M	0.000E+00	2.849E+01	2.847E+01	2.845E+01	2.827E+01	2.805E+01
CD117	0.000E+00	1.152E+01	8.826E+00	6.760E+00	4.701E-01	1.918E-02
CD117M	0.000E+00	3.419E-01	2.789E-01	2.274E-01	2.961E-02	2.565E-03
CD119	0.000E+00	8.905E-07	1.067E-08	1.279E-10	7.799E-30	0.000E+00
IN113M	0.000E+00	9.323E-01	9.322E-01	9.320E-01	9.298E-01	9.270E-01
IN114	0.000E+00	3.980E+01	1.583E+01	1.583E+01	1.573E+01	1.562E+01
IN114M	0.000E+00	1.656E+01	1.655E+01	1.654E+01	1.644E+01	1.633E+01
IN115	1.192E-11	1.615E-13	1.615E-13	1.615E-13	1.615E-13	1.616E-13
IN116	0.000E+00	1.331E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	9.697E+01	4.499E+01	2.087E+01	9.639E-03	9.581E-07
IN117	0.000E+00	6.106E+00	5.971E+00	5.581E+00	7.625E-01	4.032E-02
IN117M	0.000E+00	1.087E+01	1.045E+01	9.488E+00	1.317E+00	6.691E-02
IN118	0.000E+00	1.348E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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IN119	0.000E+00	8.501E-05	9.895E-09	1.049E-09	9.843E-20	8.952E-32
IN119M	0.000E+00	8.905E-07	1.733E-07	1.821E-08	1.695E-18	1.542E-30
SN113	0.000E+00	9.321E-01	9.318E-01	9.316E-01	9.293E-01	9.265E-01
SN113M	0.000E+00	4.363E-01	5.454E-02	6.817E-03	6.349E-12	9.239E-23
SN117M	0.000E+00	3.392E+01	3.385E+01	3.378E+01	3.309E+01	3.228E+01
SN119M	0.000E+00	6.709E+00	6.709E+00	6.708E+00	6.700E+00	6.690E+00
SN121	0.000E+00	4.067E+00	3.963E+00	3.862E+00	2.982E+00	2.186E+00
SN121M	0.000E+00	6.360E-04	6.360E-04	6.360E-04	6.360E-04	6.359E-04
SN123	0.000E+00	3.586E-01	3.585E-01	3.584E-01	3.576E-01	3.567E-01
SN123M	0.000E+00	1.305E-03	4.624E-04	1.638E-04	5.109E-09	2.000E-14
SN125	0.000E+00	2.742E+00	2.734E+00	2.726E+00	2.646E+00	2.552E+00
SN125M	0.000E+00	1.901E+00	2.408E-02	3.051E-04	3.251E-23	0.000E+00
SB122	0.000E+00	5.765E-01	5.704E-01	5.643E-01	5.071E-01	4.460E-01
SB122M	0.000E+00	4.502E-03	2.255E-07	1.129E-11	0.000E+00	0.000E+00
SB124	0.000E+00	2.386E-02	2.385E-02	2.383E-02	2.372E-02	2.358E-02
SB124M	0.000E+00	7.091E-05	1.577E-16	3.509E-28	0.000E+00	0.000E+00
SB125	0.000E+00	1.847E+00	1.847E+00	1.847E+00	1.847E+00	1.848E+00

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
 1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
SB126	0.000E+00	6.541E-02	6.526E-02	6.510E-02	6.360E-02	6.185E-02
SB126M	0.000E+00	4.734E-03	5.304E-04	5.942E-05	1.852E-14	7.249E-26
TE123M	0.000E+00	3.983E-03	3.982E-03	3.981E-03	3.971E-03	3.960E-03
TE125M	0.000E+00	3.898E-01	3.898E-01	3.898E-01	3.900E-01	3.902E-01
TE127	0.000E+00	6.046E-04	5.638E-04	5.259E-04	2.682E-04	1.299E-04
TE127M	0.000E+00	3.445E-05	3.444E-05	3.443E-05	3.434E-05	3.423E-05
I128	0.000E+00	2.628E-05	4.974E-06	9.414E-07	5.550E-14	1.172E-22
PM150	0.000E+00	5.567E-07	4.298E-07	3.319E-07	2.499E-08	1.122E-09
PM151	0.000E+00	4.963E-07	4.843E-07	4.726E-07	3.703E-07	2.762E-07
SM153	0.000E+00	1.122E-06	1.105E-06	1.089E-06	9.387E-07	7.855E-07
EU152	0.000E+00	3.467E-07	3.467E-07	3.467E-07	3.467E-07	3.467E-07
EU154	0.000E+00	4.822E-02	4.822E-02	4.822E-02	4.821E-02	4.821E-02
EU155	0.000E+00	2.732E-02	2.732E-02	2.732E-02	2.732E-02	2.731E-02
EU156	0.000E+00	6.585E-01	6.572E-01	6.560E-01	6.436E-01	6.291E-01

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GD152	1.053E-13	7.577E-14	7.577E-14	7.577E-14	7.577E-14	7.577E-14
GD153	0.000E+00	1.535E+00	1.535E+00	1.535E+00	1.533E+00	1.531E+00
GD155M	0.000E+00	8.709E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD159	0.000E+00	7.816E+01	7.531E+01	7.255E+01	4.998E+01	3.196E+01
GD161	0.000E+00	8.111E+00	1.067E-04	1.401E-09	0.000E+00	0.000E+00
GD162	0.000E+00	2.136E-03	3.337E-05	5.215E-07	4.523E-25	0.000E+00
TB160	0.000E+00	1.847E+01	1.846E+01	1.845E+01	1.838E+01	1.829E+01
TB161	0.000E+00	1.188E+01	1.183E+01	1.178E+01	1.130E+01	1.075E+01
TB162	0.000E+00	2.093E-03	1.057E-04	1.930E-06	1.752E-24	0.000E+00
DY165	0.000E+00	1.439E+00	1.077E+00	8.022E-01	4.201E-02	1.219E-03
DY165M	0.000E+00	9.168E-01	3.818E-15	1.590E-29	0.000E+00	0.000E+00
DY166	0.000E+00	4.985E-03	4.943E-03	4.901E-03	4.501E-03	4.064E-03
HO166	0.000E+00	1.763E-01	1.719E-01	1.677E-01	1.305E-01	9.684E-02
HO166M	0.000E+00	2.467E-06	2.467E-06	2.467E-06	2.467E-06	2.467E-06
ER167M	0.000E+00	1.767E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ER169	0.000E+00	5.294E-06	5.278E-06	5.261E-06	5.102E-06	4.918E-06
TM170	0.000E+00	2.333E-07	2.333E-07	2.332E-07	2.327E-07	2.321E-07
TA182	0.000E+00	3.182E-02	3.181E-02	3.180E-02	3.172E-02	3.163E-02
TA182M	0.000E+00	6.175E-05	4.966E-06	3.993E-07	4.517E-18	3.303E-31
TA183	0.000E+00	8.858E-02	8.808E-02	8.758E-02	8.276E-02	7.732E-02
W181	0.000E+00	3.557E-01	3.556E-01	3.555E-01	3.547E-01	3.537E-01
W183M	0.000E+00	4.090E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W185	0.000E+00	9.607E+00	9.603E+00	9.600E+00	9.563E+00	9.519E+00
W185M	0.000E+00	1.104E-02	1.688E-13	2.582E-24	0.000E+00	0.000E+00
W187	0.000E+00	1.843E+02	1.790E+02	1.739E+02	1.301E+02	9.186E+01
W188	0.000E+00	5.923E-01	5.921E-01	5.918E-01	5.894E-01	5.864E-01
RE186	0.000E+00	6.167E+00	6.120E+00	6.073E+00	5.626E+00	5.133E+00
RE188	0.000E+00	5.900E+01	5.757E+01	5.539E+01	3.703E+01	2.292E+01
RE188M	0.000E+00	5.716E+01	6.183E+00	6.688E-01	1.468E-10	3.768E-22
RE189	0.000E+00	2.761E-04	2.683E-04	2.608E-04	1.960E-04	1.392E-04
OS190M	0.000E+00	5.227E-06	7.832E-08	1.173E-09	6.686E-28	0.000E+00
OS191	0.000E+00	4.918E-03	4.915E-03	4.912E-03	4.865E-03	4.787E-03
OS191M	0.000E+00	3.441E-03	3.263E-03	3.093E-03	1.815E-03	9.572E-04
IR192	0.000E+00	1.176E-03	1.175E-03	1.175E-03	1.170E-03	1.165E-03
IR194	0.000E+00	4.736E-05	4.568E-05	4.405E-05	3.067E-05	1.987E-05
IR194M	0.000E+00	2.496E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PT193M	0.000E+00	2.351E-06	2.335E-06	2.320E-06	2.169E-06	2.001E-06

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
 1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
PB204	1.726E-16	1.722E-16	1.722E-16	1.722E-16	1.722E-16	1.722E-16
PB209	0.000E+00	5.477E-04	4.439E-04	3.598E-04	4.404E-05	3.542E-06
BI210	0.000E+00	4.370E-02	4.344E-02	4.319E-02	4.078E-02	3.805E-02
PO210	0.000E+00	3.892E-02	3.892E-02	3.892E-02	3.893E-02	3.893E-02
PO211	0.000E+00	5.343E-07	3.642E-19	1.207E-27	0.000E+00	0.000E+00
SUMTOT	1.203E-11	3.725E+03	2.418E+03	2.268E+03	1.777E+03	1.538E+03
TOTAL	1.203E-11	3.725E+03	2.418E+03	2.268E+03	1.777E+03	1.538E+03

□

OUTPUT UNIT =

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PAGE 29

ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
 1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	0.000E+00	2.547E+02	2.491E+02	2.491E+02	2.490E+02	2.490E+02
HE	0.000E+00	2.539E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LI	0.000E+00	2.384E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE	0.000E+00	2.407E+00	1.472E-06	1.472E-06	1.472E-06	1.472E-06
B	0.000E+00	1.689E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C	0.000E+00	3.749E+01	5.101E-01	5.101E-01	5.101E-01	5.101E-01
N	0.000E+00	2.316E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
O	0.000E+00	4.292E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
F	0.000E+00	4.071E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE	0.000E+00	1.923E+00	1.525E-29	0.000E+00	0.000E+00	0.000E+00
NA	0.000E+00	4.027E+02	2.721E+02	2.598E+02	1.637E+02	9.402E+01
MG	0.000E+00	2.920E+00	3.601E-02	4.441E-04	1.704E-09	1.145E-09
AL	0.000E+00	7.182E+01	1.341E-04	2.288E-07	1.707E-09	1.147E-09
SI	0.000E+00	5.109E+01	3.922E+01	3.011E+01	2.140E+00	8.965E-02
P	0.000E+00	8.864E+01	8.840E+01	8.822E+01	8.646E+01	8.439E+01
S	0.000E+00	2.602E+01	2.600E+01	2.599E+01	2.591E+01	2.580E+01
CL	0.000E+00	7.413E+00	2.403E+00	7.929E-01	1.015E-02	1.013E-02

ML041000030.txt

AR	0.000E+00	5.167E-01	5.163E-01	5.158E-01	5.115E-01	5.065E-01
K	0.000E+00	1.045E-02	9.797E-03	9.256E-03	5.330E-03	2.759E-03
CA	0.000E+00	4.572E-01	4.126E-01	4.122E-01	4.114E-01	4.105E-01
SC	0.000E+00	1.545E-01	1.263E-01	1.115E-01	9.312E-02	8.786E-02
TI	0.000E+00	9.878E-02	7.227E-05	5.287E-08	0.000E+00	0.000E+00
V	1.315E-15	1.272E+02	1.941E-03	2.961E-08	1.132E-15	1.132E-15
CR	0.000E+00	2.294E+01	2.252E+01	2.250E+01	2.226E+01	2.199E+01
MN	0.000E+00	2.369E+02	1.814E+02	1.389E+02	1.068E+01	1.687E+00
FE	0.000E+00	9.570E+00	9.570E+00	9.569E+00	9.562E+00	9.554E+00
CO	0.000E+00	3.674E+02	1.808E+02	1.766E+02	1.751E+02	1.749E+02
NI	0.000E+00	4.150E+00	3.507E+00	3.019E+00	1.575E+00	1.480E+00
CU	0.000E+00	3.142E+01	2.408E+01	2.280E+01	1.321E+01	6.862E+00
ZN	0.000E+00	2.256E+02	1.763E+02	1.522E+02	1.253E+02	1.216E+02
GA	0.000E+00	1.257E+00	1.785E-01	2.806E-02	2.285E-03	1.267E-03
GE	0.000E+00	4.722E-03	4.355E-03	4.344E-03	4.239E-03	4.116E-03
Y	0.000E+00	6.920E-04	6.859E-04	6.797E-04	6.219E-04	5.592E-04
ZR	0.000E+00	3.032E-03	3.023E-03	3.013E-03	2.929E-03	2.841E-03
NB	0.000E+00	1.511E-01	1.494E-01	1.484E-01	1.426E-01	1.370E-01
MO	0.000E+00	2.084E+02	1.972E+02	1.946E+02	1.752E+02	1.544E+02
TC	0.000E+00	1.518E+01	2.093E+00	2.038E-01	1.610E-04	1.611E-04
RU	0.000E+00	2.254E-03	2.252E-03	2.251E-03	2.234E-03	2.215E-03
RH	0.000E+00	1.372E-04	3.135E-08	2.967E-08	2.252E-08	1.745E-08
PD	0.000E+00	6.940E-02	6.380E-02	6.040E-02	3.599E-02	1.937E-02
AG	0.000E+00	5.488E+01	3.524E+00	3.519E+00	3.482E+00	3.451E+00
CD	0.000E+00	4.319E+02	4.227E+02	4.149E+02	3.614E+02	3.128E+02
IN	1.192E-11	3.044E+02	9.472E+01	6.923E+01	3.519E+01	3.298E+01
SN	0.000E+00	5.107E+01	4.862E+01	4.837E+01	4.670E+01	4.499E+01
SB	0.000E+00	2.522E+00	2.507E+00	2.501E+00	2.442E+00	2.379E+00
TE	0.000E+00	3.944E-01	3.944E-01	3.944E-01	3.943E-01	3.943E-01
I	0.000E+00	2.628E-05	4.975E-06	9.415E-07	1.785E-11	9.083E-12
PM	0.000E+00	1.056E-06	9.141E-07	8.045E-07	3.952E-07	2.773E-07
SM	0.000E+00	1.269E-06	1.129E-06	1.093E-06	9.396E-07	7.864E-07
EU	0.000E+00	7.340E-01	7.328E-01	7.315E-01	7.192E-01	7.046E-01
GD	1.053E-13	8.782E+01	7.684E+01	7.408E+01	5.151E+01	3.349E+01
TB	0.000E+00	3.035E+01	3.029E+01	3.023E+01	2.968E+01	2.904E+01
DY	0.000E+00	2.361E+00	1.082E+00	8.071E-01	4.651E-02	5.284E-03
HO	0.000E+00	1.763E-01	1.719E-01	1.677E-01	1.305E-01	9.684E-02
ER	0.000E+00	1.773E-03	5.278E-06	5.261E-06	5.102E-06	4.918E-06
TM	0.000E+00	2.822E-07	2.353E-07	2.352E-07	2.347E-07	2.340E-07
TA	0.000E+00	1.205E-01	1.199E-01	1.194E-01	1.145E-01	1.089E-01
W	0.000E+00	1.952E+02	1.895E+02	1.844E+02	1.406E+02	1.023E+02
RE	0.000E+00	1.223E+02	6.988E+01	6.214E+01	4.266E+01	2.805E+01
OS	0.000E+00	8.365E-03	8.178E-03	8.005E-03	6.680E-03	5.744E-03
IR	0.000E+00	1.226E-03	1.221E-03	1.219E-03	1.201E-03	1.185E-03
PT	0.000E+00	2.360E-06	2.345E-06	2.329E-06	2.178E-06	2.010E-06
PB	1.726E-16	5.477E-04	4.439E-04	3.598E-04	4.404E-05	3.544E-06
BI	0.000E+00	4.370E-02	4.344E-02	4.319E-02	4.078E-02	3.805E-02
PO	0.000E+00	3.892E-02	3.892E-02	3.892E-02	3.893E-02	3.893E-02

SUMTOT 1.203E-11 3.725E+03 2.418E+03 2.268E+03 1.777E+03 1.538E+03
 TOTAL 1.203E-11 3.725E+03 2.418E+03 2.268E+03 1.777E+03 1.538E+03

CUMULATIVE TABLE TOTALS

AP+FP 1.203E-11 3.725E+03 2.418E+03 2.268E+03 1.777E+03 1.538E+03
 ACT+FP 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
 AP+ACT+FP 1.203E-11 3.725E+03 2.418E+03 2.268E+03 1.777E+03 1.538E+03

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
 /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	0.000E+00	8.386E-03	8.386E-03	8.386E-03	8.385E-03	8.384E-03
HE 6	0.000E+00	2.360E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LI 8	0.000E+00	8.888E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE 8	0.000E+00	1.355E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE 10	0.000E+00	1.767E-09	1.767E-09	1.767E-09	1.767E-09	1.767E-09
BE 11	0.000E+00	1.940E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
B 12	0.000E+00	1.339E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C 14	0.000E+00	1.496E-04	1.496E-04	1.496E-04	1.496E-04	1.496E-04
C 15	0.000E+00	6.294E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	1.004E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
O 19	0.000E+00	1.226E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
F 20	0.000E+00	1.697E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE 23	0.000E+00	2.357E-02	1.869E-31	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	7.898E+00	7.541E+00	7.201E+00	4.536E+00	2.605E+00
NA 24M	0.000E+00	3.292E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 25	0.000E+00	2.711E-04	1.778E-22	0.000E+00	0.000E+00	0.000E+00
MG 27	0.000E+00	2.757E-02	3.401E-04	4.194E-06	3.413E-25	0.000E+00
AL 28	0.000E+00	1.287E+00	1.117E-08	4.266E-11	3.062E-11	2.057E-11
AL 29	0.000E+00	1.096E-03	1.860E-06	3.155E-09	0.000E+00	0.000E+00
AL 30	0.000E+00	2.575E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SI 31	0.000E+00	1.806E-01	1.387E-01	1.065E-01	7.567E-03	3.170E-04
P 32	0.000E+00	8.979E-01	8.961E-01	8.943E-01	8.764E-01	8.554E-01

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P 34	0.000E+00	1.892E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S 35	0.000E+00	2.581E-02	2.580E-02	2.579E-02	2.571E-02	2.561E-02	
S 37	0.000E+00	3.575E-04	9.632E-08	2.595E-11	0.000E+00	0.000E+00	
CL 36	0.000E+00	1.495E-05	1.495E-05	1.495E-05	1.495E-05	1.495E-05	
CL 38	0.000E+00	1.308E-01	4.278E-02	1.399E-02	1.962E-07	2.945E-13	
CL 38M	0.000E+00	3.480E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
AR 37	0.000E+00	6.430E-06	6.425E-06	6.420E-06	6.367E-06	6.304E-06	
AR 39	0.000E+00	2.050E-07	2.050E-07	2.050E-07	2.050E-07	2.050E-07	
AR 41	0.000E+00	8.137E-07	5.568E-07	3.810E-07	8.574E-09	9.035E-11	
K 42	0.000E+00	1.013E-04	9.580E-05	9.058E-05	5.170E-05	2.638E-05	
K 43	0.000E+00	2.385E-06	2.313E-06	2.243E-06	1.651E-06	1.143E-06	
K 44	0.000E+00	3.689E-06	5.571E-07	8.412E-08	5.188E-16	7.296E-26	
CA 41	0.000E+00	2.560E-09	2.560E-09	2.560E-09	2.560E-09	2.560E-09	
CA 45	0.000E+00	1.884E-04	1.883E-04	1.883E-04	1.880E-04	1.876E-04	
CA 47	0.000E+00	4.428E-06	4.400E-06	4.372E-06	4.103E-06	3.801E-06	
CA 49	0.000E+00	1.400E-03	1.241E-05	1.100E-07	3.284E-28	0.000E+00	
SC 46	0.000E+00	5.581E-04	5.580E-04	5.578E-04	5.558E-04	5.535E-04	
SC 46M	0.000E+00	4.949E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
SC 47	0.000E+00	7.981E-05	7.913E-05	7.846E-05	7.205E-05	6.504E-05	
SC 48	0.000E+00	1.031E-04	1.015E-04	9.989E-05	8.527E-05	7.053E-05	
SC 49	0.000E+00	5.876E-04	3.311E-04	1.610E-04	1.163E-07	1.978E-11	
SC 50	0.000E+00	2.244E-06	6.000E-17	1.605E-27	0.000E+00	0.000E+00	
TI 51	0.000E+00	7.231E-04	5.290E-07	3.870E-10	0.000E+00	0.000E+00	
V 50	1.450E-17	1.248E-17	1.248E-17	1.248E-17	1.248E-17	1.248E-17	
V 52	0.000E+00	1.895E+00	2.892E-05	4.413E-10	0.000E+00	0.000E+00	
V 53	0.000E+00	1.261E-05	7.624E-17	4.610E-28	0.000E+00	0.000E+00	
V 54	0.000E+00	5.153E-07	1.019E-26	0.000E+00	0.000E+00	0.000E+00	
CR 51	0.000E+00	4.837E-03	4.832E-03	4.827E-03	4.777E-03	4.718E-03	
CR 55	0.000E+00	2.580E-03	2.112E-08	1.726E-13	0.000E+00	0.000E+00	

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
MN 54	0.000E+00	6.562E-03	6.562E-03	6.561E-03	6.555E-03	6.548E-03
MN 56	0.000E+00	3.521E+00	2.691E+00	2.056E+00	1.399E-01	5.557E-03

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MN 57	0.000E+00	3.366E-05	2.035E-16	1.231E-27	0.000E+00	0.000E+00
MN 58	0.000E+00	3.616E-07	9.171E-24	0.000E+00	0.000E+00	0.000E+00
FE 55	0.000E+00	3.010E-04	3.009E-04	3.009E-04	3.008E-04	3.007E-04
FE 59	0.000E+00	5.135E-03	5.132E-03	5.128E-03	5.095E-03	5.056E-03
CO 58	0.000E+00	1.220E-01	1.219E-01	1.219E-01	1.214E-01	1.208E-01
CO 60	0.000E+00	2.387E+00	2.387E+00	2.387E+00	2.386E+00	2.386E+00
CO 60M	0.000E+00	7.063E-02	1.330E-03	2.505E-05	1.405E-22	0.000E+00
CO 61	0.000E+00	1.006E-02	6.608E-03	4.342E-03	6.504E-05	4.207E-07
CO 62	0.000E+00	6.051E-05	5.503E-17	5.005E-29	0.000E+00	0.000E+00
NI 59	0.000E+00	3.497E-07	3.497E-07	3.497E-07	3.497E-07	3.497E-07
NI 63	0.000E+00	1.479E-04	1.479E-04	1.479E-04	1.479E-04	1.479E-04
NI 65	0.000E+00	1.872E-02	1.422E-02	1.080E-02	6.898E-04	2.542E-05
NI 66	0.000E+00	8.965E-09	8.852E-09	8.740E-09	7.698E-09	6.611E-09
CU 64	0.000E+00	4.718E-02	4.467E-02	4.230E-02	2.451E-02	1.273E-02
CU 66	0.000E+00	4.104E-02	1.195E-05	1.543E-07	1.329E-07	1.141E-07
CU 67	0.000E+00	1.521E-08	1.504E-08	1.488E-08	1.330E-08	1.163E-08
ZN 65	0.000E+00	4.121E-01	4.121E-01	4.120E-01	4.115E-01	4.110E-01
ZN 69	0.000E+00	1.920E-01	9.904E-02	5.392E-02	7.606E-03	4.137E-03
ZN 69M	0.000E+00	1.764E-02	1.677E-02	1.595E-02	9.639E-03	5.266E-03
ZN 71	0.000E+00	2.275E-03	1.010E-07	8.459E-08	1.443E-08	1.729E-09
ZN 71M	0.000E+00	2.518E-04	2.110E-04	1.768E-04	3.017E-05	3.615E-06
GA 70	0.000E+00	4.851E-03	6.758E-04	9.415E-05	2.593E-13	1.386E-23
GA 72	0.000E+00	7.836E-05	7.460E-05	7.102E-05	4.344E-05	2.408E-05
GA 72M	0.000E+00	9.060E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 71	0.000E+00	2.329E-07	2.323E-07	2.318E-07	2.262E-07	2.196E-07
GE 71M	0.000E+00	4.139E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 89M	0.000E+00	3.746E-06	3.713E-06	3.681E-06	3.370E-06	3.031E-06
Y 90	0.000E+00	1.112E-08	1.100E-08	1.089E-08	9.769E-09	8.578E-09
Y 92	0.000E+00	6.533E-09	5.371E-09	4.416E-09	6.228E-10	5.937E-11
ZR 89	0.000E+00	5.165E-06	5.120E-06	5.075E-06	4.645E-06	4.178E-06
ZR 95	0.000E+00	1.158E-05	1.158E-05	1.157E-05	1.152E-05	1.146E-05
ZR 97	0.000E+00	2.838E-07	2.724E-07	2.615E-07	1.735E-07	1.061E-07
NB 92	0.000E+00	1.230E-03	1.227E-03	1.223E-03	1.189E-03	1.149E-03
NB 94	0.000E+00	8.529E-09	8.529E-09	8.529E-09	8.529E-09	8.529E-09
NB 95	0.000E+00	2.955E-05	2.953E-05	2.952E-05	2.936E-05	2.918E-05
NB 95M	0.000E+00	2.244E-08	2.244E-08	2.244E-08	2.242E-08	2.239E-08
NB 96	0.000E+00	8.559E-05	8.308E-05	8.065E-05	5.994E-05	4.198E-05
NB 97	0.000E+00	1.302E-05	7.468E-06	4.343E-06	2.506E-07	1.364E-07
NB 97M	0.000E+00	2.269E-07	2.180E-07	2.092E-07	1.388E-07	8.487E-08
NB 98	0.000E+00	3.464E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100	0.000E+00	3.373E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 93M	0.000E+00	5.584E-04	5.047E-04	4.561E-04	1.658E-04	4.923E-05
MO 93	0.000E+00	6.056E-08	6.057E-08	6.057E-08	6.057E-08	6.057E-08
MO 99	0.000E+00	6.381E-01	6.315E-01	6.249E-01	5.626E-01	4.960E-01
MO101	0.000E+00	1.103E-01	6.413E-03	3.729E-04	1.650E-16	2.469E-31
TC 99	0.000E+00	8.068E-08	8.068E-08	8.069E-08	8.073E-08	8.078E-08
TC100	0.000E+00	4.863E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC101	0.000E+00	4.633E-02	1.005E-02	9.772E-04	1.559E-15	3.145E-30

RU103 0.000E+00 7.541E-06 7.535E-06 7.530E-06 7.474E-06 7.409E-06

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
 /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
 1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
RH104	0.000E+00	6.770E-07	1.861E-12	1.282E-16	0.000E+00	0.000E+00
RH106	0.000E+00	1.807E-07	1.831E-16	1.831E-16	1.830E-16	1.828E-16
PD109	0.000E+00	1.771E-04	1.682E-04	1.598E-04	9.549E-05	5.148E-05
PD109M	0.000E+00	1.102E-06	1.553E-10	2.188E-14	0.000E+00	0.000E+00
PD111	0.000E+00	8.533E-06	1.853E-06	7.778E-07	1.704E-07	3.755E-08
PD111M	0.000E+00	6.956E-07	6.132E-07	5.406E-07	1.533E-07	3.379E-08
AG106	0.000E+00	6.457E-06	6.435E-06	6.413E-06	6.199E-06	5.951E-06
AG108	0.000E+00	5.416E-02	3.940E-06	3.938E-06	3.938E-06	3.938E-06
AG108M	0.000E+00	1.151E-04	1.151E-04	1.151E-04	1.151E-04	1.151E-04
AG109M	0.000E+00	7.451E-04	7.434E-04	7.417E-04	7.288E-04	7.197E-04
AG110	0.000E+00	2.637E-01	1.717E-04	1.717E-04	1.715E-04	1.712E-04
AG110M	0.000E+00	3.001E-02	3.000E-02	3.000E-02	2.996E-02	2.992E-02
AG111	0.000E+00	5.541E-04	5.520E-04	5.499E-04	5.290E-04	5.050E-04
AG111M	0.000E+00	4.754E-05	1.604E-07	7.614E-08	1.769E-08	3.899E-09
AG112	0.000E+00	3.971E-06	3.182E-06	2.550E-06	2.786E-07	1.955E-08
CD107	0.000E+00	8.909E-04	8.006E-04	7.195E-04	2.472E-04	6.861E-05
CD109	0.000E+00	1.602E-04	1.602E-04	1.602E-04	1.601E-04	1.600E-04
CD111M	0.000E+00	5.574E-03	2.373E-03	1.010E-03	1.975E-07	7.000E-12
CD115	0.000E+00	1.227E+00	1.211E+00	1.196E+00	1.050E+00	8.990E-01
CD115M	0.000E+00	1.063E-01	1.062E-01	1.061E-01	1.054E-01	1.046E-01
CD117	0.000E+00	8.298E-02	6.356E-02	4.869E-02	3.386E-03	1.381E-04
CD117M	0.000E+00	2.779E-03	2.266E-03	1.848E-03	2.407E-04	2.084E-05
CD119	0.000E+00	9.766E-09	1.170E-10	1.402E-12	8.553E-32	0.000E+00
CD121	0.000E+00	4.447E-09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN113M	0.000E+00	2.172E-03	2.172E-03	2.171E-03	2.166E-03	2.160E-03
IN114	0.000E+00	1.896E-01	7.542E-02	7.537E-02	7.493E-02	7.441E-02
IN114M	0.000E+00	2.349E-02	2.348E-02	2.347E-02	2.333E-02	2.317E-02
IN115	1.710E-14	2.316E-16	2.316E-16	2.316E-16	2.317E-16	2.318E-16
IN116	0.000E+00	1.091E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	1.596E+00	7.406E-01	3.436E-01	1.587E-04	1.577E-08

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IN117	0.000E+00	2.751E-02	2.690E-02	2.514E-02	3.435E-03	1.817E-04
IN117M	0.000E+00	4.103E-02	3.944E-02	3.583E-02	4.973E-03	2.526E-04
IN118	0.000E+00	1.628E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN119	0.000E+00	6.797E-07	7.913E-11	8.388E-12	7.871E-22	7.158E-34
IN119M	0.000E+00	7.522E-09	1.464E-09	1.538E-10	1.432E-20	1.302E-32
SN113	0.000E+00	1.553E-04	1.552E-04	1.552E-04	1.548E-04	1.543E-04
SN113M	0.000E+00	2.051E-04	2.564E-05	3.204E-06	2.984E-15	4.343E-26
SN117M	0.000E+00	6.291E-02	6.278E-02	6.265E-02	6.137E-02	5.987E-02
SN119M	0.000E+00	3.468E-03	3.468E-03	3.467E-03	3.463E-03	3.458E-03
SN121	0.000E+00	4.917E-03	4.792E-03	4.670E-03	3.605E-03	2.643E-03
SN121M	0.000E+00	1.274E-06	1.274E-06	1.274E-06	1.274E-06	1.274E-06
SN123	0.000E+00	1.120E-03	1.120E-03	1.120E-03	1.117E-03	1.114E-03
SN123M	0.000E+00	4.756E-06	1.685E-06	5.971E-07	1.862E-11	7.289E-17
SN125	0.000E+00	1.817E-02	1.812E-02	1.807E-02	1.753E-02	1.691E-02
SN125M	0.000E+00	1.279E-02	1.620E-04	2.053E-06	2.187E-25	0.000E+00
SB122	0.000E+00	3.438E-03	3.401E-03	3.365E-03	3.024E-03	2.660E-03
SB122M	0.000E+00	4.323E-06	2.165E-10	1.084E-14	0.000E+00	0.000E+00
SB124	0.000E+00	3.168E-04	3.166E-04	3.165E-04	3.150E-04	3.132E-04
SB124M	0.000E+00	1.823E-07	4.055E-19	9.020E-31	0.000E+00	0.000E+00
SB125	0.000E+00	5.775E-03	5.775E-03	5.775E-03	5.776E-03	5.776E-03
SB126	0.000E+00	1.209E-03	1.206E-03	1.203E-03	1.175E-03	1.143E-03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
SB126M	0.000E+00	6.027E-05	6.753E-06	7.566E-07	2.359E-16	9.230E-28
TE123M	0.000E+00	5.801E-06	5.799E-06	5.798E-06	5.784E-06	5.767E-06
TE125M	0.000E+00	3.276E-04	3.277E-04	3.277E-04	3.278E-04	3.280E-04
TE127	0.000E+00	8.164E-07	7.613E-07	7.102E-07	3.621E-07	1.754E-07
TE127M	0.000E+00	1.853E-08	1.853E-08	1.852E-08	1.847E-08	1.841E-08
I128	0.000E+00	1.304E-07	2.467E-08	4.670E-09	2.753E-16	5.812E-25
PM150	0.000E+00	7.533E-09	5.816E-09	4.491E-09	3.381E-10	1.518E-11
PM151	0.000E+00	1.827E-09	1.783E-09	1.740E-09	1.363E-09	1.017E-09
SM153	0.000E+00	2.201E-09	2.168E-09	2.137E-09	1.842E-09	1.541E-09
EU152	0.000E+00	2.622E-09	2.622E-09	2.622E-09	2.622E-09	2.622E-09

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EU154	0.000E+00	4.313E-04	4.313E-04	4.313E-04	4.313E-04	4.312E-04
EU155	0.000E+00	1.987E-05	1.987E-05	1.987E-05	1.987E-05	1.986E-05
EU156	0.000E+00	6.796E-03	6.783E-03	6.770E-03	6.642E-03	6.493E-03
GD152	1.371E-15	9.872E-16	9.872E-16	9.872E-16	9.872E-16	9.872E-16
GD153	0.000E+00	1.387E-03	1.387E-03	1.386E-03	1.385E-03	1.383E-03
GD155M	0.000E+00	6.272E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD159	0.000E+00	2.548E-01	2.455E-01	2.365E-01	1.629E-01	1.042E-01
GD161	0.000E+00	5.885E-02	7.738E-07	1.016E-11	0.000E+00	0.000E+00
GD162	0.000E+00	7.761E-06	1.213E-07	1.895E-09	1.643E-27	0.000E+00
TB160	0.000E+00	1.504E-01	1.504E-01	1.503E-01	1.497E-01	1.490E-01
TB161	0.000E+00	2.379E-02	2.370E-02	2.360E-02	2.264E-02	2.153E-02
TB162	0.000E+00	2.087E-05	1.053E-06	1.924E-08	1.747E-26	0.000E+00
DY165	0.000E+00	6.662E-03	4.988E-03	3.714E-03	1.945E-04	5.645E-06
DY165M	0.000E+00	6.847E-04	2.852E-18	1.188E-32	0.000E+00	0.000E+00
DY166	0.000E+00	5.821E-06	5.772E-06	5.723E-06	5.256E-06	4.746E-06
HO166	0.000E+00	7.557E-04	7.370E-04	7.187E-04	5.595E-04	4.151E-04
HO166M	0.000E+00	2.733E-08	2.733E-08	2.733E-08	2.733E-08	2.733E-08
ER167M	0.000E+00	2.179E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ER169	0.000E+00	1.067E-08	1.064E-08	1.060E-08	1.028E-08	9.911E-09
TA182	0.000E+00	2.833E-04	2.832E-04	2.831E-04	2.824E-04	2.816E-04
TA182M	0.000E+00	1.841E-07	1.481E-08	1.191E-09	1.347E-20	9.849E-34
TA183	0.000E+00	5.618E-04	5.587E-04	5.555E-04	5.249E-04	4.904E-04
W181	0.000E+00	1.018E-04	1.018E-04	1.018E-04	1.015E-04	1.013E-04
W183M	0.000E+00	6.303E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W185	0.000E+00	7.232E-03	7.229E-03	7.227E-03	7.199E-03	7.166E-03
W185M	0.000E+00	1.289E-05	1.972E-16	3.016E-27	0.000E+00	0.000E+00
W187	0.000E+00	8.356E-01	8.118E-01	7.886E-01	5.900E-01	4.166E-01
W188	0.000E+00	3.543E-04	3.541E-04	3.540E-04	3.525E-04	3.507E-04
RE186	0.000E+00	1.319E-02	1.308E-02	1.298E-02	1.203E-02	1.097E-02
RE188	0.000E+00	2.928E-01	2.857E-01	2.749E-01	1.838E-01	1.137E-01
RE188M	0.000E+00	5.827E-02	6.304E-03	6.819E-04	1.496E-13	3.842E-25
RE189	0.000E+00	1.653E-06	1.606E-06	1.561E-06	1.174E-06	8.335E-07
OS190M	0.000E+00	5.286E-08	7.920E-10	1.187E-11	6.761E-30	0.000E+00
OS191	0.000E+00	7.142E-06	7.138E-06	7.134E-06	7.066E-06	6.952E-06
OS191M	0.000E+00	1.510E-06	1.431E-06	1.357E-06	7.961E-07	4.199E-07
IR192	0.000E+00	7.199E-06	7.196E-06	7.193E-06	7.165E-06	7.132E-06
IR194	0.000E+00	2.527E-07	2.437E-07	2.351E-07	1.637E-07	1.060E-07
PT193M	0.000E+00	2.063E-09	2.049E-09	2.035E-09	1.903E-09	1.756E-09
PB204	2.660E-18	2.654E-18	2.654E-18	2.654E-18	2.654E-18	2.654E-18
PB209	0.000E+00	6.298E-07	5.105E-07	4.138E-07	5.065E-08	4.073E-09
BI210	0.000E+00	1.008E-04	1.002E-04	9.960E-05	9.402E-05	8.774E-05

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
PO210	0.000E+00	1.248E-03	1.248E-03	1.248E-03	1.248E-03	1.248E-03
PO211	0.000E+00	2.404E-08	1.639E-20	5.431E-29	0.000E+00	0.000E+00
SUMTOT	1.849E-14	3.806E+01	1.911E+01	1.750E+01	1.168E+01	9.020E+00
TOTAL	1.849E-14	3.806E+01	1.911E+01	1.750E+01	1.168E+01	9.020E+00

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	0.000E+00	8.386E-03	8.386E-03	8.386E-03	8.385E-03	8.384E-03
HE	0.000E+00	2.360E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LI	0.000E+00	8.888E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE	0.000E+00	1.355E-03	1.767E-09	1.767E-09	1.767E-09	1.767E-09
B	0.000E+00	1.339E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C	0.000E+00	6.295E-01	1.496E-04	1.496E-04	1.496E-04	1.496E-04
N	0.000E+00	1.004E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
O	0.000E+00	1.226E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
F	0.000E+00	1.697E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE	0.000E+00	2.357E-02	1.869E-31	0.000E+00	0.000E+00	0.000E+00
NA	0.000E+00	8.228E+00	7.541E+00	7.201E+00	4.536E+00	2.605E+00
MG	0.000E+00	2.757E-02	3.401E-04	4.194E-06	1.549E-11	1.040E-11
AL	0.000E+00	1.288E+00	1.871E-06	3.198E-09	3.062E-11	2.057E-11
SI	0.000E+00	1.806E-01	1.387E-01	1.065E-01	7.567E-03	3.170E-04
P	0.000E+00	8.998E-01	8.961E-01	8.943E-01	8.764E-01	8.554E-01
S	0.000E+00	2.617E-02	2.580E-02	2.579E-02	2.571E-02	2.561E-02

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CL	0.000E+00	1.312E-01	4.280E-02	1.401E-02	1.514E-05	1.495E-05
AR	0.000E+00	7.449E-06	7.187E-06	7.006E-06	6.581E-06	6.509E-06
K	0.000E+00	1.074E-04	9.867E-05	9.291E-05	5.335E-05	2.752E-05
CA	0.000E+00	1.593E-03	2.051E-04	1.928E-04	1.921E-04	1.914E-04
SC	0.000E+00	1.336E-03	1.070E-03	8.971E-04	7.133E-04	6.891E-04
TI	0.000E+00	7.231E-04	5.290E-07	3.870E-10	0.000E+00	0.000E+00
V	1.450E-17	1.895E+00	2.892E-05	4.413E-10	1.248E-17	1.248E-17
CR	0.000E+00	7.417E-03	4.832E-03	4.827E-03	4.777E-03	4.718E-03
MN	0.000E+00	3.527E+00	2.697E+00	2.063E+00	1.464E-01	1.210E-02
FE	0.000E+00	5.436E-03	5.432E-03	5.429E-03	5.396E-03	5.357E-03
CO	0.000E+00	2.589E+00	2.516E+00	2.513E+00	2.508E+00	2.507E+00
NI	0.000E+00	1.886E-02	1.436E-02	1.095E-02	8.381E-04	1.737E-04
CU	0.000E+00	8.822E-02	4.468E-02	4.230E-02	2.451E-02	1.273E-02
ZN	0.000E+00	6.243E-01	5.281E-01	4.821E-01	4.288E-01	4.204E-01
GA	0.000E+00	4.930E-03	7.504E-04	1.652E-04	4.344E-05	2.408E-05
GE	0.000E+00	6.468E-07	2.323E-07	2.318E-07	2.262E-07	2.196E-07
Y	0.000E+00	3.764E-06	3.730E-06	3.696E-06	3.380E-06	3.039E-06
ZR	0.000E+00	1.703E-05	1.697E-05	1.691E-05	1.634E-05	1.574E-05
NB	0.000E+00	1.362E-03	1.347E-03	1.338E-03	1.279E-03	1.220E-03
MO	0.000E+00	7.490E-01	6.384E-01	6.257E-01	5.627E-01	4.960E-01
TC	0.000E+00	9.497E-02	1.005E-02	9.773E-04	8.073E-08	8.078E-08
RU	0.000E+00	7.541E-06	7.535E-06	7.530E-06	7.474E-06	7.409E-06
RH	0.000E+00	8.609E-07	4.914E-11	4.384E-11	3.077E-11	2.414E-11
PD	0.000E+00	1.875E-04	1.707E-04	1.611E-04	9.581E-05	5.155E-05
AG	0.000E+00	3.494E-01	3.160E-02	3.159E-02	3.152E-02	3.144E-02
CD	0.000E+00	1.426E+00	1.387E+00	1.354E+00	1.160E+00	1.004E+00
IN	1.710E-14	2.971E+00	9.080E-01	5.055E-01	1.090E-01	1.002E-01
SN	0.000E+00	1.037E-01	9.063E-02	9.014E-02	8.725E-02	8.416E-02
SB	0.000E+00	1.080E-02	1.071E-02	1.066E-02	1.029E-02	9.892E-03
TE	0.000E+00	3.343E-04	3.342E-04	3.342E-04	3.340E-04	3.340E-04
I	0.000E+00	1.304E-07	2.468E-08	4.670E-09	2.565E-13	1.307E-13
PM	0.000E+00	9.395E-09	7.599E-09	6.231E-09	1.701E-09	1.032E-09
SM	0.000E+00	3.056E-09	2.300E-09	2.157E-09	1.842E-09	1.541E-09
EU	0.000E+00	7.247E-03	7.234E-03	7.221E-03	7.094E-03	6.944E-03
GD	1.371E-15	3.151E-01	2.469E-01	2.379E-01	1.643E-01	1.056E-01
TB	0.000E+00	1.742E-01	1.741E-01	1.739E-01	1.723E-01	1.705E-01
DY	0.000E+00	7.352E-03	4.994E-03	3.719E-03	1.997E-04	1.039E-05
HO	0.000E+00	7.557E-04	7.370E-04	7.187E-04	5.595E-04	4.151E-04
ER	0.000E+00	2.190E-06	1.064E-08	1.060E-08	1.028E-08	9.911E-09
TA	0.000E+00	8.453E-04	8.419E-04	8.386E-04	8.073E-04	7.720E-04
W	0.000E+00	8.440E-01	8.194E-01	7.962E-01	5.977E-01	4.242E-01
RE	0.000E+00	3.642E-01	3.051E-01	2.885E-01	1.958E-01	1.247E-01
OS	0.000E+00	8.705E-06	8.571E-06	8.491E-06	7.862E-06	7.372E-06
IR	0.000E+00	7.453E-06	7.440E-06	7.428E-06	7.329E-06	7.238E-06
PT	0.000E+00	2.066E-09	2.052E-09	2.039E-09	1.906E-09	1.759E-09
PB	2.660E-18	6.298E-07	5.105E-07	4.138E-07	5.065E-08	4.073E-09
BI	0.000E+00	1.008E-04	1.002E-04	9.960E-05	9.402E-05	8.774E-05
PO	0.000E+00	1.248E-03	1.248E-03	1.248E-03	1.248E-03	1.248E-03

ML041000030.txt

SUMTOT	1.849E-14	3.806E+01	1.911E+01	1.750E+01	1.168E+01	9.020E+00
TOTAL	1.849E-14	3.806E+01	1.911E+01	1.750E+01	1.168E+01	9.020E+00

CUMULATIVE TABLE TOTALS

AP+FP	1.849E-14	3.806E+01	1.911E+01	1.750E+01	1.168E+01	9.020E+00
ACT+FP	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AP+ACT+FP	1.849E-14	3.806E+01	1.911E+01	1.750E+01	1.168E+01	9.020E+00

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OUTPUT UNIT =

6 PAGE 36
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

19 SUMMARY TABLE: NEUTRON ABSORPTION RATE, NEUTRONS PER SECOND

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
HE 3	0.000E+00	2.275E-02	2.277E-02	2.278E-02	2.292E-02	2.308E-02
LI 6	3.921E-01	7.361E-02	7.361E-02	7.361E-02	7.361E-02	7.361E-02
B 10	2.881E+00	2.174E-03	2.174E-03	2.174E-03	2.174E-03	2.174E-03
N 14	1.807E-01	1.798E-01	1.798E-01	1.798E-01	1.798E-01	1.798E-01
O 16	1.355E+01	1.355E+01	1.355E+01	1.355E+01	1.355E+01	1.355E+01
O 17	3.042E-02	3.043E-02	3.043E-02	3.043E-02	3.043E-02	3.043E-02
NA 23	2.701E-02	2.696E-02	2.696E-02	2.696E-02	2.696E-02	2.696E-02
CL 35	1.967E-01	1.817E-01	1.817E-01	1.817E-01	1.817E-01	1.817E-01
MN 55	2.257E-02	2.184E-02	2.184E-02	2.184E-02	2.184E-02	2.184E-02
FE 56	3.293E-02	3.288E-02	3.288E-02	3.288E-02	3.288E-02	3.288E-02
CO 59	6.490E-02	5.462E-02	5.462E-02	5.462E-02	5.462E-02	5.462E-02
NI 58	5.247E-02	5.201E-02	5.201E-02	5.201E-02	5.201E-02	5.201E-02
MO 95	3.981E-02	3.565E-02	3.565E-02	3.565E-02	3.565E-02	3.565E-02
MO 98	1.920E-02	1.868E-02	1.868E-02	1.868E-02	1.868E-02	1.868E-02
CD110	3.435E-02	3.280E-02	3.280E-02	3.280E-02	3.280E-02	3.280E-02
CD111	5.215E-02	5.064E-02	5.064E-02	5.064E-02	5.064E-02	5.064E-02
CD112	2.913E-02	2.968E-02	2.968E-02	2.968E-02	2.968E-02	2.968E-02
CD113	4.923E+01	1.996E-02	1.996E-02	1.996E-02	1.996E-02	1.996E-02
CD114	2.769E-02	3.907E-02	3.907E-02	3.907E-02	3.907E-02	3.907E-02
IN115	1.596E+00	2.162E-02	2.162E-02	2.162E-02	2.163E-02	2.164E-02
GD155	2.528E+00	1.716E-03	1.716E-03	1.716E-03	1.716E-03	1.716E-03

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GD157	1.135E+01	1.186E-02	1.186E-02	1.186E-02	1.186E-02	1.186E-02
W182	2.511E-02	1.674E-02	1.674E-02	1.674E-02	1.674E-02	1.674E-02
W186	2.525E-02	1.736E-02	1.736E-02	1.736E-02	1.736E-02	1.736E-02
SUMTOT	8.238E+01	1.452E+01	1.452E+01	1.452E+01	1.452E+01	1.452E+01

TOTAL	8.258E+01	1.476E+01	1.476E+01	1.476E+01	1.476E+01	1.476E+01
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OUTPUT UNIT =

6 PAGE 37
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
 /CM**2-SEC

19 SUMMARY TABLE: NEUTRON ABSORPTION RATE, NEUTRON
 S PER SECOND

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP
 , 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
HE	0.000E+00	2.275E-02	2.277E-02	2.278E-02	2.292E-02	2.308E-02
LI	3.927E-01	7.436E-02	7.436E-02	7.436E-02	7.436E-02	7.436E-02
B	2.881E+00	2.190E-03	2.190E-03	2.190E-03	2.190E-03	2.190E-03
N	1.807E-01	1.798E-01	1.798E-01	1.798E-01	1.798E-01	1.798E-01
O	1.358E+01	1.358E+01	1.358E+01	1.358E+01	1.358E+01	1.358E+01
NA	2.701E-02	2.696E-02	2.696E-02	2.696E-02	2.696E-02	2.696E-02
CL	1.974E-01	1.858E-01	1.858E-01	1.858E-01	1.858E-01	1.858E-01
MN	2.257E-02	2.184E-02	2.184E-02	2.184E-02	2.184E-02	2.184E-02
FE	3.563E-02	3.573E-02	3.573E-02	3.573E-02	3.573E-02	3.573E-02
CO	6.490E-02	5.666E-02	5.666E-02	5.666E-02	5.666E-02	5.665E-02
NI	7.426E-02	8.494E-02	8.494E-02	8.494E-02	8.494E-02	8.494E-02
ZN	4.302E-02	4.285E-02	4.285E-02	4.285E-02	4.285E-02	4.285E-02
MO	7.160E-02	6.756E-02	6.756E-02	6.756E-02	6.756E-02	6.756E-02
CD	4.937E+01	1.739E-01	1.739E-01	1.739E-01	1.739E-01	1.739E-01
IN	1.601E+00	2.540E-02	2.540E-02	2.541E-02	2.541E-02	2.542E-02
GD	1.389E+01	3.519E-02	3.519E-02	3.519E-02	3.519E-02	3.519E-02
W	5.911E-02	4.562E-02	4.562E-02	4.562E-02	4.561E-02	4.559E-02
SUMTOT	8.250E+01	1.466E+01	1.466E+01	1.466E+01	1.466E+01	1.466E+01
TOTAL	8.258E+01	1.476E+01	1.476E+01	1.476E+01	1.476E+01	1.476E+01

CUMULATIVE TABLE TOTALS

AP+FP	8.258E+01	1.476E+01	1.476E+01	1.476E+01	1.476E+01	1.476E+01
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ACT+FP 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
AP+ACT+FP 8.258E+01 1.476E+01 1.476E+01 1.476E+01 1.476E+01 1.476E+01

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OUTPUT UNIT =

6 PAGE 38
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

20 SUMMARY TABLE: NEUTRON ABSORPTION RATE, FRACTIONAL NEUTRONS PER SECOND

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
HE 3	0.000E+00	1.542E-03	1.543E-03	1.544E-03	1.553E-03	1.564E-03
LI 6	4.747E-03	4.988E-03	4.987E-03	4.987E-03	4.987E-03	4.987E-03
B 10	3.489E-02	1.473E-04	1.473E-04	1.473E-04	1.473E-04	1.473E-04
N 14	2.188E-03	1.218E-02	1.218E-02	1.218E-02	1.218E-02	1.218E-02
O 16	1.641E-01	9.179E-01	9.179E-01	9.179E-01	9.179E-01	9.179E-01
O 17	3.683E-04	2.062E-03	2.062E-03	2.062E-03	2.062E-03	2.062E-03
NA 23	3.271E-04	1.827E-03	1.827E-03	1.827E-03	1.827E-03	1.827E-03
CL 35	2.382E-03	1.231E-02	1.231E-02	1.231E-02	1.231E-02	1.231E-02
MN 55	2.733E-04	1.480E-03	1.480E-03	1.480E-03	1.480E-03	1.480E-03
FE 56	3.988E-04	2.228E-03	2.228E-03	2.228E-03	2.228E-03	2.228E-03
CO 59	7.859E-04	3.701E-03	3.701E-03	3.701E-03	3.701E-03	3.701E-03
NI 58	6.353E-04	3.524E-03	3.524E-03	3.524E-03	3.524E-03	3.524E-03
MO 95	4.821E-04	2.416E-03	2.416E-03	2.416E-03	2.416E-03	2.416E-03
MO 98	2.326E-04	1.266E-03	1.266E-03	1.266E-03	1.266E-03	1.266E-03
CD110	4.159E-04	2.222E-03	2.222E-03	2.222E-03	2.222E-03	2.222E-03
CD111	6.315E-04	3.431E-03	3.431E-03	3.431E-03	3.431E-03	3.431E-03
CD112	3.528E-04	2.011E-03	2.011E-03	2.011E-03	2.011E-03	2.011E-03
CD113	5.961E-01	1.352E-03	1.352E-03	1.352E-03	1.352E-03	1.352E-03
CD114	3.352E-04	2.647E-03	2.647E-03	2.647E-03	2.647E-03	2.647E-03
IN115	1.933E-02	1.465E-03	1.465E-03	1.465E-03	1.466E-03	1.466E-03
GD155	3.062E-02	1.163E-04	1.163E-04	1.163E-04	1.163E-04	1.163E-04
GD157	1.374E-01	8.038E-04	8.038E-04	8.038E-04	8.038E-04	8.038E-04
W182	3.040E-04	1.134E-03	1.134E-03	1.134E-03	1.134E-03	1.134E-03
W186	3.058E-04	1.176E-03	1.176E-03	1.176E-03	1.176E-03	1.176E-03
SUMTOT	9.976E-01	9.840E-01	9.840E-01	9.840E-01	9.840E-01	9.840E-01
TOTAL	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00

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OUTPUT UNIT =

6 PAGE 39
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

20 SUMMARY TABLE: NEUTRON ABSORPTION RATE, FRACTIONAL NEUTRONS PER SECOND

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
HE	0.000E+00	1.542E-03	1.543E-03	1.544E-03	1.553E-03	1.564E-03
LI	4.756E-03	5.039E-03	5.039E-03	5.039E-03	5.039E-03	5.039E-03
B	3.489E-02	1.484E-04	1.484E-04	1.484E-04	1.484E-04	1.484E-04
N	2.188E-03	1.218E-02	1.218E-02	1.218E-02	1.218E-02	1.218E-02
O	1.645E-01	9.202E-01	9.202E-01	9.202E-01	9.202E-01	9.202E-01
NA	3.271E-04	1.827E-03	1.827E-03	1.827E-03	1.827E-03	1.827E-03
CL	2.390E-03	1.259E-02	1.259E-02	1.259E-02	1.259E-02	1.259E-02
MN	2.733E-04	1.480E-03	1.480E-03	1.480E-03	1.480E-03	1.480E-03
FE	4.314E-04	2.421E-03	2.421E-03	2.421E-03	2.421E-03	2.421E-03
CO	7.859E-04	3.839E-03	3.839E-03	3.839E-03	3.839E-03	3.838E-03
NI	8.992E-04	5.755E-03	5.755E-03	5.755E-03	5.755E-03	5.755E-03
ZN	5.209E-04	2.903E-03	2.903E-03	2.903E-03	2.903E-03	2.903E-03
MO	8.670E-04	4.577E-03	4.577E-03	4.577E-03	4.577E-03	4.577E-03
CD	5.979E-01	1.178E-02	1.178E-02	1.178E-02	1.178E-02	1.178E-02
IN	1.939E-02	1.721E-03	1.721E-03	1.721E-03	1.722E-03	1.722E-03
GD	1.682E-01	2.385E-03	2.385E-03	2.385E-03	2.385E-03	2.385E-03
W	7.157E-04	3.091E-03	3.091E-03	3.091E-03	3.090E-03	3.089E-03
SUMTOT	9.990E-01	9.935E-01	9.935E-01	9.935E-01	9.935E-01	9.935E-01
TOTAL	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00

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OUTPUT UNIT =

6 PAGE 40
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
/CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
HE 4	0.000E+00	3.098E-01	3.099E-01	3.099E-01	3.104E-01	3.109E-01
TH230	0.000E+00	1.822E-03	1.822E-03	1.822E-03	1.823E-03	1.823E-03
TH232	0.000E+00	2.720E-04	2.720E-04	2.720E-04	2.722E-04	2.724E-04
PA231	0.000E+00	4.688E-04	4.689E-04	4.690E-04	4.695E-04	4.699E-04
U232	0.000E+00	5.907E-04	5.907E-04	5.908E-04	5.916E-04	5.923E-04
U233	0.000E+00	1.893E-03	1.893E-03	1.893E-03	1.893E-03	1.893E-03
U234	3.838E+02	2.248E+02	2.248E+02	2.248E+02	2.248E+02	2.248E+02
U235	4.236E+04	1.165E+04	1.165E+04	1.165E+04	1.165E+04	1.165E+04
U236	0.000E+00	5.144E+03	5.144E+03	5.144E+03	5.144E+03	5.144E+03
U237	0.000E+00	1.557E+01	1.551E+01	1.544E+01	1.479E+01	1.405E+01
U238	9.573E+05	9.321E+05	9.321E+05	9.321E+05	9.321E+05	9.321E+05
U239	0.000E+00	6.414E-01	1.096E-01	1.871E-02	3.955E-10	2.439E-19
NP236	0.000E+00	5.737E-04	5.737E-04	5.737E-04	5.737E-04	5.737E-04
NP237	0.000E+00	6.374E+02	6.375E+02	6.375E+02	6.382E+02	6.389E+02
NP238	0.000E+00	1.991E+00	1.964E+00	1.937E+00	1.690E+00	1.435E+00
NP239	0.000E+00	9.230E+01	9.171E+01	9.068E+01	8.023E+01	6.925E+01
NP240	0.000E+00	2.094E-03	1.104E-03	5.823E-04	9.712E-07	4.496E-10
PU236	0.000E+00	1.423E-03	1.423E-03	1.423E-03	1.425E-03	1.426E-03
PU237	0.000E+00	2.781E-04	2.780E-04	2.778E-04	2.760E-04	2.739E-04
PU238	0.000E+00	1.965E+02	1.965E+02	1.965E+02	1.968E+02	1.971E+02
PU239	0.000E+00	6.127E+03	6.128E+03	6.130E+03	6.140E+03	6.151E+03
PU240	0.000E+00	2.313E+03	2.313E+03	2.313E+03	2.313E+03	2.313E+03
PU241	0.000E+00	1.353E+03	1.353E+03	1.353E+03	1.353E+03	1.353E+03
PU242	0.000E+00	4.326E+02	4.326E+02	4.326E+02	4.326E+02	4.326E+02
PU243	0.000E+00	1.320E-01	1.147E-01	9.976E-02	2.463E-02	4.598E-03
PU244	0.000E+00	2.588E-02	2.588E-02	2.588E-02	2.588E-02	2.588E-02
AM241	0.000E+00	4.258E+01	4.258E+01	4.259E+01	4.266E+01	4.275E+01
AM242M	0.000E+00	1.873E+00	1.873E+00	1.873E+00	1.873E+00	1.873E+00
AM242	0.000E+00	9.284E-02	8.891E-02	8.515E-02	5.525E-02	3.288E-02
AM243	0.000E+00	9.223E+01	9.224E+01	9.226E+01	9.233E+01	9.235E+01
AM244M	0.000E+00	3.794E-03	7.663E-04	1.548E-04	1.749E-11	8.066E-20
AM244	0.000E+00	4.641E-03	4.333E-03	4.046E-03	2.037E-03	8.939E-04
CM242	0.000E+00	1.281E+01	1.281E+01	1.282E+01	1.282E+01	1.281E+01
CM243	0.000E+00	4.265E-01	4.265E-01	4.265E-01	4.265E-01	4.265E-01
CM244	0.000E+00	2.931E+01	2.931E+01	2.931E+01	2.931E+01	2.931E+01
CM245	0.000E+00	1.207E+00	1.207E+00	1.207E+00	1.207E+00	1.207E+00
CM246	0.000E+00	1.198E-01	1.198E-01	1.198E-01	1.198E-01	1.198E-01
CM247	0.000E+00	1.201E-03	1.201E-03	1.201E-03	1.201E-03	1.201E-03
SUMTOT	1.000E+06	9.605E+05	9.605E+05	9.605E+05	9.605E+05	9.605E+05

TOTAL 1.000E+06 9.605E+05 9.605E+05 9.605E+05 9.605E+05 9.605E+05

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OUTPUT UNIT =

6 PAGE 41
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
 1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
HE	0.000E+00	3.098E-01	3.099E-01	3.099E-01	3.104E-01	3.109E-01
TH	0.000E+00	2.113E-03	2.113E-03	2.113E-03	2.114E-03	2.114E-03
PA	0.000E+00	4.917E-04	4.917E-04	4.917E-04	4.919E-04	4.920E-04
U	1.000E+06	9.491E+05	9.491E+05	9.491E+05	9.491E+05	9.491E+05
NP	0.000E+00	7.317E+02	7.311E+02	7.301E+02	7.201E+02	7.096E+02
PU	0.000E+00	1.042E+04	1.042E+04	1.043E+04	1.044E+04	1.045E+04
AM	0.000E+00	1.368E+02	1.368E+02	1.368E+02	1.369E+02	1.370E+02
CM	0.000E+00	4.387E+01	4.388E+01	4.388E+01	4.388E+01	4.387E+01
SUMTOT	1.000E+06	9.605E+05	9.605E+05	9.605E+05	9.605E+05	9.605E+05
TOTAL	1.000E+06	9.605E+05	9.605E+05	9.605E+05	9.605E+05	9.605E+05

CUMULATIVE TABLE TOTALS

AP+FP	1.348E+05	1.348E+05	1.348E+05	1.348E+05	1.348E+05	1.348E+05
ACT+FP	1.000E+06	9.605E+05	9.605E+05	9.605E+05	9.605E+05	9.605E+05
AP+ACT+FP	1.135E+06	1.095E+06	1.095E+06	1.095E+06	1.095E+06	1.095E+06

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OUTPUT UNIT =

6 PAGE 42
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES

ML041000030.txt

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
PB212	0.000E+00	2.592E-03	2.592E-03	2.592E-03	2.591E-03	2.590E-03
BI212	0.000E+00	2.592E-03	2.593E-03	2.593E-03	2.592E-03	2.715E-03
PO216	0.000E+00	2.592E-03	2.593E-03	2.592E-03	2.592E-03	2.591E-03
RN220	0.000E+00	2.592E-03	2.593E-03	2.592E-03	2.592E-03	2.591E-03
RA224	0.000E+00	2.592E-03	2.592E-03	2.592E-03	2.591E-03	2.591E-03
TH228	0.000E+00	2.580E-03	2.581E-03	2.581E-03	2.585E-03	2.590E-03
TH231	0.000E+00	1.180E+00	1.149E+00	1.119E+00	8.586E-01	6.268E-01
TH233	0.000E+00	2.114E-02	3.220E-03	4.904E-04	3.294E-12	5.134E-22
TH234	0.000E+00	3.138E-01	3.138E-01	3.138E-01	3.138E-01	3.138E-01
PA232	0.000E+00	7.877E-01	7.705E-01	7.537E-01	6.046E-01	4.641E-01
PA233	0.000E+00	4.356E-01	4.356E-01	4.356E-01	4.358E-01	4.360E-01
PA234M	0.000E+00	3.206E-01	3.138E-01	3.138E-01	3.138E-01	3.138E-01
PA234	0.000E+00	7.199E-03	6.532E-03	5.930E-03	2.370E-03	9.746E-04
U232	0.000E+00	1.265E-02	1.265E-02	1.265E-02	1.267E-02	1.268E-02
U234	2.399E+00	1.405E+00	1.405E+00	1.405E+00	1.405E+00	1.405E+00
U235	9.161E-02	2.518E-02	2.518E-02	2.518E-02	2.518E-02	2.518E-02
U236	0.000E+00	3.330E-01	3.330E-01	3.330E-01	3.330E-01	3.330E-01
U237	0.000E+00	1.272E+06	1.266E+06	1.261E+06	1.208E+06	1.148E+06
U238	3.220E-01	3.135E-01	3.135E-01	3.135E-01	3.135E-01	3.135E-01
U239	0.000E+00	2.145E+07	3.664E+06	6.258E+05	1.323E-02	8.156E-12
U240	0.000E+00	2.549E+01	2.427E+01	2.310E+01	1.413E+01	7.833E+00
NP235	0.000E+00	8.323E-03	8.322E-03	8.322E-03	8.316E-03	8.308E-03
NP236M	0.000E+00	9.972E+00	9.669E+00	9.376E+00	6.890E+00	4.761E+00
NP237	0.000E+00	4.495E-01	4.495E-01	4.496E-01	4.500E-01	4.506E-01
NP238	0.000E+00	5.162E+05	5.092E+05	5.023E+05	4.383E+05	3.721E+05
NP239	0.000E+00	2.142E+07	2.128E+07	2.104E+07	1.862E+07	1.607E+07
NP240M	0.000E+00	5.196E+03	4.322E+01	2.337E+01	1.425E+01	7.903E+00
NP240	0.000E+00	2.525E+04	1.331E+04	7.022E+03	1.171E+01	5.421E-03
PU236	0.000E+00	7.564E-01	7.565E-01	7.566E-01	7.574E-01	7.581E-01
PU237	0.000E+00	3.362E+00	3.360E+00	3.358E+00	3.336E+00	3.311E+00
PU238	0.000E+00	3.365E+03	3.365E+03	3.366E+03	3.371E+03	3.375E+03
PU239	0.000E+00	3.810E+02	3.811E+02	3.812E+02	3.818E+02	3.825E+02
PU240	0.000E+00	5.272E+02	5.272E+02	5.272E+02	5.272E+02	5.272E+02
PU241	0.000E+00	1.395E+05	1.395E+05	1.395E+05	1.395E+05	1.395E+05
PU242	0.000E+00	1.653E+00	1.653E+00	1.653E+00	1.653E+00	1.653E+00
PU243	0.000E+00	3.436E+05	2.987E+05	2.597E+05	6.413E+04	1.197E+04
PU245	0.000E+00	7.277E-01	6.817E-01	6.385E-01	3.320E-01	1.515E-01
AM240	0.000E+00	3.670E-01	3.620E-01	3.571E-01	3.116E-01	2.645E-01
AM241	0.000E+00	1.462E+02	1.462E+02	1.462E+02	1.465E+02	1.468E+02
AM242M	0.000E+00	1.821E+01	1.821E+01	1.821E+01	1.821E+01	1.821E+01
AM242	0.000E+00	7.508E+04	7.191E+04	6.886E+04	4.468E+04	2.659E+04
AM243	0.000E+00	1.839E+01	1.840E+01	1.840E+01	1.841E+01	1.842E+01
AM244M	0.000E+00	1.125E+05	2.272E+04	4.589E+03	5.187E-04	2.392E-12
AM244	0.000E+00	5.904E+03	5.512E+03	5.147E+03	2.591E+03	1.137E+03

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AM245	0.000E+00	7.277E-01	7.208E-01	7.031E-01	4.094E-01	1.882E-01
CM241	0.000E+00	1.640E-02	1.638E-02	1.637E-02	1.624E-02	1.608E-02
CM242	0.000E+00	4.238E+04	4.239E+04	4.239E+04	4.240E+04	4.237E+04
CM243	0.000E+00	2.203E+01	2.203E+01	2.203E+01	2.203E+01	2.203E+01
CM244	0.000E+00	2.372E+03	2.372E+03	2.372E+03	2.372E+03	2.372E+03
CM245	0.000E+00	2.073E-01	2.073E-01	2.073E-01	2.073E-01	2.073E-01
CM246	0.000E+00	3.682E-02	3.682E-02	3.682E-02	3.682E-02	3.682E-02

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OUTPUT UNIT =

6 PAGE 43
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
CM249	0.000E+00	1.022E-02	5.344E-03	2.794E-03	4.273E-06	6.346E-09
SUMTOT	2.813E+00	4.541E+07	2.732E+07	2.397E+07	2.057E+07	1.782E+07
TOTAL	2.813E+00	4.541E+07	2.732E+07	2.397E+07	2.057E+07	1.782E+07

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OUTPUT UNIT =

6 PAGE 44
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
PB	0.000E+00	2.593E-03	2.593E-03	2.593E-03	2.592E-03	2.592E-03
BI	0.000E+00	2.593E-03	2.594E-03	2.595E-03	2.593E-03	2.717E-03
PO	0.000E+00	4.254E-03	4.255E-03	4.255E-03	4.254E-03	4.333E-03

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RN	0.000E+00	2.593E-03	2.593E-03	2.593E-03	2.593E-03	2.592E-03
RA	0.000E+00	2.593E-03	2.593E-03	2.593E-03	2.593E-03	2.592E-03
TH	0.000E+00	1.517E+00	1.468E+00	1.436E+00	1.175E+00	9.432E-01
PA	0.000E+00	1.551E+00	1.527E+00	1.509E+00	1.357E+00	1.215E+00
U	2.813E+00	2.272E+07	4.930E+06	1.887E+06	1.208E+06	1.148E+06
NP	0.000E+00	2.197E+07	2.180E+07	2.155E+07	1.906E+07	1.644E+07
PU	0.000E+00	4.873E+05	4.425E+05	4.035E+05	2.079E+05	1.557E+05
AM	0.000E+00	1.937E+05	1.003E+05	7.878E+04	4.746E+04	2.791E+04
CM	0.000E+00	4.478E+04	4.478E+04	4.478E+04	4.479E+04	4.476E+04
BK	0.000E+00	4.403E-03	3.761E-03	3.244E-03	1.338E-03	1.104E-03
SUMTOT	2.813E+00	4.541E+07	2.732E+07	2.397E+07	2.057E+07	1.782E+07
TOTAL	2.813E+00	4.541E+07	2.732E+07	2.397E+07	2.057E+07	1.782E+07

CUMULATIVE TABLE TOTALS

AP+FP	1.203E-11	3.725E+03	2.418E+03	2.268E+03	1.777E+03	1.538E+03
ACT+FP	2.813E+00	4.541E+07	2.732E+07	2.397E+07	2.057E+07	1.782E+07
AP+ACT+FP	2.813E+00	4.542E+07	2.732E+07	2.397E+07	2.057E+07	1.782E+07

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
TL208	0.000E+00	2.192E-05	2.193E-05	2.252E-05	2.191E-05	2.296E-05
PB212	0.000E+00	4.935E-06	4.935E-06	4.935E-06	4.933E-06	4.932E-06
BI212	0.000E+00	4.408E-05	4.410E-05	4.410E-05	4.408E-05	4.618E-05
PO212	0.000E+00	8.801E-05	8.804E-05	8.805E-05	8.799E-05	9.220E-05
PO216	0.000E+00	1.061E-04	1.061E-04	1.061E-04	1.061E-04	1.061E-04
RN220	0.000E+00	9.842E-05	9.843E-05	9.843E-05	9.840E-05	9.839E-05
RA224	0.000E+00	8.897E-05	8.896E-05	8.896E-05	8.894E-05	8.893E-05
TH228	0.000E+00	8.439E-05	8.440E-05	8.441E-05	8.455E-05	8.471E-05
TH231	0.000E+00	6.620E-04	6.446E-04	6.277E-04	4.818E-04	3.517E-04
TH233	0.000E+00	5.351E-05	8.150E-06	1.241E-06	8.339E-15	1.300E-24
TH234	0.000E+00	1.272E-04	1.272E-04	1.272E-04	1.272E-04	1.272E-04
PA232	0.000E+00	5.150E-03	5.038E-03	4.928E-03	3.953E-03	3.034E-03

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PA233	0.000E+00	9.887E-04	9.887E-04	9.888E-04	9.891E-04	9.895E-04
PA234M	0.000E+00	1.584E-03	1.551E-03	1.551E-03	1.551E-03	1.551E-03
PA234	0.000E+00	1.034E-04	9.382E-05	8.517E-05	3.404E-05	1.400E-05
U232	0.000E+00	4.060E-04	4.061E-04	4.061E-04	4.067E-04	4.072E-04
U234	6.910E-02	4.047E-02	4.047E-02	4.047E-02	4.047E-02	4.047E-02
U235	2.399E-03	6.595E-04	6.595E-04	6.595E-04	6.595E-04	6.595E-04
U236	0.000E+00	9.020E-03	9.020E-03	9.020E-03	9.020E-03	9.020E-03
U237	0.000E+00	2.406E+03	2.396E+03	2.386E+03	2.286E+03	2.171E+03
U238	8.166E-03	7.952E-03	7.952E-03	7.952E-03	7.952E-03	7.952E-03
U239	0.000E+00	5.774E+04	9.862E+03	1.685E+03	3.560E-05	2.195E-14
U240	0.000E+00	2.091E-02	1.991E-02	1.895E-02	1.159E-02	6.426E-03
NP236M	0.000E+00	7.879E-03	7.640E-03	7.409E-03	5.444E-03	3.762E-03
NP237	0.000E+00	1.374E-02	1.374E-02	1.374E-02	1.375E-02	1.377E-02
NP238	0.000E+00	2.472E+03	2.439E+03	2.406E+03	2.099E+03	1.782E+03
NP239	0.000E+00	5.178E+04	5.144E+04	5.087E+04	4.501E+04	3.885E+04
NP240M	0.000E+00	3.011E+01	2.504E-01	1.354E-01	8.261E-02	4.579E-02
NP240	0.000E+00	2.676E+02	1.411E+02	7.442E+01	1.241E-01	5.746E-05
PU236	0.000E+00	2.632E-02	2.633E-02	2.633E-02	2.636E-02	2.638E-02
PU237	0.000E+00	1.240E-03	1.239E-03	1.238E-03	1.230E-03	1.221E-03
PU238	0.000E+00	1.115E+02	1.115E+02	1.116E+02	1.117E+02	1.119E+02
PU239	0.000E+00	1.174E+01	1.174E+01	1.175E+01	1.177E+01	1.179E+01
PU240	0.000E+00	1.642E+01	1.642E+01	1.642E+01	1.642E+01	1.642E+01
PU241	0.000E+00	4.324E+00	4.324E+00	4.324E+00	4.324E+00	4.324E+00
PU242	0.000E+00	4.880E-02	4.880E-02	4.880E-02	4.880E-02	4.880E-02
PU243	0.000E+00	3.965E+02	3.448E+02	2.998E+02	7.401E+01	1.382E+01
PU245	0.000E+00	1.726E-03	1.616E-03	1.514E-03	7.873E-04	3.592E-04
AM240	0.000E+00	2.402E-03	2.369E-03	2.337E-03	2.039E-03	1.731E-03
AM241	0.000E+00	4.856E+00	4.857E+00	4.858E+00	4.866E+00	4.876E+00
AM242M	0.000E+00	7.194E-03	7.194E-03	7.194E-03	7.194E-03	7.194E-03
AM242	0.000E+00	8.523E+01	8.162E+01	7.817E+01	5.072E+01	3.019E+01
AM243	0.000E+00	5.912E-01	5.913E-01	5.914E-01	5.919E-01	5.921E-01
AM244M	0.000E+00	3.403E+02	6.873E+01	1.388E+01	1.569E-06	7.234E-15
AM244	0.000E+00	3.094E+01	2.889E+01	2.697E+01	1.358E+01	5.959E+00
AM245	0.000E+00	1.350E-03	1.337E-03	1.304E-03	7.597E-04	3.492E-04
CM241	0.000E+00	6.739E-05	6.734E-05	6.729E-05	6.675E-05	6.611E-05
CM242	0.000E+00	1.562E+03	1.562E+03	1.562E+03	1.562E+03	1.561E+03
CM243	0.000E+00	8.081E-01	8.081E-01	8.081E-01	8.081E-01	8.080E-01
CM244	0.000E+00	8.297E+01	8.298E+01	8.298E+01	8.298E+01	8.298E+01
CM245	0.000E+00	6.877E-03	6.877E-03	6.877E-03	6.877E-03	6.877E-03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTINIDES+DAUGHTERS

ML041000030.txt

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
CM246	0.000E+00	1.206E-03	1.206E-03	1.206E-03	1.206E-03	1.206E-03
CM249	0.000E+00	1.778E-05	9.300E-06	4.863E-06	7.436E-09	1.104E-11
BK250	0.000E+00	2.303E-05	1.857E-05	1.498E-05	1.743E-06	1.320E-07
SUMTOT	7.967E-02	1.173E+05	6.860E+04	5.963E+04	5.133E+04	4.465E+04
TOTAL	7.967E-02	1.173E+05	6.860E+04	5.963E+04	5.133E+04	4.465E+04

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OUTPUT UNIT =

6 PAGE 47
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
TL	0.000E+00	2.192E-05	2.193E-05	2.252E-05	2.192E-05	2.296E-05
PB	0.000E+00	4.938E-06	4.938E-06	4.938E-06	4.936E-06	4.934E-06
BI	0.000E+00	4.411E-05	4.413E-05	4.413E-05	4.410E-05	4.621E-05
PO	0.000E+00	1.942E-04	1.942E-04	1.942E-04	1.942E-04	1.983E-04
RN	0.000E+00	9.845E-05	9.846E-05	9.846E-05	9.843E-05	9.842E-05
RA	0.000E+00	8.899E-05	8.899E-05	8.899E-05	8.897E-05	8.895E-05
TH	0.000E+00	9.282E-04	8.655E-04	8.417E-04	6.946E-04	5.647E-04
PA	0.000E+00	7.827E-03	7.672E-03	7.553E-03	6.528E-03	5.589E-03
U	7.967E-02	6.015E+04	1.226E+04	4.070E+03	2.286E+03	2.171E+03
NP	0.000E+00	5.455E+04	5.402E+04	5.335E+04	4.711E+04	4.063E+04
PU	0.000E+00	5.406E+02	4.889E+02	4.439E+02	2.183E+02	1.583E+02
AM	0.000E+00	4.619E+02	1.847E+02	1.245E+02	6.976E+01	4.162E+01
CM	0.000E+00	1.645E+03	1.646E+03	1.646E+03	1.646E+03	1.645E+03
BK	0.000E+00	2.385E-05	1.938E-05	1.579E-05	2.548E-06	9.362E-07
SUMTOT	7.967E-02	1.173E+05	6.860E+04	5.963E+04	5.133E+04	4.465E+04
TOTAL	7.967E-02	1.173E+05	6.860E+04	5.963E+04	5.133E+04	4.465E+04

CUMULATIVE TABLE TOTALS

AP+FP	1.849E-14	3.806E+01	1.911E+01	1.750E+01	1.168E+01	9.020E+00
ACT+FP	7.967E-02	1.173E+05	6.860E+04	5.963E+04	5.133E+04	4.465E+04
AP+ACT+FP	7.967E-02	1.174E+05	6.862E+04	5.965E+04	5.134E+04	4.466E+04

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OUTPUT UNIT =

6 PAGE 48
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
 /CM**2-SEC

19 SUMMARY TABLE: NEUTRON ABSORPTION RATE, NEUTRON
 S PER SECOND

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP
 , 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	1.934E+01	1.133E+01	1.133E+01	1.133E+01	1.133E+01	1.133E+01
U235	5.067E+03	1.393E+03	1.393E+03	1.393E+03	1.393E+03	1.393E+03
U236	0.000E+00	1.116E+02	1.116E+02	1.116E+02	1.116E+02	1.116E+02
U238	2.317E+03	2.256E+03	2.256E+03	2.256E+03	2.256E+03	2.256E+03
NP237	0.000E+00	4.993E+01	4.994E+01	4.994E+01	5.000E+01	5.005E+01
PU238	0.000E+00	1.443E+01	1.443E+01	1.443E+01	1.445E+01	1.447E+01
PU239	0.000E+00	2.420E+03	2.421E+03	2.421E+03	2.425E+03	2.430E+03
PU240	0.000E+00	1.243E+03	1.243E+03	1.243E+03	1.243E+03	1.243E+03
PU241	0.000E+00	4.564E+02	4.564E+02	4.564E+02	4.564E+02	4.564E+02
PU242	0.000E+00	3.588E+01	3.588E+01	3.588E+01	3.588E+01	3.588E+01
AM241	0.000E+00	1.116E+01	1.116E+01	1.116E+01	1.118E+01	1.120E+01
AM243	0.000E+00	1.122E+01	1.123E+01	1.123E+01	1.124E+01	1.124E+01
SUMTOT	7.403E+03	8.014E+03	8.014E+03	8.015E+03	8.019E+03	8.023E+03

TOTAL	7.403E+03	8.023E+03	8.023E+03	8.023E+03	8.027E+03	8.031E+03
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OUTPUT UNIT =

6 PAGE 49
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTINIDES+DAUGHTERS

ML041000030.txt

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

19 SUMMARY TABLE: NEUTRON ABSORPTION RATE, NEUTRON S PER SECOND

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U	7.403E+03	3.773E+03	3.773E+03	3.773E+03	3.773E+03	3.773E+03
NP	0.000E+00	5.355E+01	5.353E+01	5.349E+01	5.313E+01	5.275E+01
PU	0.000E+00	4.170E+03	4.170E+03	4.171E+03	4.175E+03	4.179E+03
AM	0.000E+00	2.445E+01	2.445E+01	2.445E+01	2.447E+01	2.449E+01
SUMTOT	7.403E+03	8.021E+03	8.021E+03	8.022E+03	8.025E+03	8.029E+03
TOTAL	7.403E+03	8.023E+03	8.023E+03	8.023E+03	8.027E+03	8.031E+03

CUMULATIVE TABLE TOTALS

AP+FP	8.258E+01	1.476E+01	1.476E+01	1.476E+01	1.476E+01	1.476E+01
ACT+FP	7.403E+03	8.023E+03	8.023E+03	8.023E+03	8.027E+03	8.031E+03
AP+ACT+FP	7.485E+03	8.037E+03	8.038E+03	8.038E+03	8.042E+03	8.046E+03

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OUTPUT UNIT =

6 PAGE 50
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

20 SUMMARY TABLE: NEUTRON ABSORPTION RATE, FRACTIONAL NEUTRONS PER SECOND

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	2.613E-03	1.412E-03	1.412E-03	1.412E-03	1.411E-03	1.411E-03
U235	6.844E-01	1.736E-01	1.736E-01	1.736E-01	1.735E-01	1.734E-01
U236	0.000E+00	1.390E-02	1.390E-02	1.390E-02	1.390E-02	1.389E-02
U238	3.130E-01	2.812E-01	2.812E-01	2.812E-01	2.811E-01	2.809E-01
NP237	0.000E+00	6.224E-03	6.225E-03	6.225E-03	6.228E-03	6.232E-03
PU238	0.000E+00	1.799E-03	1.799E-03	1.799E-03	1.801E-03	1.802E-03
PU239	0.000E+00	3.017E-01	3.017E-01	3.018E-01	3.022E-01	3.026E-01

ML041000030.txt

PU240	0.000E+00	1.549E-01	1.549E-01	1.549E-01	1.548E-01	1.547E-01
PU241	0.000E+00	5.689E-02	5.689E-02	5.689E-02	5.686E-02	5.683E-02
PU242	0.000E+00	4.473E-03	4.473E-03	4.472E-03	4.470E-03	4.468E-03
AM241	0.000E+00	1.391E-03	1.391E-03	1.391E-03	1.393E-03	1.395E-03
AM243	0.000E+00	1.399E-03	1.399E-03	1.399E-03	1.400E-03	1.399E-03
SUMTOT	1.000E+00	9.989E-01	9.989E-01	9.989E-01	9.990E-01	9.991E-01

TOTAL	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00
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OUTPUT UNIT =

6 PAGE 51
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

20 SUMMARY TABLE: NEUTRON ABSORPTION RATE, FRACTIONAL NEUTRONS PER SECOND

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U	1.000E+00	4.703E-01	4.703E-01	4.702E-01	4.700E-01	4.698E-01
NP	0.000E+00	6.675E-03	6.672E-03	6.667E-03	6.618E-03	6.568E-03
PU	0.000E+00	5.198E-01	5.198E-01	5.198E-01	5.201E-01	5.204E-01
AM	0.000E+00	3.048E-03	3.048E-03	3.048E-03	3.048E-03	3.049E-03
SUMTOT	1.000E+00	9.998E-01	9.998E-01	9.998E-01	9.998E-01	9.998E-01

TOTAL	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00
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OUTPUT UNIT =

6 PAGE 52
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

21 SUMMARY TABLE: FISSION RATE, FISSIONS PER SECOND

ML041000030.txt

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U235	4.098E+03	1.127E+03	1.127E+03	1.127E+03	1.127E+03	1.127E+03
U238	2.346E+02	2.284E+02	2.284E+02	2.284E+02	2.284E+02	2.284E+02
PU239	0.000E+00	1.532E+03	1.532E+03	1.532E+03	1.535E+03	1.538E+03
PU240	0.000E+00	3.477E+00	3.477E+00	3.477E+00	3.477E+00	3.477E+00
PU241	0.000E+00	3.426E+02	3.426E+02	3.426E+02	3.426E+02	3.426E+02
SUMTOT	4.333E+03	3.233E+03	3.233E+03	3.234E+03	3.236E+03	3.239E+03
TOTAL	4.333E+03	3.241E+03	3.242E+03	3.242E+03	3.244E+03	3.247E+03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

21 SUMMARY TABLE: FISSION RATE, FISSIONS PER SE

COND

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U	4.333E+03	1.358E+03	1.358E+03	1.358E+03	1.358E+03	1.358E+03
PU	0.000E+00	1.879E+03	1.880E+03	1.880E+03	1.883E+03	1.885E+03
SUMTOT	4.333E+03	3.237E+03	3.238E+03	3.238E+03	3.241E+03	3.243E+03
TOTAL	4.333E+03	3.241E+03	3.242E+03	3.242E+03	3.244E+03	3.247E+03

CUMULATIVE TABLE TOTALS

AP+FP	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACT+FP	4.333E+03	3.241E+03	3.242E+03	3.242E+03	3.244E+03	3.247E+03
AP+ACT+FP	4.333E+03	3.241E+03	3.242E+03	3.242E+03	3.244E+03	3.247E+03

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OUTPUT UNIT =

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PAGE 54

ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

22 SUMMARY TABLE: FISSION RATE, FRACTIONAL FIS SIONS PER SECOND

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U235	9.458E-01	3.476E-01	3.475E-01	3.475E-01	3.472E-01	3.470E-01
U238	5.414E-02	7.047E-02	7.047E-02	7.046E-02	7.041E-02	7.035E-02
PU239	0.000E+00	4.726E-01	4.727E-01	4.727E-01	4.731E-01	4.736E-01
PU240	0.000E+00	1.073E-03	1.073E-03	1.073E-03	1.072E-03	1.071E-03
PU241	0.000E+00	1.057E-01	1.057E-01	1.057E-01	1.056E-01	1.055E-01
SUMTOT	9.999E-01	9.974E-01	9.974E-01	9.974E-01	9.974E-01	9.975E-01
TOTAL	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00

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OUTPUT UNIT =

6 PAGE 55 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

22 SUMMARY TABLE: FISSION RATE, FRACTIONAL FIS SIONS PER SECOND

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U	1.000E+00	4.189E-01	4.189E-01	4.189E-01	4.185E-01	4.182E-01
PU	0.000E+00	5.798E-01	5.799E-01	5.799E-01	5.803E-01	5.806E-01
SUMTOT	1.000E+00	9.988E-01	9.988E-01	9.988E-01	9.988E-01	9.988E-01
TOTAL	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00

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OUTPUT UNIT =

6 PAGE 56 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

23 SUMMARY TABLE: ALPHA RADIOACTIVITY CURIES

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP
, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	2.399E+00	1.405E+00	1.405E+00	1.405E+00	1.405E+00	1.405E+00
U235	9.161E-02	2.518E-02	2.518E-02	2.518E-02	2.518E-02	2.518E-02
U238	3.220E-01	3.135E-01	3.135E-01	3.135E-01	3.135E-01	3.135E-01
PU238	0.000E+00	3.365E+03	3.365E+03	3.366E+03	3.371E+03	3.375E+03
PU239	0.000E+00	3.810E+02	3.811E+02	3.812E+02	3.818E+02	3.825E+02
PU240	0.000E+00	5.272E+02	5.272E+02	5.272E+02	5.272E+02	5.272E+02
AM241	0.000E+00	1.462E+02	1.462E+02	1.462E+02	1.465E+02	1.468E+02
CM242	0.000E+00	4.238E+04	4.239E+04	4.239E+04	4.240E+04	4.237E+04
CM244	0.000E+00	2.372E+03	2.372E+03	2.372E+03	2.372E+03	2.372E+03
SUMTOT	2.813E+00	4.918E+04	4.918E+04	4.918E+04	4.920E+04	4.917E+04
TOTAL	2.813E+00	4.922E+04	4.923E+04	4.923E+04	4.924E+04	4.922E+04

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OUTPUT UNIT =

6 PAGE 57
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

23 SUMMARY TABLE: ALPHA RADIOACTIVITY CURIES

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP
, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U	2.813E+00	2.089E+00	2.089E+00	2.089E+00	2.089E+00	2.089E+00
PU	0.000E+00	4.279E+03	4.280E+03	4.280E+03	4.285E+03	4.291E+03
AM	0.000E+00	1.647E+02	1.647E+02	1.647E+02	1.650E+02	1.653E+02
CM	0.000E+00	4.478E+04	4.478E+04	4.478E+04	4.479E+04	4.476E+04
SUMTOT	2.813E+00	4.922E+04	4.923E+04	4.923E+04	4.924E+04	4.922E+04

ML041000030.txt

TOTAL 2.813E+00 4.922E+04 4.923E+04 4.923E+04 4.924E+04 4.922E+04

CUMULATIVE TABLE TOTALS

AP+FP 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00 0.000E+00
ACT+FP 2.813E+00 4.922E+04 4.923E+04 4.923E+04 4.924E+04 4.922E+04
AP+ACT+FP 2.813E+00 4.922E+04 4.923E+04 4.923E+04 4.924E+04 4.922E+04

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OUTPUT UNIT =

6 PAGE 58
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

Table with columns: FUEL CHG, FUEL DIS, 1.0HR, 2.0HR, 12.0HR, 24.0HR. Rows include elements like H, LI, BE, C, ZN, GA, GE, AS, SE, and their concentrations at different time points.

ML041000030.txt

SE 78	0.000E+00	2.820E+00	2.820E+00	2.820E+00	2.820E+00	2.820E+00
AS 79	0.000E+00	5.763E-05	6.100E-07	6.005E-09	5.126E-29	0.000E+00
SE 79	0.000E+00	6.908E+00	6.908E+00	6.908E+00	6.908E+00	6.908E+00
SE 79M	0.000E+00	2.499E-05	4.638E-07	4.581E-09	3.902E-29	0.000E+00
BR 79	0.000E+00	1.189E-04	1.189E-04	1.189E-04	1.190E-04	1.191E-04
GE 80	0.000E+00	4.348E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 80	0.000E+00	1.580E+01	1.580E+01	1.580E+01	1.580E+01	1.580E+01
KR 80	0.000E+00	2.415E-04	2.415E-04	2.415E-04	2.415E-04	2.415E-04
AS 81	0.000E+00	1.186E-05	2.058E-39	0.000E+00	0.000E+00	0.000E+00
SE 81	0.000E+00	4.423E-04	5.502E-05	9.087E-06	2.952E-09	4.871E-13
SE 81M	0.000E+00	3.753E-05	1.816E-05	8.790E-06	6.192E-09	1.022E-12
BR 81	0.000E+00	2.560E+01	2.560E+01	2.560E+01	2.560E+01	2.560E+01
KR 81	0.000E+00	2.347E-05	2.347E-05	2.347E-05	2.347E-05	2.347E-05
AS 82	0.000E+00	6.863E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 82	0.000E+00	4.020E+01	4.020E+01	4.020E+01	4.020E+01	4.020E+01
BR 82	0.000E+00	5.981E-03	5.871E-03	5.757E-03	4.731E-03	3.738E-03
BR 82M	0.000E+00	6.671E-06	7.546E-09	8.551E-12	0.000E+00	0.000E+00
KR 82	0.000E+00	1.221E+00	1.221E+00	1.221E+00	1.222E+00	1.223E+00
AS 83	0.000E+00	7.929E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 83	0.000E+00	4.855E-04	7.693E-05	1.212E-05	1.137E-13	2.648E-23
SE 83M	0.000E+00	3.760E-05	1.455E-20	4.802E-36	0.000E+00	0.000E+00
BR 83	0.000E+00	7.886E-03	6.276E-03	4.750E-03	2.621E-04	8.072E-06
KR 83	0.000E+00	5.051E+01	5.051E+01	5.051E+01	5.052E+01	5.052E+01
KR 83M	0.000E+00	6.052E-03	5.850E-03	5.318E-03	6.241E-04	2.391E-05
SE 84	0.000E+00	3.044E-04	1.034E-09	3.477E-15	0.000E+00	0.000E+00
BR 84	0.000E+00	3.042E-03	9.154E-04	2.475E-04	5.174E-10	7.908E-17
BR 84M	0.000E+00	2.130E-05	2.080E-08	2.031E-11	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 84	0.000E+00	1.350E+02	1.350E+02	1.350E+02	1.350E+02	1.350E+02
SE 85	0.000E+00	3.509E-05	5.807E-33	0.000E+00	0.000E+00	0.000E+00
SE 85M	0.000E+00	1.267E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 85	0.000E+00	3.333E-04	1.970E-10	9.857E-17	0.000E+00	0.000E+00

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KR 85	0.000E+00	2.856E+01	2.856E+01	2.856E+01	2.856E+01	2.856E+01
KR 85M	0.000E+00	3.169E-02	2.747E-02	2.354E-02	5.011E-03	7.828E-04
RB 85	0.000E+00	1.184E+02	1.184E+02	1.184E+02	1.184E+02	1.184E+02
SE 86	0.000E+00	2.948E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 86	0.000E+00	7.695E-05	1.942E-24	0.000E+00	0.000E+00	0.000E+00
BR 86M	0.000E+00	6.326E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 86	0.000E+00	2.306E+02	2.306E+02	2.306E+02	2.306E+02	2.306E+02
RB 86	0.000E+00	3.062E-02	3.057E-02	3.052E-02	3.005E-02	2.950E-02
SR 86	0.000E+00	5.154E-01	5.155E-01	5.155E-01	5.160E-01	5.165E-01
SE 87	0.000E+00	8.116E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 87	0.000E+00	1.799E-04	7.162E-24	2.438E-43	0.000E+00	0.000E+00
KR 87	0.000E+00	1.754E-02	1.028E-02	5.960E-03	2.558E-05	3.688E-08
RB 87	0.000E+00	2.963E+02	2.963E+02	2.963E+02	2.963E+02	2.963E+02
SR 87	0.000E+00	3.786E-03	3.786E-03	3.787E-03	3.787E-03	3.787E-03
BR 88	0.000E+00	5.635E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 88	0.000E+00	5.569E-02	4.367E-02	3.421E-02	2.977E-03	1.590E-04
RB 88	0.000E+00	5.921E-03	5.040E-03	3.987E-03	3.474E-04	1.855E-05
SR 88	0.000E+00	4.256E+02	4.256E+02	4.256E+02	4.256E+02	4.256E+02
BR 89	0.000E+00	1.090E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 89	0.000E+00	1.271E-03	2.576E-09	5.166E-15	0.000E+00	0.000E+00
RB 89	0.000E+00	6.540E-03	5.289E-04	3.429E-05	4.491E-17	2.472E-31
SR 89	0.000E+00	3.320E+01	3.319E+01	3.317E+01	3.298E+01	3.275E+01
Y 89	0.000E+00	5.229E+02	5.229E+02	5.230E+02	5.231E+02	5.234E+02
KR 90	0.000E+00	2.157E-04	6.427E-38	0.000E+00	0.000E+00	0.000E+00
RB 90	0.000E+00	1.074E-03	1.995E-09	1.148E-13	0.000E+00	0.000E+00
RB 90M	0.000E+00	4.305E-04	2.905E-08	1.831E-12	0.000E+00	0.000E+00
SR 90	0.000E+00	6.478E+02	6.478E+02	6.478E+02	6.478E+02	6.477E+02
Y 90	0.000E+00	1.698E-01	1.697E-01	1.697E-01	1.689E-01	1.681E-01
ZR 90	0.000E+00	2.746E+01	2.746E+01	2.747E+01	2.748E+01	2.751E+01
KR 91	0.000E+00	4.359E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 91	0.000E+00	5.172E-04	1.363E-22	3.264E-41	0.000E+00	0.000E+00
SR 91	0.000E+00	3.271E-01	3.046E-01	2.831E-01	1.365E-01	5.687E-02
Y 91	0.000E+00	5.110E+01	5.110E+01	5.109E+01	5.099E+01	5.078E+01
Y 91M	0.000E+00	1.656E-02	1.619E-02	1.539E-02	7.569E-03	3.152E-03
ZR 91	0.000E+00	6.635E+02	6.635E+02	6.635E+02	6.638E+02	6.641E+02
KR 92	0.000E+00	4.586E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 92	0.000E+00	3.525E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 92	0.000E+00	1.029E-01	7.969E-02	6.171E-02	4.781E-03	2.221E-04
Y 92	0.000E+00	1.350E-01	1.320E-01	1.248E-01	3.435E-02	4.272E-03
ZR 92	0.000E+00	7.699E+02	7.700E+02	7.700E+02	7.701E+02	7.702E+02
RB 93	0.000E+00	3.507E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 93	0.000E+00	5.470E-03	2.151E-05	8.404E-08	0.000E+00	0.000E+00
Y 93	0.000E+00	4.536E-01	4.287E-01	4.003E-01	2.015E-01	8.844E-02
ZR 93	0.000E+00	8.585E+02	8.586E+02	8.586E+02	8.588E+02	8.589E+02
NB 93	0.000E+00	7.466E-05	7.467E-05	7.467E-05	7.473E-05	7.480E-05
NB 93M	0.000E+00	5.766E-04	5.766E-04	5.766E-04	5.770E-04	5.775E-04
RB 94	0.000E+00	8.641E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
SR 94	0.000E+00	8.787E-04	4.102E-18	1.898E-32	0.000E+00	0.000E+00
Y 94	0.000E+00	1.463E-02	1.766E-03	2.001E-04	6.996E-14	3.142E-25
ZR 94	0.000E+00	8.840E+02	8.841E+02	8.841E+02	8.841E+02	8.841E+02
NB 94	0.000E+00	7.802E-04	7.802E-04	7.802E-04	7.802E-04	7.802E-04
SR 95	0.000E+00	2.833E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 95	0.000E+00	8.780E-03	1.729E-04	3.293E-06	2.069E-23	0.000E+00
ZR 95	0.000E+00	8.095E+01	8.092E+01	8.089E+01	8.052E+01	8.009E+01
NB 95	0.000E+00	4.488E+01	4.488E+01	4.488E+01	4.488E+01	4.487E+01
NB 95M	0.000E+00	3.257E-02	3.256E-02	3.256E-02	3.250E-02	3.243E-02
MO 95	0.000E+00	7.666E+02	7.666E+02	7.667E+02	7.670E+02	7.675E+02
SR 96	0.000E+00	3.049E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 96	0.000E+00	1.845E-03	2.632E-11	3.693E-19	0.000E+00	0.000E+00
ZR 96	0.000E+00	9.438E+02	9.438E+02	9.438E+02	9.438E+02	9.438E+02
NB 96	0.000E+00	2.584E-03	2.509E-03	2.435E-03	1.810E-03	1.268E-03
MO 96	0.000E+00	4.455E+01	4.455E+01	4.455E+01	4.455E+01	4.455E+01
Y 97	0.000E+00	1.292E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	8.990E-01	8.629E-01	8.282E-01	5.496E-01	3.360E-01
NB 97	0.000E+00	6.452E-02	6.351E-02	6.184E-02	4.199E-02	2.405E-02
NB 97M	0.000E+00	8.409E-04	8.061E-04	7.737E-04	5.134E-04	3.138E-04
MO 97	0.000E+00	9.269E+02	9.269E+02	9.270E+02	9.273E+02	9.275E+02
ZR 98	0.000E+00	4.673E-04	5.189E-39	0.000E+00	0.000E+00	0.000E+00
NB 98	0.000E+00	4.296E-05	5.153E-40	0.000E+00	0.000E+00	0.000E+00
NB 98M	0.000E+00	4.801E-04	2.141E-04	9.549E-05	2.970E-08	1.837E-12
MO 98	0.000E+00	9.510E+02	9.510E+02	9.510E+02	9.510E+02	9.510E+02
TC 98	0.000E+00	6.183E-03	6.183E-03	6.183E-03	6.183E-03	6.183E-03
ZR 99	0.000E+00	3.616E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	2.245E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99M	0.000E+00	1.008E-04	1.139E-11	1.287E-18	0.000E+00	0.000E+00
MO 99	0.000E+00	4.054E+00	4.012E+00	3.970E+00	3.574E+00	3.151E+00
TC 99	0.000E+00	8.956E+02	8.957E+02	8.957E+02	8.961E+02	8.966E+02
TC 99M	0.000E+00	3.237E-01	3.235E-01	3.230E-01	3.059E-01	2.748E-01
RU 99	0.000E+00	4.481E-03	4.481E-03	4.481E-03	4.485E-03	4.489E-03

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ZR100	0.000E+00	9.950E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100	0.000E+00	2.122E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100M	0.000E+00	2.131E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO100	0.000E+00	1.082E+03	1.082E+03	1.082E+03	1.082E+03	1.082E+03	1.082E+03
TC100	0.000E+00	7.303E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU100	0.000E+00	1.256E+02	1.256E+02	1.256E+02	1.256E+02	1.256E+02	1.256E+02
ZR101	0.000E+00	2.981E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB101	0.000E+00	1.031E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	0.000E+00	1.384E-02	8.127E-04	4.726E-05	2.091E-17	3.128E-32	
TC101	0.000E+00	1.345E-02	2.936E-03	2.859E-04	4.567E-16	9.213E-31	
RU101	0.000E+00	8.893E+02	8.893E+02	8.893E+02	8.893E+02	8.893E+02	
ZR102	0.000E+00	1.468E-04	2.001E-42	0.000E+00	0.000E+00	0.000E+00	
NB102	0.000E+00	3.772E-05	2.859E-43	0.000E+00	0.000E+00	0.000E+00	
MO102	0.000E+00	1.009E-02	2.425E-04	5.722E-06	3.059E-22	9.148E-42	
TC102	0.000E+00	8.006E-05	1.938E-06	4.573E-08	2.445E-24	1.429E-43	
TC102M	0.000E+00	4.719E-06	3.324E-10	2.341E-14	0.000E+00	0.000E+00	
RU102	0.000E+00	8.877E+02	8.877E+02	8.877E+02	8.877E+02	8.877E+02	
RH102	0.000E+00	9.392E-04	9.392E-04	9.392E-04	9.389E-04	9.386E-04	
NB103	0.000E+00	1.375E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
MO103	0.000E+00	8.831E-04	9.314E-22	8.078E-40	0.000E+00	0.000E+00
TC103	0.000E+00	7.477E-04	4.656E-21	4.039E-39	0.000E+00	0.000E+00
RU103	0.000E+00	5.103E+01	5.099E+01	5.095E+01	5.058E+01	5.014E+01
RH103	0.000E+00	4.525E+02	4.525E+02	4.526E+02	4.530E+02	4.534E+02
RH103M	0.000E+00	4.559E-02	4.558E-02	4.556E-02	4.526E-02	4.484E-02
NB104	0.000E+00	4.203E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO104	0.000E+00	1.134E-03	5.867E-15	3.018E-26	0.000E+00	0.000E+00
TC104	0.000E+00	1.381E-02	1.533E-03	1.560E-04	1.858E-14	2.292E-26
RU104	0.000E+00	5.955E+02	5.955E+02	5.955E+02	5.955E+02	5.955E+02
RH104	0.000E+00	4.116E-04	2.213E-09	1.525E-13	0.000E+00	0.000E+00
RH104M	0.000E+00	1.658E-04	1.143E-08	7.873E-13	0.000E+00	0.000E+00
PD104	0.000E+00	2.654E+02	2.654E+02	2.654E+02	2.654E+02	2.654E+02

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MO105	0.000E+00	4.550E-04	3.907E-24	0.000E+00	0.000E+00	0.000E+00
TC105	0.000E+00	5.004E-03	3.049E-05	1.684E-07	0.000E+00	0.000E+00
RU105	0.000E+00	1.697E-01	1.500E-01	1.284E-01	2.693E-02	4.135E-03
RH105	0.000E+00	1.245E+00	1.246E+00	1.244E+00	1.112E+00	8.986E-01
RH105M	0.000E+00	1.338E-04	1.186E-04	1.015E-04	2.130E-05	3.269E-06
PD105	0.000E+00	4.090E+02	4.090E+02	4.090E+02	4.093E+02	4.095E+02
MO106	0.000E+00	4.070E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC106	0.000E+00	2.718E-04	1.673E-33	0.000E+00	0.000E+00	0.000E+00
RU106	0.000E+00	1.660E+02	1.660E+02	1.660E+02	1.659E+02	1.657E+02
RH106	0.000E+00	1.736E-04	1.560E-04	1.560E-04	1.559E-04	1.558E-04
RH106M	0.000E+00	2.120E-03	1.547E-03	1.129E-03	4.834E-05	1.102E-06
PD106	0.000E+00	2.094E+02	2.095E+02	2.095E+02	2.096E+02	2.098E+02
MO107	0.000E+00	1.055E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC107	0.000E+00	1.176E-04	5.548E-42	0.000E+00	0.000E+00	0.000E+00
RU107	0.000E+00	1.574E-03	8.609E-08	4.311E-12	0.000E+00	0.000E+00
RH107	0.000E+00	8.176E-03	1.516E-03	2.231E-04	1.059E-12	1.089E-22
PD107	0.000E+00	2.263E+02	2.263E+02	2.263E+02	2.263E+02	2.263E+02
AG107	0.000E+00	2.698E-05	2.698E-05	2.698E-05	2.701E-05	2.704E-05
TC108	0.000E+00	1.240E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU108	0.000E+00	1.173E-03	1.149E-07	1.113E-11	0.000E+00	0.000E+00
RH108	0.000E+00	7.367E-05	7.625E-09	7.388E-13	0.000E+00	0.000E+00
RH108M	0.000E+00	1.476E-05	1.281E-08	1.113E-11	0.000E+00	0.000E+00
PD108	0.000E+00	1.543E+02	1.543E+02	1.543E+02	1.543E+02	1.543E+02
CD108	0.000E+00	3.357E-04	3.357E-04	3.357E-04	3.357E-04	3.357E-04
TC109	0.000E+00	5.711E-05	3.227E-26	0.000E+00	0.000E+00	0.000E+00
RU109	0.000E+00	9.471E-05	7.058E-26	0.000E+00	0.000E+00	0.000E+00
RH109	0.000E+00	2.536E-04	9.235E-16	8.399E-28	0.000E+00	0.000E+00
RH109M	0.000E+00	7.045E-05	1.609E-24	0.000E+00	0.000E+00	0.000E+00
PD109	0.000E+00	1.667E-01	1.593E-01	1.513E-01	9.043E-02	4.875E-02
PD109M	0.000E+00	3.992E-04	1.130E-07	1.592E-11	0.000E+00	0.000E+00
AG109	0.000E+00	7.664E+01	7.665E+01	7.666E+01	7.672E+01	7.676E+01
AG109M	0.000E+00	1.362E-04	1.302E-04	1.237E-04	7.392E-05	3.985E-05
RU110	0.000E+00	1.908E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH110	0.000E+00	3.725E-05	3.391E-42	0.000E+00	0.000E+00	0.000E+00
PD110	0.000E+00	5.107E+01	5.107E+01	5.107E+01	5.107E+01	5.107E+01
AG110	0.000E+00	4.083E-05	1.372E-08	1.372E-08	1.370E-08	1.368E-08
AG110M	0.000E+00	9.053E-01	9.052E-01	9.051E-01	9.041E-01	9.028E-01
CD110	0.000E+00	3.667E+01	3.667E+01	3.667E+01	3.667E+01	3.667E+01
RU111	0.000E+00	8.150E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
/CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
RH111	0.000E+00	4.529E-05	3.535E-22	2.222E-39	0.000E+00	0.000E+00
PD111	0.000E+00	9.750E-04	1.635E-04	3.159E-05	2.360E-06	5.202E-07
PD111M	0.000E+00	2.203E-04	1.944E-04	1.713E-04	4.859E-05	1.071E-05
AG111	0.000E+00	4.809E-01	4.799E-01	4.782E-01	4.602E-01	4.393E-01
AG111M	0.000E+00	4.805E-05	8.593E-06	1.786E-06	1.665E-07	3.670E-08
CD111	0.000E+00	2.849E+01	2.849E+01	2.849E+01	2.851E+01	2.853E+01
PD112	0.000E+00	2.828E-02	2.732E-02	2.640E-02	1.870E-02	1.236E-02
AG112	0.000E+00	4.420E-03	4.401E-03	4.358E-03	3.394E-03	2.277E-03
CD112	0.000E+00	1.745E+01	1.745E+01	1.745E+01	1.746E+01	1.747E+01
PD113	0.000E+00	2.803E-05	2.603E-17	2.368E-29	0.000E+00	0.000E+00
AG113	0.000E+00	5.356E-03	4.722E-03	4.143E-03	1.120E-03	2.332E-04
CD113	0.000E+00	1.830E-01	1.837E-01	1.842E-01	1.872E-01	1.881E-01
CD113M	0.000E+00	2.810E-01	2.810E-01	2.810E-01	2.811E-01	2.811E-01
IN113	0.000E+00	1.482E-02	1.482E-02	1.483E-02	1.484E-02	1.486E-02
PD114	0.000E+00	3.120E-05	9.465E-13	2.821E-20	0.000E+00	0.000E+00
CD114	0.000E+00	2.390E+01	2.390E+01	2.390E+01	2.390E+01	2.390E+01
IN114M	0.000E+00	1.449E-04	1.448E-04	1.447E-04	1.439E-04	1.429E-04
SN114	0.000E+00	1.541E-03	1.541E-03	1.541E-03	1.542E-03	1.543E-03
PD115	0.000E+00	7.926E-06	2.656E-34	0.000E+00	0.000E+00	0.000E+00
AG115	0.000E+00	1.876E-04	2.427E-05	3.034E-06	2.825E-15	4.111E-26
CD115	0.000E+00	3.976E-02	3.941E-02	3.893E-02	3.420E-02	2.927E-02
CD115M	0.000E+00	7.592E-02	7.588E-02	7.583E-02	7.534E-02	7.476E-02
IN115	0.000E+00	2.356E+00	2.356E+00	2.357E+00	2.362E+00	2.368E+00
IN115M	0.000E+00	3.203E-03	3.201E-03	3.193E-03	2.948E-03	2.554E-03
SN115	0.000E+00	3.459E-01	3.459E-01	3.459E-01	3.461E-01	3.463E-01
AG116	0.000E+00	1.431E-05	2.836E-12	5.166E-19	0.000E+00	0.000E+00
CD116	0.000E+00	8.948E+00	8.948E+00	8.948E+00	8.948E+00	8.948E+00
IN116M	0.000E+00	2.940E-04	1.364E-04	6.327E-05	2.922E-08	2.904E-12
SN116	0.000E+00	7.978E+00	7.978E+00	7.978E+00	7.978E+00	7.978E+00
AG117	0.000E+00	6.453E-06	1.074E-20	1.684E-35	0.000E+00	0.000E+00
CD117	0.000E+00	1.095E-03	8.429E-04	6.457E-04	4.489E-05	1.832E-06
CD117M	0.000E+00	7.769E-04	6.351E-04	5.179E-04	6.744E-05	5.840E-06
IN117	0.000E+00	2.851E-04	2.755E-04	2.528E-04	3.687E-05	2.552E-06
IN117M	0.000E+00	9.546E-04	9.204E-04	8.400E-04	1.277E-04	7.948E-06
SN117	0.000E+00	9.023E+00	9.024E+00	9.024E+00	9.026E+00	9.026E+00
SN117M	0.000E+00	1.380E-03	1.377E-03	1.374E-03	1.346E-03	1.313E-03
CD118	0.000E+00	5.414E-04	2.373E-04	1.038E-04	2.663E-08	1.307E-12
SN118	0.000E+00	9.166E+00	9.166E+00	9.166E+00	9.166E+00	9.166E+00
CD119	0.000E+00	5.081E-05	6.157E-07	7.377E-09	4.500E-28	0.000E+00
CD119M	0.000E+00	1.730E-05	4.055E-11	9.197E-17	0.000E+00	0.000E+00

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IN119	0.000E+00	7.781E-06	1.987E-07	2.074E-08	1.940E-18	1.764E-30
IN119M	0.000E+00	1.460E-04	2.495E-05	2.587E-06	2.405E-16	2.187E-28
SN119	0.000E+00	9.056E+00	9.056E+00	9.056E+00	9.056E+00	9.056E+00
SN119M	0.000E+00	5.553E-02	5.552E-02	5.551E-02	5.545E-02	5.537E-02
CD120	0.000E+00	9.092E-06	4.361E-27	0.000E+00	0.000E+00	0.000E+00
IN120	0.000E+00	4.057E-06	1.512E-26	0.000E+00	0.000E+00	0.000E+00
SN120	0.000E+00	9.297E+00	9.297E+00	9.297E+00	9.297E+00	9.297E+00
IN121	0.000E+00	4.253E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121M	0.000E+00	7.514E-06	2.693E-11	9.057E-17	0.000E+00	0.000E+00
SN121	0.000E+00	1.836E-02	1.791E-02	1.745E-02	1.347E-02	9.877E-03
SN121M	0.000E+00	3.781E-03	3.781E-03	3.781E-03	3.781E-03	3.781E-03

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
 1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
SB121	0.000E+00	8.966E+00	8.966E+00	8.967E+00	8.971E+00	8.974E+00
SN122	0.000E+00	1.024E+01	1.024E+01	1.024E+01	1.024E+01	1.024E+01
SB122	0.000E+00	6.594E-03	6.524E-03	6.454E-03	5.799E-03	5.101E-03
TE122	0.000E+00	6.733E-01	6.734E-01	6.735E-01	6.741E-01	6.748E-01
SN123	0.000E+00	4.737E-01	4.736E-01	4.735E-01	4.725E-01	4.712E-01
SN123M	0.000E+00	4.370E-04	1.561E-04	5.532E-05	1.725E-09	6.754E-15
SB123	0.000E+00	1.068E+01	1.068E+01	1.068E+01	1.068E+01	1.068E+01
TE123	0.000E+00	8.236E-03	8.237E-03	8.237E-03	8.242E-03	8.248E-03
TE123M	0.000E+00	2.051E-03	2.050E-03	2.050E-03	2.045E-03	2.039E-03
SN124	0.000E+00	1.393E+01	1.393E+01	1.393E+01	1.393E+01	1.393E+01
SB124	0.000E+00	9.341E-02	9.336E-02	9.332E-02	9.287E-02	9.234E-02
TE124	0.000E+00	4.174E-01	4.175E-01	4.175E-01	4.180E-01	4.185E-01
SN125	0.000E+00	1.351E-01	1.347E-01	1.342E-01	1.303E-01	1.257E-01
SN125M	0.000E+00	1.498E-04	1.919E-06	2.432E-08	2.591E-27	0.000E+00
SB125	0.000E+00	1.487E+01	1.487E+01	1.487E+01	1.487E+01	1.487E+01
TE125	0.000E+00	5.467E+00	5.467E+00	5.467E+00	5.472E+00	5.477E+00
TE125M	0.000E+00	1.795E-01	1.795E-01	1.795E-01	1.796E-01	1.797E-01
SN126	0.000E+00	3.029E+01	3.029E+01	3.029E+01	3.029E+01	3.029E+01
SB126	0.000E+00	1.548E-02	1.545E-02	1.541E-02	1.505E-02	1.464E-02
SB126M	0.000E+00	6.805E-06	7.722E-07	9.623E-08	1.094E-08	1.094E-08

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TE126	0.000E+00	8.404E-01	8.404E-01	8.404E-01	8.408E-01	8.412E-01
SN127	0.000E+00	6.240E-03	4.487E-03	3.225E-03	1.189E-04	2.264E-06
SN127M	0.000E+00	9.813E-05	4.189E-09	1.788E-13	0.000E+00	0.000E+00
SB127	0.000E+00	4.339E-01	4.325E-01	4.305E-01	4.024E-01	3.678E-01
TE127	0.000E+00	4.342E-02	4.341E-02	4.340E-02	4.254E-02	4.039E-02
TE127M	0.000E+00	1.598E+00	1.598E+00	1.598E+00	1.598E+00	1.597E+00
I127	0.000E+00	5.860E+01	5.861E+01	5.861E+01	5.864E+01	5.868E+01
SN128	0.000E+00	6.946E-03	3.433E-03	1.696E-03	1.473E-06	3.123E-10
SB128	0.000E+00	5.842E-03	5.410E-03	5.009E-03	2.321E-03	9.222E-04
SB128M	0.000E+00	1.333E-03	7.318E-04	3.630E-04	3.152E-07	6.684E-11
TE128	0.000E+00	1.241E+02	1.241E+02	1.241E+02	1.241E+02	1.241E+02
I128	0.000E+00	2.439E-04	4.616E-05	8.737E-06	5.150E-13	1.087E-21
XE128	0.000E+00	3.722E+00	3.722E+00	3.722E+00	3.722E+00	3.722E+00
SN129	0.000E+00	5.961E-04	2.329E-06	9.096E-09	0.000E+00	0.000E+00
SN129M	0.000E+00	2.252E-04	1.343E-11	8.004E-19	0.000E+00	0.000E+00
SB129	0.000E+00	6.062E-02	5.235E-02	4.459E-02	8.960E-03	1.306E-03
TE129	0.000E+00	1.604E-02	1.543E-02	1.423E-02	4.413E-03	1.963E-03
TE129M	0.000E+00	1.674E+00	1.674E+00	1.674E+00	1.664E+00	1.648E+00
I129	0.000E+00	2.008E+02	2.008E+02	2.008E+02	2.009E+02	2.009E+02
XE129	0.000E+00	2.067E-02	2.067E-02	2.067E-02	2.067E-02	2.068E-02
XE129M	0.000E+00	5.725E-05	5.705E-05	5.684E-05	5.483E-05	5.250E-05
SN130	0.000E+00	9.486E-04	1.323E-08	1.846E-13	0.000E+00	0.000E+00
SB130	0.000E+00	3.078E-03	1.088E-03	3.847E-04	1.174E-08	4.479E-14
SB130M	0.000E+00	2.135E-03	6.015E-06	8.201E-09	0.000E+00	0.000E+00
TE130	0.000E+00	4.040E+02	4.040E+02	4.040E+02	4.040E+02	4.040E+02
I130	0.000E+00	2.063E-02	1.958E-02	1.852E-02	1.057E-02	5.393E-03
I130M	0.000E+00	9.875E-05	9.721E-07	9.568E-09	8.169E-29	0.000E+00
XE130	0.000E+00	1.261E+01	1.261E+01	1.261E+01	1.262E+01	1.262E+01
SN131	0.000E+00	2.346E-04	1.474E-21	9.267E-39	0.000E+00	0.000E+00
SB131	0.000E+00	1.384E-02	2.309E-03	3.786E-04	5.311E-12	2.003E-21
TE131	0.000E+00	1.604E-02	7.697E-03	2.605E-03	4.538E-04	3.439E-04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
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TE131M	0.000E+00	1.905E-01	1.870E-01	1.828E-01	1.451E-01	1.100E-01
I131	0.000E+00	8.399E+00	8.392E+00	8.374E+00	8.118E+00	7.810E+00
XE131	0.000E+00	4.725E+02	4.725E+02	4.726E+02	4.729E+02	4.732E+02
XE131M	0.000E+00	1.383E-01	1.383E-01	1.383E-01	1.383E-01	1.380E-01
SN132	0.000E+00	7.997E-05	6.460E-32	0.000E+00	0.000E+00	0.000E+00
SB132	0.000E+00	9.988E-04	3.910E-10	1.385E-16	0.000E+00	0.000E+00
SB132M	0.000E+00	9.908E-04	4.962E-08	2.484E-12	0.000E+00	0.000E+00
TE132	0.000E+00	4.850E+00	4.809E+00	4.767E+00	4.362E+00	3.922E+00
I132	0.000E+00	1.450E-01	1.443E-01	1.434E-01	1.321E-01	1.189E-01
XE132	0.000E+00	1.256E+03	1.256E+03	1.256E+03	1.257E+03	1.257E+03
CS132	0.000E+00	1.826E-03	1.818E-03	1.810E-03	1.731E-03	1.641E-03
BA132	0.000E+00	1.791E-03	1.791E-03	1.791E-03	1.793E-03	1.795E-03
SB133	0.000E+00	9.951E-04	2.968E-11	8.847E-19	0.000E+00	0.000E+00
TE133	0.000E+00	1.083E-02	9.148E-04	2.630E-04	1.369E-07	1.676E-11
TE133M	0.000E+00	2.967E-02	1.402E-02	6.617E-03	3.634E-06	4.447E-10
I133	0.000E+00	1.853E+00	1.818E+00	1.766E+00	1.271E+00	8.520E-01
I133M	0.000E+00	6.966E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE133	0.000E+00	1.122E+01	1.122E+01	1.122E+01	1.111E+01	1.082E+01
XE133M	0.000E+00	1.471E-01	1.469E-01	1.467E-01	1.421E-01	1.324E-01
CS133	0.000E+00	1.287E+03	1.287E+03	1.287E+03	1.287E+03	1.288E+03
SB134	0.000E+00	1.276E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134M	0.000E+00	1.151E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE134	0.000E+00	5.074E-02	1.877E-02	6.940E-03	3.314E-07	2.164E-12
I134	0.000E+00	8.610E-02	6.006E-02	3.490E-02	2.369E-05	1.906E-09
I134M	0.000E+00	6.073E-04	7.979E-09	1.048E-13	0.000E+00	0.000E+00
XE134	0.000E+00	1.718E+03	1.718E+03	1.718E+03	1.718E+03	1.718E+03
CS134	0.000E+00	1.528E+02	1.528E+02	1.528E+02	1.527E+02	1.526E+02
CS134M	0.000E+00	7.328E-03	5.770E-03	4.543E-03	4.162E-04	2.364E-05
BA134	0.000E+00	5.175E+01	5.176E+01	5.177E+01	5.182E+01	5.189E+01
TE135	0.000E+00	2.056E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	0.000E+00	5.587E-01	5.033E-01	4.532E-01	1.588E-01	4.514E-02
XE135	0.000E+00	2.088E-01	2.483E-01	2.787E-01	3.235E-01	1.975E-01
XE135M	0.000E+00	4.577E-03	3.182E-03	2.803E-03	9.807E-04	2.787E-04
CS135	0.000E+00	4.488E+02	4.488E+02	4.488E+02	4.491E+02	4.493E+02
CS135M	0.000E+00	1.294E-03	5.905E-04	2.694E-04	1.053E-07	8.571E-12
BA135	0.000E+00	3.956E-01	3.956E-01	3.956E-01	3.957E-01	3.957E-01
BA135M	0.000E+00	1.540E-04	1.504E-04	1.468E-04	1.153E-04	8.627E-05
TE136	0.000E+00	1.189E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I136	0.000E+00	9.255E-04	9.512E-17	8.348E-30	0.000E+00	0.000E+00
I136M	0.000E+00	3.039E-04	8.393E-28	0.000E+00	0.000E+00	0.000E+00
XE136	0.000E+00	2.609E+03	2.609E+03	2.609E+03	2.609E+03	2.609E+03
CS136	0.000E+00	9.095E-01	9.075E-01	9.055E-01	8.858E-01	8.627E-01
BA136	0.000E+00	2.380E+01	2.380E+01	2.381E+01	2.383E+01	2.385E+01
TE137	0.000E+00	5.575E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I137	0.000E+00	2.685E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE137	0.000E+00	5.101E-03	1.037E-07	1.994E-12	0.000E+00	0.000E+00
CS137	0.000E+00	1.386E+03	1.386E+03	1.386E+03	1.386E+03	1.386E+03
BA137	0.000E+00	4.961E+01	4.962E+01	4.962E+01	4.966E+01	4.970E+01

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BA137M	0.000E+00	2.125E-04	2.121E-04	2.121E-04	2.121E-04	2.121E-04
I138	0.000E+00	3.476E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	0.000E+00	1.780E-02	9.479E-04	5.036E-05	9.028E-18	4.569E-33

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
 1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
CS138	0.000E+00	4.499E-02	1.947E-02	5.727E-03	1.430E-08	2.657E-15
CS138M	0.000E+00	1.954E-04	1.155E-10	6.831E-17	0.000E+00	0.000E+00
BA138	0.000E+00	1.500E+03	1.500E+03	1.500E+03	1.500E+03	1.500E+03
LA138	0.000E+00	7.176E-03	7.176E-03	7.176E-03	7.176E-03	7.176E-03
I139	0.000E+00	5.818E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE139	0.000E+00	6.487E-04	2.400E-31	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	1.252E-02	1.585E-04	1.899E-06	1.158E-25	0.000E+00
BA139	0.000E+00	1.139E-01	7.770E-02	4.710E-02	3.083E-04	7.400E-07
LA139	0.000E+00	1.431E+03	1.431E+03	1.431E+03	1.431E+03	1.431E+03
XE140	0.000E+00	1.460E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS140	0.000E+00	1.284E-03	1.518E-20	1.567E-37	0.000E+00	0.000E+00
BA140	0.000E+00	2.461E+01	2.455E+01	2.450E+01	2.395E+01	2.331E+01
LA140	0.000E+00	3.332E+00	3.330E+00	3.328E+00	3.304E+00	3.265E+00
CE140	0.000E+00	1.410E+03	1.410E+03	1.410E+03	1.410E+03	1.411E+03
XE141	0.000E+00	6.479E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS141	0.000E+00	3.755E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA141	0.000E+00	2.316E-02	2.416E-03	2.479E-04	3.210E-14	4.376E-26
LA141	0.000E+00	3.004E-01	2.706E-01	2.288E-01	3.927E-02	4.732E-03
CE141	0.000E+00	6.071E+01	6.070E+01	6.069E+01	6.035E+01	5.974E+01
PR141	0.000E+00	1.252E+03	1.253E+03	1.253E+03	1.253E+03	1.254E+03
CS142	0.000E+00	1.549E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA142	0.000E+00	1.292E-02	2.653E-04	5.442E-06	7.171E-23	3.980E-43
LA142	0.000E+00	1.147E-01	8.225E-02	5.270E-02	5.935E-04	2.724E-06
CE142	0.000E+00	1.326E+03	1.326E+03	1.326E+03	1.326E+03	1.326E+03
PR142	0.000E+00	7.777E-02	7.518E-02	7.252E-02	5.048E-02	3.268E-02
PR142M	0.000E+00	1.938E-04	1.123E-05	6.504E-07	2.767E-19	3.951E-34
ND142	0.000E+00	2.883E+01	2.883E+01	2.883E+01	2.886E+01	2.887E+01
CS143	0.000E+00	7.610E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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BA143	0.000E+00	2.405E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA143	0.000E+00	1.658E-02	8.629E-04	4.424E-05	5.553E-18	1.832E-33
CE143	0.000E+00	2.360E+00	2.327E+00	2.279E+00	1.847E+00	1.436E+00
PR143	0.000E+00	2.313E+01	2.313E+01	2.313E+01	2.307E+01	2.289E+01
ND143	0.000E+00	9.403E+02	9.404E+02	9.404E+02	9.409E+02	9.415E+02
BA144	0.000E+00	1.471E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA144	0.000E+00	6.998E-04	7.308E-31	0.000E+00	0.000E+00	0.000E+00
CE144	0.000E+00	4.014E+02	4.014E+02	4.013E+02	4.009E+02	4.004E+02
PR144	0.000E+00	1.709E-02	1.696E-02	1.695E-02	1.693E-02	1.691E-02
PR144M	0.000E+00	8.481E-05	8.472E-05	8.471E-05	8.462E-05	8.452E-05
ND144	0.000E+00	1.126E+03	1.126E+03	1.126E+03	1.127E+03	1.127E+03
BA145	0.000E+00	4.286E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA145	0.000E+00	3.700E-04	1.808E-41	0.000E+00	0.000E+00	0.000E+00
CE145	0.000E+00	2.473E-03	2.830E-09	2.699E-15	0.000E+00	0.000E+00
PR145	0.000E+00	2.959E-01	2.661E-01	2.370E-01	7.438E-02	1.851E-02
ND145	0.000E+00	7.902E+02	7.902E+02	7.902E+02	7.904E+02	7.904E+02
BA146	0.000E+00	5.652E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA146	0.000E+00	6.957E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE146	0.000E+00	9.428E-03	5.081E-04	2.716E-05	5.181E-18	2.824E-33
PR146	0.000E+00	1.613E-02	5.788E-03	1.193E-03	4.328E-11	4.786E-20
ND146	0.000E+00	8.089E+02	8.090E+02	8.090E+02	8.090E+02	8.090E+02
PM146	0.000E+00	6.669E-03	6.669E-03	6.669E-03	6.668E-03	6.666E-03
SM146	0.000E+00	6.089E-03	6.089E-03	6.089E-03	6.089E-03	6.090E-03

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
LA147	0.000E+00	4.113E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE147	0.000E+00	6.032E-04	2.154E-19	7.107E-35	0.000E+00	0.000E+00
PR147	0.000E+00	6.379E-03	2.217E-04	6.929E-06	6.154E-21	5.338E-39
ND147	0.000E+00	8.475E+00	8.460E+00	8.438E+00	8.220E+00	7.967E+00
PM147	0.000E+00	1.488E+02	1.488E+02	1.489E+02	1.490E+02	1.492E+02
SM147	0.000E+00	7.455E+01	7.455E+01	7.455E+01	7.460E+01	7.465E+01
CE148	0.000E+00	2.729E-04	1.730E-29	0.000E+00	0.000E+00	0.000E+00
PR148	0.000E+00	9.769E-04	1.932E-11	2.711E-19	0.000E+00	0.000E+00

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ND148	0.000E+00	4.302E+02	4.302E+02	4.302E+02	4.302E+02	4.302E+02
PM148	0.000E+00	1.819E+00	1.809E+00	1.800E+00	1.706E+00	1.600E+00
PM148M	0.000E+00	1.601E+00	1.600E+00	1.599E+00	1.588E+00	1.575E+00
SM148	0.000E+00	2.060E+02	2.060E+02	2.060E+02	2.061E+02	2.062E+02
PR149	0.000E+00	6.884E-04	9.724E-12	1.364E-19	0.000E+00	0.000E+00
ND149	0.000E+00	3.294E-02	2.254E-02	1.510E-02	2.747E-04	2.243E-06
PM149	0.000E+00	1.616E+00	1.606E+00	1.593E+00	1.411E+00	1.207E+00
SM149	0.000E+00	3.024E+00	3.045E+00	3.066E+00	3.263E+00	3.467E+00
PR150	0.000E+00	4.162E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND150	0.000E+00	2.009E+02	2.009E+02	2.009E+02	2.009E+02	2.009E+02
PM150	0.000E+00	9.366E-04	7.232E-04	5.584E-04	4.204E-05	1.887E-06
SM150	0.000E+00	3.616E+02	3.616E+02	3.616E+02	3.616E+02	3.616E+02
PR151	0.000E+00	7.513E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND151	0.000E+00	2.082E-03	7.304E-05	2.552E-06	6.934E-21	2.300E-38
PM151	0.000E+00	2.863E-01	2.813E-01	2.746E-01	2.151E-01	1.605E-01
SM151	0.000E+00	1.883E+01	1.884E+01	1.885E+01	1.890E+01	1.896E+01
EU151	0.000E+00	1.435E-02	1.437E-02	1.439E-02	1.455E-02	1.475E-02
PR152	0.000E+00	6.953E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND152	0.000E+00	1.344E-03	3.636E-05	9.772E-07	1.923E-22	2.726E-41
PM152	0.000E+00	4.919E-04	2.013E-05	5.422E-07	1.066E-22	1.512E-41
PM152M	0.000E+00	1.687E-05	6.591E-08	2.576E-10	0.000E+00	0.000E+00
SM152	0.000E+00	1.419E+02	1.419E+02	1.419E+02	1.419E+02	1.419E+02
EU152	0.000E+00	5.345E-02	5.345E-02	5.345E-02	5.344E-02	5.344E-02
EU152M	0.000E+00	5.941E-05	5.515E-05	5.120E-05	2.434E-05	9.968E-06
GD152	0.000E+00	5.435E-02	5.435E-02	5.435E-02	5.437E-02	5.439E-02
ND153	0.000E+00	7.806E-05	7.244E-21	6.525E-37	0.000E+00	0.000E+00
PM153	0.000E+00	4.259E-04	2.384E-07	1.078E-10	0.000E+00	0.000E+00
SM153	0.000E+00	1.181E+00	1.165E+00	1.147E+00	9.891E-01	8.277E-01
EU153	0.000E+00	1.354E+02	1.354E+02	1.354E+02	1.355E+02	1.357E+02
GD153	0.000E+00	4.520E-03	4.519E-03	4.519E-03	4.513E-03	4.507E-03
ND154	0.000E+00	2.423E-05	1.965E-32	0.000E+00	0.000E+00	0.000E+00
PM154	0.000E+00	1.254E-04	5.711E-11	2.023E-17	0.000E+00	0.000E+00
PM154M	0.000E+00	1.382E-05	1.277E-15	1.180E-25	0.000E+00	0.000E+00
SM154	0.000E+00	4.064E+01	4.064E+01	4.064E+01	4.064E+01	4.064E+01
EU154	0.000E+00	4.043E+01	4.043E+01	4.043E+01	4.043E+01	4.042E+01
GD154	0.000E+00	2.781E+00	2.781E+00	2.781E+00	2.785E+00	2.790E+00
ND155	0.000E+00	6.145E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM155	0.000E+00	1.743E-05	8.876E-35	0.000E+00	0.000E+00	0.000E+00
SM155	0.000E+00	7.549E-04	1.197E-04	1.839E-05	1.345E-13	2.320E-23
EU155	0.000E+00	1.586E+01	1.586E+01	1.586E+01	1.585E+01	1.585E+01
GD155	0.000E+00	1.211E-01	1.214E-01	1.216E-01	1.242E-01	1.272E-01
ND156	0.000E+00	4.976E-06	1.476E-24	4.372E-43	0.000E+00	0.000E+00
SM156	0.000E+00	1.210E-02	1.125E-02	1.045E-02	4.998E-03	2.063E-03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
EU156	0.000E+00	3.673E+00	3.667E+00	3.661E+00	3.597E+00	3.519E+00
GD156	0.000E+00	6.298E+01	6.299E+01	6.300E+01	6.307E+01	6.315E+01
PM157	0.000E+00	8.849E-06	1.047E-21	1.224E-37	0.000E+00	0.000E+00
SM157	0.000E+00	1.139E-04	6.869E-07	3.795E-09	0.000E+00	0.000E+00
EU157	0.000E+00	2.043E-02	1.964E-02	1.876E-02	1.189E-02	6.879E-03
GD157	0.000E+00	1.192E-01	1.201E-01	1.210E-01	1.278E-01	1.328E-01
SM158	0.000E+00	3.428E-04	1.332E-04	5.176E-05	4.050E-09	4.783E-14
EU158	0.000E+00	3.835E-04	2.835E-04	1.645E-04	6.606E-08	1.947E-12
GD158	0.000E+00	1.927E+01	1.927E+01	1.927E+01	1.927E+01	1.927E+01
SM159	0.000E+00	9.980E-06	2.088E-12	4.349E-19	0.000E+00	0.000E+00
EU159	0.000E+00	8.111E-05	9.334E-06	9.380E-07	9.847E-17	1.044E-28
GD159	0.000E+00	6.480E-03	6.324E-03	6.101E-03	4.204E-03	2.688E-03
TB159	0.000E+00	2.671E+00	2.671E+00	2.671E+00	2.673E+00	2.675E+00
SM160	0.000E+00	7.860E-06	6.183E-09	4.863E-12	0.000E+00	0.000E+00
GD160	0.000E+00	1.299E+00	1.299E+00	1.299E+00	1.299E+00	1.299E+00
TB160	0.000E+00	9.823E-02	9.819E-02	9.815E-02	9.776E-02	9.730E-02
DY160	0.000E+00	2.162E-01	2.162E-01	2.163E-01	2.166E-01	2.171E-01
TB161	0.000E+00	1.240E-02	1.236E-02	1.230E-02	1.180E-02	1.123E-02
DY161	0.000E+00	4.374E-01	4.374E-01	4.375E-01	4.380E-01	4.386E-01
GD162	0.000E+00	4.855E-06	1.099E-07	1.720E-09	1.492E-27	0.000E+00
DY162	0.000E+00	3.580E-01	3.580E-01	3.580E-01	3.580E-01	3.580E-01
TB163	0.000E+00	4.107E-06	5.275E-07	6.251E-08	3.416E-17	2.622E-28
DY163	0.000E+00	3.018E-01	3.018E-01	3.018E-01	3.018E-01	3.018E-01
DY164	0.000E+00	7.445E-02	7.446E-02	7.446E-02	7.446E-02	7.446E-02
DY165	0.000E+00	6.452E-05	4.835E-05	3.600E-05	1.885E-06	5.472E-08
HO165	0.000E+00	1.367E-01	1.367E-01	1.368E-01	1.368E-01	1.368E-01
DY166	0.000E+00	1.445E-04	1.433E-04	1.421E-04	1.305E-04	1.179E-04
HO166	0.000E+00	1.880E-04	1.844E-04	1.809E-04	1.499E-04	1.207E-04
HO166M	0.000E+00	1.314E-03	1.314E-03	1.314E-03	1.314E-03	1.314E-03
ER166	0.000E+00	4.031E-02	4.031E-02	4.032E-02	4.036E-02	4.040E-02
ER167	0.000E+00	3.842E-03	3.842E-03	3.842E-03	3.842E-03	3.842E-03
ER168	0.000E+00	6.019E-03	6.019E-03	6.019E-03	6.019E-03	6.019E-03
TM169	0.000E+00	3.914E-05	3.914E-05	3.915E-05	3.923E-05	3.932E-05
TM170	0.000E+00	6.249E-06	6.247E-06	6.246E-06	6.232E-06	6.215E-06
YB170	0.000E+00	6.454E-06	6.455E-06	6.456E-06	6.470E-06	6.487E-06
SUMTOT	0.000E+00	3.976E+04	3.976E+04	3.976E+04	3.976E+04	3.976E+04

TOTAL 0.000E+00 3.976E+04 3.976E+04 3.976E+04 3.976E+04 3.976E+04

OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
 1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	0.000E+00	6.429E-02	6.429E-02	6.429E-02	6.428E-02	6.428E-02
LI	0.000E+00	2.433E-04	2.433E-04	2.433E-04	2.433E-04	2.433E-04
BE	0.000E+00	1.747E-04	1.747E-04	1.747E-04	1.747E-04	1.747E-04
C	0.000E+00	3.071E-05	3.071E-05	3.071E-05	3.071E-05	3.071E-05
ZN	0.000E+00	7.071E-03	7.069E-03	7.068E-03	7.057E-03	7.047E-03
GA	0.000E+00	4.691E-05	4.267E-05	4.073E-05	3.030E-05	2.571E-05
GE	0.000E+00	7.701E-01	7.700E-01	7.699E-01	7.697E-01	7.696E-01
AS	0.000E+00	2.331E-01	2.330E-01	2.329E-01	2.324E-01	2.320E-01
SE	0.000E+00	6.694E+01	6.694E+01	6.694E+01	6.694E+01	6.694E+01
BR	0.000E+00	2.562E+01	2.561E+01	2.561E+01	2.560E+01	2.560E+01
KR	0.000E+00	4.460E+02	4.460E+02	4.460E+02	4.459E+02	4.459E+02
RB	0.000E+00	4.147E+02	4.147E+02	4.147E+02	4.147E+02	4.147E+02
SR	0.000E+00	1.108E+03	1.107E+03	1.107E+03	1.107E+03	1.107E+03
Y	0.000E+00	5.748E+02	5.748E+02	5.748E+02	5.745E+02	5.744E+02
ZR	0.000E+00	4.229E+03	4.229E+03	4.229E+03	4.229E+03	4.229E+03
NB	0.000E+00	4.499E+01	4.499E+01	4.498E+01	4.496E+01	4.493E+01
MO	0.000E+00	3.776E+03	3.776E+03	3.776E+03	3.776E+03	3.776E+03
TC	0.000E+00	8.960E+02	8.960E+02	8.961E+02	8.965E+02	8.969E+02
RU	0.000E+00	2.715E+03	2.715E+03	2.715E+03	2.715E+03	2.714E+03
RH	0.000E+00	4.538E+02	4.538E+02	4.539E+02	4.541E+02	4.543E+02
PD	0.000E+00	1.316E+03	1.316E+03	1.316E+03	1.316E+03	1.316E+03
AG	0.000E+00	7.804E+01	7.805E+01	7.805E+01	7.809E+01	7.811E+01
CD	0.000E+00	1.160E+02	1.160E+02	1.160E+02	1.161E+02	1.161E+02
IN	0.000E+00	2.375E+00	2.376E+00	2.376E+00	2.380E+00	2.385E+00
SN	0.000E+00	1.000E+02	1.000E+02	1.000E+02	1.000E+02	9.999E+01
SB	0.000E+00	3.515E+01	3.512E+01	3.511E+01	3.505E+01	3.500E+01
TE	0.000E+00	5.442E+02	5.441E+02	5.440E+02	5.435E+02	5.430E+02
I	0.000E+00	2.705E+02	2.704E+02	2.702E+02	2.692E+02	2.684E+02
XE	0.000E+00	6.084E+03	6.084E+03	6.084E+03	6.085E+03	6.085E+03

ML041000030.txt

CS	0.000E+00	3.275E+03	3.275E+03	3.275E+03	3.276E+03	3.277E+03
BA	0.000E+00	1.651E+03	1.651E+03	1.651E+03	1.650E+03	1.650E+03
LA	0.000E+00	1.434E+03	1.434E+03	1.434E+03	1.434E+03	1.434E+03
CE	0.000E+00	3.200E+03	3.200E+03	3.200E+03	3.200E+03	3.199E+03
PR	0.000E+00	1.276E+03	1.276E+03	1.276E+03	1.276E+03	1.277E+03
ND	0.000E+00	4.334E+03	4.334E+03	4.334E+03	4.335E+03	4.336E+03
PM	0.000E+00	1.542E+02	1.541E+02	1.541E+02	1.540E+02	1.538E+02
SM	0.000E+00	8.478E+02	8.478E+02	8.478E+02	8.481E+02	8.483E+02
EU	0.000E+00	1.954E+02	1.954E+02	1.954E+02	1.955E+02	1.956E+02
GD	0.000E+00	8.664E+01	8.665E+01	8.665E+01	8.673E+01	8.683E+01
TB	0.000E+00	2.781E+00	2.782E+00	2.782E+00	2.783E+00	2.783E+00
DY	0.000E+00	1.388E+00	1.388E+00	1.388E+00	1.389E+00	1.390E+00
HO	0.000E+00	1.382E-01	1.382E-01	1.383E-01	1.383E-01	1.382E-01
ER	0.000E+00	5.017E-02	5.018E-02	5.018E-02	5.023E-02	5.027E-02
TM	0.000E+00	4.592E-05	4.592E-05	4.593E-05	4.599E-05	4.607E-05
YB	0.000E+00	6.810E-06	6.811E-06	6.813E-06	6.827E-06	6.844E-06
SUMTOT	0.000E+00	3.976E+04	3.976E+04	3.976E+04	3.976E+04	3.976E+04
TOTAL	0.000E+00	3.976E+04	3.976E+04	3.976E+04	3.976E+04	3.976E+04

CUMULATIVE TABLE TOTALS

AP+FP	1.348E+05	1.746E+05	1.746E+05	1.746E+05	1.746E+05	1.746E+05
ACT+FP	1.000E+06	1.000E+06	1.000E+06	1.000E+06	1.000E+06	1.000E+06
AP+ACT+FP	1.135E+06	1.135E+06	1.135E+06	1.135E+06	1.135E+06	1.135E+06

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	0.000E+00	6.206E+02	6.206E+02	6.206E+02	6.206E+02	6.205E+02
ZN 69	0.000E+00	1.984E-02	1.024E-02	5.573E-03	7.860E-04	4.275E-04
CO 72	0.000E+00	1.651E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 72	0.000E+00	3.174E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 72	0.000E+00	6.226E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 72	0.000E+00	7.314E+01	7.206E+01	7.100E+01	6.116E+01	5.115E+01

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GA 72	0.000E+00	7.338E+01	7.334E+01	7.326E+01	7.027E+01	6.369E+01
CO 73	0.000E+00	5.284E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 73	0.000E+00	2.618E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 73	0.000E+00	8.239E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 73	0.000E+00	1.384E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 73	0.000E+00	1.457E+02	1.266E+02	1.098E+02	2.653E+01	4.827E+00
GE 73M	0.000E+00	1.458E+02	1.266E+02	1.098E+02	2.653E+01	4.827E+00
CO 74	0.000E+00	1.040E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 74	0.000E+00	1.617E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 74	0.000E+00	1.118E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 74	0.000E+00	2.631E+02	1.033E-09	4.041E-21	0.000E+00	0.000E+00
GA 74	0.000E+00	2.811E+02	2.033E+00	1.198E-02	0.000E+00	0.000E+00
NI 75	0.000E+00	6.522E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 75	0.000E+00	1.105E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 75	0.000E+00	4.849E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 75	0.000E+00	5.822E+02	1.947E-07	6.070E-17	0.000E+00	0.000E+00
GE 75	0.000E+00	5.894E+02	3.656E+02	2.213E+02	1.457E+00	3.512E-03
GE 75M	0.000E+00	2.671E+01	1.364E-08	4.252E-18	0.000E+00	0.000E+00
NI 76	0.000E+00	1.689E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 76	0.000E+00	8.364E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 76	0.000E+00	8.332E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 76	0.000E+00	1.259E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 76	0.000E+00	4.226E+01	4.116E+01	4.009E+01	3.081E+01	2.246E+01
NI 77	0.000E+00	2.860E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 77	0.000E+00	3.841E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 77	0.000E+00	9.191E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 77	0.000E+00	2.273E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 77	0.000E+00	1.025E+03	9.647E+02	9.073E+02	4.913E+02	2.353E+02
GE 77M	0.000E+00	2.253E+03	3.208E-17	0.000E+00	0.000E+00	0.000E+00
AS 77	0.000E+00	2.815E+03	2.784E+03	2.751E+03	2.411E+03	2.012E+03
SE 77M	0.000E+00	7.856E+00	6.904E+00	6.823E+00	5.980E+00	4.990E+00
NI 78	0.000E+00	3.314E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 78	0.000E+00	1.375E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 78	0.000E+00	9.028E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 78	0.000E+00	3.977E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 78	0.000E+00	6.211E+03	3.854E+03	2.389E+03	2.005E+01	6.470E-02
AS 78	0.000E+00	6.390E+03	5.824E+03	4.789E+03	1.504E+02	1.014E+00
CU 79	0.000E+00	3.906E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 79	0.000E+00	5.730E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 79	0.000E+00	4.425E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 79	0.000E+00	1.297E+04	8.338E-22	0.000E+00	0.000E+00	0.000E+00
AS 79	0.000E+00	1.525E+04	1.614E+02	1.589E+00	1.356E-20	0.000E+00
SE 79	0.000E+00	4.814E-01	4.814E-01	4.814E-01	4.814E-01	4.814E-01
SE 79M	0.000E+00	1.529E+04	2.839E+02	2.804E+00	2.389E-20	0.000E+00
BR 79M	0.000E+00	1.947E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
CU 80	0.000E+00	4.138E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 80	0.000E+00	2.081E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 80	0.000E+00	4.453E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 80	0.000E+00	2.556E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 80	0.000E+00	3.302E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 80	0.000E+00	9.218E-01	5.693E-01	4.667E-01	9.674E-02	1.473E-02
BR 80M	0.000E+00	5.936E-01	5.074E-01	4.338E-01	9.039E-02	1.376E-02
CU 81	0.000E+00	3.033E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 81	0.000E+00	4.722E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 81	0.000E+00	2.592E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 81	0.000E+00	3.046E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 81	0.000E+00	5.166E+04	8.960E-30	0.000E+00	0.000E+00	0.000E+00
SE 81	0.000E+00	5.553E+04	6.907E+03	1.141E+03	3.706E-01	6.115E-05
SE 81M	0.000E+00	1.521E+03	7.362E+02	3.563E+02	2.510E-01	4.140E-05
KR 81M	0.000E+00	3.631E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 82	0.000E+00	6.104E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 82	0.000E+00	9.540E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 82	0.000E+00	2.630E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82	0.000E+00	4.499E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82M	0.000E+00	1.863E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 82	0.000E+00	6.477E+03	6.358E+03	6.234E+03	5.123E+03	4.048E+03
BR 82M	0.000E+00	2.496E+03	2.824E+00	3.200E-03	0.000E+00	0.000E+00
ZN 83	0.000E+00	5.673E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 83	0.000E+00	2.623E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 83	0.000E+00	1.886E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 83	0.000E+00	7.987E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 83	0.000E+00	4.890E+04	7.749E+03	1.220E+03	1.146E-05	2.667E-15
SE 83M	0.000E+00	7.304E+04	2.827E-11	9.328E-27	0.000E+00	0.000E+00
BR 83	0.000E+00	1.246E+05	9.918E+04	7.507E+04	4.142E+03	1.276E+02
KR 83M	0.000E+00	1.249E+05	1.207E+05	1.098E+05	1.288E+04	4.935E+02
GA 84	0.000E+00	3.280E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 84	0.000E+00	5.861E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 84	0.000E+00	6.418E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 84	0.000E+00	2.066E+05	7.016E-01	2.359E-06	0.000E+00	0.000E+00

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BR 84	0.000E+00	2.142E+05	6.447E+04	1.743E+04	3.644E-02	5.569E-09
BR 84M	0.000E+00	7.950E+03	7.763E+00	7.582E-03	0.000E+00	0.000E+00
GE 85	0.000E+00	1.483E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 85	0.000E+00	3.769E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 85	0.000E+00	1.195E+05	1.977E-23	0.000E+00	0.000E+00	0.000E+00
SE 85M	0.000E+00	8.857E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 85	0.000E+00	2.573E+05	1.521E-01	7.610E-08	0.000E+00	0.000E+00
KR 85	0.000E+00	1.121E+04	1.121E+04	1.121E+04	1.121E+04	1.121E+04
KR 85M	0.000E+00	2.608E+05	2.262E+05	1.938E+05	4.125E+04	6.444E+03
GE 86	0.000E+00	2.799E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 86	0.000E+00	2.006E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 86	0.000E+00	2.331E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 86	0.000E+00	1.836E+05	4.634E-15	0.000E+00	0.000E+00	0.000E+00
BR 86M	0.000E+00	1.845E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 86	0.000E+00	2.493E+03	2.489E+03	2.485E+03	2.447E+03	2.402E+03
RB 86M	0.000E+00	2.604E+02	4.713E-16	7.768E-34	0.000E+00	0.000E+00
GE 87	0.000E+00	3.916E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
AS 87	0.000E+00	9.988E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 87	0.000E+00	1.880E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 87	0.000E+00	4.183E+05	1.665E-14	5.669E-34	0.000E+00	0.000E+00
KR 87	0.000E+00	4.970E+05	2.913E+05	1.689E+05	7.249E+02	1.045E+00
SR 87M	0.000E+00	7.498E+00	5.856E+00	4.574E+00	3.867E-01	1.994E-02
GE 88	0.000E+00	1.474E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 88	0.000E+00	7.856E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 88	0.000E+00	7.066E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 88	0.000E+00	4.434E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 88	0.000E+00	6.989E+05	5.480E+05	4.293E+05	3.736E+04	1.995E+03
RB 88	0.000E+00	7.111E+05	6.052E+05	4.788E+05	4.172E+04	2.228E+03
AS 89	0.000E+00	8.219E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 89	0.000E+00	2.026E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 89	0.000E+00	3.072E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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KR 89	0.000E+00	8.477E+05	1.717E+00	3.445E-06	0.000E+00	0.000E+00
RB 89	0.000E+00	9.094E+05	7.355E+04	4.767E+03	6.245E-09	3.437E-23
SR 89	0.000E+00	9.649E+05	9.646E+05	9.641E+05	9.586E+05	9.520E+05
Y 89M	0.000E+00	5.514E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 90	0.000E+00	6.189E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 90	0.000E+00	1.952E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 90	0.000E+00	8.370E+05	2.494E-28	0.000E+00	0.000E+00	0.000E+00
RB 90	0.000E+00	8.799E+05	1.635E+00	9.406E-05	0.000E+00	0.000E+00
RB 90M	0.000E+00	2.092E+05	1.412E+01	8.902E-04	0.000E+00	0.000E+00
SR 90	0.000E+00	8.840E+04	8.840E+04	8.840E+04	8.839E+04	8.839E+04
Y 90	0.000E+00	9.243E+04	9.239E+04	9.234E+04	9.194E+04	9.151E+04
Y 90M	0.000E+00	1.832E+01	1.465E+01	1.171E+01	1.252E+00	8.556E-02
SE 91	0.000E+00	9.018E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 91	0.000E+00	6.744E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 91	0.000E+00	6.214E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 91	0.000E+00	1.102E+06	2.905E-13	6.957E-32	0.000E+00	0.000E+00
SR 91	0.000E+00	1.186E+06	1.105E+06	1.027E+06	4.950E+05	2.062E+05
Y 91	0.000E+00	1.254E+06	1.254E+06	1.254E+06	1.251E+06	1.246E+06
Y 91M	0.000E+00	6.885E+05	6.730E+05	6.400E+05	3.147E+05	1.311E+05
SE 92	0.000E+00	4.760E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 92	0.000E+00	7.257E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 92	0.000E+00	3.058E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 92	0.000E+00	9.653E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 92	0.000E+00	1.294E+06	1.002E+06	7.760E+05	6.012E+04	2.793E+03
Y 92	0.000E+00	1.300E+06	1.271E+06	1.201E+06	3.307E+05	4.114E+04
BR 93	0.000E+00	1.302E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 93	0.000E+00	1.123E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 93	0.000E+00	7.338E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 93	0.000E+00	1.475E+06	5.802E+03	2.266E+01	0.000E+00	0.000E+00
Y 93	0.000E+00	1.514E+06	1.431E+06	1.336E+06	6.726E+05	2.952E+05
ZR 93	0.000E+00	2.158E+00	2.158E+00	2.158E+00	2.159E+00	2.159E+00
NB 93M	0.000E+00	1.630E-01	1.630E-01	1.631E-01	1.632E-01	1.633E-01
BR 94	0.000E+00	1.089E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 94	0.000E+00	4.005E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 94	0.000E+00	3.857E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 94	0.000E+00	1.396E+06	6.515E-09	3.014E-23	0.000E+00	0.000E+00
Y 94	0.000E+00	1.533E+06	1.850E+05	2.097E+04	7.330E-06	3.291E-17

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
 1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
NB 94M	0.000E+00	1.227E+00	1.598E-03	2.076E-06	0.000E+00	0.000E+00
BR 95	0.000E+00	8.681E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 95	0.000E+00	5.223E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 95	0.000E+00	1.918E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 95	0.000E+00	1.295E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 95	0.000E+00	1.656E+06	3.260E+04	6.209E+02	3.902E-15	0.000E+00
ZR 95	0.000E+00	1.740E+06	1.739E+06	1.738E+06	1.731E+06	1.721E+06
NB 95	0.000E+00	1.756E+06	1.756E+06	1.756E+06	1.756E+06	1.755E+06
NB 95M	0.000E+00	1.241E+04	1.241E+04	1.240E+04	1.238E+04	1.236E+04
BR 96	0.000E+00	4.583E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 96	0.000E+00	8.079E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 96	0.000E+00	5.518E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 96	0.000E+00	8.960E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 96	0.000E+00	1.572E+06	2.243E-02	3.146E-10	0.000E+00	0.000E+00
NB 96	0.000E+00	3.615E+03	3.509E+03	3.406E+03	2.531E+03	1.773E+03
KR 97	0.000E+00	4.762E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 97	0.000E+00	1.058E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 97	0.000E+00	4.729E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 97	0.000E+00	1.354E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	1.719E+06	1.650E+06	1.584E+06	1.051E+06	6.425E+05
NB 97	0.000E+00	1.735E+06	1.708E+06	1.663E+06	1.129E+06	6.469E+05
NB 97M	0.000E+00	1.631E+06	1.563E+06	1.500E+06	9.956E+05	6.086E+05
KR 98	0.000E+00	5.515E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 98	0.000E+00	2.330E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 98	0.000E+00	1.862E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 98	0.000E+00	9.610E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 98	0.000E+00	1.736E+06	1.928E-29	0.000E+00	0.000E+00	0.000E+00
NB 98	0.000E+00	1.767E+06	2.119E-29	0.000E+00	0.000E+00	0.000E+00
NB 98M	0.000E+00	1.790E+04	7.980E+03	3.559E+03	1.107E+00	6.848E-05
RB 99	0.000E+00	2.308E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 99	0.000E+00	5.092E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 99	0.000E+00	5.480E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 99	0.000E+00	1.718E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	1.790E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99M	0.000E+00	7.366E+04	8.325E-03	9.409E-10	0.000E+00	0.000E+00
MO 99	0.000E+00	1.945E+06	1.925E+06	1.905E+06	1.715E+06	1.512E+06
TC 99	0.000E+00	1.519E+01	1.519E+01	1.519E+01	1.520E+01	1.521E+01
TC 99M	0.000E+00	1.703E+06	1.702E+06	1.699E+06	1.609E+06	1.446E+06
RB100	0.000E+00	1.997E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR100	0.000E+00	9.935E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y100	0.000E+00	2.455E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR100	0.000E+00	1.582E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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NB100	0.000E+00	9.980E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100M	0.000E+00	9.980E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC100	0.000E+00	5.217E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR101	0.000E+00	1.401E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y101	0.000E+00	7.952E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR101	0.000E+00	1.009E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB101	0.000E+00	1.645E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	0.000E+00	1.763E+06	1.035E+05	6.021E+03	2.664E-09	3.985E-24
TC101	0.000E+00	1.764E+06	3.851E+05	3.750E+04	5.990E-08	1.208E-22

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
SR102	0.000E+00	1.280E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y102	0.000E+00	1.948E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR102	0.000E+00	5.677E+05	7.737E-33	0.000E+00	0.000E+00	0.000E+00
NB102	0.000E+00	1.391E+06	1.054E-32	0.000E+00	0.000E+00	0.000E+00
MO102	0.000E+00	1.676E+06	4.029E+04	9.507E+02	5.083E-14	1.520E-33
TC102	0.000E+00	1.678E+06	4.061E+04	9.583E+02	5.124E-14	2.995E-33
TC102M	0.000E+00	2.000E+03	1.409E-01	9.926E-06	0.000E+00	0.000E+00
RH102	0.000E+00	1.136E+00	1.136E+00	1.136E+00	1.135E+00	1.135E+00
SR103	0.000E+00	4.247E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y103	0.000E+00	2.789E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR103	0.000E+00	2.080E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB103	0.000E+00	9.615E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO103	0.000E+00	1.613E+06	1.701E-12	1.475E-30	0.000E+00	0.000E+00
TC103	0.000E+00	1.639E+06	1.020E-11	8.853E-30	0.000E+00	0.000E+00
RU103	0.000E+00	1.647E+06	1.646E+06	1.645E+06	1.633E+06	1.619E+06
RH103M	0.000E+00	1.484E+06	1.483E+06	1.483E+06	1.473E+06	1.459E+06
SR104	0.000E+00	1.729E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y104	0.000E+00	2.468E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR104	0.000E+00	4.815E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB104	0.000E+00	4.561E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO104	0.000E+00	1.282E+06	6.632E-06	3.412E-17	0.000E+00	0.000E+00
TC104	0.000E+00	1.373E+06	1.524E+05	1.550E+04	1.847E-06	2.278E-18

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RH104	0.000E+00	1.056E+06	5.678E+00	3.913E-04	0.000E+00	0.000E+00
RH104M	0.000E+00	6.910E+04	4.762E+00	3.281E-04	0.000E+00	0.000E+00
Y105	0.000E+00	1.269E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR105	0.000E+00	6.498E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB105	0.000E+00	1.530E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO105	0.000E+00	9.057E+05	7.778E-15	0.000E+00	0.000E+00	0.000E+00
TC105	0.000E+00	1.121E+06	6.828E+03	3.772E+01	0.000E+00	0.000E+00
RU105	0.000E+00	1.142E+06	1.009E+06	8.634E+05	1.812E+05	2.781E+04
RH105	0.000E+00	1.052E+06	1.052E+06	1.050E+06	9.390E+05	7.588E+05
RH105M	0.000E+00	3.197E+05	2.834E+05	2.424E+05	5.087E+04	7.810E+03
ZR106	0.000E+00	7.628E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB106	0.000E+00	4.034E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO106	0.000E+00	4.815E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC106	0.000E+00	7.820E+05	4.815E-24	0.000E+00	0.000E+00	0.000E+00
RU106	0.000E+00	5.557E+05	5.557E+05	5.556E+05	5.552E+05	5.547E+05
RH106	0.000E+00	6.181E+05	5.557E+05	5.556E+05	5.552E+05	5.547E+05
RH106M	0.000E+00	2.850E+04	2.080E+04	1.518E+04	6.499E+02	1.482E+01
ZR107	0.000E+00	3.486E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB107	0.000E+00	6.154E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO107	0.000E+00	1.740E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC107	0.000E+00	4.276E+05	2.018E-32	0.000E+00	0.000E+00	0.000E+00
RU107	0.000E+00	6.590E+05	3.604E+01	1.804E-03	0.000E+00	0.000E+00
RH107	0.000E+00	6.624E+05	1.229E+05	1.807E+04	8.583E-05	8.822E-15
PD107	0.000E+00	1.165E-01	1.165E-01	1.165E-01	1.165E-01	1.165E-01
PD107M	0.000E+00	8.177E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR108	0.000E+00	9.875E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB108	0.000E+00	1.309E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO108	0.000E+00	5.021E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC108	0.000E+00	2.492E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
RU108	0.000E+00	4.539E+05	4.448E+01	4.310E-03	0.000E+00	0.000E+00
RH108	0.000E+00	4.583E+05	4.743E+01	4.596E-03	0.000E+00	0.000E+00

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RH108M	0.000E+00	4.357E+03	3.783E+00	3.285E-03	0.000E+00	0.000E+00
AG108	0.000E+00	1.631E+00	2.711E-06	2.672E-06	2.672E-06	2.672E-06
ZR109	0.000E+00	7.228E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB109	0.000E+00	2.534E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO109	0.000E+00	1.600E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC109	0.000E+00	1.159E+05	6.551E-17	0.000E+00	0.000E+00	0.000E+00
RU109	0.000E+00	2.802E+05	2.088E-16	0.000E+00	0.000E+00	0.000E+00
RH109	0.000E+00	2.918E+05	1.062E-06	9.663E-19	0.000E+00	0.000E+00
RH109M	0.000E+00	1.459E+05	3.332E-15	0.000E+00	0.000E+00	0.000E+00
PD109	0.000E+00	3.562E+05	3.404E+05	3.233E+05	1.932E+05	1.042E+05
PD109M	0.000E+00	1.469E+05	4.157E+01	5.856E-03	0.000E+00	0.000E+00
AG109M	0.000E+00	3.560E+05	3.405E+05	3.235E+05	1.933E+05	1.042E+05
NB110	0.000E+00	2.865E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO110	0.000E+00	3.178E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC110	0.000E+00	2.878E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU110	0.000E+00	1.223E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH110	0.000E+00	1.318E+05	1.200E-32	0.000E+00	0.000E+00	0.000E+00
RH110M	0.000E+00	9.467E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG110	0.000E+00	1.703E+05	5.722E+01	5.721E+01	5.715E+01	5.707E+01
AG110M	0.000E+00	4.303E+03	4.302E+03	4.302E+03	4.297E+03	4.291E+03
NB111	0.000E+00	2.433E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO111	0.000E+00	6.501E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC111	0.000E+00	9.297E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU111	0.000E+00	5.374E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH111	0.000E+00	7.309E+04	5.705E-13	3.586E-30	0.000E+00	0.000E+00
PD111	0.000E+00	7.510E+04	1.260E+04	2.434E+03	1.818E+02	4.007E+01
PD111M	0.000E+00	1.131E+03	9.981E+02	8.799E+02	2.495E+02	5.500E+01
AG111	0.000E+00	7.596E+04	7.581E+04	7.554E+04	7.269E+04	6.940E+04
AG111M	0.000E+00	7.516E+04	1.344E+04	2.794E+03	2.605E+02	5.740E+01
CD111M	0.000E+00	2.985E+01	1.271E+01	5.409E+00	1.058E-03	3.748E-08
MO112	0.000E+00	1.187E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC112	0.000E+00	3.114E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU112	0.000E+00	2.314E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH112	0.000E+00	3.680E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD112	0.000E+00	3.939E+04	3.805E+04	3.676E+04	2.604E+04	1.722E+04
AG112	0.000E+00	3.952E+04	3.936E+04	3.896E+04	3.034E+04	2.036E+04
MO113	0.000E+00	8.435E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC113	0.000E+00	8.229E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU113	0.000E+00	1.236E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH113	0.000E+00	2.585E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD113	0.000E+00	3.110E+04	2.889E-08	2.628E-20	0.000E+00	0.000E+00
AG113	0.000E+00	2.804E+04	2.472E+04	2.169E+04	5.865E+03	1.221E+03
AG113M	0.000E+00	3.154E+03	1.083E-08	9.854E-21	0.000E+00	0.000E+00
CD113M	0.000E+00	6.097E+01	6.097E+01	6.097E+01	6.098E+01	6.098E+01
MO114	0.000E+00	8.619E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC114	0.000E+00	1.845E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU114	0.000E+00	5.549E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH114	0.000E+00	1.488E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

PD114 0.000E+00 2.145E+04 6.508E-04 1.939E-11 0.000E+00 0.000E+00

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
 1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
AG114	0.000E+00	2.175E+04	6.719E-04	2.002E-11	0.000E+00	0.000E+00
IN114	0.000E+00	8.933E+00	3.207E+00	3.205E+00	3.186E+00	3.164E+00
IN114M	0.000E+00	3.353E+00	3.351E+00	3.349E+00	3.330E+00	3.306E+00
MO115	0.000E+00	5.770E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC115	0.000E+00	3.886E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU115	0.000E+00	2.594E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH115	0.000E+00	1.121E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD115	0.000E+00	2.047E+04	6.859E-25	0.000E+00	0.000E+00	0.000E+00
AG115	0.000E+00	1.535E+04	1.985E+03	2.481E+02	2.311E-07	3.363E-18
AG115M	0.000E+00	5.913E+03	3.351E-25	0.000E+00	0.000E+00	0.000E+00
CD115	0.000E+00	2.027E+04	2.009E+04	1.985E+04	1.743E+04	1.492E+04
CD115M	0.000E+00	1.934E+03	1.933E+03	1.932E+03	1.919E+03	1.904E+03
IN115M	0.000E+00	2.031E+04	2.029E+04	2.024E+04	1.869E+04	1.619E+04
TC116	0.000E+00	2.409E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU116	0.000E+00	5.787E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH116	0.000E+00	5.327E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD116	0.000E+00	1.550E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG116	0.000E+00	8.661E+03	1.716E-03	3.126E-10	0.000E+00	0.000E+00
AG116M	0.000E+00	8.661E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116	0.000E+00	1.209E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	8.803E+03	4.084E+03	1.895E+03	8.750E-01	8.698E-05
TC117	0.000E+00	1.025E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU117	0.000E+00	8.657E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH117	0.000E+00	3.000E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD117	0.000E+00	1.375E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG117	0.000E+00	8.504E+03	1.416E-11	2.220E-26	0.000E+00	0.000E+00
AG117M	0.000E+00	8.502E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD117	0.000E+00	1.128E+04	8.687E+03	6.654E+03	4.627E+02	1.888E+01
CD117M	0.000E+00	6.123E+03	5.005E+03	4.082E+03	5.315E+02	4.603E+01
IN117	0.000E+00	1.042E+04	1.007E+04	9.236E+03	1.347E+03	9.324E+01

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IN117M	0.000E+00	1.319E+04	1.271E+04	1.160E+04	1.764E+03	1.098E+02
SN117M	0.000E+00	1.100E+02	1.098E+02	1.095E+02	1.073E+02	1.047E+02
RU118	0.000E+00	5.667E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH118	0.000E+00	4.427E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD118	0.000E+00	1.127E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG118	0.000E+00	1.131E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG118M	0.000E+00	7.768E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD118	0.000E+00	1.716E+04	7.521E+03	3.290E+03	8.440E-01	4.144E-05
IN118	0.000E+00	1.717E+04	7.533E+03	3.295E+03	8.454E-01	4.150E-05
IN118M	0.000E+00	7.228E+00	6.313E-04	5.513E-08	0.000E+00	0.000E+00
RH119	0.000E+00	3.576E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD119	0.000E+00	8.240E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG119	0.000E+00	1.560E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD119	0.000E+00	8.544E+03	1.035E+02	1.241E+00	7.567E-20	0.000E+00
CD119M	0.000E+00	8.544E+03	2.003E-02	4.543E-08	0.000E+00	0.000E+00
IN119	0.000E+00	4.920E+03	1.256E+02	1.311E+01	1.226E-09	1.115E-21
IN119M	0.000E+00	1.282E+04	2.191E+03	2.272E+02	2.112E-08	1.921E-20
SN119M	0.000E+00	2.488E+02	2.487E+02	2.487E+02	2.484E+02	2.481E+02
RU120	0.000E+00	1.186E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH120	0.000E+00	5.398E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD120	0.000E+00	3.083E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES

1 MTHM 4.236% UO2, 38313 MWD/MTHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
AG120	0.000E+00	1.072E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD120	0.000E+00	1.683E+04	8.074E-18	0.000E+00	0.000E+00	0.000E+00
IN120	0.000E+00	8.593E+03	3.202E-17	0.000E+00	0.000E+00	0.000E+00
IN120M	0.000E+00	8.593E+03	4.298E-18	0.000E+00	0.000E+00	0.000E+00
RH121	0.000E+00	8.522E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD121	0.000E+00	1.202E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG121	0.000E+00	7.429E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD121	0.000E+00	1.664E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121	0.000E+00	1.417E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121M	0.000E+00	3.540E+03	1.269E-02	4.267E-08	0.000E+00	0.000E+00

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SN121	0.000E+00	1.775E+04	1.731E+04	1.687E+04	1.302E+04	9.549E+03
SN121M	0.000E+00	2.236E-01	2.236E-01	2.236E-01	2.236E-01	2.236E-01
RH122	0.000E+00	1.032E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD122	0.000E+00	3.684E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG122	0.000E+00	4.595E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD122	0.000E+00	1.591E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN122	0.000E+00	1.715E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN122M	0.000E+00	1.238E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB122	0.000E+00	2.615E+03	2.587E+03	2.559E+03	2.300E+03	2.023E+03
SB122M	0.000E+00	2.056E+01	1.029E-03	5.152E-08	0.000E+00	0.000E+00
RH123	0.000E+00	8.807E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD123	0.000E+00	8.337E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG123	0.000E+00	2.400E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD123	0.000E+00	1.512E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN123	0.000E+00	1.413E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN123M	0.000E+00	5.953E+03	1.774E-19	0.000E+00	0.000E+00	0.000E+00
SN123	0.000E+00	3.895E+03	3.894E+03	3.893E+03	3.885E+03	3.874E+03
SN123M	0.000E+00	1.667E+04	5.958E+03	2.111E+03	6.583E-02	2.577E-07
TE123M	0.000E+00	1.820E+01	1.820E+01	1.819E+01	1.815E+01	1.810E+01
PD124	0.000E+00	1.555E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG124	0.000E+00	1.092E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD124	0.000E+00	1.378E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN124	0.000E+00	2.279E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB124	0.000E+00	1.635E+03	1.634E+03	1.633E+03	1.625E+03	1.616E+03
SB124M	0.000E+00	1.225E+01	2.725E-11	6.061E-23	0.000E+00	0.000E+00
AG125	0.000E+00	3.381E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD125	0.000E+00	9.861E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN125	0.000E+00	1.454E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN125M	0.000E+00	1.066E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN125	0.000E+00	1.464E+04	1.460E+04	1.455E+04	1.412E+04	1.363E+04
SN125M	0.000E+00	2.367E+04	3.034E+02	3.844E+00	4.095E-19	0.000E+00
SB125	0.000E+00	1.536E+04	1.536E+04	1.536E+04	1.536E+04	1.536E+04
TE125M	0.000E+00	3.234E+03	3.234E+03	3.234E+03	3.236E+03	3.238E+03
PD126	0.000E+00	2.302E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG126	0.000E+00	1.047E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD126	0.000E+00	7.321E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN126	0.000E+00	3.254E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN126	0.000E+00	8.596E-01	8.596E-01	8.596E-01	8.596E-01	8.596E-01
SB126	0.000E+00	1.295E+03	1.292E+03	1.289E+03	1.259E+03	1.224E+03
SB126M	0.000E+00	5.347E+02	6.067E+01	7.561E+00	8.596E-01	8.596E-01
CD127	0.000E+00	4.078E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
/CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
IN127	0.000E+00	1.910E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN127M	0.000E+00	1.911E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN127	0.000E+00	7.335E+04	5.274E+04	3.791E+04	1.397E+03	2.662E+01
SN127M	0.000E+00	3.516E+04	1.501E+00	6.406E-05	0.000E+00	0.000E+00
SB127	0.000E+00	1.159E+05	1.156E+05	1.150E+05	1.075E+05	9.828E+04
TE127	0.000E+00	1.146E+05	1.146E+05	1.146E+05	1.123E+05	1.066E+05
TE127M	0.000E+00	1.507E+04	1.507E+04	1.508E+04	1.508E+04	1.507E+04
XE127	0.000E+00	5.875E-02	5.870E-02	5.866E-02	5.819E-02	5.764E-02
AG128	0.000E+00	4.324E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD128	0.000E+00	1.550E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN128	0.000E+00	3.120E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN128	0.000E+00	1.730E+05	8.551E+04	4.225E+04	3.669E+01	7.780E-03
SB128	0.000E+00	1.588E+04	1.470E+04	1.362E+04	6.309E+03	2.507E+03
SB128M	0.000E+00	1.884E+05	1.034E+05	5.129E+04	4.454E+01	9.445E-03
I128	0.000E+00	1.435E+04	2.716E+03	5.139E+02	3.029E-05	6.396E-14
CD129	0.000E+00	6.329E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN129	0.000E+00	2.586E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN129	0.000E+00	1.159E+05	4.528E+02	1.769E+00	0.000E+00	0.000E+00
SN129M	0.000E+00	1.313E+05	7.833E-03	4.669E-10	0.000E+00	0.000E+00
SB129	0.000E+00	3.411E+05	2.945E+05	2.509E+05	5.042E+04	7.350E+03
TE129	0.000E+00	3.360E+05	3.234E+05	2.982E+05	9.247E+04	4.113E+04
TE129M	0.000E+00	5.046E+04	5.045E+04	5.044E+04	5.015E+04	4.966E+04
I129	0.000E+00	3.547E-02	3.547E-02	3.547E-02	3.548E-02	3.548E-02
XE129M	0.000E+00	7.247E+00	7.221E+00	7.195E+00	6.940E+00	6.646E+00
CD130	0.000E+00	5.655E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN130	0.000E+00	2.803E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN130	0.000E+00	3.690E+05	5.147E+00	7.182E-05	0.000E+00	0.000E+00
SB130	0.000E+00	1.113E+05	3.937E+04	1.392E+04	4.247E-01	1.620E-06
SB130M	0.000E+00	4.904E+05	1.382E+03	1.884E+00	0.000E+00	0.000E+00
I130	0.000E+00	4.025E+04	3.821E+04	3.613E+04	2.062E+04	1.052E+04
I130M	0.000E+00	1.588E+04	1.563E+02	1.538E+00	1.313E-20	0.000E+00
CD131	0.000E+00	8.993E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN131	0.000E+00	1.012E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN131	0.000E+00	3.208E+05	2.016E-12	1.267E-29	0.000E+00	0.000E+00
SB131	0.000E+00	8.640E+05	1.442E+05	2.364E+04	3.316E-04	1.250E-13
TE131	0.000E+00	9.213E+05	4.421E+05	1.497E+05	2.606E+04	1.975E+04
TE131M	0.000E+00	1.520E+05	1.491E+05	1.458E+05	1.158E+05	8.774E+04
I131	0.000E+00	1.042E+06	1.041E+06	1.038E+06	1.007E+06	9.685E+05

ML041000030.txt

XE131M	0.000E+00	1.159E+04	1.159E+04	1.159E+04	1.159E+04	1.157E+04
CD132	0.000E+00	8.170E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN132	0.000E+00	2.565E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN132	0.000E+00	1.709E+05	1.381E-22	0.000E+00	0.000E+00	0.000E+00
SB132	0.000E+00	5.083E+05	1.990E-01	7.051E-08	0.000E+00	0.000E+00
SB132M	0.000E+00	3.362E+05	1.683E+01	8.429E-04	0.000E+00	0.000E+00
TE132	0.000E+00	1.473E+06	1.461E+06	1.448E+06	1.325E+06	1.191E+06
I132	0.000E+00	1.498E+06	1.490E+06	1.480E+06	1.365E+06	1.227E+06
CS132	0.000E+00	2.792E+02	2.779E+02	2.767E+02	2.646E+02	2.508E+02
IN133	0.000E+00	2.877E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN133	0.000E+00	5.115E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB133	0.000E+00	5.864E+05	1.749E-02	5.213E-10	0.000E+00	0.000E+00
TE133	0.000E+00	1.230E+06	1.039E+05	2.988E+04	1.556E+01	1.904E-03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
TE133M	0.000E+00	7.576E+05	3.579E+05	1.689E+05	9.278E+01	1.135E-02
I133	0.000E+00	2.099E+06	2.060E+06	2.002E+06	1.440E+06	9.656E+05
I133M	0.000E+00	6.568E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE133	0.000E+00	2.102E+06	2.101E+06	2.101E+06	2.081E+06	2.025E+06
XE133M	0.000E+00	6.596E+04	6.589E+04	6.579E+04	6.373E+04	5.938E+04
IN134	0.000E+00	1.630E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN134	0.000E+00	7.057E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134	0.000E+00	9.769E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134M	0.000E+00	9.063E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE134	0.000E+00	1.704E+06	6.304E+05	2.331E+05	1.113E+01	7.266E-05
I134	0.000E+00	2.298E+06	1.603E+06	9.315E+05	6.322E+02	5.088E-02
I134M	0.000E+00	2.304E+05	3.027E+00	3.977E-05	0.000E+00	0.000E+00
XE134M	0.000E+00	1.616E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS134	0.000E+00	1.978E+05	1.978E+05	1.977E+05	1.977E+05	1.976E+05
CS134M	0.000E+00	5.912E+04	4.655E+04	3.665E+04	3.358E+03	1.907E+02
SN135	0.000E+00	7.926E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB135	0.000E+00	5.422E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE135	0.000E+00	8.954E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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I135	0.000E+00	1.963E+06	1.768E+06	1.592E+06	5.580E+05	1.586E+05
XE135	0.000E+00	5.336E+05	6.346E+05	7.120E+05	8.265E+05	5.047E+05
XE135M	0.000E+00	4.171E+05	2.899E+05	2.554E+05	8.937E+04	2.540E+04
CS135	0.000E+00	5.169E-01	5.169E-01	5.170E-01	5.173E-01	5.175E-01
CS135M	0.000E+00	3.402E+04	1.552E+04	7.083E+03	2.769E+00	2.253E-04
BA135M	0.000E+00	1.247E+02	1.217E+02	1.188E+02	9.329E+01	6.982E+01
SN136	0.000E+00	6.922E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB136	0.000E+00	1.059E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE136	0.000E+00	4.698E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I136	0.000E+00	9.254E+05	9.511E-08	8.346E-21	0.000E+00	0.000E+00
I136M	0.000E+00	5.484E+05	1.514E-18	0.000E+00	0.000E+00	0.000E+00
CS136	0.000E+00	6.668E+04	6.653E+04	6.639E+04	6.494E+04	6.324E+04
BA136M	0.000E+00	1.099E+04	1.096E+04	1.094E+04	1.070E+04	1.042E+04
SB137	0.000E+00	1.560E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE137	0.000E+00	1.312E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I137	0.000E+00	8.992E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE137	0.000E+00	1.829E+06	3.717E+01	7.150E-04	0.000E+00	0.000E+00
CS137	0.000E+00	1.206E+05	1.206E+05	1.206E+05	1.206E+05	1.206E+05
BA137M	0.000E+00	1.144E+05	1.142E+05	1.141E+05	1.141E+05	1.141E+05
SB138	0.000E+00	1.935E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE138	0.000E+00	3.239E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I138	0.000E+00	4.442E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	0.000E+00	1.713E+06	9.118E+04	4.845E+03	8.685E-10	4.395E-25
CS138	0.000E+00	1.904E+06	8.243E+05	2.424E+05	6.055E-01	1.125E-07
CS138M	0.000E+00	9.184E+04	5.430E-02	3.211E-08	0.000E+00	0.000E+00
SB139	0.000E+00	1.425E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE139	0.000E+00	6.269E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I139	0.000E+00	1.968E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE139	0.000E+00	1.333E+06	4.934E-22	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	1.803E+06	2.281E+04	2.734E+02	1.667E-17	0.000E+00
BA139	0.000E+00	1.863E+06	1.272E+06	7.707E+05	5.045E+03	1.211E+01
TE140	0.000E+00	7.669E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I140	0.000E+00	5.506E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

ML041000030.txt

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
XE140	0.000E+00	8.652E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS140	0.000E+00	1.622E+06	1.918E-11	1.980E-28	0.000E+00	0.000E+00
BA140	0.000E+00	1.795E+06	1.791E+06	1.787E+06	1.747E+06	1.701E+06
LA140	0.000E+00	1.855E+06	1.854E+06	1.853E+06	1.839E+06	1.818E+06
PR140	0.000E+00	2.428E+01	1.140E-04	5.357E-10	0.000E+00	0.000E+00
TE141	0.000E+00	3.467E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I141	0.000E+00	9.060E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE141	0.000E+00	3.015E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS141	0.000E+00	1.202E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA141	0.000E+00	1.691E+06	1.765E+05	1.811E+04	2.344E-06	3.196E-18
LA141	0.000E+00	1.699E+06	1.531E+06	1.294E+06	2.222E+05	2.677E+04
CE141	0.000E+00	1.730E+06	1.730E+06	1.730E+06	1.720E+06	1.702E+06
TE142	0.000E+00	3.679E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I142	0.000E+00	1.295E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE142	0.000E+00	1.034E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS142	0.000E+00	7.243E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA142	0.000E+00	1.599E+06	3.285E+04	6.738E+02	8.878E-15	4.927E-35
LA142	0.000E+00	1.639E+06	1.175E+06	7.531E+05	8.482E+03	3.893E+01
PR142	0.000E+00	8.976E+04	8.677E+04	8.369E+04	5.826E+04	3.771E+04
PR142M	0.000E+00	1.759E+04	1.019E+03	5.901E+01	2.511E-11	3.585E-26
I143	0.000E+00	8.486E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE143	0.000E+00	1.730E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS143	0.000E+00	3.533E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA143	0.000E+00	1.396E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA143	0.000E+00	1.558E+06	8.107E+04	4.157E+03	5.218E-10	1.722E-25
CE143	0.000E+00	1.568E+06	1.546E+06	1.514E+06	1.227E+06	9.539E+05
PR143	0.000E+00	1.558E+06	1.558E+06	1.558E+06	1.554E+06	1.542E+06
I144	0.000E+00	6.882E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE144	0.000E+00	3.015E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS144	0.000E+00	1.012E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA144	0.000E+00	1.048E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA144	0.000E+00	1.371E+06	1.432E-21	0.000E+00	0.000E+00	0.000E+00
CE144	0.000E+00	1.281E+06	1.281E+06	1.281E+06	1.279E+06	1.278E+06
PR144	0.000E+00	1.292E+06	1.282E+06	1.281E+06	1.279E+06	1.278E+06
PR144M	0.000E+00	1.539E+04	1.537E+04	1.537E+04	1.535E+04	1.533E+04
XE145	0.000E+00	3.242E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS145	0.000E+00	2.539E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA145	0.000E+00	5.381E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA145	0.000E+00	9.932E+05	4.854E-32	0.000E+00	0.000E+00	0.000E+00
CE145	0.000E+00	1.070E+06	1.224E+00	1.167E-06	0.000E+00	0.000E+00
PR145	0.000E+00	1.070E+06	9.622E+05	8.569E+05	2.689E+05	6.692E+04
XE146	0.000E+00	2.092E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS146	0.000E+00	3.689E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA146	0.000E+00	1.986E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA146	0.000E+00	6.480E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE146	0.000E+00	8.554E+05	4.610E+04	2.465E+03	4.701E-10	2.563E-25

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PR146	0.000E+00	8.589E+05	3.081E+05	6.350E+04	2.304E-03	2.548E-12
PM146	0.000E+00	2.970E+00	2.970E+00	2.970E+00	2.970E+00	2.969E+00
XE147	0.000E+00	1.842E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS147	0.000E+00	6.023E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA147	0.000E+00	4.563E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
LA147	0.000E+00	3.158E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE147	0.000E+00	6.616E+05	2.363E-10	7.795E-26	0.000E+00	0.000E+00
PR147	0.000E+00	6.802E+05	2.364E+04	7.389E+02	6.562E-13	5.692E-31
ND147	0.000E+00	6.809E+05	6.797E+05	6.780E+05	6.605E+05	6.401E+05
PM147	0.000E+00	1.380E+05	1.380E+05	1.381E+05	1.382E+05	1.384E+05
CS148	0.000E+00	3.879E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA148	0.000E+00	7.986E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA148	0.000E+00	1.183E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE148	0.000E+00	4.840E+05	3.068E-20	0.000E+00	0.000E+00	0.000E+00
PR148	0.000E+00	5.398E+05	1.068E-02	1.498E-10	0.000E+00	0.000E+00
PM148	0.000E+00	2.989E+05	2.973E+05	2.958E+05	2.804E+05	2.629E+05
PM148M	0.000E+00	3.423E+04	3.420E+04	3.418E+04	3.394E+04	3.366E+04
BA149	0.000E+00	8.996E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA149	0.000E+00	2.929E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE149	0.000E+00	2.683E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR149	0.000E+00	3.778E+05	5.337E-03	7.488E-11	0.000E+00	0.000E+00
ND149	0.000E+00	4.006E+05	2.741E+05	1.836E+05	3.341E+03	2.728E+01
PM149	0.000E+00	6.407E+05	6.367E+05	6.314E+05	5.594E+05	4.784E+05
CS150	0.000E+00	3.638E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA150	0.000E+00	6.719E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA150	0.000E+00	5.587E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE150	0.000E+00	1.238E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR150	0.000E+00	2.526E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM150	0.000E+00	7.305E+03	5.640E+03	4.355E+03	3.279E+02	1.472E+01
LA151	0.000E+00	7.068E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE151	0.000E+00	3.694E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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PR151	0.000E+00	1.404E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND151	0.000E+00	2.092E+05	7.337E+03	2.564E+02	6.966E-13	2.311E-30
PM151	0.000E+00	2.094E+05	2.058E+05	2.009E+05	1.573E+05	1.174E+05
SM151	0.000E+00	4.956E+02	4.958E+02	4.960E+02	4.975E+02	4.990E+02
BA152	0.000E+00	1.777E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA152	0.000E+00	7.901E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE152	0.000E+00	8.077E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR152	0.000E+00	6.207E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND152	0.000E+00	1.446E+05	3.912E+03	1.052E+02	2.070E-14	2.934E-33
PM152	0.000E+00	1.485E+05	6.077E+03	1.637E+02	3.217E-14	4.565E-33
PM152M	0.000E+00	2.784E+03	1.088E+01	4.251E-02	0.000E+00	0.000E+00
EU152	0.000E+00	9.246E+00	9.246E+00	9.246E+00	9.246E+00	9.245E+00
EU152M	0.000E+00	1.315E+02	1.221E+02	1.133E+02	5.386E+01	2.206E+01
LA153	0.000E+00	8.159E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE153	0.000E+00	1.407E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR153	0.000E+00	1.966E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND153	0.000E+00	8.526E+04	7.912E-12	7.126E-28	0.000E+00	0.000E+00
PM153	0.000E+00	9.698E+04	5.427E+01	2.454E-02	0.000E+00	0.000E+00
SM153	0.000E+00	5.185E+05	5.111E+05	5.035E+05	4.341E+05	3.632E+05
GD153	0.000E+00	1.594E+01	1.594E+01	1.594E+01	1.592E+01	1.590E+01
LA154	0.000E+00	3.772E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE154	0.000E+00	1.622E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR154	0.000E+00	4.704E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND154	0.000E+00	4.439E+04	3.600E-23	0.000E+00	0.000E+00	0.000E+00
PM154	0.000E+00	5.471E+04	2.491E-02	8.827E-09	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
PM154M	0.000E+00	9.380E+03	8.667E-07	8.009E-17	0.000E+00	0.000E+00
EU154	0.000E+00	1.092E+04	1.092E+04	1.092E+04	1.092E+04	1.092E+04
CE155	0.000E+00	1.857E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR155	0.000E+00	9.338E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND155	0.000E+00	1.717E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM155	0.000E+00	3.471E+04	1.768E-25	0.000E+00	0.000E+00	0.000E+00

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SM155	0.000E+00	4.127E+04	6.544E+03	1.005E+03	7.350E-06	1.268E-15
EU155	0.000E+00	7.378E+03	7.378E+03	7.378E+03	7.377E+03	7.375E+03
GD155M	0.000E+00	6.530E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE156	0.000E+00	1.751E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR156	0.000E+00	1.739E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND156	0.000E+00	6.156E+03	1.825E-15	5.408E-34	0.000E+00	0.000E+00
PM156	0.000E+00	1.933E+04	2.352E-15	1.207E-33	0.000E+00	0.000E+00
SM156	0.000E+00	2.587E+04	2.405E+04	2.234E+04	1.068E+04	4.410E+03
EU156	0.000E+00	2.026E+05	2.022E+05	2.019E+05	1.984E+05	1.941E+05
CE157	0.000E+00	1.360E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR157	0.000E+00	2.639E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND157	0.000E+00	1.722E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM157	0.000E+00	9.352E+03	1.106E-12	1.293E-28	0.000E+00	0.000E+00
SM157	0.000E+00	1.706E+04	1.029E+02	5.683E-01	0.000E+00	0.000E+00
EU157	0.000E+00	2.684E+04	2.580E+04	2.465E+04	1.562E+04	9.038E+03
PR158	0.000E+00	1.927E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND158	0.000E+00	2.607E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM158	0.000E+00	3.039E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM158	0.000E+00	9.279E+03	3.607E+03	1.401E+03	1.096E-01	1.295E-06
EU158	0.000E+00	9.948E+03	7.353E+03	4.266E+03	1.714E+00	5.050E-05
PR159	0.000E+00	7.497E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND159	0.000E+00	2.548E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM159	0.000E+00	6.892E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM159	0.000E+00	4.367E+03	9.136E-04	1.903E-10	0.000E+00	0.000E+00
EU159	0.000E+00	5.301E+03	6.101E+02	6.131E+01	6.436E-09	6.823E-21
GD159	0.000E+00	6.869E+03	6.704E+03	6.468E+03	4.456E+03	2.849E+03
ND160	0.000E+00	1.926E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM160	0.000E+00	1.139E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM160	0.000E+00	1.588E+03	1.249E+00	9.827E-04	0.000E+00	0.000E+00
EU160	0.000E+00	2.428E+03	1.463E+00	1.151E-03	0.000E+00	0.000E+00
TB160	0.000E+00	1.109E+03	1.109E+03	1.108E+03	1.104E+03	1.099E+03
ND161	0.000E+00	1.340E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM161	0.000E+00	1.318E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM161	0.000E+00	4.319E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU161	0.000E+00	1.051E+03	2.131E-23	0.000E+00	0.000E+00	0.000E+00
GD161	0.000E+00	1.227E+03	1.978E-02	2.598E-07	0.000E+00	0.000E+00
TB161	0.000E+00	1.454E+03	1.449E+03	1.443E+03	1.384E+03	1.316E+03
PM162	0.000E+00	5.657E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM162	0.000E+00	5.495E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU162	0.000E+00	3.071E+02	2.996E-02	2.883E-06	0.000E+00	0.000E+00
GD162	0.000E+00	5.637E+02	1.276E+01	1.997E-01	1.733E-19	0.000E+00
TB162	0.000E+00	5.583E+02	3.814E+01	7.303E-01	6.711E-19	0.000E+00
TB162M	0.000E+00	1.716E+01	1.339E+01	9.830E+00	4.392E-01	1.054E-02
SM163	0.000E+00	6.099E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU163	0.000E+00	7.103E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
GD163	0.000E+00	2.249E+02	4.966E-10	1.034E-21	0.000E+00	0.000E+00
TB163	0.000E+00	2.430E+02	3.122E+01	3.700E+00	2.022E-09	1.551E-20
SM164	0.000E+00	5.273E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU164	0.000E+00	1.415E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD164	0.000E+00	8.863E+01	1.302E+01	1.913E+00	8.952E-09	9.040E-19
TB164	0.000E+00	1.102E+02	1.515E+01	2.220E+00	1.039E-08	1.049E-18
SM165	0.000E+00	3.262E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU165	0.000E+00	2.203E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD165	0.000E+00	2.961E+01	4.538E-10	6.941E-21	0.000E+00	0.000E+00
TB165	0.000E+00	4.844E+01	6.741E-10	1.031E-20	0.000E+00	0.000E+00
DY165	0.000E+00	5.217E+02	3.909E+02	2.911E+02	1.524E+01	4.424E-01
DY165M	0.000E+00	3.241E+02	1.361E-09	2.080E-20	0.000E+00	0.000E+00
DY166	0.000E+00	3.350E+01	3.321E+01	3.293E+01	3.025E+01	2.731E+01
HO166	0.000E+00	1.325E+02	1.300E+02	1.275E+02	1.056E+02	8.508E+01
ER167M	0.000E+00	2.845E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ER169	0.000E+00	2.128E-01	2.122E-01	2.115E-01	2.051E-01	1.977E-01
TM170	0.000E+00	3.734E-02	3.733E-02	3.732E-02	3.724E-02	3.714E-02
SUMTOT	0.000E+00	1.809E+08	6.774E+07	6.029E+07	4.406E+07	3.759E+07
TOTAL	0.000E+00	1.809E+08	6.774E+07	6.029E+07	4.406E+07	3.759E+07

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

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, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	0.000E+00	6.206E+02	6.206E+02	6.206E+02	6.206E+02	6.205E+02
CO	0.000E+00	2.297E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI	0.000E+00	8.262E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU	0.000E+00	5.071E+02	2.568E-08	1.447E-10	1.228E-10	1.074E-10
ZN	0.000E+00	4.450E+03	7.207E+01	7.100E+01	6.116E+01	5.115E+01
GA	0.000E+00	2.131E+04	2.019E+02	1.831E+02	9.680E+01	6.852E+01
GE	0.000E+00	1.321E+05	5.311E+03	3.628E+03	5.394E+02	2.402E+02
AS	0.000E+00	3.854E+05	8.811E+03	7.581E+03	2.592E+03	2.035E+03
SE	0.000E+00	1.128E+06	1.568E+04	2.727E+03	7.083E+00	5.472E+00
BR	0.000E+00	2.421E+06	1.700E+05	9.873E+04	9.265E+03	4.175E+03
KR	0.000E+00	4.363E+06	1.197E+06	9.129E+05	1.034E+05	2.014E+04
RB	0.000E+00	6.160E+06	6.813E+05	4.860E+05	4.417E+04	4.630E+03
SR	0.000E+00	9.316E+06	3.165E+06	2.855E+06	1.602E+06	1.249E+06
Y	0.000E+00	1.282E+07	4.938E+06	4.545E+06	2.661E+06	1.805E+06
ZR	0.000E+00	1.033E+07	3.389E+06	3.322E+06	2.782E+06	2.364E+06
NB	0.000E+00	1.544E+07	5.051E+06	4.939E+06	3.896E+06	3.025E+06
MO	0.000E+00	9.910E+06	2.069E+06	1.912E+06	1.715E+06	1.512E+06
TC	0.000E+00	1.142E+07	2.287E+06	1.753E+06	1.609E+06	1.446E+06
RU	0.000E+00	4.959E+06	3.211E+06	3.064E+06	2.369E+06	2.201E+06
RH	0.000E+00	6.506E+06	3.518E+06	3.364E+06	3.019E+06	2.781E+06
PD	0.000E+00	7.453E+05	3.921E+05	3.634E+05	2.197E+05	1.215E+05
AG	0.000E+00	8.912E+05	5.002E+05	4.670E+05	3.068E+05	1.996E+05
CD	0.000E+00	1.763E+05	4.342E+04	3.587E+04	2.041E+04	1.695E+04
IN	0.000E+00	3.899E+05	5.701E+04	4.652E+04	2.181E+04	1.640E+04
SN	0.000E+00	1.526E+06	1.811E+05	1.180E+05	3.282E+04	2.743E+04
SB	0.000E+00	3.834E+06	7.341E+05	4.892E+05	1.848E+05	1.284E+05
TE	0.000E+00	8.293E+06	3.651E+06	2.657E+06	1.740E+06	1.515E+06
I	0.000E+00	1.235E+07	8.003E+06	7.081E+06	4.391E+06	3.331E+06
XE	0.000E+00	9.312E+06	3.195E+06	3.151E+06	3.072E+06	2.626E+06
CS	0.000E+00	8.310E+06	1.294E+06	6.715E+05	3.869E+05	3.819E+05
BA	0.000E+00	1.031E+07	3.397E+06	2.702E+06	1.877E+06	1.825E+06
LA	0.000E+00	1.023E+07	4.642E+06	3.905E+06	2.070E+06	1.845E+06
CE	0.000E+00	8.088E+06	4.603E+06	4.527E+06	4.226E+06	3.934E+06
PR	0.000E+00	6.979E+06	4.237E+06	3.859E+06	3.176E+06	2.940E+06
ND	0.000E+00	1.590E+06	9.651E+05	8.619E+05	6.638E+05	6.401E+05
PM	0.000E+00	1.708E+06	1.324E+06	1.305E+06	1.170E+06	1.031E+06
SM	0.000E+00	6.189E+05	5.459E+05	5.288E+05	4.452E+05	3.682E+05
EU	0.000E+00	2.670E+05	2.544E+05	2.493E+05	2.324E+05	2.214E+05
GD	0.000E+00	9.019E+03	6.746E+03	6.486E+03	4.472E+03	2.865E+03
TB	0.000E+00	3.541E+03	2.655E+03	2.568E+03	2.488E+03	2.415E+03
DY	0.000E+00	8.793E+02	4.241E+02	3.240E+02	4.549E+01	2.775E+01
HO	0.000E+00	1.325E+02	1.300E+02	1.275E+02	1.056E+02	8.509E+01
ER	0.000E+00	3.058E+00	2.122E-01	2.115E-01	2.051E-01	1.977E-01
TM	0.000E+00	4.250E-02	3.797E-02	3.796E-02	3.787E-02	3.776E-02
SUMTOT	0.000E+00	1.809E+08	6.774E+07	6.029E+07	4.406E+07	3.759E+07

TOTAL 0.000E+00 1.809E+08 6.774E+07 6.029E+07 4.406E+07 3.759E+07

CUMULATIVE TABLE TOTALS

AP+FP 1.203E-11 1.810E+08 6.774E+07 6.030E+07 4.406E+07 3.759E+07
 ACT+FP 2.813E+00 2.264E+08 9.506E+07 8.426E+07 6.462E+07 5.541E+07
 AP+ACT+FP 2.813E+00 2.264E+08 9.506E+07 8.426E+07 6.462E+07 5.541E+07

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	0.000E+00	2.090E-02	2.090E-02	2.090E-02	2.089E-02	2.089E-02
CO 72	0.000E+00	8.394E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 72	0.000E+00	6.034E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 72	0.000E+00	1.731E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 72	0.000E+00	1.107E-01	1.091E-01	1.074E-01	9.256E-02	7.740E-02
GA 72	0.000E+00	1.395E+00	1.394E+00	1.393E+00	1.336E+00	1.211E+00
CO 73	0.000E+00	2.388E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 73	0.000E+00	8.340E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 73	0.000E+00	1.689E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 73	0.000E+00	2.014E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 73	0.000E+00	6.588E-01	5.724E-01	4.966E-01	1.200E-01	2.183E-02
GE 73M	0.000E+00	5.789E-02	5.026E-02	4.361E-02	1.054E-02	1.917E-03
CO 74	0.000E+00	5.877E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 74	0.000E+00	4.074E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 74	0.000E+00	3.715E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 74	0.000E+00	1.690E+00	6.635E-12	2.596E-23	0.000E+00	0.000E+00
GA 74	0.000E+00	7.233E+00	5.232E-02	3.082E-04	0.000E+00	0.000E+00
CO 75	0.000E+00	6.971E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 75	0.000E+00	2.482E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 75	0.000E+00	2.951E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 75	0.000E+00	9.421E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 75	0.000E+00	4.766E+00	1.594E-09	4.969E-19	0.000E+00	0.000E+00
GE 75	0.000E+00	1.628E+00	1.010E+00	6.112E-01	4.026E-03	9.701E-06

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GE 75M	0.000E+00	2.200E-02	1.124E-11	3.503E-21	0.000E+00	0.000E+00
NI 76	0.000E+00	5.277E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 76	0.000E+00	3.286E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 76	0.000E+00	1.086E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 76	0.000E+00	3.635E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 76	0.000E+00	3.742E-01	3.645E-01	3.550E-01	2.728E-01	1.989E-01
NI 77	0.000E+00	1.253E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 77	0.000E+00	1.257E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 77	0.000E+00	2.303E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 77	0.000E+00	3.448E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 77	0.000E+00	1.053E+01	9.910E+00	9.321E+00	5.047E+00	2.418E+00
GE 77M	0.000E+00	1.381E+01	1.966E-19	0.000E+00	0.000E+00	0.000E+00
AS 77	0.000E+00	3.965E+00	3.920E+00	3.874E+00	3.395E+00	2.834E+00
SE 77M	0.000E+00	1.164E-02	1.023E-02	1.011E-02	8.861E-03	7.395E-03
NI 78	0.000E+00	1.238E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 78	0.000E+00	6.185E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 78	0.000E+00	1.656E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 78	0.000E+00	1.081E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 78	0.000E+00	1.896E+01	1.176E+01	7.294E+00	6.122E-02	1.975E-04
AS 78	0.000E+00	9.989E+01	9.104E+01	7.485E+01	2.350E+00	1.585E-02
CU 79	0.000E+00	1.514E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 79	0.000E+00	1.787E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 79	0.000E+00	9.186E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 79	0.000E+00	1.648E+02	1.060E-23	0.000E+00	0.000E+00	0.000E+00
AS 79	0.000E+00	7.944E+01	8.408E-01	8.277E-03	7.067E-23	0.000E+00
SE 79	0.000E+00	1.199E-04	1.199E-04	1.199E-04	1.199E-04	1.199E-04
SE 79M	0.000E+00	8.612E+00	1.599E-01	1.579E-03	1.345E-23	0.000E+00
CU 80	0.000E+00	2.339E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
ZN 80	0.000E+00	5.015E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 80	0.000E+00	1.484E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 80	0.000E+00	1.559E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ML041000030.txt

AS 80	0.000E+00	6.125E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 80	0.000E+00	4.379E-03	2.705E-03	2.217E-03	4.596E-04	6.999E-05
BR 80M	0.000E+00	2.974E-04	2.543E-04	2.174E-04	4.529E-05	6.897E-06
CU 81	0.000E+00	1.638E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 81	0.000E+00	2.034E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 81	0.000E+00	6.884E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 81	0.000E+00	5.863E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 81	0.000E+00	5.111E+02	8.864E-32	0.000E+00	0.000E+00	0.000E+00
SE 81	0.000E+00	2.018E+02	2.510E+01	4.145E+00	1.347E-03	2.222E-07
SE 81M	0.000E+00	9.288E-01	4.495E-01	2.175E-01	1.532E-04	2.528E-08
ZN 82	0.000E+00	2.435E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 82	0.000E+00	4.292E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 82	0.000E+00	3.218E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82	0.000E+00	9.304E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82M	0.000E+00	6.300E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 82	0.000E+00	1.067E+02	1.047E+02	1.027E+02	8.439E+01	6.668E+01
BR 82M	0.000E+00	1.156E+00	1.308E-03	1.482E-06	0.000E+00	0.000E+00
ZN 83	0.000E+00	2.766E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 83	0.000E+00	1.110E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 83	0.000E+00	5.635E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 83	0.000E+00	1.260E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 83	0.000E+00	8.700E+02	1.379E+02	2.171E+01	2.038E-07	4.745E-17
SE 83M	0.000E+00	9.572E+02	3.705E-13	1.222E-28	0.000E+00	0.000E+00
BR 83	0.000E+00	2.428E+02	1.932E+02	1.462E+02	8.068E+00	2.485E-01
KR 83M	0.000E+00	3.018E+01	2.917E+01	2.652E+01	3.113E+00	1.192E-01
GA 84	0.000E+00	1.661E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 84	0.000E+00	1.506E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 84	0.000E+00	2.231E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 84	0.000E+00	1.150E+03	3.905E-03	1.313E-08	0.000E+00	0.000E+00
BR 84	0.000E+00	3.856E+03	1.160E+03	3.137E+02	6.557E-04	1.002E-10
BR 84M	0.000E+00	1.727E+02	1.686E-01	1.647E-04	0.000E+00	0.000E+00
GE 85	0.000E+00	5.334E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 85	0.000E+00	1.125E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 85	0.000E+00	2.376E+03	3.930E-25	0.000E+00	0.000E+00	0.000E+00
SE 85M	0.000E+00	1.834E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 85	0.000E+00	1.588E+03	9.383E-04	4.696E-10	0.000E+00	0.000E+00
KR 85	0.000E+00	1.679E+01	1.679E+01	1.679E+01	1.679E+01	1.679E+01
KR 85M	0.000E+00	6.387E+02	5.538E+02	4.744E+02	1.010E+02	1.578E+01
GE 86	0.000E+00	9.221E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 86	0.000E+00	8.093E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 86	0.000E+00	3.370E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 86	0.000E+00	5.543E+03	1.399E-16	0.000E+00	0.000E+00	0.000E+00
BR 86M	0.000E+00	5.197E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 86	0.000E+00	1.126E+01	1.125E+01	1.123E+01	1.106E+01	1.085E+01
RB 86M	0.000E+00	8.645E-01	1.564E-18	2.579E-36	0.000E+00	0.000E+00
GE 87	0.000E+00	1.654E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 87	0.000E+00	3.491E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 87	0.000E+00	4.723E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
 1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
BR 87	0.000E+00	9.575E+03	3.812E-16	1.298E-35	0.000E+00	0.000E+00
KR 87	0.000E+00	6.246E+03	3.660E+03	2.122E+03	9.110E+00	1.313E-02
SR 87M	0.000E+00	1.720E-02	1.343E-02	1.049E-02	8.868E-04	4.574E-05
GE 88	0.000E+00	5.677E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 88	0.000E+00	3.682E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 88	0.000E+00	1.561E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 88	0.000E+00	6.647E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 88	0.000E+00	9.607E+03	7.534E+03	5.902E+03	5.136E+02	2.742E+01
RB 88	0.000E+00	1.131E+04	9.629E+03	7.617E+03	6.637E+02	3.544E+01
AS 89	0.000E+00	3.573E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 89	0.000E+00	6.120E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 89	0.000E+00	8.734E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 89	0.000E+00	1.607E+04	3.256E-02	6.530E-08	0.000E+00	0.000E+00
RB 89	0.000E+00	1.670E+04	1.351E+03	8.758E+01	1.147E-10	6.314E-25
SR 89	0.000E+00	3.336E+03	3.335E+03	3.333E+03	3.314E+03	3.291E+03
Y 89M	0.000E+00	2.997E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 90	0.000E+00	1.684E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 90	0.000E+00	6.566E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 90	0.000E+00	1.286E+04	3.830E-30	0.000E+00	0.000E+00	0.000E+00
RB 90	0.000E+00	2.097E+04	3.897E-02	2.242E-06	0.000E+00	0.000E+00
RB 90M	0.000E+00	5.547E+03	3.743E-01	2.360E-05	0.000E+00	0.000E+00
SR 90	0.000E+00	1.026E+02	1.026E+02	1.026E+02	1.026E+02	1.026E+02
Y 90	0.000E+00	5.123E+02	5.120E+02	5.118E+02	5.096E+02	5.072E+02
Y 90M	0.000E+00	7.415E-02	5.930E-02	4.742E-02	5.068E-03	3.464E-04
SE 91	0.000E+00	3.499E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 91	0.000E+00	2.155E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 91	0.000E+00	1.216E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 91	0.000E+00	2.657E+04	7.004E-15	1.677E-33	0.000E+00	0.000E+00
SR 91	0.000E+00	9.506E+03	8.852E+03	8.229E+03	3.967E+03	1.653E+03
Y 91	0.000E+00	4.503E+03	4.503E+03	4.502E+03	4.494E+03	4.475E+03
Y 91M	0.000E+00	2.276E+03	2.225E+03	2.115E+03	1.040E+03	4.332E+02

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SE 92	0.000E+00	1.572E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 92	0.000E+00	2.878E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 92	0.000E+00	5.780E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 92	0.000E+00	2.137E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 92	0.000E+00	1.177E+04	9.118E+03	7.060E+03	5.470E+02	2.541E+01	
Y 92	0.000E+00	1.308E+04	1.279E+04	1.209E+04	3.329E+03	4.141E+02	
BR 93	0.000E+00	5.066E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 93	0.000E+00	3.193E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 93	0.000E+00	1.497E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 93	0.000E+00	2.235E+04	8.790E+01	3.434E-01	0.000E+00	0.000E+00	0.000E+00
Y 93	0.000E+00	1.133E+04	1.070E+04	9.994E+03	5.031E+03	2.208E+03	
ZR 93	0.000E+00	2.507E-04	2.507E-04	2.507E-04	2.508E-04	2.508E-04	
NB 93M	0.000E+00	2.889E-05	2.889E-05	2.889E-05	2.891E-05	2.893E-05	
BR 94	0.000E+00	5.459E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 94	0.000E+00	9.182E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 94	0.000E+00	1.083E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 94	0.000E+00	1.747E+04	8.157E-11	3.774E-25	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	2.554E+04	3.083E+03	3.494E+02	1.221E-07	5.484E-19	
NB 94M	0.000E+00	3.426E-04	4.462E-07	5.796E-10	0.000E+00	0.000E+00	0.000E+00
BR 95	0.000E+00	3.857E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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PAGE 87

ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 95	0.000E+00	1.823E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 95	0.000E+00	5.142E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 95	0.000E+00	2.533E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 95	0.000E+00	2.193E+04	4.317E+02	8.223E+00	5.168E-17	0.000E+00
ZR 95	0.000E+00	8.812E+03	8.809E+03	8.805E+03	8.765E+03	8.718E+03
NB 95	0.000E+00	8.422E+03	8.422E+03	8.422E+03	8.421E+03	8.420E+03
NB 95M	0.000E+00	1.724E+01	1.724E+01	1.724E+01	1.721E+01	1.717E+01
BR 96	0.000E+00	2.545E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 96	0.000E+00	2.324E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 96	0.000E+00	2.019E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 96	0.000E+00	1.313E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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Y 96	0.000E+00	3.605E+04	5.143E-04	7.216E-12	0.000E+00	0.000E+00
NB 96	0.000E+00	6.010E+01	5.834E+01	5.664E+01	4.209E+01	2.948E+01
KR 97	0.000E+00	1.975E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 97	0.000E+00	3.281E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 97	0.000E+00	1.174E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 97	0.000E+00	2.486E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	8.960E+03	8.600E+03	8.254E+03	5.477E+03	3.348E+03
NB 97	0.000E+00	1.155E+04	1.137E+04	1.107E+04	7.518E+03	4.306E+03
NB 97M	0.000E+00	7.179E+03	6.882E+03	6.606E+03	4.383E+03	2.679E+03
KR 98	0.000E+00	1.866E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 98	0.000E+00	9.399E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 98	0.000E+00	3.517E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 98	0.000E+00	2.727E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 98	0.000E+00	9.293E+03	1.032E-31	0.000E+00	0.000E+00	0.000E+00
NB 98	0.000E+00	2.181E+04	2.616E-31	0.000E+00	0.000E+00	0.000E+00
NB 98M	0.000E+00	3.442E+02	1.535E+02	6.846E+01	2.129E-02	1.317E-06
RB 99	0.000E+00	8.238E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 99	0.000E+00	1.571E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 99	0.000E+00	1.214E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 99	0.000E+00	2.458E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	1.652E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99M	0.000E+00	9.471E+02	1.070E-04	1.210E-11	0.000E+00	0.000E+00
MO 99	0.000E+00	6.247E+03	6.182E+03	6.118E+03	5.508E+03	4.856E+03
TC 99	0.000E+00	7.618E-03	7.618E-03	7.618E-03	7.622E-03	7.626E-03
TC 99M	0.000E+00	1.435E+03	1.435E+03	1.432E+03	1.356E+03	1.219E+03
RB100	0.000E+00	1.001E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR100	0.000E+00	2.335E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y100	0.000E+00	8.479E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR100	0.000E+00	1.284E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100	0.000E+00	2.354E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100M	0.000E+00	2.061E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC100	0.000E+00	4.592E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR101	0.000E+00	5.060E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y101	0.000E+00	2.174E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR101	0.000E+00	1.868E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB101	0.000E+00	2.176E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	0.000E+00	2.014E+04	1.183E+03	6.877E+01	3.042E-11	4.552E-26
TC101	0.000E+00	8.464E+03	1.848E+03	1.800E+02	2.875E-10	5.800E-25
SR102	0.000E+00	3.702E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y102	0.000E+00	7.775E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
/CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
ZR102	0.000E+00	7.302E+03	9.952E-35	0.000E+00	0.000E+00	0.000E+00
NB102	0.000E+00	3.443E+04	2.609E-34	0.000E+00	0.000E+00	0.000E+00
MO102	0.000E+00	3.089E+03	7.428E+01	1.753E+00	9.371E-17	2.802E-36
TC102	0.000E+00	1.731E+04	4.189E+02	9.884E+00	5.285E-16	3.090E-35
TC102M	0.000E+00	3.797E+01	2.674E-03	1.884E-07	0.000E+00	0.000E+00
RH102	0.000E+00	1.449E-02	1.449E-02	1.449E-02	1.448E-02	1.448E-02
SR103	0.000E+00	1.768E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y103	0.000E+00	9.159E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR103	0.000E+00	5.102E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB103	0.000E+00	1.778E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO103	0.000E+00	2.193E+04	2.313E-14	2.006E-32	0.000E+00	0.000E+00
TC103	0.000E+00	1.192E+04	7.422E-14	6.439E-32	0.000E+00	0.000E+00
RU103	0.000E+00	5.512E+03	5.508E+03	5.504E+03	5.463E+03	5.415E+03
RH103M	0.000E+00	3.415E+02	3.414E+02	3.413E+02	3.391E+02	3.359E+02
SR104	0.000E+00	6.120E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y104	0.000E+00	1.116E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR104	0.000E+00	8.498E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB104	0.000E+00	1.377E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO104	0.000E+00	7.867E+03	4.069E-08	2.093E-19	0.000E+00	0.000E+00
TC104	0.000E+00	2.985E+04	3.312E+03	3.371E+02	4.015E-08	4.952E-20
RH104	0.000E+00	6.243E+03	3.357E-02	2.313E-06	0.000E+00	0.000E+00
RH104M	0.000E+00	5.734E+01	3.952E-03	2.723E-07	0.000E+00	0.000E+00
Y105	0.000E+00	4.999E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR105	0.000E+00	1.930E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB105	0.000E+00	3.588E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO105	0.000E+00	1.672E+04	1.436E-16	0.000E+00	0.000E+00	0.000E+00
TC105	0.000E+00	1.236E+04	7.532E+01	4.161E-01	0.000E+00	0.000E+00
RU105	0.000E+00	8.012E+03	7.082E+03	6.060E+03	1.271E+03	1.952E+02
RH105	0.000E+00	1.439E+03	1.440E+03	1.437E+03	1.285E+03	1.039E+03
RH105M	0.000E+00	2.443E+02	2.165E+02	1.852E+02	3.887E+01	5.967E+00
ZR106	0.000E+00	1.791E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB106	0.000E+00	1.436E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO106	0.000E+00	5.124E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC106	0.000E+00	1.802E+04	1.110E-25	0.000E+00	0.000E+00	0.000E+00
RU106	0.000E+00	3.304E+01	3.304E+01	3.304E+01	3.301E+01	3.298E+01
RH106	0.000E+00	5.928E+03	5.330E+03	5.329E+03	5.325E+03	5.320E+03
RH106M	0.000E+00	5.432E+02	3.964E+02	2.892E+02	1.239E+01	2.825E-01
Y107	0.000E+00	3.548E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR107	0.000E+00	1.240E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ML041000030.txt

NB107	0.000E+00	1.812E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO107	0.000E+00	3.810E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC107	0.000E+00	7.100E+03	3.350E-34	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU107	0.000E+00	5.672E+03	3.102E-01	1.553E-05	0.000E+00	0.000E+00	0.000E+00
RH107	0.000E+00	3.168E+03	5.876E+02	8.645E+01	4.105E-07	4.220E-17	
PD107M	0.000E+00	1.018E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR108	0.000E+00	2.842E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB108	0.000E+00	5.443E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO108	0.000E+00	8.010E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC108	0.000E+00	6.827E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU108	0.000E+00	1.388E+03	1.361E-01	1.318E-05	0.000E+00	0.000E+00	0.000E+00
RH108	0.000E+00	6.335E+03	6.557E-01	6.353E-05	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
RH108M	0.000E+00	8.210E+01	7.129E-02	6.190E-05	0.000E+00	0.000E+00
AG108	0.000E+00	6.071E-03	1.009E-08	9.947E-09	9.947E-09	9.946E-09
ZR109	0.000E+00	2.939E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB109	0.000E+00	8.856E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO109	0.000E+00	4.356E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC109	0.000E+00	2.559E+03	1.446E-18	0.000E+00	0.000E+00	0.000E+00
RU109	0.000E+00	3.956E+03	2.948E-18	0.000E+00	0.000E+00	0.000E+00
RH109	0.000E+00	2.205E+03	8.030E-09	7.303E-21	0.000E+00	0.000E+00
RH109M	0.000E+00	2.162E+02	4.938E-18	0.000E+00	0.000E+00	0.000E+00
PD109	0.000E+00	9.472E+02	9.053E+02	8.598E+02	5.138E+02	2.770E+02
PD109M	0.000E+00	1.637E+02	4.632E-02	6.526E-06	0.000E+00	0.000E+00
AG109M	0.000E+00	1.835E+02	1.755E+02	1.667E+02	9.963E+01	5.371E+01
NB110	0.000E+00	1.330E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO110	0.000E+00	6.608E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC110	0.000E+00	9.619E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU110	0.000E+00	1.116E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH110	0.000E+00	2.822E+03	2.570E-34	0.000E+00	0.000E+00	0.000E+00
RH110M	0.000E+00	1.424E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG110	0.000E+00	1.224E+03	4.111E-01	4.110E-01	4.105E-01	4.100E-01

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AG110M	0.000E+00	7.185E+01	7.184E+01	7.183E+01	7.175E+01	7.165E+01
NB111	0.000E+00	9.767E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO111	0.000E+00	2.111E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC111	0.000E+00	2.517E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU111	0.000E+00	1.033E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH111	0.000E+00	9.857E+02	7.694E-15	4.835E-32	0.000E+00	0.000E+00
PD111	0.000E+00	3.993E+02	6.698E+01	1.294E+01	9.666E-01	2.130E-01
PD111M	0.000E+00	3.942E+00	3.479E+00	3.067E+00	8.697E-01	1.917E-01
AG111	0.000E+00	1.702E+02	1.698E+02	1.692E+02	1.628E+02	1.555E+02
AG111M	0.000E+00	2.896E+01	5.179E+00	1.077E+00	1.004E-01	2.212E-02
CD111M	0.000E+00	7.006E-02	2.982E-02	1.270E-02	2.483E-06	8.797E-11
MO112	0.000E+00	3.049E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC112	0.000E+00	1.209E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU112	0.000E+00	3.025E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH112	0.000E+00	8.885E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD112	0.000E+00	3.619E+01	3.496E+01	3.378E+01	2.393E+01	1.582E+01
AG112	0.000E+00	4.903E+02	4.883E+02	4.834E+02	3.765E+02	2.526E+02
MO113	0.000E+00	3.206E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC113	0.000E+00	2.647E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU113	0.000E+00	2.964E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH113	0.000E+00	4.617E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD113	0.000E+00	3.662E+02	3.401E-10	3.093E-22	0.000E+00	0.000E+00
AG113	0.000E+00	1.750E+02	1.543E+02	1.354E+02	3.661E+01	7.621E+00
AG113M	0.000E+00	2.208E+01	7.584E-11	6.898E-23	0.000E+00	0.000E+00
CD113M	0.000E+00	1.026E-01	1.026E-01	1.026E-01	1.027E-01	1.026E-01
MO114	0.000E+00	2.655E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC114	0.000E+00	8.183E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU114	0.000E+00	9.689E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH114	0.000E+00	4.286E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD114	0.000E+00	1.492E+02	4.525E-06	1.349E-13	0.000E+00	0.000E+00
AG114	0.000E+00	2.644E+02	8.164E-06	2.433E-13	0.000E+00	0.000E+00
IN114	0.000E+00	4.255E-02	1.527E-02	1.527E-02	1.518E-02	1.507E-02

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
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IN114M	0.000E+00	4.758E-03	4.755E-03	4.752E-03	4.725E-03	4.692E-03
MO115	0.000E+00	2.469E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC115	0.000E+00	1.456E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU115	0.000E+00	7.518E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH115	0.000E+00	2.514E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD115	0.000E+00	3.129E+02	1.049E-26	0.000E+00	0.000E+00	0.000E+00
AG115	0.000E+00	1.569E+02	2.030E+01	2.537E+00	2.363E-09	3.438E-20
AG115M	0.000E+00	6.688E+01	3.790E-27	0.000E+00	0.000E+00	0.000E+00
CD115	0.000E+00	6.434E+01	6.378E+01	6.300E+01	5.534E+01	4.737E+01
CD115M	0.000E+00	7.213E+00	7.209E+00	7.204E+00	7.158E+00	7.102E+00
IN115M	0.000E+00	4.050E+01	4.046E+01	4.037E+01	3.727E+01	3.228E+01
TC116	0.000E+00	1.180E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU116	0.000E+00	1.279E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH116	0.000E+00	1.812E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD116	0.000E+00	1.442E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG116	0.000E+00	1.758E+02	3.483E-05	6.345E-12	0.000E+00	0.000E+00
AG116M	0.000E+00	2.059E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116	0.000E+00	9.901E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	1.449E+02	6.723E+01	3.119E+01	1.440E-02	1.432E-06
TC117	0.000E+00	4.268E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU117	0.000E+00	2.986E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH117	0.000E+00	8.158E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD117	0.000E+00	2.745E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG117	0.000E+00	1.250E+02	2.081E-13	3.262E-28	0.000E+00	0.000E+00
AG117M	0.000E+00	1.310E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD117	0.000E+00	8.124E+01	6.257E+01	4.793E+01	3.332E+00	1.360E-01
CD117M	0.000E+00	4.976E+01	4.068E+01	3.317E+01	4.319E+00	3.741E-01
IN117	0.000E+00	4.693E+01	4.535E+01	4.161E+01	6.069E+00	4.200E-01
IN117M	0.000E+00	4.979E+01	4.800E+01	4.381E+01	6.659E+00	4.145E-01
SN117M	0.000E+00	2.040E-01	2.036E-01	2.032E-01	1.990E-01	1.941E-01
RU118	0.000E+00	1.488E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH118	0.000E+00	1.755E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD118	0.000E+00	1.508E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG118	0.000E+00	2.135E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG118M	0.000E+00	9.775E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD118	0.000E+00	4.465E+01	1.957E+01	8.561E+00	2.196E-03	1.078E-07
IN118	0.000E+00	2.073E+02	9.096E+01	3.979E+01	1.021E-02	5.012E-07
IN118M	0.000E+00	1.416E-01	1.236E-05	1.080E-09	0.000E+00	0.000E+00
RH119	0.000E+00	1.127E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD119	0.000E+00	2.091E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG119	0.000E+00	2.940E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD119	0.000E+00	9.369E+01	1.135E+00	1.360E-02	8.299E-22	0.000E+00
CD119M	0.000E+00	1.045E+02	2.451E-04	5.558E-10	0.000E+00	0.000E+00
IN119	0.000E+00	3.934E+01	1.005E+00	1.049E-01	9.806E-12	8.919E-24
IN119M	0.000E+00	1.083E+02	1.851E+01	1.919E+00	1.784E-10	1.623E-22
SN119M	0.000E+00	1.286E-01	1.286E-01	1.286E-01	1.284E-01	1.282E-01
RU120	0.000E+00	3.740E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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RH120	0.000E+00	2.363E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD120	0.000E+00	5.393E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG120	0.000E+00	1.632E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD120	0.000E+00	9.459E+01	4.537E-20	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
 1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
IN120	0.000E+00	1.990E+02	7.414E-19	0.000E+00	0.000E+00	0.000E+00
IN120M	0.000E+00	1.377E+02	6.886E-20	0.000E+00	0.000E+00	0.000E+00
RH121	0.000E+00	3.149E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD121	0.000E+00	3.534E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG121	0.000E+00	1.701E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD121	0.000E+00	2.757E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121	0.000E+00	1.707E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121M	0.000E+00	4.560E+01	1.634E-04	5.496E-10	0.000E+00	0.000E+00
SN121	0.000E+00	2.147E+01	2.093E+01	2.040E+01	1.575E+01	1.155E+01
SN121M	0.000E+00	4.481E-04	4.481E-04	4.481E-04	4.481E-04	4.481E-04
RH122	0.000E+00	4.875E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD122	0.000E+00	8.225E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG122	0.000E+00	1.601E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD122	0.000E+00	1.367E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN122	0.000E+00	4.726E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN122M	0.000E+00	2.428E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB122	0.000E+00	1.559E+01	1.543E+01	1.526E+01	1.371E+01	1.206E+01
SB122M	0.000E+00	1.974E-02	9.881E-07	4.947E-11	0.000E+00	0.000E+00
RH123	0.000E+00	3.612E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD123	0.000E+00	2.812E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG123	0.000E+00	6.685E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD123	0.000E+00	3.018E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN123	0.000E+00	1.960E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN123M	0.000E+00	9.594E+01	2.860E-21	0.000E+00	0.000E+00	0.000E+00
SN123	0.000E+00	1.217E+01	1.216E+01	1.216E+01	1.213E+01	1.210E+01
SN123M	0.000E+00	6.077E+01	2.171E+01	7.693E+00	2.399E-04	9.392E-10
TE123M	0.000E+00	2.651E-02	2.650E-02	2.650E-02	2.643E-02	2.635E-02

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PD124	0.000E+00	4.164E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG124	0.000E+00	4.293E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD124	0.000E+00	1.869E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN124	0.000E+00	6.018E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB124	0.000E+00	2.170E+01	2.169E+01	2.168E+01	2.158E+01	2.146E+01	
SB124M	0.000E+00	3.149E-02	7.005E-14	1.558E-25	0.000E+00	0.000E+00	
AG125	0.000E+00	1.098E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
CD125	0.000E+00	2.362E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
IN125	0.000E+00	2.785E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
IN125M	0.000E+00	2.118E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
SN125	0.000E+00	9.703E+01	9.674E+01	9.645E+01	9.360E+01	9.029E+01	
SN125M	0.000E+00	1.593E+02	2.041E+00	2.586E-02	2.755E-21	0.000E+00	
SB125	0.000E+00	4.801E+01	4.801E+01	4.801E+01	4.801E+01	4.801E+01	
TE125M	0.000E+00	2.718E+00	2.719E+00	2.719E+00	2.720E+00	2.721E+00	
PD126	0.000E+00	7.278E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
AG126	0.000E+00	4.509E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
CD126	0.000E+00	1.284E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
IN126	0.000E+00	9.900E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
SN126	0.000E+00	1.072E-03	1.072E-03	1.072E-03	1.072E-03	1.072E-03	
SB126	0.000E+00	2.392E+01	2.387E+01	2.381E+01	2.326E+01	2.262E+01	
SB126M	0.000E+00	6.808E+00	7.725E-01	9.627E-02	1.094E-02	1.094E-02	
CD127	0.000E+00	1.126E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
IN127	0.000E+00	4.603E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
IN127M	0.000E+00	4.812E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
SN127	0.000E+00	1.062E+03	7.634E+02	5.488E+02	2.023E+01	3.853E-01
SN127M	0.000E+00	3.393E+02	1.449E-02	6.182E-07	0.000E+00	0.000E+00
SB127	0.000E+00	6.880E+02	6.857E+02	6.826E+02	6.379E+02	5.832E+02
TE127	0.000E+00	1.548E+02	1.548E+02	1.547E+02	1.517E+02	1.440E+02
TE127M	0.000E+00	8.108E+00	8.108E+00	8.109E+00	8.109E+00	8.108E+00
XE127	0.000E+00	1.076E-04	1.076E-04	1.075E-04	1.066E-04	1.056E-04
AG128	0.000E+00	2.023E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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CD128	0.000E+00	3.396E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN128	0.000E+00	1.086E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN128	0.000E+00	8.348E+02	4.126E+02	2.039E+02	1.770E-01	3.754E-05
SB128	0.000E+00	3.278E+02	3.035E+02	2.810E+02	1.302E+02	5.174E+01
SB128M	0.000E+00	3.305E+03	1.814E+03	8.999E+02	7.815E-01	1.657E-04
I128	0.000E+00	7.117E+01	1.347E+01	2.549E+00	1.503E-07	3.173E-16
CD129	0.000E+00	2.036E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN129	0.000E+00	7.080E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN129	0.000E+00	1.738E+03	6.791E+00	2.652E-02	0.000E+00	0.000E+00
SN129M	0.000E+00	2.092E+03	1.248E-04	7.436E-12	0.000E+00	0.000E+00
SB129	0.000E+00	3.811E+03	3.291E+03	2.803E+03	5.633E+02	8.212E+01
TE129	0.000E+00	1.200E+03	1.155E+03	1.065E+03	3.303E+02	1.469E+02
TE129M	0.000E+00	8.847E+01	8.846E+01	8.844E+01	8.793E+01	8.708E+01
XE129M	0.000E+00	1.014E-02	1.010E-02	1.007E-02	9.708E-03	9.297E-03
CD130	0.000E+00	1.535E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN130	0.000E+00	8.926E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN130	0.000E+00	2.876E+03	4.012E-02	5.598E-07	0.000E+00	0.000E+00
SB130	0.000E+00	2.606E+03	9.215E+02	3.258E+02	9.942E-03	3.793E-08
SB130M	0.000E+00	1.080E+04	3.043E+01	4.149E-02	0.000E+00	0.000E+00
I130	0.000E+00	5.796E+02	5.501E+02	5.202E+02	2.969E+02	1.515E+02
I130M	0.000E+00	2.895E+01	2.850E-01	2.805E-03	2.395E-23	0.000E+00
CD131	0.000E+00	3.947E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN131	0.000E+00	3.252E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN131	0.000E+00	5.728E+03	3.600E-14	2.263E-31	0.000E+00	0.000E+00
SB131	0.000E+00	1.251E+04	2.087E+03	3.421E+02	4.800E-06	1.810E-15
TE131	0.000E+00	6.220E+03	2.985E+03	1.010E+03	1.760E+02	1.334E+02
TE131M	0.000E+00	1.461E+03	1.434E+03	1.402E+03	1.113E+03	8.436E+02
I131	0.000E+00	3.538E+03	3.535E+03	3.527E+03	3.419E+03	3.290E+03
XE131M	0.000E+00	1.115E+01	1.115E+01	1.115E+01	1.115E+01	1.113E+01
CD132	0.000E+00	3.240E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN132	0.000E+00	1.290E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN132	0.000E+00	2.089E+03	1.688E-24	0.000E+00	0.000E+00	0.000E+00
SB132	0.000E+00	1.186E+04	4.643E-03	1.645E-09	0.000E+00	0.000E+00
SB132M	0.000E+00	7.833E+03	3.923E-01	1.964E-05	0.000E+00	0.000E+00
TE132	0.000E+00	2.918E+03	2.894E+03	2.868E+03	2.625E+03	2.360E+03
I132	0.000E+00	2.462E+04	2.449E+04	2.433E+04	2.243E+04	2.018E+04
CS132	0.000E+00	1.205E+00	1.200E+00	1.194E+00	1.142E+00	1.083E+00
IN133	0.000E+00	1.331E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN133	0.000E+00	1.482E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB133	0.000E+00	1.286E+04	3.837E-04	1.143E-11	0.000E+00	0.000E+00
TE133	0.000E+00	1.273E+04	1.076E+03	3.093E+02	1.610E-01	1.970E-05
TE133M	0.000E+00	1.339E+04	6.326E+03	2.986E+03	1.640E+00	2.007E-04
I133	0.000E+00	1.261E+04	1.237E+04	1.202E+04	8.649E+03	5.798E+03
I133M	0.000E+00	6.350E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)
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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
 /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
 1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
XE133	0.000E+00	2.251E+03	2.251E+03	2.251E+03	2.229E+03	2.169E+03
XE133M	0.000E+00	9.060E+01	9.049E+01	9.036E+01	8.752E+01	8.155E+01
IN134	0.000E+00	8.841E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN134	0.000E+00	1.730E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134	0.000E+00	2.855E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134M	0.000E+00	2.712E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE134	0.000E+00	1.194E+04	4.417E+03	1.633E+03	7.798E-02	5.091E-07
I134	0.000E+00	4.424E+04	3.086E+04	1.793E+04	1.217E+01	9.796E-04
I134M	0.000E+00	4.737E+02	6.223E-03	8.175E-08	0.000E+00	0.000E+00
XE134M	0.000E+00	1.824E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS134	0.000E+00	2.013E+03	2.013E+03	2.013E+03	2.012E+03	2.011E+03
CS134M	0.000E+00	4.738E+01	3.731E+01	2.937E+01	2.691E+00	1.529E-01
SN135	0.000E+00	2.650E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB135	0.000E+00	1.566E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE135	0.000E+00	1.649E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	0.000E+00	2.252E+04	2.029E+04	1.827E+04	6.403E+03	1.820E+03
XE135	0.000E+00	1.785E+03	2.123E+03	2.383E+03	2.766E+03	1.689E+03
XE135M	0.000E+00	1.302E+03	9.052E+02	7.975E+02	2.790E+02	7.929E+01
CS135	0.000E+00	1.725E-04	1.725E-04	1.725E-04	1.726E-04	1.727E-04
CS135M	0.000E+00	3.265E+02	1.490E+02	6.797E+01	2.657E-02	2.163E-06
BA135M	0.000E+00	1.970E-01	1.923E-01	1.877E-01	1.474E-01	1.103E-01
SN136	0.000E+00	2.010E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB136	0.000E+00	4.127E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE136	0.000E+00	7.912E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I136	0.000E+00	2.335E+04	2.399E-09	2.106E-22	0.000E+00	0.000E+00
I136M	0.000E+00	1.243E+04	3.432E-20	0.000E+00	0.000E+00	0.000E+00
CS136	0.000E+00	9.091E+02	9.071E+02	9.051E+02	8.854E+02	8.622E+02
BA136M	0.000E+00	1.329E+02	1.326E+02	1.323E+02	1.294E+02	1.260E+02
SB137	0.000E+00	5.405E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE137	0.000E+00	3.339E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I137	0.000E+00	1.889E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE137	0.000E+00	2.128E+04	4.325E-01	8.320E-06	0.000E+00	0.000E+00
CS137	0.000E+00	1.334E+02	1.334E+02	1.334E+02	1.334E+02	1.334E+02
BA137M	0.000E+00	4.490E+02	4.482E+02	4.481E+02	4.481E+02	4.481E+02
SB138	0.000E+00	8.542E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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TE138	0.000E+00	6.888E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I138	0.000E+00	1.053E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	0.000E+00	1.828E+04	9.734E+02	5.172E+01	9.271E-12	4.692E-27	
CS138	0.000E+00	4.016E+04	1.738E+04	5.113E+03	1.277E-02	2.372E-09	
CS138M	0.000E+00	5.084E+02	3.006E-04	1.778E-10	0.000E+00	0.000E+00	
SB139	0.000E+00	5.487E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
TE139	0.000E+00	1.951E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
I139	0.000E+00	4.928E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
XE139	0.000E+00	2.112E+04	7.815E-24	0.000E+00	0.000E+00	0.000E+00	
CS139	0.000E+00	2.134E+04	2.701E+02	3.236E+00	1.974E-19	0.000E+00	
BA139	0.000E+00	1.037E+04	7.080E+03	4.292E+03	2.809E+01	6.743E-02	
TE140	0.000E+00	1.928E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
I140	0.000E+00	1.638E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
XE140	0.000E+00	1.150E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
CS140	0.000E+00	3.905E+04	4.617E-13	4.768E-30	0.000E+00	0.000E+00	
BA140	0.000E+00	5.009E+03	4.998E+03	4.987E+03	4.875E+03	4.745E+03	

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
LA140	0.000E+00	3.110E+04	3.108E+04	3.106E+04	3.084E+04	3.047E+04
PR140	0.000E+00	1.007E-01	4.730E-07	2.223E-12	0.000E+00	0.000E+00
TE141	0.000E+00	1.235E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I141	0.000E+00	2.596E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE141	0.000E+00	6.865E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS141	0.000E+00	2.282E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA141	0.000E+00	1.733E+04	1.809E+03	1.856E+02	2.403E-08	3.276E-20
LA141	0.000E+00	9.980E+03	8.990E+03	7.601E+03	1.305E+03	1.572E+02
CE141	0.000E+00	2.533E+03	2.533E+03	2.532E+03	2.518E+03	2.493E+03
TE142	0.000E+00	1.010E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I142	0.000E+00	5.248E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE142	0.000E+00	1.755E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS142	0.000E+00	1.970E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA142	0.000E+00	1.393E+04	2.860E+02	5.867E+00	7.731E-17	4.290E-37
LA142	0.000E+00	3.469E+04	2.489E+04	1.595E+04	1.796E+02	8.242E-01

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PR142	0.000E+00	4.613E+02	4.460E+02	4.302E+02	2.994E+02	1.938E+02
PR142M	0.000E+00	2.606E+01	1.510E+00	8.745E-02	3.721E-14	5.313E-29
I143	0.000E+00	2.772E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE143	0.000E+00	4.602E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS143	0.000E+00	7.818E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA143	0.000E+00	2.200E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA143	0.000E+00	1.821E+04	9.477E+02	4.859E+01	6.099E-12	2.012E-27
CE143	0.000E+00	6.603E+03	6.510E+03	6.377E+03	5.169E+03	4.017E+03
PR143	0.000E+00	2.902E+03	2.902E+03	2.902E+03	2.894E+03	2.872E+03
I144	0.000E+00	2.944E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE144	0.000E+00	5.726E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS144	0.000E+00	3.233E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA144	0.000E+00	1.052E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA144	0.000E+00	2.802E+04	2.926E-23	0.000E+00	0.000E+00	0.000E+00
CE144	0.000E+00	8.497E+02	8.496E+02	8.495E+02	8.487E+02	8.476E+02
PR144	0.000E+00	9.494E+03	9.422E+03	9.415E+03	9.405E+03	9.393E+03
PR144M	0.000E+00	5.265E+00	5.259E+00	5.259E+00	5.253E+00	5.247E+00
XE145	0.000E+00	9.679E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS145	0.000E+00	6.054E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA145	0.000E+00	1.023E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA145	0.000E+00	1.518E+04	7.417E-34	0.000E+00	0.000E+00	0.000E+00
CE145	0.000E+00	9.414E+03	1.077E-02	1.027E-08	0.000E+00	0.000E+00
PR145	0.000E+00	4.385E+03	3.944E+03	3.512E+03	1.102E+03	2.743E+02
XE146	0.000E+00	4.901E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS146	0.000E+00	1.269E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA146	0.000E+00	2.284E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA146	0.000E+00	1.584E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE146	0.000E+00	2.227E+03	1.200E+02	6.415E+00	1.224E-12	6.670E-28
PR146	0.000E+00	1.305E+04	4.682E+03	9.647E+02	3.501E-05	3.872E-14
PM146	0.000E+00	1.498E-02	1.498E-02	1.498E-02	1.498E-02	1.497E-02
XE147	0.000E+00	6.241E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS147	0.000E+00	1.752E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA147	0.000E+00	9.895E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA147	0.000E+00	5.382E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE147	0.000E+00	8.326E+03	2.973E-12	9.810E-28	0.000E+00	0.000E+00
PR147	0.000E+00	6.323E+03	2.198E+02	6.867E+00	6.099E-15	5.290E-33

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

ML041000030.txt

9 SUMMARY TABLE: THERMAL POWER, WATTS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
ND147	0.000E+00	1.643E+03	1.640E+03	1.636E+03	1.593E+03	1.544E+03
PM147	0.000E+00	4.951E+01	4.951E+01	4.952E+01	4.957E+01	4.964E+01
CS148	0.000E+00	1.510E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA148	0.000E+00	1.240E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA148	0.000E+00	3.226E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE148	0.000E+00	2.829E+03	1.793E-22	0.000E+00	0.000E+00	0.000E+00
PR148	0.000E+00	9.027E+03	1.785E-04	2.505E-12	0.000E+00	0.000E+00
PM148	0.000E+00	2.302E+03	2.290E+03	2.277E+03	2.159E+03	2.025E+03
PM148M	0.000E+00	4.340E+02	4.337E+02	4.334E+02	4.304E+02	4.268E+02
BA149	0.000E+00	2.297E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA149	0.000E+00	6.219E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE149	0.000E+00	3.999E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR149	0.000E+00	3.156E+03	4.458E-05	6.254E-13	0.000E+00	0.000E+00
ND149	0.000E+00	2.113E+03	1.446E+03	9.687E+02	1.763E+01	1.439E-01
PM149	0.000E+00	1.431E+03	1.423E+03	1.411E+03	1.250E+03	1.069E+03
CS150	0.000E+00	1.566E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA150	0.000E+00	1.359E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA150	0.000E+00	1.745E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE150	0.000E+00	1.115E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR150	0.000E+00	4.809E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM150	0.000E+00	9.885E+01	7.632E+01	5.893E+01	4.437E+00	1.992E-01
LA151	0.000E+00	1.843E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE151	0.000E+00	6.784E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR151	0.000E+00	1.978E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND151	0.000E+00	1.839E+03	6.450E+01	2.254E+00	6.124E-15	2.032E-32
PM151	0.000E+00	7.707E+02	7.574E+02	7.394E+02	5.792E+02	4.321E+02
SM151	0.000E+00	5.811E-02	5.813E-02	5.815E-02	5.834E-02	5.850E-02
BA152	0.000E+00	4.416E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA152	0.000E+00	2.844E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE152	0.000E+00	1.071E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR152	0.000E+00	1.466E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND152	0.000E+00	4.818E+02	1.303E+01	3.503E-01	6.895E-17	9.774E-36
PM152	0.000E+00	1.520E+03	6.221E+01	1.675E+00	3.293E-16	4.673E-35
PM152M	0.000E+00	2.817E+01	1.100E-01	4.301E-04	0.000E+00	0.000E+00
EU152	0.000E+00	6.994E-02	6.994E-02	6.994E-02	6.993E-02	6.993E-02
EU152M	0.000E+00	6.316E-01	5.864E-01	5.443E-01	2.587E-01	1.060E-01
LA153	0.000E+00	2.519E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE153	0.000E+00	3.178E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR153	0.000E+00	3.664E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND153	0.000E+00	1.055E+03	9.793E-14	8.820E-30	0.000E+00	0.000E+00
PM153	0.000E+00	4.311E+02	2.413E-01	1.091E-04	0.000E+00	0.000E+00
SM153	0.000E+00	1.017E+03	1.003E+03	9.880E+02	8.517E+02	7.127E+02
GD153	0.000E+00	1.440E-02	1.440E-02	1.440E-02	1.438E-02	1.436E-02

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LA154	0.000E+00	1.528E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE154	0.000E+00	2.837E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR154	0.000E+00	1.317E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND154	0.000E+00	2.839E+02	2.303E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM154	0.000E+00	8.578E+02	3.906E-04	1.384E-10	0.000E+00	0.000E+00	0.000E+00
PM154M	0.000E+00	1.421E+02	1.313E-08	1.213E-18	0.000E+00	0.000E+00	0.000E+00
EU154	0.000E+00	9.766E+01	9.766E+01	9.766E+01	9.765E+01	9.764E+01	9.764E+01
CE155	0.000E+00	5.033E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

6 PAGE 96
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
PR155	0.000E+00	2.150E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND155	0.000E+00	2.599E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM155	0.000E+00	4.035E+02	2.055E-27	0.000E+00	0.000E+00	0.000E+00
SM155	0.000E+00	2.407E+02	3.817E+01	5.863E+00	4.287E-08	7.397E-18
EU155	0.000E+00	5.366E+00	5.366E+00	5.366E+00	5.365E+00	5.364E+00
GD155M	0.000E+00	4.703E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE156	0.000E+00	3.976E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR156	0.000E+00	5.677E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND156	0.000E+00	6.294E+01	1.866E-17	5.530E-36	0.000E+00	0.000E+00
PM156	0.000E+00	3.684E+02	4.482E-17	2.301E-35	0.000E+00	0.000E+00
SM156	0.000E+00	6.547E+01	6.086E+01	5.653E+01	2.704E+01	1.116E+01
EU156	0.000E+00	2.090E+03	2.087E+03	2.083E+03	2.047E+03	2.003E+03
CE157	0.000E+00	4.316E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR157	0.000E+00	7.489E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND157	0.000E+00	3.312E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM157	0.000E+00	1.456E+02	1.722E-14	2.013E-30	0.000E+00	0.000E+00
SM157	0.000E+00	1.538E+02	9.276E-01	5.124E-03	0.000E+00	0.000E+00
EU157	0.000E+00	1.196E+02	1.150E+02	1.099E+02	6.963E+01	4.029E+01
PR158	0.000E+00	7.218E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND158	0.000E+00	3.919E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM158	0.000E+00	7.467E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM158	0.000E+00	3.889E+01	1.512E+01	5.872E+00	4.595E-04	5.426E-09
EU158	0.000E+00	1.256E+02	9.284E+01	5.387E+01	2.164E-02	6.377E-07

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PR159	0.000E+00	2.546E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND159	0.000E+00	5.980E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM159	0.000E+00	1.412E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM159	0.000E+00	5.118E+01	1.071E-05	2.230E-12	0.000E+00	0.000E+00	0.000E+00
EU159	0.000E+00	4.971E+01	5.721E+00	5.749E-01	6.035E-11	6.398E-23	
GD159	0.000E+00	2.239E+01	2.186E+01	2.109E+01	1.453E+01	9.290E+00	
ND160	0.000E+00	3.850E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM160	0.000E+00	3.305E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM160	0.000E+00	1.686E+01	1.326E-02	1.043E-05	0.000E+00	0.000E+00	0.000E+00
EU160	0.000E+00	3.266E+01	1.968E-02	1.548E-05	0.000E+00	0.000E+00	0.000E+00
TB160	0.000E+00	9.034E+00	9.031E+00	9.027E+00	8.991E+00	8.948E+00	
ND161	0.000E+00	3.867E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM161	0.000E+00	3.375E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM161	0.000E+00	7.031E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU161	0.000E+00	1.294E+01	2.623E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD161	0.000E+00	8.903E+00	1.435E-04	1.885E-09	0.000E+00	0.000E+00	0.000E+00
TB161	0.000E+00	2.914E+00	2.903E+00	2.891E+00	2.772E+00	2.637E+00	
PM162	0.000E+00	1.951E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM162	0.000E+00	7.098E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU162	0.000E+00	6.097E+00	5.948E-04	5.724E-08	0.000E+00	0.000E+00	0.000E+00
GD162	0.000E+00	2.048E+00	4.636E-02	7.258E-04	6.295E-22	0.000E+00	0.000E+00
TB162	0.000E+00	5.567E+00	3.803E-01	7.281E-03	6.691E-21	0.000E+00	0.000E+00
TB162M	0.000E+00	1.863E-01	1.455E-01	1.068E-01	4.770E-03	1.144E-04	
SM163	0.000E+00	1.294E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU163	0.000E+00	1.266E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD163	0.000E+00	2.222E+00	4.907E-12	1.021E-23	0.000E+00	0.000E+00	0.000E+00
TB163	0.000E+00	1.467E+00	1.884E-01	2.232E-02	1.220E-11	9.362E-23	
SM164	0.000E+00	9.180E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
EU164	0.000E+00	3.700E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD164	0.000E+00	5.648E-01	8.299E-02	1.219E-02	5.705E-11	5.761E-21
TB164	0.000E+00	1.543E+00	2.123E-01	3.110E-02	1.455E-10	1.470E-20

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SM165	0.000E+00	8.488E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU165	0.000E+00	4.936E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD165	0.000E+00	4.084E-01	6.259E-12	9.573E-23	0.000E+00	0.000E+00
TB165	0.000E+00	4.890E-01	6.805E-12	1.041E-22	0.000E+00	0.000E+00
DY165	0.000E+00	2.415E+00	1.810E+00	1.347E+00	7.056E-02	2.048E-03
DY165M	0.000E+00	2.421E-01	1.016E-12	1.553E-23	0.000E+00	0.000E+00
DY166	0.000E+00	3.911E-02	3.878E-02	3.845E-02	3.532E-02	3.189E-02
HO166	0.000E+00	5.679E-01	5.570E-01	5.464E-01	4.527E-01	3.647E-01
HO166M	0.000E+00	2.614E-05	2.614E-05	2.614E-05	2.614E-05	2.614E-05
ER167M	0.000E+00	3.508E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ER169	0.000E+00	4.289E-04	4.276E-04	4.263E-04	4.134E-04	3.984E-04
TM170	0.000E+00	7.408E-05	7.407E-05	7.405E-05	7.388E-05	7.369E-05
SUMTOT	0.000E+00	2.155E+06	4.372E+05	3.493E+05	2.054E+05	1.676E+05

TOTAL 0.000E+00 2.155E+06 4.372E+05 3.493E+05 2.054E+05 1.676E+05

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP

, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	0.000E+00	2.090E-02	2.090E-02	2.090E-02	2.089E-02	2.089E-02
CO	0.000E+00	1.144E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI	0.000E+00	2.159E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU	0.000E+00	1.543E+01	1.751E-10	2.708E-13	1.972E-13	1.724E-13
ZN	0.000E+00	8.887E+01	1.091E-01	1.075E-01	9.256E-02	7.740E-02
GA	0.000E+00	5.577E+02	2.019E+00	1.889E+00	1.456E+00	1.233E+00
GE	0.000E+00	2.052E+03	2.273E+01	1.727E+01	5.123E+00	2.420E+00
AS	0.000E+00	8.683E+03	9.617E+01	7.909E+01	6.019E+00	3.048E+00
SE	0.000E+00	1.787E+04	1.636E+02	2.608E+01	1.048E-02	7.515E-03
BR	0.000E+00	5.073E+04	1.458E+03	5.626E+02	9.246E+01	6.692E+01
KR	0.000E+00	6.772E+04	1.179E+04	8.542E+03	6.436E+02	6.013E+01
RB	0.000E+00	1.359E+05	1.099E+04	7.716E+03	6.748E+02	4.630E+01
SR	0.000E+00	1.201E+05	2.150E+04	1.873E+04	7.931E+03	5.072E+03
Y	0.000E+00	1.910E+05	3.425E+04	2.957E+04	1.440E+04	8.037E+03
ZR	0.000E+00	9.663E+04	1.741E+04	1.706E+04	1.424E+04	1.207E+04
NB	0.000E+00	2.040E+05	2.690E+04	2.624E+04	2.038E+04	1.545E+04

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MO	0.000E+00	8.626E+04	7.439E+03	6.188E+03	5.508E+03	4.856E+03
TC	0.000E+00	1.218E+05	7.090E+03	1.960E+03	1.356E+03	1.219E+03
RU	0.000E+00	2.752E+04	1.262E+04	1.160E+04	6.768E+03	5.644E+03
RH	0.000E+00	3.324E+04	8.312E+03	7.668E+03	7.001E+03	6.701E+03
PD	0.000E+00	3.258E+03	1.011E+03	9.096E+02	5.395E+02	2.932E+02
AG	0.000E+00	4.715E+03	1.086E+03	1.031E+03	7.478E+02	5.414E+02
CD	0.000E+00	1.992E+03	1.951E+02	1.600E+02	7.026E+01	5.508E+01
IN	0.000E+00	8.234E+03	3.115E+02	1.988E+02	5.005E+01	3.314E+01
SN	0.000E+00	1.879E+04	1.337E+03	8.898E+02	1.422E+02	1.147E+02
SB	0.000E+00	7.433E+04	9.244E+03	5.444E+03	1.439E+03	8.212E+02
TE	0.000E+00	7.876E+04	2.054E+04	1.153E+04	4.497E+03	3.726E+03
I	0.000E+00	1.814E+05	9.211E+04	7.661E+04	4.121E+04	3.123E+04
XE	0.000E+00	8.696E+04	6.355E+03	5.584E+03	5.372E+03	4.030E+03
CS	0.000E+00	1.588E+05	2.090E+04	8.266E+03	3.035E+03	3.008E+03
BA	0.000E+00	9.340E+04	1.475E+04	1.005E+04	5.481E+03	5.319E+03
LA	0.000E+00	1.624E+05	6.591E+04	5.466E+04	3.232E+04	3.063E+04
CE	0.000E+00	3.872E+04	1.001E+04	9.765E+03	8.535E+03	7.357E+03
PR	0.000E+00	5.761E+04	2.162E+04	1.724E+04	1.371E+04	1.274E+04
ND	0.000E+00	7.776E+03	3.163E+03	2.607E+03	1.611E+03	1.544E+03
PM	0.000E+00	9.075E+03	5.092E+03	4.971E+03	4.472E+03	4.002E+03
SM	0.000E+00	1.592E+03	1.118E+03	1.056E+03	8.788E+02	7.239E+02
EU	0.000E+00	2.543E+03	2.404E+03	2.351E+03	2.220E+03	2.146E+03
GD	0.000E+00	3.656E+01	2.200E+01	2.111E+01	1.454E+01	9.304E+00
TB	0.000E+00	2.120E+01	1.286E+01	1.209E+01	1.177E+01	1.159E+01
DY	0.000E+00	2.696E+00	1.849E+00	1.386E+00	1.059E-01	3.394E-02
HO	0.000E+00	5.679E-01	5.571E-01	5.465E-01	4.527E-01	3.647E-01
ER	0.000E+00	3.937E-03	4.276E-04	4.263E-04	4.134E-04	3.984E-04
TM	0.000E+00	7.482E-05	7.480E-05	7.478E-05	7.454E-05	7.428E-05
SUMTOT	0.000E+00	2.155E+06	4.372E+05	3.493E+05	2.054E+05	1.676E+05
TOTAL	0.000E+00	2.155E+06	4.372E+05	3.493E+05	2.054E+05	1.676E+05

CUMULATIVE TABLE TOTALS

AP+FP	1.849E-14	2.155E+06	4.373E+05	3.493E+05	2.054E+05	1.676E+05
ACT+FP	7.967E-02	2.272E+06	5.058E+05	4.089E+05	2.567E+05	2.122E+05
AP+ACT+FP	7.967E-02	2.272E+06	5.059E+05	4.090E+05	2.567E+05	2.122E+05

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

19 SUMMARY TABLE: NEUTRON ABSORPTION RATE, NEUTRON
 S PER SECOND
 1 MTIHM 4.236% UO₂, 38313 MWD/MTIHM BURNUP
 , 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 83	0.000E+00	6.099E+00	6.100E+00	6.100E+00	6.101E+00	6.101E+00
ZR 91	0.000E+00	1.154E+00	1.154E+00	1.154E+00	1.155E+00	1.155E+00
ZR 93	0.000E+00	5.616E+00	5.616E+00	5.616E+00	5.617E+00	5.618E+00
MO 95	0.000E+00	1.940E+01	1.940E+01	1.940E+01	1.941E+01	1.942E+01
ZR 96	0.000E+00	1.101E+00	1.101E+00	1.101E+00	1.101E+00	1.101E+00
MO 97	0.000E+00	3.871E+00	3.871E+00	3.871E+00	3.872E+00	3.873E+00
MO 98	0.000E+00	7.426E+00	7.426E+00	7.426E+00	7.426E+00	7.426E+00
TC 99	0.000E+00	4.903E+01	4.903E+01	4.903E+01	4.905E+01	4.908E+01
RU101	0.000E+00	1.571E+01	1.571E+01	1.571E+01	1.571E+01	1.571E+01
RU102	0.000E+00	1.263E+00	1.263E+00	1.263E+00	1.263E+00	1.263E+00
RH103	0.000E+00	9.924E+01	9.925E+01	9.926E+01	9.934E+01	9.944E+01
PD104	0.000E+00	1.028E+00	1.028E+00	1.028E+00	1.028E+00	1.028E+00
RH105	0.000E+00	8.520E+00	8.525E+00	8.507E+00	7.608E+00	6.147E+00
PD105	0.000E+00	8.370E+00	8.371E+00	8.371E+00	8.376E+00	8.381E+00
PD107	0.000E+00	3.374E+00	3.374E+00	3.374E+00	3.374E+00	3.374E+00
PD108	0.000E+00	6.042E+00	6.042E+00	6.042E+00	6.042E+00	6.042E+00
AG109	0.000E+00	1.678E+01	1.678E+01	1.678E+01	1.680E+01	1.680E+01
CD113	0.000E+00	2.941E+00	2.951E+00	2.961E+00	3.008E+00	3.023E+00
IN115	0.000E+00	1.963E+00	1.964E+00	1.964E+00	1.968E+00	1.973E+00
I127	0.000E+00	1.347E+00	1.347E+00	1.347E+00	1.348E+00	1.349E+00
I129	0.000E+00	3.962E+00	3.963E+00	3.963E+00	3.964E+00	3.964E+00
XE131	0.000E+00	6.227E+01	6.228E+01	6.228E+01	6.232E+01	6.236E+01
XE133	0.000E+00	1.026E+00	1.026E+00	1.026E+00	1.016E+00	9.889E-01
CS133	0.000E+00	6.442E+01	6.443E+01	6.443E+01	6.446E+01	6.450E+01
CS134	0.000E+00	9.156E+00	9.156E+00	9.155E+00	9.152E+00	9.148E+00
XE135	0.000E+00	1.528E+02	1.817E+02	2.039E+02	2.367E+02	1.445E+02
CS135	0.000E+00	4.645E+00	4.645E+00	4.645E+00	4.648E+00	4.650E+00
LA139	0.000E+00	5.285E+00	5.285E+00	5.285E+00	5.285E+00	5.285E+00
PR141	0.000E+00	8.439E+00	8.439E+00	8.440E+00	8.443E+00	8.448E+00
ND143	0.000E+00	8.470E+01	8.471E+01	8.471E+01	8.476E+01	8.481E+01
ND144	0.000E+00	1.873E+00	1.873E+00	1.873E+00	1.874E+00	1.875E+00
ND145	0.000E+00	2.781E+01	2.781E+01	2.781E+01	2.781E+01	2.782E+01
PM147	0.000E+00	5.348E+01	5.349E+01	5.350E+01	5.356E+01	5.363E+01
SM147	0.000E+00	7.039E+00	7.039E+00	7.040E+00	7.044E+00	7.049E+00
ND148	0.000E+00	1.472E+00	1.472E+00	1.472E+00	1.472E+00	1.472E+00
PM148	0.000E+00	8.890E+00	8.842E+00	8.795E+00	8.337E+00	7.819E+00
PM148M	0.000E+00	1.433E+01	1.432E+01	1.431E+01	1.421E+01	1.409E+01
SM149	0.000E+00	6.115E+01	6.157E+01	6.200E+01	6.597E+01	7.011E+01
SM150	0.000E+00	1.898E+01	1.898E+01	1.898E+01	1.898E+01	1.898E+01
SM151	0.000E+00	3.755E+01	3.756E+01	3.758E+01	3.770E+01	3.780E+01
SM152	0.000E+00	3.981E+01	3.981E+01	3.981E+01	3.981E+01	3.981E+01

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EU153	0.000E+00	2.729E+01	2.729E+01	2.729E+01	2.733E+01	2.736E+01
EU154	0.000E+00	1.713E+01	1.713E+01	1.713E+01	1.712E+01	1.712E+01
EU155	0.000E+00	1.687E+01	1.687E+01	1.687E+01	1.687E+01	1.686E+01
GD157	0.000E+00	3.452E+00	3.479E+00	3.504E+00	3.703E+00	3.848E+00
SUMTOT	0.000E+00	9.941E+02	1.023E+03	1.046E+03	1.082E+03	9.926E+02
TOTAL	0.000E+00	1.015E+03	1.045E+03	1.067E+03	1.103E+03	1.013E+03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

19 SUMMARY TABLE: NEUTRON ABSORPTION RATE, NEUTRON S PER SECOND

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR	0.000E+00	6.409E+00	6.407E+00	6.406E+00	6.406E+00	6.406E+00
ZR	0.000E+00	8.632E+00	8.633E+00	8.633E+00	8.634E+00	8.635E+00
MO	0.000E+00	3.190E+01	3.190E+01	3.190E+01	3.191E+01	3.192E+01
TC	0.000E+00	4.903E+01	4.903E+01	4.903E+01	4.905E+01	4.908E+01
RU	0.000E+00	1.924E+01	1.924E+01	1.924E+01	1.923E+01	1.922E+01
RH	0.000E+00	1.078E+02	1.078E+02	1.078E+02	1.069E+02	1.056E+02
PD	0.000E+00	1.924E+01	1.924E+01	1.925E+01	1.925E+01	1.926E+01
AG	0.000E+00	1.684E+01	1.684E+01	1.685E+01	1.686E+01	1.687E+01
CD	0.000E+00	4.008E+00	4.018E+00	4.027E+00	4.076E+00	4.090E+00
IN	0.000E+00	1.964E+00	1.964E+00	1.965E+00	1.969E+00	1.974E+00
I	0.000E+00	5.323E+00	5.323E+00	5.323E+00	5.324E+00	5.325E+00
XE	0.000E+00	2.172E+02	2.461E+02	2.683E+02	3.011E+02	2.090E+02
CS	0.000E+00	7.838E+01	7.838E+01	7.838E+01	7.841E+01	7.845E+01
LA	0.000E+00	5.318E+00	5.318E+00	5.318E+00	5.318E+00	5.318E+00
CE	0.000E+00	1.628E+00	1.628E+00	1.628E+00	1.621E+00	1.612E+00
PR	0.000E+00	9.436E+00	9.437E+00	9.437E+00	9.437E+00	9.434E+00
ND	0.000E+00	1.179E+02	1.179E+02	1.179E+02	1.180E+02	1.180E+02
PM	0.000E+00	7.746E+01	7.741E+01	7.735E+01	7.676E+01	7.609E+01
SM	0.000E+00	1.661E+02	1.665E+02	1.669E+02	1.710E+02	1.752E+02
EU	0.000E+00	6.226E+01	6.226E+01	6.226E+01	6.227E+01	6.228E+01
GD	0.000E+00	5.484E+00	5.512E+00	5.540E+00	5.757E+00	5.925E+00
SUMTOT	0.000E+00	1.011E+03	1.041E+03	1.063E+03	1.099E+03	1.010E+03

ML041000030.txt

TOTAL 0.000E+00 1.015E+03 1.045E+03 1.067E+03 1.103E+03 1.013E+03

CUMULATIVE TABLE TOTALS

AP+FP 8.258E+01 1.030E+03 1.059E+03 1.082E+03 1.118E+03 1.028E+03
ACT+FP 7.403E+03 9.038E+03 9.068E+03 9.091E+03 9.130E+03 9.045E+03
AP+ACT+FP 7.485E+03 9.053E+03 9.083E+03 9.106E+03 9.145E+03 9.059E+03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

20 SUMMARY TABLE: NEUTRON ABSORPTION RATE, FRACTIONAL NEUTRONS PER SECOND

1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP, 2 CYCLE

Table with 7 columns: FUEL CHG, FUEL DIS, 1.0HR, 2.0HR, 12.0HR, 24.0HR. Rows include isotopes like KR 83, ZR 91, MO 95, etc.

ML041000030.txt

XE133	0.000E+00	1.011E-03	9.822E-04	9.612E-04	9.211E-04	9.758E-04
CS133	0.000E+00	6.345E-02	6.167E-02	6.036E-02	5.843E-02	6.364E-02
CS134	0.000E+00	9.017E-03	8.763E-03	8.578E-03	8.296E-03	9.026E-03
XE135	0.000E+00	1.505E-01	1.739E-01	1.910E-01	2.145E-01	1.426E-01
CS135	0.000E+00	4.575E-03	4.446E-03	4.352E-03	4.213E-03	4.589E-03
LA139	0.000E+00	5.205E-03	5.059E-03	4.952E-03	4.791E-03	5.215E-03
PR141	0.000E+00	8.311E-03	8.078E-03	7.907E-03	7.654E-03	8.335E-03
ND143	0.000E+00	8.342E-02	8.108E-02	7.937E-02	7.683E-02	8.368E-02
ND144	0.000E+00	1.845E-03	1.793E-03	1.755E-03	1.699E-03	1.850E-03
ND145	0.000E+00	2.738E-02	2.662E-02	2.605E-02	2.521E-02	2.744E-02
PM147	0.000E+00	5.268E-02	5.120E-02	5.012E-02	4.855E-02	5.292E-02
SM147	0.000E+00	6.932E-03	6.738E-03	6.596E-03	6.385E-03	6.955E-03
ND148	0.000E+00	1.450E-03	1.409E-03	1.379E-03	1.334E-03	1.452E-03
PM148	0.000E+00	8.755E-03	8.464E-03	8.240E-03	7.558E-03	7.715E-03
PM148M	0.000E+00	1.411E-02	1.371E-02	1.341E-02	1.288E-02	1.391E-02
SM149	0.000E+00	6.022E-02	5.894E-02	5.808E-02	5.980E-02	6.917E-02
SM150	0.000E+00	1.869E-02	1.817E-02	1.778E-02	1.720E-02	1.873E-02
SM151	0.000E+00	3.698E-02	3.596E-02	3.521E-02	3.417E-02	3.730E-02
SM152	0.000E+00	3.921E-02	3.810E-02	3.730E-02	3.609E-02	3.928E-02
EU153	0.000E+00	2.687E-02	2.612E-02	2.557E-02	2.477E-02	2.699E-02
EU154	0.000E+00	1.687E-02	1.639E-02	1.605E-02	1.552E-02	1.689E-02
EU155	0.000E+00	1.661E-02	1.615E-02	1.581E-02	1.529E-02	1.664E-02
GD157	0.000E+00	3.400E-03	3.330E-03	3.283E-03	3.357E-03	3.797E-03
SUMTOT	0.000E+00	9.790E-01	9.797E-01	9.801E-01	9.809E-01	9.794E-01
TOTAL	0.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

20 SUMMARY TABLE: NEUTRON ABSORPTION RATE, FRACTIONAL NEUTRONS PER SECOND

1 MTIHM 4.236% UO₂, 38313 MWD/MTIHM BURNUP, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR	0.000E+00	6.312E-03	6.133E-03	6.002E-03	5.807E-03	6.321E-03
ZR	0.000E+00	8.502E-03	8.263E-03	8.088E-03	7.827E-03	8.520E-03
MO	0.000E+00	3.142E-02	3.054E-02	2.989E-02	2.893E-02	3.150E-02

ML041000030.txt

TC	0.000E+00	4.828E-02	4.693E-02	4.594E-02	4.447E-02	4.843E-02
RU	0.000E+00	1.895E-02	1.841E-02	1.802E-02	1.743E-02	1.897E-02
RH	0.000E+00	1.061E-01	1.032E-01	1.010E-01	9.694E-02	1.042E-01
PD	0.000E+00	1.895E-02	1.842E-02	1.803E-02	1.745E-02	1.900E-02
AG	0.000E+00	1.659E-02	1.612E-02	1.578E-02	1.528E-02	1.664E-02
CD	0.000E+00	3.947E-03	3.846E-03	3.773E-03	3.694E-03	4.036E-03
IN	0.000E+00	1.934E-03	1.880E-03	1.841E-03	1.785E-03	1.948E-03
I	0.000E+00	5.242E-03	5.095E-03	4.987E-03	4.826E-03	5.254E-03
XE	0.000E+00	2.139E-01	2.356E-01	2.514E-01	2.729E-01	2.062E-01
CS	0.000E+00	7.719E-02	7.502E-02	7.344E-02	7.108E-02	7.740E-02
LA	0.000E+00	5.237E-03	5.090E-03	4.983E-03	4.821E-03	5.247E-03
CE	0.000E+00	1.604E-03	1.558E-03	1.525E-03	1.470E-03	1.591E-03
PR	0.000E+00	9.293E-03	9.033E-03	8.841E-03	8.555E-03	9.308E-03
ND	0.000E+00	1.161E-01	1.129E-01	1.105E-01	1.069E-01	1.164E-01
PM	0.000E+00	7.629E-02	7.409E-02	7.247E-02	6.958E-02	7.508E-02
SM	0.000E+00	1.636E-01	1.594E-01	1.564E-01	1.550E-01	1.729E-01
EU	0.000E+00	6.132E-02	5.959E-02	5.833E-02	5.645E-02	6.145E-02
GD	0.000E+00	5.401E-03	5.276E-03	5.190E-03	5.219E-03	5.846E-03
SUMTOT	0.000E+00	9.962E-01	9.963E-01	9.964E-01	9.965E-01	9.962E-01

TOTAL 0.000E+00 1.000E+00 1.000E+00 1.000E+00 1.000E+00 1.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BU

RNUP (PWRUE)

(ALPHA,N) NEUTRON SOURCE, NEUTRONS/SEC

BASIS=1 MTIHM 4.236% UO2, 38313 MWD/MTIHM BURNUP, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	1.333E+03	7.804E+02	7.804E+02	7.804E+02	7.804E+02	7.804E+02
U235	3.349E+01	9.205E+00	9.205E+00	9.205E+00	9.205E+00	9.205E+00
U238	1.013E+02	9.860E+01	9.860E+01	9.860E+01	9.860E+01	9.860E+01
PU238	0.000E+00	3.201E+06	3.202E+06	3.202E+06	3.207E+06	3.211E+06
PU239	0.000E+00	2.775E+05	2.776E+05	2.776E+05	2.781E+05	2.786E+05
PU240	0.000E+00	3.995E+05	3.995E+05	3.995E+05	3.995E+05	3.995E+05
AM241	0.000E+00	1.402E+05	1.402E+05	1.403E+05	1.405E+05	1.408E+05
CM242	0.000E+00	5.690E+07	5.690E+07	5.690E+07	5.691E+07	5.688E+07
CM244	0.000E+00	2.707E+06	2.707E+06	2.707E+06	2.707E+06	2.707E+06

TOTALS

TABLE	1.467E+03	6.367E+07	6.368E+07	6.368E+07	6.369E+07	6.366E+07
ACTUAL	1.467E+03	6.367E+07	6.368E+07	6.368E+07	6.369E+07	6.366E+07

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BU

RNUP (PWRUE)

SPONTANEOUS FISSION NEUTRON SOURCE, NEUTRO

NS/SEC

BASIS=1 MTHM 4.236% UO2, 38313 MWD/MTHM BU

RNUP, 2 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U235	1.493E+01	4.105E+00	4.105E+00	4.105E+00	4.105E+00	4.105E+00
U238	1.215E+04	1.183E+04	1.183E+04	1.183E+04	1.183E+04	1.183E+04
PU240	0.000E+00	2.106E+06	2.106E+06	2.106E+06	2.106E+06	2.106E+06
PU242	0.000E+00	7.293E+05	7.293E+05	7.293E+05	7.293E+05	7.293E+05
CM242	0.000E+00	2.761E+08	2.761E+08	2.761E+08	2.762E+08	2.760E+08
CM244	0.000E+00	3.259E+08	3.259E+08	3.259E+08	3.259E+08	3.259E+08
CM246	0.000E+00	1.066E+06	1.066E+06	1.066E+06	1.066E+06	1.066E+06

TOTALS

TABLE	1.216E+04	6.065E+08	6.065E+08	6.066E+08	6.066E+08	6.064E+08
ACTUAL	1.216E+04	6.065E+08	6.065E+08	6.066E+08	6.066E+08	6.064E+08

OVERALL

TOTALS

TABLE	1.363E+04	6.701E+08	6.702E+08	6.702E+08	6.703E+08	6.701E+08
ACTUAL	1.363E+04	6.701E+08	6.702E+08	6.702E+08	6.703E+08	6.701E+08

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

PHOTON SPECTRUM FOR ACTIVATION PRODUCTS

ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BU

RNUP (PWRUE)

POWER= 1.00 MW, BURNUP= 1. M

WD, FLUX= 1.00E+00

N/CM**2-SEC

18 GROUP PHOTON RELEASE RATES, PHOTON

S/SECOND

ML041000030.txt

BASIS=1 MTIHM 4.236% UO2, 38313 MWD/M

TIHM BURNUP, 2 CYCLE
E MEAN

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
1.000E-02	3.854E-02	5.140E+13	2.015E+13	1.847E+13	1.277E+13	1.040E+13
2.500E-02	7.143E-03	1.197E+13	5.458E+12	5.104E+12	3.853E+12	3.311E+12
3.750E-02	4.312E-03	6.892E+12	2.527E+12	2.306E+12	1.544E+12	1.239E+12
5.750E-02	5.379E-03	1.229E+13	5.469E+12	5.068E+12	3.455E+12	2.617E+12
8.500E-02	2.562E-03	7.023E+12	2.723E+12	2.513E+12	1.698E+12	1.311E+12
1.250E-01	1.270E-03	5.452E+12	2.369E+12	2.188E+12	1.536E+12	1.199E+12
2.250E-01	8.334E-04	8.488E+12	3.803E+12	3.609E+12	2.868E+12	2.504E+12
3.750E-01	4.850E-05	5.146E+12	1.670E+12	1.236E+12	6.343E+11	4.882E+11
5.750E-01	1.878E-09	1.344E+13	1.119E+13	1.091E+13	8.882E+12	7.100E+12
8.500E-01	1.302E-11	1.291E+13	9.678E+12	7.985E+12	2.985E+12	2.458E+12
1.250E+00	7.409E-12	3.644E+13	2.702E+13	2.528E+13	2.030E+13	1.747E+13
1.750E+00	3.712E-12	6.019E+12	2.111E+12	1.549E+12	1.154E+11	2.040E+10
2.250E+00	1.860E-12	1.957E+12	1.188E+12	8.185E+11	5.280E+10	7.684E+09
2.750E+00	9.320E-13	1.083E+13	1.019E+13	9.708E+12	6.062E+12	3.478E+12
3.500E+00	6.863E-13	1.227E+11	1.776E+10	1.485E+10	4.709E+09	2.405E+09
5.000E+00	2.043E-13	3.771E+10	7.175E+07	6.846E+07	4.311E+07	2.476E+07
7.000E+00	1.326E-14	5.621E+12	4.895E-03	4.895E-03	4.896E-03	4.896E-03
9.500E+00	8.384E-16	5.857E+09	3.095E-04	3.095E-04	3.096E-04	3.096E-04
TOTAL	6.009E-02	1.960E+14	1.056E+14	9.676E+13	6.676E+13	5.361E+13
MEV/SEC	1.617E-03	1.559E+14	8.566E+13	7.842E+13	5.172E+13	3.903E+13

18 GROUP SPECIFIC ENERGY RELEASE RATE

S, MEV/WATT-SEC

BASIS=1 MTIHM 4.236% UO2, 38313 MWD/M

TIHM BURNUP, 2 CYCLE
E MEAN

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
1.000E-02	3.854E-10	5.140E+05	2.015E+05	1.847E+05	1.277E+05	1.040E+05
2.500E-02	1.786E-10	2.992E+05	1.364E+05	1.276E+05	9.633E+04	8.277E+04
3.750E-02	1.617E-10	2.584E+05	9.476E+04	8.647E+04	5.789E+04	4.645E+04
5.750E-02	3.093E-10	7.069E+05	3.145E+05	2.914E+05	1.986E+05	1.505E+05
8.500E-02	2.178E-10	5.969E+05	2.315E+05	2.136E+05	1.443E+05	1.115E+05
1.250E-01	1.587E-10	6.815E+05	2.962E+05	2.735E+05	1.920E+05	1.499E+05
2.250E-01	1.875E-10	1.910E+06	8.558E+05	8.121E+05	6.453E+05	5.635E+05
3.750E-01	1.819E-11	1.930E+06	6.263E+05	4.635E+05	2.379E+05	1.831E+05
5.750E-01	1.080E-15	7.727E+06	6.436E+06	6.276E+06	5.107E+06	4.083E+06
8.500E-01	1.107E-17	1.097E+07	8.226E+06	6.787E+06	2.537E+06	2.089E+06
1.250E+00	9.261E-18	4.555E+07	3.378E+07	3.160E+07	2.537E+07	2.184E+07
1.750E+00	6.497E-18	1.053E+07	3.695E+06	2.711E+06	2.019E+05	3.571E+04
2.250E+00	4.185E-18	4.403E+06	2.673E+06	1.842E+06	1.188E+05	1.729E+04

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2.750E+00	2.563E-18	2.979E+07	2.803E+07	2.670E+07	1.667E+07	9.564E+06
3.500E+00	2.402E-18	4.293E+05	6.216E+04	5.199E+04	1.648E+04	8.416E+03
5.000E+00	1.022E-18	1.885E+05	3.588E+02	3.423E+02	2.156E+02	1.238E+02
7.000E+00	9.281E-20	3.935E+07	3.426E-08	3.426E-08	3.427E-08	3.427E-08
9.500E+00	7.965E-21	5.564E+04	2.940E-09	2.941E-09	2.941E-09	2.941E-09

TOTAL 1.617E-09 1.559E+08 8.566E+07 7.842E+07 5.172E+07 3.903E+07

GAM POW 2.592E-16 2.499E+01 1.373E+01 1.257E+01 8.291E+00 6.257E+00

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

PRINCIPAL PHOTON SOURCES IN GROUP 1, PHOTONS/SEC
MEAN ENERGY= 0.010MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
C 15	0.000E+00	2.243E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	1.311E+13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	3.416E+12	3.261E+12	3.114E+12	1.962E+12	1.127E+12
AL 28	0.000E+00	1.950E+12	1.693E+04	6.466E+01	4.642E+01	3.118E+01
SI 31	0.000E+00	6.614E+11	5.077E+11	3.898E+11	2.771E+10	1.161E+09
P 32	0.000E+00	1.340E+12	1.337E+12	1.335E+12	1.308E+12	1.277E+12
V 52	0.000E+00	2.978E+12	4.544E+07	6.933E+02	0.000E+00	0.000E+00
MN 56	0.000E+00	4.279E+12	3.270E+12	2.499E+12	1.700E+11	6.753E+09
CO 58	0.000E+00	1.705E+11	1.704E+11	1.703E+11	1.696E+11	1.688E+11
CO 60	0.000E+00	3.035E+11	3.035E+11	3.035E+11	3.034E+11	3.034E+11
CO 60M	0.000E+00	1.552E+12	2.924E+10	5.506E+08	3.089E-09	0.000E+00
ZN 65	0.000E+00	1.398E+12	1.398E+12	1.398E+12	1.396E+12	1.394E+12
ZN 69	0.000E+00	7.018E+11	3.621E+11	1.971E+11	2.781E+10	1.512E+10
MO 99	0.000E+00	2.131E+12	2.109E+12	2.087E+12	1.879E+12	1.657E+12
MO101	0.000E+00	6.320E+11	3.676E+10	2.137E+09	9.457E-04	1.415E-18
AG110	0.000E+00	9.505E+11	6.188E+08	6.187E+08	6.180E+08	6.171E+08
CD115	0.000E+00	2.559E+12	2.527E+12	2.494E+12	2.191E+12	1.875E+12
CD115M	0.000E+00	3.805E+11	3.802E+11	3.800E+11	3.775E+11	3.746E+11
IN114	0.000E+00	6.729E+11	2.677E+11	2.675E+11	2.660E+11	2.641E+11
IN115	3.854E-02	5.220E-04	5.220E-04	5.220E-04	5.222E-04	5.223E-04
IN116	0.000E+00	3.984E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	6.421E+11	2.979E+11	1.382E+11	6.382E+07	6.344E+03
GD159	0.000E+00	5.060E+11	4.875E+11	4.696E+11	3.235E+11	2.069E+11
TB160	0.000E+00	1.291E+11	1.291E+11	1.290E+11	1.285E+11	1.279E+11
W187	0.000E+00	1.568E+12	1.523E+12	1.479E+12	1.107E+12	7.815E+11
RE188	0.000E+00	1.054E+12	1.029E+12	9.897E+11	6.617E+11	4.095E+11

PRINCIPAL PHOTON SOURCES IN GROUP 2, PHOTONS/SEC

ML041000030.txt
 MEAN ENERGY= 0.025MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
C 15	0.000E+00	5.061E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	2.964E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	7.095E+11	6.775E+11	6.469E+11	4.075E+11	2.340E+11
AL 28	0.000E+00	4.246E+11	3.685E+03	1.408E+01	1.010E+01	6.788E+00
SI 31	0.000E+00	1.379E+11	1.059E+11	8.130E+10	5.779E+09	2.421E+08
P 32	0.000E+00	2.828E+11	2.822E+11	2.816E+11	2.760E+11	2.694E+11
V 52	0.000E+00	6.445E+11	9.834E+06	1.501E+02	0.000E+00	0.000E+00
MN 56	0.000E+00	9.150E+11	6.993E+11	5.345E+11	3.635E+10	1.444E+09
CO 60	0.000E+00	5.245E+10	5.245E+10	5.245E+10	5.244E+10	5.243E+10
ZN 69	0.000E+00	1.407E+11	7.261E+10	3.953E+10	5.576E+09	3.033E+09
MO 99	0.000E+00	3.829E+11	3.789E+11	3.750E+11	3.376E+11	2.976E+11
AG110	0.000E+00	2.091E+11	1.361E+08	1.361E+08	1.360E+08	1.358E+08
CD109	0.000E+00	4.703E+10	4.702E+10	4.702E+10	4.699E+10	4.696E+10
CD115	0.000E+00	1.017E+12	1.004E+12	9.906E+11	8.702E+11	7.448E+11

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

CD115M	0.000E+00	7.967E+10	7.962E+10	7.957E+10	7.906E+10	7.845E+10
IN114	0.000E+00	1.531E+11	6.091E+10	6.088E+10	6.052E+10	6.010E+10
IN114M	0.000E+00	2.217E+11	2.215E+11	2.214E+11	2.201E+11	2.186E+11
IN115	7.143E-03	9.676E-05	9.676E-05	9.676E-05	9.679E-05	9.682E-05
IN116	0.000E+00	8.716E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	1.553E+11	7.206E+10	3.343E+10	1.544E+07	1.535E+03
SN117M	0.000E+00	8.506E+11	8.489E+11	8.471E+11	8.299E+11	8.096E+11
SN119M	0.000E+00	1.087E+11	1.087E+11	1.087E+11	1.085E+11	1.084E+11
GD159	0.000E+00	1.006E+11	9.694E+10	9.339E+10	6.434E+10	4.114E+10
W187	0.000E+00	2.106E+11	2.046E+11	1.987E+11	1.487E+11	1.050E+11
RE188	0.000E+00	2.115E+11	2.064E+11	1.985E+11	1.327E+11	8.215E+10

PRINCIPAL PHOTON SOURCES IN GROUP 3, PHOTONS/SEC
 MEAN ENERGY= 0.038MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
C 15	0.000E+00	3.461E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	2.022E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	4.607E+11	4.399E+11	4.200E+11	2.646E+11	1.520E+11
AL 28	0.000E+00	2.839E+11	2.464E+03	9.413E+00	6.757E+00	4.540E+00
SI 31	0.000E+00	8.995E+10	6.905E+10	5.301E+10	3.768E+09	1.578E+08
P 32	0.000E+00	1.855E+11	1.851E+11	1.847E+11	1.810E+11	1.767E+11
V 52	0.000E+00	4.286E+11	6.539E+06	9.978E+01	0.000E+00	0.000E+00

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MN 56	0.000E+00	6.083E+11	4.649E+11	3.553E+11	2.417E+10	9.601E+08
CO 60	0.000E+00	2.995E+10	2.995E+10	2.994E+10	2.994E+10	2.994E+10
ZN 69	0.000E+00	8.922E+10	4.603E+10	2.506E+10	3.535E+09	1.923E+09
MO 99	0.000E+00	3.116E+11	3.084E+11	3.051E+11	2.747E+11	2.422E+11
AG110	0.000E+00	1.385E+11	9.016E+07	9.015E+07	9.005E+07	8.992E+07
CD115	0.000E+00	3.846E+11	3.797E+11	3.748E+11	3.292E+11	2.818E+11
CD115M	0.000E+00	5.206E+10	5.203E+10	5.200E+10	5.166E+10	5.126E+10
IN114	0.000E+00	9.408E+10	3.743E+10	3.740E+10	3.719E+10	3.693E+10
IN115	4.312E-03	5.841E-05	5.841E-05	5.841E-05	5.843E-05	5.845E-05
IN116	0.000E+00	5.860E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	8.107E+10	3.761E+10	1.745E+10	8.058E+06	8.010E+02
GD153	0.000E+00	6.075E+10	6.075E+10	6.074E+10	6.067E+10	6.058E+10
GD159	0.000E+00	6.361E+10	6.128E+10	5.904E+10	4.067E+10	2.601E+10
W187	0.000E+00	1.329E+11	1.291E+11	1.254E+11	9.384E+10	6.626E+10
RE188	0.000E+00	1.392E+11	1.359E+11	1.307E+11	8.740E+10	5.409E+10

PRINCIPAL PHOTON SOURCES IN GROUP 4, PHOTONS/SEC
MEAN ENERGY= 0.058MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
C 15	0.000E+00	5.335E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	3.110E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	6.547E+11	6.251E+11	5.969E+11	3.760E+11	2.160E+11
AL 28	0.000E+00	4.219E+11	3.661E+03	1.399E+01	1.004E+01	6.746E+00
SI 31	0.000E+00	1.285E+11	9.865E+10	7.573E+10	5.383E+09	2.255E+08
P 32	0.000E+00	2.674E+11	2.668E+11	2.663E+11	2.610E+11	2.547E+11
V 52	0.000E+00	6.304E+11	9.619E+06	1.468E+02	0.000E+00	0.000E+00

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MN 56	0.000E+00	8.888E+11	6.793E+11	5.192E+11	3.531E+10	1.403E+09
CO 60	0.000E+00	3.378E+10	3.378E+10	3.378E+10	3.378E+10	3.377E+10
CO 60M	0.000E+00	1.476E+11	2.779E+09	5.233E+07	2.936E-10	0.000E+00
CO 61	0.000E+00	1.219E+11	8.006E+10	5.260E+10	7.880E+08	5.096E+06
ZN 69	0.000E+00	1.217E+11	6.279E+10	3.418E+10	4.822E+09	2.623E+09
MO 99	0.000E+00	3.072E+11	3.040E+11	3.008E+11	2.708E+11	2.388E+11
AG110	0.000E+00	2.050E+11	1.335E+08	1.335E+08	1.333E+08	1.331E+08
CD115	0.000E+00	4.404E+11	4.347E+11	4.291E+11	3.770E+11	3.227E+11
CD115M	0.000E+00	7.451E+10	7.446E+10	7.441E+10	7.393E+10	7.336E+10
IN114	0.000E+00	1.366E+11	5.435E+10	5.432E+10	5.401E+10	5.363E+10
IN115	5.379E-03	7.286E-05	7.287E-05	7.287E-05	7.289E-05	7.291E-05
IN116	0.000E+00	8.716E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD159	0.000E+00	8.645E+10	8.329E+10	8.024E+10	5.528E+10	3.535E+10
TB160	0.000E+00	1.298E+11	1.297E+11	1.297E+11	1.292E+11	1.286E+11
W187	0.000E+00	2.154E+12	2.092E+12	2.032E+12	1.521E+12	1.074E+12

RE188 0.000E+00 2.903E+11 2.832E+11 2.725E+11 1.822E+11 1.128E+11

PRINCIPAL PHOTON SOURCES IN GROUP 5, PHOTONS/SEC
MEAN ENERGY= 0.085MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
C 15	0.000E+00	3.543E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	2.065E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	3.890E+11	3.714E+11	3.547E+11	2.234E+11	1.283E+11
AL 28	0.000E+00	2.680E+11	2.326E+03	8.885E+00	6.379E+00	4.285E+00
SI 31	0.000E+00	7.672E+10	5.890E+10	4.521E+10	3.214E+09	1.346E+08
P 32	0.000E+00	1.622E+11	1.619E+11	1.615E+11	1.583E+11	1.545E+11
V 52	0.000E+00	3.971E+11	6.058E+06	9.244E+01	0.000E+00	0.000E+00
MN 56	0.000E+00	5.560E+11	4.249E+11	3.248E+11	2.209E+10	8.775E+08
CO 60	0.000E+00	1.328E+10	1.328E+10	1.328E+10	1.328E+10	1.328E+10
ZN 69	0.000E+00	6.757E+10	3.486E+10	1.898E+10	2.677E+09	1.456E+09
MO 99	0.000E+00	1.771E+11	1.753E+11	1.734E+11	1.562E+11	1.377E+11
AG110	0.000E+00	1.295E+11	8.433E+07	8.432E+07	8.422E+07	8.410E+07
CD115	0.000E+00	2.445E+11	2.414E+11	2.383E+11	2.093E+11	1.791E+11
CD115M	0.000E+00	4.479E+10	4.476E+10	4.473E+10	4.444E+10	4.410E+10
IN114	0.000E+00	8.378E+10	3.333E+10	3.331E+10	3.311E+10	3.288E+10
IN115	2.562E-03	3.470E-05	3.470E-05	3.470E-05	3.471E-05	3.472E-05
IN116	0.000E+00	5.564E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	6.206E+10	2.879E+10	1.336E+10	6.168E+06	6.131E+02
GD153	0.000E+00	1.942E+10	1.942E+10	1.941E+10	1.939E+10	1.936E+10
GD159	0.000E+00	4.771E+10	4.596E+10	4.428E+10	3.050E+10	1.950E+10
TB160	0.000E+00	9.905E+10	9.901E+10	9.897E+10	9.858E+10	9.811E+10
W187	0.000E+00	7.906E+11	7.680E+11	7.460E+11	5.582E+11	3.942E+11
RE188	0.000E+00	1.425E+11	1.391E+11	1.338E+11	8.945E+10	5.536E+10

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PRINCIPAL PHOTON SOURCES IN GROUP 6, PHOTONS/SEC
MEAN ENERGY= 0.125MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
C 15	0.000E+00	2.531E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	1.474E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	2.477E+11	2.366E+11	2.259E+11	1.423E+11	8.173E+10
AL 28	0.000E+00	1.826E+11	1.584E+03	6.053E+00	4.345E+00	2.919E+00
SI 31	0.000E+00	4.932E+10	3.786E+10	2.907E+10	2.066E+09	8.655E+07
P 32	0.000E+00	1.055E+11	1.053E+11	1.051E+11	1.030E+11	1.005E+11

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V 52	0.000E+00	2.682E+11	4.092E+06	6.243E+01	0.000E+00	0.000E+00
MN 56	0.000E+00	3.730E+11	2.851E+11	2.179E+11	1.482E+10	5.887E+08
MO 99	0.000E+00	5.174E+11	5.120E+11	5.067E+11	4.561E+11	4.021E+11
AG110	0.000E+00	8.826E+10	5.746E+07	5.745E+07	5.738E+07	5.730E+07
CD115	0.000E+00	1.458E+11	1.440E+11	1.421E+11	1.248E+11	1.069E+11
CD115M	0.000E+00	2.888E+10	2.886E+10	2.884E+10	2.865E+10	2.843E+10
IN114	0.000E+00	5.536E+10	2.202E+10	2.201E+10	2.188E+10	2.173E+10
IN115	1.270E-03	1.720E-05	1.720E-05	1.720E-05	1.721E-05	1.721E-05
IN116	0.000E+00	3.836E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	1.693E+11	7.855E+10	3.644E+10	1.683E+07	1.673E+03
GD159	0.000E+00	2.819E+10	2.716E+10	2.617E+10	1.803E+10	1.153E+10
W187	0.000E+00	7.565E+11	7.349E+11	7.139E+11	5.342E+11	3.772E+11
RE188	0.000E+00	8.184E+10	7.986E+10	7.684E+10	5.137E+10	3.179E+10

PRINCIPAL PHOTON SOURCES IN GROUP 7, PHOTONS/SEC
MEAN ENERGY= 0.225MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
C 15	0.000E+00	4.090E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	2.373E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	3.099E+11	2.959E+11	2.826E+11	1.780E+11	1.022E+11
AL 28	0.000E+00	2.654E+11	2.303E+03	8.797E+00	6.315E+00	4.243E+00
SI 31	0.000E+00	6.293E+10	4.831E+10	3.708E+10	2.636E+09	1.104E+08
P 32	0.000E+00	1.396E+11	1.393E+11	1.390E+11	1.362E+11	1.330E+11
V 52	0.000E+00	3.839E+11	5.857E+06	8.938E+01	0.000E+00	0.000E+00
MN 56	0.000E+00	5.281E+11	4.036E+11	3.085E+11	2.098E+10	8.335E+08
MO 99	0.000E+00	4.880E+11	4.829E+11	4.779E+11	4.302E+11	3.793E+11
AG110	0.000E+00	1.286E+11	8.371E+07	8.370E+07	8.360E+07	8.349E+07
CD115	0.000E+00	6.606E+11	6.521E+11	6.437E+11	5.654E+11	4.840E+11
CD115M	0.000E+00	3.752E+10	3.749E+10	3.747E+10	3.723E+10	3.694E+10
IN114	0.000E+00	7.509E+10	2.987E+10	2.985E+10	2.968E+10	2.947E+10
IN114M	0.000E+00	7.961E+10	7.956E+10	7.951E+10	7.905E+10	7.850E+10
IN115	8.334E-04	1.129E-05	1.129E-05	1.129E-05	1.129E-05	1.130E-05
IN116	0.000E+00	5.712E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN117M	0.000E+00	7.816E+11	7.800E+11	7.784E+11	7.625E+11	7.439E+11
TB160	0.000E+00	3.047E+11	3.046E+11	3.044E+11	3.032E+11	3.018E+11
W187	0.000E+00	8.656E+10	8.408E+10	8.168E+10	6.112E+10	4.315E+10
RE188	0.000E+00	3.361E+11	3.280E+11	3.155E+11	2.110E+11	1.306E+11

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PRINCIPAL PHOTON SOURCES IN GROUP 8, PHOTONS/SEC
MEAN ENERGY= 0.375MEV

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NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
C 15	0.000E+00	2.394E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	1.379E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	1.117E+11	1.067E+11	1.019E+11	6.418E+10	3.686E+10
AL 28	0.000E+00	1.314E+11	1.140E+03	4.355E+00	3.126E+00	2.100E+00
SI 31	0.000E+00	2.362E+10	1.813E+10	1.392E+10	9.895E+08	4.145E+07
P 32	0.000E+00	5.668E+10	5.657E+10	5.646E+10	5.533E+10	5.400E+10
V 52	0.000E+00	1.821E+11	2.778E+06	4.239E+01	0.000E+00	0.000E+00
CR 51	0.000E+00	6.971E+10	6.964E+10	6.957E+10	6.885E+10	6.799E+10
MN 56	0.000E+00	2.484E+11	1.898E+11	1.451E+11	9.867E+09	3.920E+08
ZN 69M	0.000E+00	2.785E+11	2.648E+11	2.518E+11	1.521E+11	8.313E+10
MO 99	0.000E+00	1.286E+11	1.273E+11	1.259E+11	1.134E+11	9.996E+10
TC101	0.000E+00	2.614E+11	5.667E+10	5.513E+09	8.796E-03	1.774E-17
AG110	0.000E+00	6.287E+10	4.093E+07	4.092E+07	4.087E+07	4.082E+07
CD115	0.000E+00	4.290E+10	4.234E+10	4.180E+10	3.672E+10	3.143E+10
CD115M	0.000E+00	1.465E+10	1.464E+10	1.463E+10	1.454E+10	1.442E+10
IN114	0.000E+00	3.224E+10	1.283E+10	1.282E+10	1.274E+10	1.266E+10
IN115	4.850E-05	6.570E-07	6.570E-07	6.570E-07	6.572E-07	6.574E-07
IN116	0.000E+00	2.959E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	1.209E+12	5.608E+11	2.602E+11	1.202E+08	1.194E+04
SN125M	0.000E+00	6.399E+10	8.107E+08	1.027E+07	1.094E-12	0.000E+00
SB125	0.000E+00	2.467E+10	2.467E+10	2.467E+10	2.467E+10	2.467E+10
TB160	0.000E+00	1.728E+10	1.728E+10	1.727E+10	1.720E+10	1.712E+10
W187	0.000E+00	1.670E+10	1.622E+10	1.576E+10	1.179E+10	8.325E+09
RE188	0.000E+00	4.867E+10	4.749E+10	4.569E+10	3.055E+10	1.891E+10

PRINCIPAL PHOTON SOURCES IN GROUP 9, PHOTONS/SEC
MEAN ENERGY= 0.575MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
C 15	0.000E+00	1.778E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	1.019E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MN 56	0.000E+00	1.403E+11	1.072E+11	8.195E+10	5.574E+09	2.214E+08
CO 58	0.000E+00	2.014E+11	2.013E+11	2.012E+11	2.004E+11	1.994E+11
CU 64	0.000E+00	3.000E+11	2.841E+11	2.690E+11	1.559E+11	8.097E+10
ZN 65	0.000E+00	1.133E+11	1.132E+11	1.132E+11	1.131E+11	1.129E+11
MO101	0.000E+00	1.632E+11	9.490E+09	5.519E+08	2.442E-04	3.653E-19
AG110M	0.000E+00	8.774E+10	8.773E+10	8.772E+10	8.762E+10	8.750E+10
CD115	0.000E+00	5.576E+12	5.505E+12	5.434E+12	4.773E+12	4.086E+12
IN115	1.878E-09	2.544E-11	2.544E-11	2.544E-11	2.545E-11	2.546E-11
IN116	0.000E+00	1.773E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W187	0.000E+00	4.710E+12	4.575E+12	4.444E+12	3.325E+12	2.348E+12

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OUTPUT UNIT =

PRINCIPAL PHOTON SOURCES IN GROUP 10, PHOTONS/SEC
MEAN ENERGY= 0.850MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
N 16	0.000E+00	5.209E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MN 54	0.000E+00	4.788E+10	4.788E+10	4.788E+10	4.783E+10	4.778E+10
MN 56	0.000E+00	8.636E+12	6.600E+12	5.045E+12	3.431E+11	1.363E+10
CO 58	0.000E+00	7.204E+11	7.201E+11	7.198E+11	7.169E+11	7.134E+11
MO 99	0.000E+00	1.088E+12	1.076E+12	1.065E+12	9.589E+11	8.454E+11
AG110M	0.000E+00	1.057E+11	1.057E+11	1.057E+11	1.055E+11	1.054E+11
IN116M	0.000E+00	4.304E+11	1.997E+11	9.264E+10	4.279E+07	4.253E+03
GD152	1.300E-11	9.361E-12	9.361E-12	9.361E-12	9.361E-12	9.361E-12
TB160	0.000E+00	4.925E+11	4.923E+11	4.921E+11	4.902E+11	4.878E+11
W187	0.000E+00	3.312E+11	3.218E+11	3.126E+11	2.339E+11	1.651E+11

PRINCIPAL PHOTON SOURCES IN GROUP 11, PHOTONS/SEC
MEAN ENERGY= 1.250MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
N 16	0.000E+00	3.924E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	1.149E+13	1.097E+13	1.048E+13	6.600E+12	3.791E+12
V 52	0.000E+00	5.457E+12	8.327E+07	1.271E+03	0.000E+00	0.000E+00
CO 60	0.000E+00	1.145E+13	1.145E+13	1.145E+13	1.145E+13	1.145E+13
ZN 65	0.000E+00	1.973E+12	1.973E+12	1.973E+12	1.970E+12	1.968E+12
IN116M	0.000E+00	4.914E+12	2.280E+12	1.058E+12	4.885E+08	4.855E+04
GD152	7.397E-12	5.325E-12	5.325E-12	5.325E-12	5.325E-12	5.325E-12
TB160	0.000E+00	2.063E+11	2.062E+11	2.061E+11	2.053E+11	2.043E+11

PRINCIPAL PHOTON SOURCES IN GROUP 12, PHOTONS/SEC
MEAN ENERGY= 1.750MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
N 16	0.000E+00	2.399E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AL 28	0.000E+00	2.707E+12	2.349E+04	8.973E+01	6.442E+01	4.328E+01
CL 38	0.000E+00	8.443E+10	2.762E+10	9.034E+09	1.267E+05	1.901E-01
MN 56	0.000E+00	2.457E+12	1.878E+12	1.435E+12	9.763E+10	3.879E+09
CO 58	0.000E+00	3.734E+09	3.732E+09	3.731E+09	3.716E+09	3.698E+09
AG110M	0.000E+00	8.242E+09	8.241E+09	8.240E+09	8.231E+09	8.219E+09
IN116M	0.000E+00	3.946E+11	1.831E+11	8.492E+10	3.922E+07	3.898E+03

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SN125	0.000E+00	2.637E+08	2.630E+08	2.622E+08	2.544E+08	2.455E+08
SB124	0.000E+00	4.218E+08	4.216E+08	4.214E+08	4.194E+08	4.170E+08
EU156	0.000E+00	2.331E+09	2.327E+09	2.322E+09	2.278E+09	2.227E+09
GD152	3.706E-12	2.668E-12	2.668E-12	2.668E-12	2.668E-12	2.668E-12
RE188	0.000E+00	4.234E+09	4.131E+09	3.975E+09	2.658E+09	1.645E+09

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

PRINCIPAL PHOTON SOURCES IN GROUP 13, PHOTONS/SEC
 MEAN ENERGY= 2.250MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
N 16	0.000E+00	8.216E+10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CL 38	0.000E+00	1.153E+11	3.771E+10	1.233E+10	1.730E+05	2.595E-01
MN 56	0.000E+00	1.176E+12	8.991E+11	6.872E+11	4.674E+10	1.857E+09
MO101	0.000E+00	3.157E+10	1.836E+09	1.068E+08	4.723E-05	7.066E-20
IN116M	0.000E+00	5.237E+11	2.430E+11	1.127E+11	5.206E+07	5.174E+03
SN125	0.000E+00	2.161E+09	2.154E+09	2.148E+09	2.084E+09	2.011E+09
EU156	0.000E+00	3.849E+09	3.841E+09	3.834E+09	3.762E+09	3.677E+09
GD152	1.857E-12	1.337E-12	1.337E-12	1.337E-12	1.337E-12	1.337E-12

PRINCIPAL PHOTON SOURCES IN GROUP 14, PHOTONS/SEC
 MEAN ENERGY= 2.750MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
N 16	0.000E+00	1.148E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	1.054E+13	1.007E+13	9.612E+12	6.055E+12	3.478E+12
MN 56	0.000E+00	1.647E+11	1.259E+11	9.621E+10	6.543E+09	2.600E+08
GD152	9.305E-13	6.698E-13	6.698E-13	6.698E-13	6.698E-13	6.698E-13

PRINCIPAL PHOTON SOURCES IN GROUP 15, PHOTONS/SEC
 MEAN ENERGY= 3.500MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
LI 8	0.000E+00	5.687E+09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C 15	0.000E+00	1.289E+10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	8.250E+10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	7.222E+09	6.895E+09	6.584E+09	4.148E+09	2.382E+09
MN 56	0.000E+00	1.412E+10	1.079E+10	8.246E+09	5.609E+08	2.228E+07
GD152	6.852E-13	4.933E-13	4.933E-13	4.933E-13	4.933E-13	4.933E-13

PRINCIPAL PHOTON SOURCES IN GROUP 16, PHOTONS/SEC
MEAN ENERGY= 5.000MEV

NUCLIDE	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
LI 8	0.000E+00	2.672E+09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C 15	0.000E+00	4.117E+09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	3.084E+10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	7.506E+07	7.167E+07	6.844E+07	4.311E+07	2.476E+07
GD152	2.040E-13	1.469E-13	1.469E-13	1.469E-13	1.469E-13	1.469E-13

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

PRINCIPAL PHOTON SOURCES IN GROUP 17, PHOTONS/SEC
MEAN ENERGY= 7.000MEV

NUCLIDE	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
N 16	0.000E+00	5.620E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD152	1.324E-14	9.529E-15	9.529E-15	9.529E-15	9.529E-15	9.529E-15
PO210	0.000E+00	4.895E-03	4.895E-03	4.895E-03	4.896E-03	4.896E-03

PRINCIPAL PHOTON SOURCES IN GROUP 18, PHOTONS/SEC
MEAN ENERGY= 9.500MEV

NUCLIDE	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
LI 8	0.000E+00	9.523E+07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	5.757E+09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD152	8.370E-16	6.026E-16	6.026E-16	6.026E-16	6.026E-16	6.026E-16
PO210	0.000E+00	3.095E-04	3.095E-04	3.095E-04	3.096E-04	3.096E-04

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

PHOTON SPECTRUM FOR ACTINIDES + DAUGHTERS

ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BU

RNUP (PWRUE)

POWER= 1.00 MW, BURNUP= 1. M

WD, FLUX= 1.00E+00
N/CM**2-SEC

18 GROUP PHOTON RELEASE RATES, PHOTON
BASIS=1 MTIHM 4.236% UO2, 38313 MWD/M

S/SECOND
TIHM BURNUP, 2 CYCLE
EMEAN

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
1.000E-02	1.545E+10	1.151E+18	8.477E+17	7.875E+17	6.879E+17	5.962E+17
2.500E-02	0.000E+00	5.068E+16	1.836E+16	1.270E+16	1.021E+16	8.891E+15
3.750E-02	3.094E+06	7.331E+16	1.854E+16	9.081E+15	6.208E+15	5.335E+15
5.750E-02	1.045E+08	7.141E+16	4.241E+16	3.719E+16	3.323E+16	3.016E+16
8.500E-02	2.643E+08	5.119E+17	2.045E+17	1.504E+17	1.226E+17	1.062E+17
1.250E-01	5.562E+08	4.063E+17	3.925E+17	3.862E+17	3.423E+17	2.967E+17
2.250E-01	1.847E+09	2.880E+17	2.739E+17	2.687E+17	2.381E+17	2.064E+17
3.750E-01	4.608E+06	3.127E+16	2.683E+16	2.576E+16	2.261E+16	1.956E+16
5.750E-01	2.671E+05	5.513E+15	1.279E+15	4.695E+14	1.532E+14	1.311E+14
8.500E-01	5.853E+04	1.400E+16	7.824E+15	6.583E+15	5.399E+15	4.583E+15
1.250E+00	1.183E+04	4.151E+15	3.989E+15	3.906E+15	3.388E+15	2.876E+15
1.750E+00	5.789E+03	2.057E+12	1.735E+10	9.493E+09	5.875E+09	3.358E+09
2.250E+00	3.348E+03	1.238E+08	1.238E+08	1.238E+08	1.239E+08	1.238E+08
2.750E+00	1.942E+03	1.043E+08	1.043E+08	1.052E+08	1.043E+08	1.059E+08
3.500E+00	1.734E+03	6.443E+07	6.443E+07	6.444E+07	6.444E+07	6.442E+07
5.000E+00	7.432E+02	2.756E+07	2.756E+07	2.757E+07	2.757E+07	2.756E+07
7.000E+00	8.536E+01	3.172E+06	3.172E+06	3.172E+06	3.172E+06	3.171E+06
9.500E+00	9.801E+00	3.652E+05	3.652E+05	3.652E+05	3.653E+05	3.651E+05

TOTAL 1.823E+10 2.608E+18 1.838E+18 1.689E+18 1.472E+18 1.277E+18

MEV/SEC 6.702E+08 2.107E+17 1.626E+17 1.526E+17 1.335E+17 1.156E+17

18 GROUP SPECIFIC ENERGY RELEASE RATE
BASIS=1 MTIHM 4.236% UO2, 38313 MWD/M

S, MEV/WATT-SEC
TIHM BURNUP, 2 CYCLE
EMEAN

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
1.000E-02	1.545E+02	1.151E+10	8.477E+09	7.875E+09	6.879E+09	5.962E+09
2.500E-02	0.000E+00	1.267E+09	4.590E+08	3.175E+08	2.552E+08	2.223E+08
3.750E-02	1.160E-01	2.749E+09	6.951E+08	3.405E+08	2.328E+08	2.001E+08
5.750E-02	6.010E+00	4.106E+09	2.439E+09	2.138E+09	1.911E+09	1.734E+09
8.500E-02	2.247E+01	4.352E+10	1.738E+10	1.278E+10	1.042E+10	9.023E+09
1.250E-01	6.952E+01	5.079E+10	4.906E+10	4.828E+10	4.279E+10	3.708E+10
2.250E-01	4.155E+02	6.480E+10	6.162E+10	6.046E+10	5.357E+10	4.645E+10
3.750E-01	1.728E+00	1.173E+10	1.006E+10	9.662E+09	8.479E+09	7.335E+09
5.750E-01	1.536E-01	3.170E+09	7.356E+08	2.700E+08	8.809E+07	7.539E+07
8.500E-01	4.975E-02	1.190E+10	6.651E+09	5.596E+09	4.589E+09	3.896E+09

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1.250E+00	1.479E-02	5.189E+09	4.987E+09	4.883E+09	4.235E+09	3.596E+09
1.750E+00	1.013E-02	3.599E+06	3.036E+04	1.661E+04	1.028E+04	5.876E+03
2.250E+00	7.533E-03	2.786E+02	2.786E+02	2.787E+02	2.787E+02	2.786E+02
2.750E+00	5.342E-03	2.869E+02	2.870E+02	2.894E+02	2.869E+02	2.912E+02
3.500E+00	6.068E-03	2.255E+02	2.255E+02	2.255E+02	2.256E+02	2.255E+02
5.000E+00	3.716E-03	1.378E+02	1.378E+02	1.378E+02	1.378E+02	1.378E+02
7.000E+00	5.975E-04	2.220E+01	2.220E+01	2.220E+01	2.221E+01	2.220E+01
9.500E+00	9.311E-05	3.469E+00	3.469E+00	3.470E+00	3.470E+00	3.469E+00

TOTAL 6.702E+02 2.107E+11 1.626E+11 1.526E+11 1.335E+11 1.156E+11

GAM POW 1.074E-04 3.378E+04 2.606E+04 2.446E+04 2.139E+04 1.853E+04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

PRINCIPAL PHOTON SOURCES IN GROUP 1, PHOTONS/SEC
MEAN ENERGY= 0.010MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	1.207E+10	7.068E+09	7.068E+09	7.068E+09	7.068E+09	7.068E+09
U235	2.026E+09	5.570E+08	5.570E+08	5.570E+08	5.570E+08	5.570E+08
U237	0.000E+00	3.928E+16	3.911E+16	3.894E+16	3.731E+16	3.544E+16
U238	1.358E+09	1.322E+09	1.322E+09	1.322E+09	1.322E+09	1.322E+09
U239	0.000E+00	3.571E+17	6.099E+16	1.042E+16	2.202E+08	1.358E-01
NP238	0.000E+00	1.277E+16	1.260E+16	1.243E+16	1.085E+16	9.207E+15
NP239	0.000E+00	7.337E+17	7.289E+17	7.208E+17	6.377E+17	5.505E+17

PRINCIPAL PHOTON SOURCES IN GROUP 2, PHOTONS/SEC
MEAN ENERGY= 0.025MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U237	0.000E+00	1.458E+15	1.452E+15	1.446E+15	1.385E+15	1.316E+15
U239	0.000E+00	3.856E+16	6.587E+15	1.125E+15	2.378E+07	1.466E-02
NP238	0.000E+00	4.984E+14	4.916E+14	4.850E+14	4.231E+14	3.592E+14
NP239	0.000E+00	9.587E+15	9.525E+15	9.418E+15	8.333E+15	7.193E+15
PU243	0.000E+00	2.237E+14	1.945E+14	1.691E+14	4.175E+13	7.793E+12

PRINCIPAL PHOTON SOURCES IN GROUP 3, PHOTONS/SEC
MEAN ENERGY= 0.038MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
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U235	3.094E+06	8.505E+05	8.505E+05	8.505E+05	8.505E+05	8.505E+05
U237	0.000E+00	2.070E+14	2.061E+14	2.052E+14	1.966E+14	1.868E+14
U239	0.000E+00	6.578E+16	1.124E+16	1.919E+15	4.056E+07	2.501E-02
NP238	0.000E+00	3.361E+14	3.315E+14	3.270E+14	2.853E+14	2.422E+14
NP239	0.000E+00	6.513E+15	6.471E+15	6.398E+15	5.661E+15	4.886E+15
PU243	0.000E+00	2.542E+14	2.210E+14	1.921E+14	4.744E+13	8.856E+12

PRINCIPAL PHOTON SOURCES IN GROUP 4, PHOTONS/SEC
MEAN ENERGY= 0.058MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	9.673E+07	5.665E+07	5.665E+07	5.665E+07	5.665E+07	5.665E+07
U237	0.000E+00	1.844E+16	1.836E+16	1.828E+16	1.752E+16	1.664E+16
U238	7.181E+06	6.992E+06	6.992E+06	6.992E+06	6.992E+06	6.992E+06
U239	0.000E+00	3.444E+16	5.882E+15	1.005E+15	2.123E+07	1.309E-02
NP238	0.000E+00	4.258E+14	4.200E+14	4.143E+14	3.615E+14	3.069E+14
NP239	0.000E+00	1.759E+16	1.748E+16	1.728E+16	1.529E+16	1.320E+16

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

PRINCIPAL PHOTON SOURCES IN GROUP 5, PHOTONS/SEC
MEAN ENERGY= 0.085MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U235	2.643E+08	7.266E+07	7.266E+07	7.266E+07	7.266E+07	7.266E+07
U237	0.000E+00	8.561E+15	8.524E+15	8.488E+15	8.132E+15	7.725E+15
U239	0.000E+00	3.690E+17	6.302E+16	1.076E+16	2.275E+08	1.403E-01
NP239	0.000E+00	1.307E+17	1.299E+17	1.284E+17	1.136E+17	9.809E+16
PU243	0.000E+00	2.974E+15	2.586E+15	2.248E+15	5.551E+14	1.036E+14

PRINCIPAL PHOTON SOURCES IN GROUP 6, PHOTONS/SEC
MEAN ENERGY= 0.125MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	3.434E+07	2.011E+07	2.011E+07	2.011E+07	2.011E+07	2.011E+07
U235	5.218E+08	1.435E+08	1.435E+08	1.435E+08	1.435E+08	1.435E+08
U237	0.000E+00	1.491E+16	1.485E+16	1.478E+16	1.416E+16	1.346E+16
U239	0.000E+00	1.341E+16	2.290E+15	3.912E+14	8.268E+06	5.098E-03
NP239	0.000E+00	3.771E+17	3.747E+17	3.705E+17	3.278E+17	2.830E+17

ML041000030.txt

PRINCIPAL PHOTON SOURCES IN GROUP 7, PHOTONS/SEC
MEAN ENERGY= 0.225MEV

NUCLIDE	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U235	1.847E+09	5.077E+08	5.077E+08	5.077E+08	5.077E+08	5.077E+08
U237	0.000E+00	1.124E+16	1.119E+16	1.115E+16	1.068E+16	1.014E+16
U239	0.000E+00	1.468E+16	2.507E+15	4.282E+14	9.051E+06	5.581E-03
NP239	0.000E+00	2.615E+17	2.598E+17	2.569E+17	2.273E+17	1.962E+17

PRINCIPAL PHOTON SOURCES IN GROUP 8, PHOTONS/SEC
MEAN ENERGY= 0.375MEV

NUCLIDE	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U235	4.608E+06	1.267E+06	1.267E+06	1.267E+06	1.267E+06	1.267E+06
U237	0.000E+00	6.632E+14	6.604E+14	6.576E+14	6.300E+14	5.985E+14
U239	0.000E+00	4.975E+15	8.497E+14	1.451E+14	3.068E+06	1.892E-03
NP239	0.000E+00	2.520E+16	2.503E+16	2.475E+16	2.190E+16	1.890E+16

PRINCIPAL PHOTON SOURCES IN GROUP 9, PHOTONS/SEC
MEAN ENERGY= 0.575MEV

NUCLIDE	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	4.038E+04	2.365E+04	2.365E+04	2.365E+04	2.365E+04	2.365E+04
U235	2.267E+05	6.232E+04	6.232E+04	6.232E+04	6.232E+04	6.232E+04
U239	0.000E+00	4.681E+15	7.996E+14	1.366E+14	2.887E+06	1.780E-03
NP238	0.000E+00	6.874E+13	6.781E+13	6.689E+13	5.836E+13	4.955E+13
NP239	0.000E+00	1.085E+14	1.078E+14	1.066E+14	9.435E+13	8.144E+13
NP240M	0.000E+00	7.073E+13	5.883E+11	3.182E+11	1.940E+11	1.076E+11
NP240	0.000E+00	5.697E+14	3.004E+14	1.584E+14	2.642E+11	1.223E+08

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

PRINCIPAL PHOTON SOURCES IN GROUP 10, PHOTONS/SEC
MEAN ENERGY= 0.850MEV

NUCLIDE	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	2.618E+03	1.533E+03	1.533E+03	1.533E+03	1.533E+03	1.533E+03

ML041000030.txt

U235	3.090E+04	8.495E+03	8.495E+03	8.495E+03	8.495E+03	8.495E+03
U238	2.501E+04	2.435E+04	2.435E+04	2.435E+04	2.435E+04	2.435E+04
U239	0.000E+00	6.935E+15	1.184E+15	2.023E+14	4.276E+06	2.637E-03
NP238	0.000E+00	6.359E+15	6.272E+15	6.187E+15	5.398E+15	4.583E+15
NP240	0.000E+00	6.957E+14	3.669E+14	1.935E+14	3.227E+11	1.494E+08

PRINCIPAL PHOTON SOURCES IN GROUP 11, PHOTONS/SEC
MEAN ENERGY= 1.250MEV

NUCLIDE	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	1.704E+02	9.979E+01	9.979E+01	9.979E+01	9.979E+01	9.979E+01
U238	1.163E+04	1.133E+04	1.133E+04	1.133E+04	1.133E+04	1.133E+04
U239	0.000E+00	8.173E+13	1.396E+13	2.384E+12	5.039E+04	3.107E-05
NP238	0.000E+00	3.991E+15	3.937E+15	3.883E+15	3.388E+15	2.876E+15
NP240	0.000E+00	7.331E+13	3.866E+13	2.039E+13	3.401E+10	1.574E+07

PRINCIPAL PHOTON SOURCES IN GROUP 12, PHOTONS/SEC
MEAN ENERGY= 1.750MEV

NUCLIDE	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	8.528E+01	4.995E+01	4.995E+01	4.995E+01	4.995E+01	4.995E+01
U238	5.692E+03	5.543E+03	5.543E+03	5.543E+03	5.543E+03	5.543E+03
NP240M	0.000E+00	2.057E+12	1.711E+10	9.251E+09	5.642E+09	3.128E+09
CM242	0.000E+00	1.011E+08	1.011E+08	1.011E+08	1.012E+08	1.011E+08
CM244	0.000E+00	1.105E+08	1.106E+08	1.106E+08	1.106E+08	1.106E+08

PRINCIPAL PHOTON SOURCES IN GROUP 13, PHOTONS/SEC
MEAN ENERGY= 2.250MEV

NUCLIDE	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	4.286E+01	2.510E+01	2.510E+01	2.510E+01	2.510E+01	2.510E+01
U238	3.299E+03	3.212E+03	3.212E+03	3.212E+03	3.212E+03	3.212E+03
CM242	0.000E+00	5.863E+07	5.864E+07	5.864E+07	5.865E+07	5.861E+07
CM244	0.000E+00	6.405E+07	6.405E+07	6.406E+07	6.406E+07	6.406E+07

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

PRINCIPAL PHOTON SOURCES IN GROUP 14, PHOTONS/SEC
MEAN ENERGY= 2.750MEV

ML041000030.txt

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
TL208	0.000E+00	3.269E+07	3.271E+07	3.359E+07	3.269E+07	3.425E+07
U234	2.156E+01	1.263E+01	1.263E+01	1.263E+01	1.263E+01	1.263E+01
U238	1.917E+03	1.867E+03	1.867E+03	1.867E+03	1.867E+03	1.867E+03
CM242	0.000E+00	3.386E+07	3.387E+07	3.387E+07	3.387E+07	3.385E+07
CM244	0.000E+00	3.711E+07	3.712E+07	3.712E+07	3.712E+07	3.712E+07

PRINCIPAL PHOTON SOURCES IN GROUP 15, PHOTONS/SEC
MEAN ENERGY= 3.500MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U238	1.715E+03	1.670E+03	1.670E+03	1.670E+03	1.670E+03	1.670E+03
CM242	0.000E+00	3.041E+07	3.042E+07	3.042E+07	3.042E+07	3.040E+07
CM244	0.000E+00	3.343E+07	3.343E+07	3.343E+07	3.343E+07	3.343E+07

PRINCIPAL PHOTON SOURCES IN GROUP 16, PHOTONS/SEC
MEAN ENERGY= 5.000MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U238	7.372E+02	7.178E+02	7.178E+02	7.178E+02	7.178E+02	7.178E+02
CM242	0.000E+00	1.301E+07	1.301E+07	1.301E+07	1.302E+07	1.301E+07
CM244	0.000E+00	1.430E+07	1.430E+07	1.430E+07	1.430E+07	1.430E+07

PRINCIPAL PHOTON SOURCES IN GROUP 17, PHOTONS/SEC
MEAN ENERGY= 7.000MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U238	8.491E+01	8.268E+01	8.268E+01	8.268E+01	8.268E+01	8.268E+01
CM242	0.000E+00	1.494E+06	1.494E+06	1.494E+06	1.495E+06	1.494E+06
CM244	0.000E+00	1.649E+06	1.650E+06	1.650E+06	1.650E+06	1.650E+06

PRINCIPAL PHOTON SOURCES IN GROUP 18, PHOTONS/SEC
MEAN ENERGY= 9.500MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U238	9.765E+00	9.509E+00	9.509E+00	9.509E+00	9.509E+00	9.509E+00
CM242	0.000E+00	1.725E+05	1.725E+05	1.725E+05	1.725E+05	1.724E+05
CM244	0.000E+00	1.895E+05	1.895E+05	1.895E+05	1.895E+05	1.895E+05

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

PHOTON SPECTRUM FOR FISSION PRODUCTS

ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BU

RNUP (PWRUE)

POWER= 1.00 MW, BURNUP= 1. M

WD, FLUX= 1.00E+00

N/CM**2-SEC

18 GROUP PHOTON RELEASE RATES, PHOTON

S/SECOND

BASIS=1 MTIHM 4.236% UO2, 38313 MWD/M

TIHM BURNUP, 2 CYCLE

EMEAN

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
1.000E-02	0.000E+00	2.282E+18	7.006E+17	5.796E+17	3.492E+17	2.787E+17
2.500E-02	0.000E+00	5.948E+17	2.215E+17	1.892E+17	1.262E+17	1.046E+17
3.750E-02	0.000E+00	4.862E+17	2.153E+17	1.944E+17	1.492E+17	1.297E+17
5.750E-02	0.000E+00	4.911E+17	1.477E+17	1.238E+17	7.556E+16	6.001E+16
8.500E-02	0.000E+00	3.607E+17	1.254E+17	1.066E+17	7.456E+16	6.511E+16
1.250E-01	0.000E+00	3.887E+17	1.912E+17	1.687E+17	1.356E+17	1.218E+17
2.250E-01	0.000E+00	8.358E+17	2.665E+17	2.225E+17	1.533E+17	1.182E+17
3.750E-01	0.000E+00	6.093E+17	1.758E+17	1.274E+17	8.099E+16	7.063E+16
5.750E-01	0.000E+00	1.007E+18	5.520E+17	4.850E+17	3.404E+17	2.754E+17
8.500E-01	0.000E+00	1.054E+18	5.500E+17	4.462E+17	2.830E+17	2.473E+17
1.250E+00	0.000E+00	5.915E+17	2.205E+17	1.565E+17	5.375E+16	3.196E+16
1.750E+00	0.000E+00	2.202E+17	1.168E+17	9.989E+16	6.881E+16	6.283E+16
2.250E+00	0.000E+00	1.117E+17	4.320E+16	2.782E+16	4.814E+15	3.265E+15
2.750E+00	0.000E+00	4.783E+16	1.719E+16	1.055E+16	2.408E+15	2.260E+15
3.500E+00	0.000E+00	2.460E+16	4.346E+15	2.492E+15	5.475E+13	1.969E+13
5.000E+00	0.000E+00	1.107E+16	4.651E+13	3.051E+13	2.407E+12	1.286E+11
7.000E+00	0.000E+00	9.767E+13	1.882E-05	4.217E-06	4.217E-06	4.218E-06
9.500E+00	0.000E+00	2.054E+10	2.667E-07	2.667E-07	2.667E-07	2.667E-07

TOTAL 0.000E+00 9.116E+18 3.548E+18 2.941E+18 1.898E+18 1.572E+18

MEV/SEC 0.000E+00 3.704E+18 1.614E+18 1.282E+18 7.463E+17 6.197E+17

18 GROUP SPECIFIC ENERGY RELEASE RATE

S, MEV/WATT-SEC

BASIS=1 MTIHM 4.236% UO2, 38313 MWD/M

TIHM BURNUP, 2 CYCLE

EMEAN

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
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ML041000030.txt

1.000E-02	0.000E+00	2.282E+10	7.006E+09	5.796E+09	3.492E+09	2.787E+09
2.500E-02	0.000E+00	1.487E+10	5.538E+09	4.729E+09	3.154E+09	2.616E+09
3.750E-02	0.000E+00	1.823E+10	8.074E+09	7.289E+09	5.595E+09	4.863E+09
5.750E-02	0.000E+00	2.824E+10	8.493E+09	7.117E+09	4.345E+09	3.451E+09
8.500E-02	0.000E+00	3.066E+10	1.066E+10	9.061E+09	6.338E+09	5.534E+09
1.250E-01	0.000E+00	4.859E+10	2.391E+10	2.109E+10	1.695E+10	1.523E+10
2.250E-01	0.000E+00	1.881E+11	5.997E+10	5.006E+10	3.449E+10	2.659E+10
3.750E-01	0.000E+00	2.285E+11	6.591E+10	4.776E+10	3.037E+10	2.649E+10
5.750E-01	0.000E+00	5.790E+11	3.174E+11	2.789E+11	1.958E+11	1.584E+11
8.500E-01	0.000E+00	8.957E+11	4.675E+11	3.793E+11	2.406E+11	2.102E+11
1.250E+00	0.000E+00	7.393E+11	2.756E+11	1.956E+11	6.719E+10	3.995E+10
1.750E+00	0.000E+00	3.853E+11	2.044E+11	1.748E+11	1.204E+11	1.099E+11
2.250E+00	0.000E+00	2.513E+11	9.721E+10	6.258E+10	1.083E+10	7.346E+09
2.750E+00	0.000E+00	1.315E+11	4.727E+10	2.900E+10	6.621E+09	6.214E+09
3.500E+00	0.000E+00	8.610E+10	1.521E+10	8.723E+09	1.916E+08	6.893E+07
5.000E+00	0.000E+00	5.535E+10	2.325E+08	1.525E+08	1.204E+07	6.428E+05
7.000E+00	0.000E+00	6.837E+08	1.317E-10	2.952E-11	2.952E-11	2.952E-11
9.500E+00	0.000E+00	1.952E+05	2.533E-12	2.533E-12	2.534E-12	2.534E-12

TOTAL 0.000E+00 3.704E+12 1.614E+12 1.282E+12 7.463E+11 6.197E+11

GAM POW 0.000E+00 5.938E+05 2.588E+05 2.055E+05 1.196E+05 9.934E+04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

PRINCIPAL PHOTON SOURCES IN GROUP 1, PHOTONS/SEC
MEAN ENERGY= 0.010MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 87	0.000E+00	1.447E+16	8.479E+15	4.916E+15	2.110E+13	3.042E+10
RB 88	0.000E+00	3.156E+16	2.686E+16	2.125E+16	1.852E+15	9.889E+13
KR 89	0.000E+00	2.562E+16	5.190E+10	1.041E+05	0.000E+00	0.000E+00
SR 89	0.000E+00	1.256E+16	1.256E+16	1.255E+16	1.248E+16	1.240E+16
KR 90	0.000E+00	2.616E+16	7.795E-18	0.000E+00	0.000E+00	0.000E+00
RB 90	0.000E+00	3.515E+16	6.532E+10	3.758E+06	0.000E+00	0.000E+00
SR 91	0.000E+00	1.711E+16	1.593E+16	1.481E+16	7.141E+15	2.975E+15
Y 91	0.000E+00	1.683E+16	1.683E+16	1.683E+16	1.680E+16	1.673E+16
RB 92	0.000E+00	6.998E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 92	0.000E+00	4.145E+16	4.052E+16	3.831E+16	1.055E+16	1.312E+15
Y 93	0.000E+00	3.948E+16	3.731E+16	3.484E+16	1.754E+16	7.698E+15
RB 94	0.000E+00	3.096E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	5.671E+16	6.844E+15	7.756E+14	2.711E+05	1.217E-06
ZR 95	0.000E+00	4.196E+15	4.194E+15	4.192E+15	4.174E+15	4.151E+15

ML041000030.txt

Y 96	0.000E+00	9.302E+16	1.327E+09	1.862E+01	0.000E+00	0.000E+00
ZR 97	0.000E+00	2.639E+16	2.533E+16	2.432E+16	1.613E+16	9.863E+15
NB 97	0.000E+00	1.791E+16	1.763E+16	1.717E+16	1.166E+16	6.676E+15
NB 98	0.000E+00	7.582E+16	9.094E-19	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	6.097E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 99	0.000E+00	2.087E+16	2.065E+16	2.043E+16	1.840E+16	1.622E+16
TC 99M	0.000E+00	7.244E+15	7.240E+15	7.228E+15	6.845E+15	6.150E+15
ZR101	0.000E+00	5.973E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	0.000E+00	1.154E+17	6.778E+15	3.942E+14	1.744E+02	2.609E-13
TC102	0.000E+00	5.759E+16	1.394E+15	3.289E+13	1.759E-03	1.028E-22
TC104	0.000E+00	5.129E+16	5.692E+15	5.792E+14	6.899E+04	8.509E-08
RH104	0.000E+00	2.308E+16	1.241E+11	8.553E+06	0.000E+00	0.000E+00
RU105	0.000E+00	9.966E+15	8.809E+15	7.537E+15	1.581E+15	2.428E+14
RH106	0.000E+00	1.914E+16	1.720E+16	1.720E+16	1.719E+16	1.717E+16
I131	0.000E+00	4.161E+15	4.158E+15	4.149E+15	4.022E+15	3.869E+15
I132	0.000E+00	1.601E+16	1.592E+16	1.583E+16	1.459E+16	1.312E+16
I133	0.000E+00	1.872E+16	1.837E+16	1.785E+16	1.284E+16	8.608E+15
XE133	0.000E+00	6.374E+15	6.374E+15	6.373E+15	6.312E+15	6.143E+15
I134	0.000E+00	3.145E+16	2.194E+16	1.275E+16	8.653E+12	6.963E+08
TE135	0.000E+00	4.670E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	0.000E+00	1.546E+16	1.393E+16	1.254E+16	4.396E+15	1.249E+15
XE135	0.000E+00	3.572E+15	4.248E+15	4.767E+15	5.533E+15	3.379E+15
I136	0.000E+00	4.176E+16	4.292E+03	3.767E-10	0.000E+00	0.000E+00
I136M	0.000E+00	2.617E+16	7.225E-08	0.000E+00	0.000E+00	0.000E+00
XE137	0.000E+00	7.103E+16	1.444E+12	2.777E+07	0.000E+00	0.000E+00
I138	0.000E+00	3.007E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	0.000E+00	2.693E+16	1.433E+15	7.616E+13	1.365E+01	6.909E-15
CS138	0.000E+00	5.015E+16	2.171E+16	6.385E+15	1.595E+10	2.962E+03
XE139	0.000E+00	5.080E+16	1.880E-11	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	6.655E+16	8.422E+14	1.009E+13	6.155E-07	0.000E+00
BA139	0.000E+00	3.673E+16	2.507E+16	1.520E+16	9.947E+13	2.387E+11

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

BA140	0.000E+00	1.707E+16	1.703E+16	1.699E+16	1.661E+16	1.617E+16
LA140	0.000E+00	2.237E+16	2.236E+16	2.235E+16	2.218E+16	2.192E+16
BA141	0.000E+00	3.290E+16	3.433E+15	3.523E+14	4.561E+04	6.219E-08
LA141	0.000E+00	3.552E+16	3.199E+16	2.705E+16	4.643E+15	5.594E+14
CE141	0.000E+00	6.181E+15	6.181E+15	6.180E+15	6.145E+15	6.083E+15
LA142	0.000E+00	3.055E+16	2.191E+16	1.404E+16	1.581E+14	7.257E+11
CE143	0.000E+00	1.659E+16	1.635E+16	1.602E+16	1.298E+16	1.009E+16
PR143	0.000E+00	1.072E+16	1.072E+16	1.072E+16	1.069E+16	1.061E+16
PR144	0.000E+00	3.431E+16	3.404E+16	3.402E+16	3.398E+16	3.394E+16
PR145	0.000E+00	1.603E+16	1.441E+16	1.284E+16	4.028E+15	1.003E+15
ND147	0.000E+00	4.509E+15	4.500E+15	4.489E+15	4.373E+15	4.238E+15
PM148	0.000E+00	4.766E+15	4.740E+15	4.715E+15	4.470E+15	4.192E+15
PM149	0.000E+00	5.143E+15	5.111E+15	5.068E+15	4.490E+15	3.840E+15

PRINCIPAL PHOTON SOURCES IN GROUP 2, PHOTONS/SEC
MEAN ENERGY= 0.025MEV

NUCLIDE	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
RB 88	0.000E+00	7.075E+15	6.022E+15	4.764E+15	4.151E+14	2.217E+13
SR 89	0.000E+00	2.623E+15	2.623E+15	2.621E+15	2.606E+15	2.588E+15
RB 90	0.000E+00	7.844E+15	1.458E+10	8.385E+05	0.000E+00	0.000E+00
SR 91	0.000E+00	3.620E+15	3.371E+15	3.133E+15	1.511E+15	6.294E+14
Y 91	0.000E+00	3.529E+15	3.529E+15	3.529E+15	3.522E+15	3.507E+15
RB 92	0.000E+00	1.592E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 92	0.000E+00	9.136E+15	8.932E+15	8.444E+15	2.324E+15	2.891E+14
Y 93	0.000E+00	8.568E+15	8.098E+15	7.561E+15	3.806E+15	1.671E+15
RB 94	0.000E+00	7.090E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	1.259E+16	1.519E+15	1.722E+14	6.019E+04	2.703E-07
Y 96	0.000E+00	2.093E+16	2.986E+08	4.190E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	5.565E+15	5.341E+15	5.127E+15	3.402E+15	2.080E+15
NB 97	0.000E+00	3.659E+15	3.601E+15	3.507E+15	2.381E+15	1.364E+15
NB 98	0.000E+00	1.680E+16	2.015E-19	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	1.344E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 99	0.000E+00	3.749E+15	3.710E+15	3.671E+15	3.305E+15	2.914E+15
ZR101	0.000E+00	1.348E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC102	0.000E+00	1.272E+16	3.080E+14	7.266E+12	3.885E-04	2.271E-23
RH103M	0.000E+00	3.469E+15	3.468E+15	3.466E+15	3.444E+15	3.412E+15
TC104	0.000E+00	1.122E+16	1.245E+15	1.267E+14	1.510E+04	1.862E-08
RH105M	0.000E+00	4.020E+15	3.564E+15	3.049E+15	6.397E+14	9.822E+13
RH106	0.000E+00	4.207E+15	3.782E+15	3.782E+15	3.779E+15	3.775E+15
PD109	0.000E+00	4.704E+15	4.496E+15	4.270E+15	2.551E+15	1.375E+15
AG109M	0.000E+00	4.122E+15	3.943E+15	3.745E+15	2.238E+15	1.206E+15
TE129	0.000E+00	2.958E+15	2.847E+15	2.625E+15	8.140E+14	3.621E+14
SN130	0.000E+00	7.424E+15	1.036E+11	1.445E+06	0.000E+00	0.000E+00
TE131	0.000E+00	7.088E+15	3.401E+15	1.151E+15	2.005E+14	1.520E+14
I131	0.000E+00	2.562E+15	2.560E+15	2.554E+15	2.476E+15	2.382E+15
SB132M	0.000E+00	6.105E+15	3.057E+11	1.531E+07	0.000E+00	0.000E+00
TE132	0.000E+00	3.569E+16	3.539E+16	3.508E+16	3.210E+16	2.886E+16
I132	0.000E+00	3.817E+15	3.797E+15	3.773E+15	3.478E+15	3.128E+15
I133	0.000E+00	3.821E+15	3.750E+15	3.643E+15	2.621E+15	1.757E+15

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XE133M	0.000E+00	1.332E+15	1.331E+15	1.329E+15	1.287E+15	1.199E+15
TE134	0.000E+00	1.954E+16	7.228E+15	2.673E+15	1.276E+11	8.332E+05
I134	0.000E+00	7.522E+15	5.247E+15	3.049E+15	2.070E+12	1.666E+08
TE135	0.000E+00	1.047E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	0.000E+00	3.136E+15	2.825E+15	2.544E+15	8.916E+14	2.534E+14

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I136	0.000E+00	9.310E+15	9.569E+02	8.397E-11	0.000E+00	0.000E+00
I136M	0.000E+00	7.505E+15	2.072E-08	0.000E+00	0.000E+00	0.000E+00
XE137	0.000E+00	1.569E+16	3.190E+11	6.136E+06	0.000E+00	0.000E+00
I138	0.000E+00	6.852E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS138	0.000E+00	1.092E+16	4.726E+15	1.390E+15	3.471E+09	6.448E+02
XE139	0.000E+00	1.125E+16	4.161E-12	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	1.474E+16	1.865E+14	2.235E+12	1.363E-07	0.000E+00
BA139	0.000E+00	7.787E+15	5.315E+15	3.221E+15	2.109E+13	5.061E+10
BA140	0.000E+00	1.361E+16	1.358E+16	1.355E+16	1.325E+16	1.290E+16
LA140	0.000E+00	4.639E+15	4.636E+15	4.634E+15	4.599E+15	4.545E+15
BA141	0.000E+00	7.006E+15	7.311E+14	7.502E+13	9.713E+03	1.324E-08
LA141	0.000E+00	7.606E+15	6.852E+15	5.793E+15	9.943E+14	1.198E+14
LA142	0.000E+00	6.546E+15	4.695E+15	3.009E+15	3.388E+13	1.555E+11
CE143	0.000E+00	2.819E+15	2.779E+15	2.722E+15	2.206E+15	1.715E+15
PR143	0.000E+00	2.143E+15	2.143E+15	2.143E+15	2.138E+15	2.121E+15
PR144	0.000E+00	7.453E+15	7.397E+15	7.391E+15	7.383E+15	7.374E+15
PR145	0.000E+00	3.372E+15	3.032E+15	2.700E+15	8.474E+14	2.109E+14

PRINCIPAL PHOTON SOURCES IN GROUP 3, PHOTONS/SEC
MEAN ENERGY= 0.038MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
RB 88	0.000E+00	4.813E+15	4.097E+15	3.241E+15	2.824E+14	1.508E+13
SR 89	0.000E+00	1.710E+15	1.709E+15	1.708E+15	1.698E+15	1.687E+15
RB 90	0.000E+00	5.338E+15	9.919E+09	5.706E+05	0.000E+00	0.000E+00
SR 91	0.000E+00	2.378E+15	2.214E+15	2.059E+15	9.924E+14	4.135E+14
Y 91	0.000E+00	2.305E+15	2.305E+15	2.305E+15	2.300E+15	2.290E+15
RB 92	0.000E+00	1.093E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 92	0.000E+00	6.106E+15	5.970E+15	5.644E+15	1.554E+15	1.933E+14
Y 93	0.000E+00	5.712E+15	5.398E+15	5.041E+15	2.538E+15	1.114E+15
RB 94	0.000E+00	4.879E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	8.506E+15	1.027E+15	1.163E+14	4.067E+04	1.826E-07
Y 96	0.000E+00	1.430E+16	2.041E+08	2.863E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	3.651E+15	3.504E+15	3.363E+15	2.232E+15	1.364E+15
NB 97	0.000E+00	2.362E+15	2.325E+15	2.264E+15	1.537E+15	8.805E+14
NB 98	0.000E+00	1.137E+16	1.364E-19	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	9.070E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 99	0.000E+00	3.051E+15	3.019E+15	2.988E+15	2.690E+15	2.371E+15
ZR101	0.000E+00	9.221E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC102	0.000E+00	8.565E+15	2.073E+14	4.891E+12	2.615E-04	1.529E-23
TC104	0.000E+00	7.516E+15	8.340E+14	8.487E+13	1.011E+04	1.247E-08
RH106	0.000E+00	2.812E+15	2.528E+15	2.528E+15	2.526E+15	2.524E+15
TE132	0.000E+00	6.212E+15	6.160E+15	6.105E+15	5.587E+15	5.024E+15
I132	0.000E+00	2.238E+15	2.226E+15	2.212E+15	2.039E+15	1.834E+15
I133	0.000E+00	2.454E+15	2.408E+15	2.340E+15	1.684E+15	1.129E+15

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XE133	0.000E+00	3.109E+16	3.109E+16	3.109E+16	3.079E+16	2.997E+16
I134	0.000E+00	4.471E+15	3.119E+15	1.812E+15	1.230E+12	9.899E+07
TE135	0.000E+00	7.121E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE135	0.000E+00	1.283E+15	1.526E+15	1.712E+15	1.987E+15	1.213E+15
I136	0.000E+00	6.332E+15	6.508E+02	5.711E-11	0.000E+00	0.000E+00
XE137	0.000E+00	1.082E+16	2.200E+11	4.232E+06	0.000E+00	0.000E+00
XE138	0.000E+00	5.372E+15	2.860E+14	1.520E+13	2.724E+00	1.379E-15
CS138	0.000E+00	7.326E+15	3.171E+15	9.326E+14	2.329E+09	4.326E+02
XE139	0.000E+00	7.596E+15	2.811E-12	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	9.935E+15	1.257E+14	1.507E+12	9.190E-08	0.000E+00
BA139	0.000E+00	7.856E+15	5.362E+15	3.250E+15	2.127E+13	5.106E+10
BA140	0.000E+00	2.357E+15	2.352E+15	2.347E+15	2.295E+15	2.233E+15
LA140	0.000E+00	4.028E+15	4.026E+15	4.024E+15	3.994E+15	3.947E+15
BA141	0.000E+00	8.320E+15	8.682E+14	8.909E+13	1.153E+04	1.572E-08
LA141	0.000E+00	5.060E+15	4.558E+15	3.854E+15	6.615E+14	7.971E+13
CE141	0.000E+00	1.133E+16	1.133E+16	1.132E+16	1.126E+16	1.115E+16
BA142	0.000E+00	1.248E+16	2.564E+14	5.259E+12	6.929E-05	3.845E-25
LA142	0.000E+00	4.473E+15	3.209E+15	2.056E+15	2.315E+13	1.063E+11
CE143	0.000E+00	3.700E+16	3.648E+16	3.573E+16	2.896E+16	2.251E+16
PR143	0.000E+00	1.360E+15	1.360E+15	1.360E+15	1.356E+15	1.346E+15
CE144	0.000E+00	5.117E+15	5.117E+15	5.116E+15	5.111E+15	5.105E+15
PR144	0.000E+00	4.969E+15	4.931E+15	4.927E+15	4.922E+15	4.916E+15
CE145	0.000E+00	2.239E+16	2.562E+10	2.443E+04	0.000E+00	0.000E+00
PR145	0.000E+00	2.473E+15	2.224E+15	1.981E+15	6.216E+14	1.547E+14
ND147	0.000E+00	1.237E+16	1.234E+16	1.231E+16	1.200E+16	1.163E+16
ND149	0.000E+00	5.556E+15	3.802E+15	2.547E+15	4.634E+13	3.784E+11
SM153	0.000E+00	1.057E+16	1.042E+16	1.026E+16	8.847E+15	7.403E+15

PRINCIPAL PHOTON SOURCES IN GROUP 4, PHOTONS/SEC
MEAN ENERGY= 0.058MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 87	0.000E+00	3.181E+15	1.864E+15	1.081E+15	4.639E+12	6.688E+09
BR 88	0.000E+00	5.379E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 88	0.000E+00	7.312E+15	6.224E+15	4.923E+15	4.290E+14	2.291E+13
KR 89	0.000E+00	5.612E+15	1.137E+10	2.281E+04	0.000E+00	0.000E+00
SR 89	0.000E+00	2.445E+15	2.444E+15	2.443E+15	2.429E+15	2.412E+15
KR 90	0.000E+00	5.171E+15	1.541E-18	0.000E+00	0.000E+00	0.000E+00
RB 90	0.000E+00	8.104E+15	1.506E+10	8.664E+05	0.000E+00	0.000E+00
SR 91	0.000E+00	3.444E+15	3.207E+15	2.982E+15	1.437E+15	5.988E+14
Y 91	0.000E+00	3.297E+15	3.297E+15	3.297E+15	3.291E+15	3.277E+15
RB 92	0.000E+00	1.689E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 92	0.000E+00	9.184E+15	8.979E+15	8.489E+15	2.337E+15	2.906E+14

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Y 93	0.000E+00	8.512E+15	8.045E+15	7.511E+15	3.782E+15	1.660E+15
RB 94	0.000E+00	7.575E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	1.282E+16	1.547E+15	1.753E+14	6.128E+04	2.752E-07
Y 96	0.000E+00	2.192E+16	3.127E+08	4.388E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	5.279E+15	5.067E+15	4.863E+15	3.227E+15	1.973E+15
NB 97	0.000E+00	3.325E+15	3.273E+15	3.187E+15	2.164E+15	1.239E+15
NB 98	0.000E+00	1.725E+16	2.070E-19	0.000E+00	0.000E+00	0.000E+00

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NB 99	0.000E+00	1.357E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 99	0.000E+00	3.008E+15	2.976E+15	2.945E+15	2.652E+15	2.338E+15
ZR101	0.000E+00	1.411E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC102	0.000E+00	1.285E+16	3.110E+14	7.337E+12	3.923E-04	2.294E-23
TC104	0.000E+00	1.132E+16	1.257E+15	1.279E+14	1.523E+04	1.879E-08
RU105	0.000E+00	1.824E+15	1.613E+15	1.380E+15	2.895E+14	4.444E+13
RH106	0.000E+00	4.207E+15	3.782E+15	3.782E+15	3.779E+15	3.775E+15
SN130	0.000E+00	6.455E+15	9.005E+10	1.257E+06	0.000E+00	0.000E+00
TE132	0.000E+00	6.920E+15	6.862E+15	6.802E+15	6.225E+15	5.596E+15
I132	0.000E+00	3.053E+15	3.036E+15	3.017E+15	2.781E+15	2.502E+15
I133	0.000E+00	3.433E+15	3.369E+15	3.273E+15	2.355E+15	1.579E+15
I134	0.000E+00	6.188E+15	4.316E+15	2.508E+15	1.702E+12	1.370E+08
TE135	0.000E+00	1.090E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	0.000E+00	2.788E+15	2.511E+15	2.261E+15	7.925E+14	2.252E+14
XE135	0.000E+00	6.039E+14	7.182E+14	8.060E+14	9.355E+14	5.712E+14
I136	0.000E+00	9.584E+15	9.850E+02	8.644E-11	0.000E+00	0.000E+00
I136M	0.000E+00	6.044E+15	1.669E-08	0.000E+00	0.000E+00	0.000E+00
XE137	0.000E+00	1.603E+16	3.259E+11	6.268E+06	0.000E+00	0.000E+00
I138	0.000E+00	7.230E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	0.000E+00	5.043E+15	2.685E+14	1.426E+13	2.557E+00	1.294E-15
CS138	0.000E+00	1.085E+16	4.695E+15	1.381E+15	3.449E+09	6.406E+02
XE139	0.000E+00	1.149E+16	4.252E-12	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	1.500E+16	1.899E+14	2.275E+12	1.388E-07	0.000E+00
BA139	0.000E+00	7.581E+15	5.174E+15	3.136E+15	2.053E+13	4.927E+10
BA140	0.000E+00	1.946E+15	1.941E+15	1.937E+15	1.894E+15	1.843E+15
LA140	0.000E+00	4.351E+15	4.348E+15	4.346E+15	4.314E+15	4.263E+15
BA141	0.000E+00	6.756E+15	7.050E+14	7.234E+13	9.366E+03	1.277E-08
LA141	0.000E+00	7.418E+15	6.682E+15	5.649E+15	9.697E+14	1.168E+14
CE141	0.000E+00	7.359E+14	7.358E+14	7.357E+14	7.315E+14	7.242E+14
LA142	0.000E+00	6.364E+15	4.565E+15	2.925E+15	3.294E+13	1.512E+11
CE143	0.000E+00	9.279E+15	9.148E+15	8.961E+15	7.264E+15	5.645E+15
PR143	0.000E+00	1.855E+15	1.855E+15	1.855E+15	1.850E+15	1.836E+15
PR144	0.000E+00	7.406E+15	7.350E+15	7.344E+15	7.336E+15	7.327E+15
CE145	0.000E+00	8.703E+15	9.959E+09	9.497E+03	0.000E+00	0.000E+00
PR145	0.000E+00	3.202E+15	2.879E+15	2.564E+15	8.046E+14	2.003E+14
PM148	0.000E+00	9.708E+14	9.657E+14	9.605E+14	9.105E+14	8.539E+14
PM149	0.000E+00	9.266E+14	9.209E+14	9.132E+14	8.091E+14	6.919E+14

SM153 0.000E+00 3.548E+15 3.497E+15 3.446E+15 2.970E+15 2.486E+15

PRINCIPAL PHOTON SOURCES IN GROUP 5, PHOTONS/SEC
MEAN ENERGY= 0.085MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
RB 88	0.000E+00	4.787E+15	4.074E+15	3.223E+15	2.809E+14	1.500E+13
SR 89	0.000E+00	1.463E+15	1.463E+15	1.462E+15	1.454E+15	1.444E+15
RB 90	0.000E+00	5.305E+15	9.858E+09	5.671E+05	0.000E+00	0.000E+00
SR 91	0.000E+00	2.102E+15	1.957E+15	1.819E+15	8.771E+14	3.654E+14
Y 91	0.000E+00	1.980E+15	1.980E+15	1.980E+15	1.976E+15	1.968E+15
RB 92	0.000E+00	1.132E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 92	0.000E+00	5.914E+15	5.782E+15	5.466E+15	1.505E+15	1.872E+14

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

Y 93	0.000E+00	5.382E+15	5.086E+15	4.749E+15	2.391E+15	1.049E+15
RB 94	0.000E+00	5.107E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	8.279E+15	9.992E+14	1.132E+14	3.959E+04	1.778E-07
Y 96	0.000E+00	1.453E+16	2.074E+08	2.910E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	3.218E+15	3.089E+15	2.965E+15	1.967E+15	1.203E+15
NB 97	0.000E+00	1.938E+15	1.908E+15	1.858E+15	1.262E+15	7.226E+14
NB 98	0.000E+00	1.124E+16	1.348E-19	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	8.739E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 99	0.000E+00	1.734E+15	1.716E+15	1.698E+15	1.529E+15	1.348E+15
ZR101	0.000E+00	9.371E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	0.000E+00	4.741E+15	2.784E+14	1.619E+13	7.163E+00	1.072E-14
TC102	0.000E+00	8.254E+15	1.998E+14	4.714E+12	2.521E-04	1.474E-23
TC104	0.000E+00	7.313E+15	8.115E+14	8.258E+13	9.836E+03	1.213E-08
RH106	0.000E+00	2.698E+15	2.425E+15	2.425E+15	2.423E+15	2.421E+15
I131	0.000E+00	1.260E+15	1.259E+15	1.256E+15	1.218E+15	1.171E+15
I132	0.000E+00	1.806E+15	1.796E+15	1.785E+15	1.646E+15	1.480E+15
TE133M	0.000E+00	3.923E+15	1.853E+15	8.748E+14	4.805E+11	5.880E+07
I133	0.000E+00	1.980E+15	1.943E+15	1.888E+15	1.359E+15	9.108E+14
XE133	0.000E+00	2.783E+16	2.783E+16	2.782E+16	2.756E+16	2.682E+16
TE134	0.000E+00	1.330E+16	4.920E+15	1.819E+15	8.687E+10	5.671E+05
I134	0.000E+00	3.731E+15	2.603E+15	1.513E+15	1.027E+12	8.262E+07
TE135	0.000E+00	7.187E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	0.000E+00	1.597E+15	1.439E+15	1.296E+15	4.541E+14	1.290E+14
I136	0.000E+00	6.298E+15	6.473E+02	5.681E-11	0.000E+00	0.000E+00
I136M	0.000E+00	3.955E+15	1.092E-08	0.000E+00	0.000E+00	0.000E+00
XE137	0.000E+00	1.042E+16	2.117E+11	4.073E+06	0.000E+00	0.000E+00
I138	0.000E+00	4.831E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS138	0.000E+00	6.868E+15	2.973E+15	8.743E+14	2.184E+09	4.056E+02
XE139	0.000E+00	7.547E+15	2.792E-12	0.000E+00	0.000E+00	0.000E+00

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CS139	0.000E+00	9.735E+15	1.232E+14	1.476E+12	9.005E-08	0.000E+00
BA139	0.000E+00	4.693E+15	3.203E+15	1.941E+15	1.271E+13	3.050E+10
BA140	0.000E+00	1.076E+15	1.073E+15	1.071E+15	1.047E+15	1.019E+15
LA140	0.000E+00	2.560E+15	2.558E+15	2.557E+15	2.538E+15	2.508E+15
BA141	0.000E+00	4.198E+15	4.380E+14	4.495E+13	5.819E+03	7.933E-09
LA141	0.000E+00	4.633E+15	4.173E+15	3.528E+15	6.056E+14	7.297E+13
BA142	0.000E+00	8.105E+15	1.665E+14	3.414E+12	4.499E-05	2.497E-25
LA142	0.000E+00	3.964E+15	2.843E+15	1.822E+15	2.052E+13	9.417E+10
CE143	0.000E+00	1.456E+15	1.435E+15	1.406E+15	1.139E+15	8.856E+14
PR143	0.000E+00	1.031E+15	1.031E+15	1.031E+15	1.029E+15	1.021E+15
CE144	0.000E+00	1.175E+15	1.175E+15	1.175E+15	1.174E+15	1.172E+15
PR144	0.000E+00	4.697E+15	4.661E+15	4.657E+15	4.652E+15	4.647E+15
PR145	0.000E+00	2.002E+15	1.801E+15	1.604E+15	5.033E+14	1.253E+14
ND147	0.000E+00	7.833E+15	7.819E+15	7.799E+15	7.598E+15	7.364E+15
EU156	0.000E+00	8.916E+14	8.902E+14	8.887E+14	8.732E+14	8.542E+14

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

PRINCIPAL PHOTON SOURCES IN GROUP 6, PHOTONS/SEC
MEAN ENERGY= 0.125MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
RB 88	0.000E+00	3.393E+15	2.888E+15	2.284E+15	1.991E+14	1.063E+13
KR 90	0.000E+00	1.313E+16	3.911E-18	0.000E+00	0.000E+00	0.000E+00
Y 91	0.000E+00	1.275E+15	1.275E+15	1.275E+15	1.273E+15	1.267E+15
KR 92	0.000E+00	6.085E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 92	0.000E+00	8.141E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 92	0.000E+00	4.082E+15	3.991E+15	3.773E+15	1.039E+15	1.292E+14
Y 93	0.000E+00	3.668E+15	3.467E+15	3.237E+15	1.630E+15	7.152E+14
Y 94	0.000E+00	5.784E+15	6.980E+14	7.911E+13	2.766E+04	1.242E-07
Y 96	0.000E+00	1.035E+16	1.477E+08	2.072E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	2.137E+15	2.051E+15	1.969E+15	1.306E+15	7.985E+14
NB 98	0.000E+00	7.908E+15	9.485E-20	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	6.051E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 99	0.000E+00	5.065E+15	5.013E+15	4.960E+15	4.466E+15	3.937E+15
TC 99M	0.000E+00	6.299E+16	6.296E+16	6.285E+16	5.952E+16	5.348E+16
ZR101	0.000E+00	6.683E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC102	0.000E+00	5.735E+15	1.388E+14	3.275E+12	1.751E-04	1.024E-23
TC104	0.000E+00	5.180E+15	5.748E+14	5.849E+13	6.967E+03	8.594E-09
RH105M	0.000E+00	2.519E+15	2.232E+15	1.910E+15	4.008E+14	6.153E+13
RH106	0.000E+00	1.861E+15	1.673E+15	1.673E+15	1.672E+15	1.670E+15
TE131	0.000E+00	2.927E+16	1.405E+16	4.755E+15	8.281E+14	6.276E+14
SB132M	0.000E+00	4.514E+15	2.260E+11	1.132E+07	0.000E+00	0.000E+00
TE132	0.000E+00	1.896E+15	1.880E+15	1.864E+15	1.706E+15	1.534E+15

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I134	0.000E+00	6.528E+15	4.554E+15	2.646E+15	1.796E+12	1.445E+08
TE135	0.000E+00	5.068E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I136	0.000E+00	4.416E+15	4.538E+02	3.983E-11	0.000E+00	0.000E+00
XE137	0.000E+00	7.238E+15	1.471E+11	2.830E+06	0.000E+00	0.000E+00
CS138	0.000E+00	5.924E+15	2.564E+15	7.542E+14	1.884E+09	3.498E+02
XE139	0.000E+00	5.524E+15	2.044E-12	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	6.735E+15	8.523E+13	1.021E+12	6.229E-08	0.000E+00
BA139	0.000E+00	3.136E+15	2.140E+15	1.297E+15	8.491E+12	2.038E+10
LA140	0.000E+00	2.100E+15	2.099E+15	2.098E+15	2.082E+15	2.057E+15
LA141	0.000E+00	3.105E+15	2.797E+15	2.365E+15	4.060E+14	4.891E+13
CE141	0.000E+00	3.590E+16	3.590E+16	3.589E+16	3.568E+16	3.533E+16
LA142	0.000E+00	2.740E+15	1.965E+15	1.259E+15	1.418E+13	6.508E+10
CE144	0.000E+00	5.497E+15	5.496E+15	5.495E+15	5.490E+15	5.483E+15
PR144	0.000E+00	3.206E+15	3.182E+15	3.179E+15	3.176E+15	3.172E+15
ND149	0.000E+00	2.993E+15	2.048E+15	1.372E+15	2.496E+13	2.038E+11
SM153	0.000E+00	4.603E+15	4.537E+15	4.470E+15	3.853E+15	3.225E+15

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

PRINCIPAL PHOTON SOURCES IN GROUP 7, PHOTONS/SEC
MEAN ENERGY= 0.225MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 85M	0.000E+00	4.950E+15	4.292E+15	3.677E+15	7.827E+14	1.223E+14
KR 88	0.000E+00	7.032E+15	5.514E+15	4.319E+15	3.759E+14	2.007E+13
RB 88	0.000E+00	5.313E+15	4.522E+15	3.577E+15	3.117E+14	1.665E+13
KR 89	0.000E+00	1.075E+16	2.179E+10	4.370E+04	0.000E+00	0.000E+00
SR 89	0.000E+00	1.206E+15	1.206E+15	1.205E+15	1.198E+15	1.190E+15
SR 91	0.000E+00	2.790E+15	2.598E+15	2.416E+15	1.165E+15	4.852E+14
Y 91	0.000E+00	1.651E+15	1.651E+15	1.651E+15	1.648E+15	1.641E+15
RB 92	0.000E+00	1.325E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 92	0.000E+00	6.154E+15	6.017E+15	5.689E+15	1.566E+15	1.948E+14
Y 93	0.000E+00	9.856E+15	9.315E+15	8.697E+15	4.379E+15	1.922E+15
Y 94	0.000E+00	8.846E+15	1.068E+15	1.210E+14	4.230E+04	1.899E-07
Y 96	0.000E+00	1.657E+16	2.364E+08	3.317E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	4.147E+15	3.980E+15	3.820E+15	2.535E+15	1.550E+15
NB 98	0.000E+00	1.222E+16	1.466E-19	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	9.136E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 99	0.000E+00	4.778E+15	4.728E+15	4.679E+15	4.212E+15	3.713E+15
ZR101	0.000E+00	5.936E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	0.000E+00	1.435E+16	8.425E+14	4.899E+13	2.168E+01	3.243E-14
TC102	0.000E+00	8.689E+15	2.103E+14	4.962E+12	2.653E-04	1.551E-23
TC104	0.000E+00	1.082E+16	1.200E+15	1.222E+14	1.455E+04	1.795E-08
RU105	0.000E+00	4.476E+15	3.957E+15	3.385E+15	7.103E+14	1.091E+14

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RH106	0.000E+00	2.766E+15	2.487E+15	2.487E+15	2.485E+15	2.483E+15
SN130	0.000E+00	1.176E+16	1.641E+11	2.290E+06	0.000E+00	0.000E+00
I131	0.000E+00	3.186E+15	3.184E+15	3.177E+15	3.080E+15	2.963E+15
TE132	0.000E+00	4.871E+16	4.831E+16	4.788E+16	4.382E+16	3.940E+16
I132	0.000E+00	3.147E+15	3.130E+15	3.110E+15	2.867E+15	2.579E+15
TE133M	0.000E+00	1.026E+16	4.845E+15	2.287E+15	1.256E+12	1.537E+08
TE134	0.000E+00	4.570E+16	1.691E+16	6.251E+15	2.985E+11	1.949E+06
I134	0.000E+00	5.984E+15	4.174E+15	2.426E+15	1.646E+12	1.325E+08
TE135	0.000E+00	1.282E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	0.000E+00	5.960E+15	5.369E+15	4.835E+15	1.694E+15	4.815E+14
XE135	0.000E+00	1.993E+16	2.371E+16	2.660E+16	3.088E+16	1.885E+16
I136M	0.000E+00	1.706E+16	4.710E-08	0.000E+00	0.000E+00	0.000E+00
XE137	0.000E+00	1.123E+16	2.282E+11	4.390E+06	0.000E+00	0.000E+00
XE138	0.000E+00	3.104E+16	1.653E+15	8.781E+13	1.574E+01	7.966E-15
CS138	0.000E+00	8.523E+15	3.689E+15	1.085E+15	2.710E+09	5.033E+02
XE139	0.000E+00	6.215E+16	2.300E-11	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	1.040E+16	1.316E+14	1.577E+12	9.622E-08	0.000E+00
BA139	0.000E+00	1.557E+16	1.063E+16	6.443E+15	4.218E+13	1.012E+11
BA140	0.000E+00	3.380E+15	3.373E+15	3.365E+15	3.290E+15	3.202E+15
LA140	0.000E+00	2.807E+15	2.805E+15	2.804E+15	2.783E+15	2.750E+15
BA141	0.000E+00	4.679E+16	4.883E+15	5.010E+14	6.487E+04	8.843E-08
LA141	0.000E+00	4.381E+15	3.947E+15	3.337E+15	5.728E+14	6.901E+13
BA142	0.000E+00	2.520E+16	5.176E+14	1.062E+13	1.399E-04	7.764E-25
LA142	0.000E+00	3.800E+15	2.726E+15	1.747E+15	1.967E+13	9.028E+10

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

CE143	0.000E+00	3.509E+16	3.459E+16	3.388E+16	2.747E+16	2.135E+16
PR144	0.000E+00	4.682E+15	4.647E+15	4.643E+15	4.638E+15	4.632E+15
ND149	0.000E+00	1.021E+16	6.986E+15	4.680E+15	8.515E+13	6.952E+11

PRINCIPAL PHOTON SOURCES IN GROUP 8, PHOTONS/SEC
MEAN ENERGY= 0.375MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 87	0.000E+00	1.085E+16	6.357E+15	3.686E+15	1.582E+13	2.281E+10
RB 88	0.000E+00	2.972E+15	2.530E+15	2.001E+15	1.744E+14	9.312E+12
RB 92	0.000E+00	7.962E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 92	0.000E+00	4.529E+15	4.428E+15	4.187E+15	1.152E+15	1.433E+14
Y 93	0.000E+00	2.638E+15	2.493E+15	2.328E+15	1.172E+15	5.143E+14
Y 96	0.000E+00	9.535E+15	1.360E+08	1.909E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	2.837E+15	2.723E+15	2.613E+15	1.734E+15	1.060E+15
NB 98	0.000E+00	6.732E+15	8.074E-20	0.000E+00	0.000E+00	0.000E+00
MO 99	0.000E+00	1.259E+15	1.246E+15	1.233E+15	1.110E+15	9.787E+14
ZR101	0.000E+00	1.213E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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TC101	0.000E+00	4.775E+16	1.043E+16	1.015E+15	1.622E+03	3.272E-12
TC104	0.000E+00	4.890E+16	5.427E+15	5.523E+14	6.578E+04	8.113E-08
RU105	0.000E+00	8.826E+15	7.801E+15	6.675E+15	1.400E+15	2.150E+14
RH105	0.000E+00	8.013E+15	8.018E+15	8.001E+15	7.155E+15	5.782E+15
RH106	0.000E+00	1.472E+15	1.324E+15	1.324E+15	1.323E+15	1.321E+15
RH107	0.000E+00	2.016E+16	3.740E+15	5.502E+14	2.613E+06	2.686E-04
RH108	0.000E+00	9.951E+15	1.030E+12	9.978E+07	0.000E+00	0.000E+00
SB128M	0.000E+00	5.762E+15	3.163E+15	1.569E+15	1.363E+12	2.889E+08
I131	0.000E+00	3.059E+16	3.057E+16	3.050E+16	2.957E+16	2.845E+16
I132	0.000E+00	2.227E+15	2.215E+15	2.201E+15	2.029E+15	1.825E+15
TE133	0.000E+00	4.322E+16	3.652E+15	1.050E+15	5.467E+11	6.690E+07
TE133M	0.000E+00	5.688E+15	2.687E+15	1.268E+15	6.967E+11	8.526E+07
TE134	0.000E+00	1.399E+16	5.176E+15	1.914E+15	9.140E+10	5.967E+05
I134	0.000E+00	1.343E+16	9.368E+15	5.444E+15	3.695E+12	2.974E+08
I135	0.000E+00	4.595E+15	4.140E+15	3.728E+15	1.306E+15	3.713E+14
I136M	0.000E+00	2.637E+16	7.281E-08	0.000E+00	0.000E+00	0.000E+00
CS136	0.000E+00	1.061E+15	1.058E+15	1.056E+15	1.033E+15	1.006E+15
XE138	0.000E+00	2.224E+16	1.184E+15	6.290E+13	1.128E+01	5.706E-15
CS138	0.000E+00	7.819E+15	3.384E+15	9.954E+14	2.486E+09	4.617E+02
XE139	0.000E+00	8.385E+15	3.103E-12	0.000E+00	0.000E+00	0.000E+00
BA140	0.000E+00	5.127E+15	5.115E+15	5.104E+15	4.990E+15	4.856E+15
LA140	0.000E+00	1.421E+16	1.420E+16	1.419E+16	1.408E+16	1.392E+16
BA141	0.000E+00	2.421E+16	2.526E+15	2.592E+14	3.356E+04	4.575E-08
LA141	0.000E+00	2.030E+15	1.829E+15	1.546E+15	2.654E+14	3.198E+13
BA142	0.000E+00	1.089E+16	2.236E+14	4.586E+12	6.042E-05	3.353E-25
CE143	0.000E+00	2.331E+15	2.298E+15	2.251E+15	1.825E+15	1.418E+15
PR144	0.000E+00	2.312E+15	2.295E+15	2.293E+15	2.291E+15	2.288E+15
CE145	0.000E+00	8.624E+15	9.868E+09	9.411E+03	0.000E+00	0.000E+00
CE146	0.000E+00	8.480E+15	4.570E+14	2.443E+13	4.660E+00	2.540E-15
ND147	0.000E+00	1.078E+15	1.076E+15	1.073E+15	1.046E+15	1.013E+15
PR148	0.000E+00	1.619E+16	3.203E+08	4.494E+00	0.000E+00	0.000E+00
ND149	0.000E+00	3.067E+15	2.099E+15	1.406E+15	2.558E+13	2.089E+11

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

PRINCIPAL PHOTON SOURCES IN GROUP 9, PHOTONS/SEC
MEAN ENERGY= 0.575MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 89	0.000E+00	1.204E+16	2.439E+10	4.893E+04	0.000E+00	0.000E+00
KR 90	0.000E+00	1.294E+16	3.856E-18	0.000E+00	0.000E+00	0.000E+00
SR 91	0.000E+00	7.107E+15	6.619E+15	6.153E+15	2.966E+15	1.236E+15
Y 91M	0.000E+00	2.348E+16	2.295E+16	2.183E+16	1.073E+16	4.470E+15
NB 97	0.000E+00	7.253E+16	7.140E+16	6.952E+16	4.721E+16	2.704E+16

ML041000030.txt

MO101	0.000E+00	2.980E+16	1.750E+15	1.018E+14	4.503E+01	6.737E-14
TC102	0.000E+00	4.524E+16	1.095E+15	2.584E+13	1.382E-03	8.077E-23
RU103	0.000E+00	5.162E+16	5.158E+16	5.154E+16	5.116E+16	5.071E+16
TC104	0.000E+00	2.255E+16	2.502E+15	2.546E+14	3.033E+04	3.741E-08
RU105	0.000E+00	1.850E+16	1.635E+16	1.399E+16	2.935E+15	4.506E+14
RH106	0.000E+00	7.682E+15	6.906E+15	6.906E+15	6.900E+15	6.894E+15
SB127	0.000E+00	3.444E+15	3.433E+15	3.417E+15	3.193E+15	2.919E+15
SB131	0.000E+00	1.368E+16	2.282E+15	3.742E+14	5.250E+06	1.980E-03
I131	0.000E+00	3.317E+15	3.315E+15	3.307E+15	3.206E+15	3.085E+15
SB132	0.000E+00	2.294E+16	8.981E+09	3.182E+03	0.000E+00	0.000E+00
SB132M	0.000E+00	1.691E+16	8.469E+11	4.240E+07	0.000E+00	0.000E+00
I132	0.000E+00	9.307E+16	9.257E+16	9.200E+16	8.480E+16	7.627E+16
TE133M	0.000E+00	1.289E+16	6.089E+15	2.874E+15	1.579E+12	1.932E+08
I133	0.000E+00	6.438E+16	6.318E+16	6.139E+16	4.417E+16	2.961E+16
TE134	0.000E+00	2.250E+16	8.324E+15	3.078E+15	1.470E+11	9.595E+05
I134	0.000E+00	4.207E+16	2.935E+16	1.705E+16	1.158E+13	9.316E+08
CS134	0.000E+00	9.290E+15	9.290E+15	9.289E+15	9.286E+15	9.282E+15
TE135	0.000E+00	3.150E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	0.000E+00	6.011E+15	5.415E+15	4.876E+15	1.709E+15	4.856E+14
XE135M	0.000E+00	1.148E+16	7.979E+15	7.030E+15	2.460E+15	6.989E+14
XE137	0.000E+00	2.016E+16	4.097E+11	7.882E+06	0.000E+00	0.000E+00
BA137M	0.000E+00	4.357E+15	4.349E+15	4.348E+15	4.348E+15	4.348E+15
I138	0.000E+00	2.481E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS138	0.000E+00	2.705E+16	1.171E+16	3.443E+15	8.600E+09	1.597E+03
BA140	0.000E+00	1.242E+16	1.239E+16	1.236E+16	1.209E+16	1.176E+16
LA140	0.000E+00	2.532E+16	2.531E+16	2.529E+16	2.511E+16	2.481E+16
BA141	0.000E+00	1.739E+16	1.815E+15	1.862E+14	2.411E+04	3.287E-08
LA142	0.000E+00	3.758E+16	2.695E+16	1.727E+16	1.945E+14	8.928E+11
CE143	0.000E+00	5.243E+15	5.169E+15	5.063E+15	4.104E+15	3.190E+15
ND147	0.000E+00	3.425E+15	3.419E+15	3.410E+15	3.323E+15	3.220E+15

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

PRINCIPAL PHOTON SOURCES IN GROUP 10, PHOTONS/SEC
MEAN ENERGY= 0.850MEV

NUCLIDE	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
BR 88	0.000E+00	1.579E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 90	0.000E+00	1.201E+16	2.232E+10	1.284E+06	0.000E+00	0.000E+00
SR 91	0.000E+00	1.141E+16	1.062E+16	9.875E+15	4.761E+15	1.983E+15
Y 92	0.000E+00	9.136E+15	8.932E+15	8.444E+15	2.324E+15	2.891E+14
RB 94	0.000E+00	1.555E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	4.780E+16	5.769E+15	6.538E+14	2.286E+05	1.026E-06
ZR 95	0.000E+00	5.592E+16	5.590E+16	5.588E+16	5.563E+16	5.533E+16

ML041000030.txt

NB 95	0.000E+00	5.852E+16	5.852E+16	5.852E+16	5.851E+16	5.850E+16
NB 97M	0.000E+00	5.169E+16	4.955E+16	4.756E+16	3.156E+16	1.929E+16
MO 99	0.000E+00	1.065E+16	1.054E+16	1.043E+16	9.389E+15	8.277E+15
MO101	0.000E+00	1.070E+16	6.280E+14	3.652E+13	1.616E+01	2.418E-14
TC104	0.000E+00	1.468E+16	1.629E+15	1.657E+14	1.974E+04	2.435E-08
RU105	0.000E+00	2.099E+16	1.855E+16	1.587E+16	3.330E+15	5.113E+14
SB128M	0.000E+00	1.310E+16	7.191E+15	3.567E+15	3.097E+12	6.568E+08
SB129	0.000E+00	1.056E+16	9.119E+15	7.768E+15	1.561E+15	2.275E+14
SB130M	0.000E+00	3.737E+16	1.053E+14	1.435E+11	0.000E+00	0.000E+00
SB131	0.000E+00	2.819E+16	4.703E+15	7.711E+14	1.082E+07	4.080E-03
TE131M	0.000E+00	5.212E+15	5.114E+15	5.001E+15	3.970E+15	3.008E+15
SB132	0.000E+00	2.820E+16	1.104E+10	3.912E+03	0.000E+00	0.000E+00
SB132M	0.000E+00	1.517E+16	7.597E+11	3.804E+07	0.000E+00	0.000E+00
I132	0.000E+00	6.039E+16	6.006E+16	5.969E+16	5.502E+16	4.949E+16
TE133M	0.000E+00	4.764E+16	2.250E+16	1.062E+16	5.834E+12	7.140E+08
I133	0.000E+00	6.205E+15	6.089E+15	5.916E+15	4.257E+15	2.854E+15
TE134	0.000E+00	3.000E+16	1.110E+16	4.104E+15	1.960E+11	1.279E+06
I134	0.000E+00	1.598E+17	1.115E+17	6.477E+16	4.396E+13	3.538E+09
CS134	0.000E+00	6.452E+15	6.452E+15	6.451E+15	6.449E+15	6.446E+15
I135	0.000E+00	7.478E+15	6.736E+15	6.065E+15	2.126E+15	6.041E+14
LA140	0.000E+00	2.855E+16	2.853E+16	2.852E+16	2.830E+16	2.797E+16
BA142	0.000E+00	1.769E+16	3.633E+14	7.452E+12	9.819E-05	5.449E-25
LA142	0.000E+00	8.122E+15	5.826E+15	3.733E+15	4.204E+13	1.929E+11
CE145	0.000E+00	2.536E+16	2.902E+10	2.767E+04	0.000E+00	0.000E+00

PRINCIPAL PHOTON SOURCES IN GROUP 11, PHOTONS/SEC
MEAN ENERGY= 1.250MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 89	0.000E+00	7.776E+15	1.575E+10	3.160E+04	0.000E+00	0.000E+00
RB 89	0.000E+00	3.098E+16	2.506E+15	1.624E+14	2.127E+02	1.171E-12
KR 90	0.000E+00	1.263E+16	3.764E-18	0.000E+00	0.000E+00	0.000E+00
SR 91	0.000E+00	1.321E+16	1.230E+16	1.143E+16	5.511E+15	2.296E+15
SR 92	0.000E+00	4.881E+16	3.781E+16	2.928E+16	2.268E+15	1.054E+14
Y 92	0.000E+00	3.154E+15	3.084E+15	2.915E+15	8.025E+14	9.982E+13
Y 94	0.000E+00	8.506E+15	1.027E+15	1.163E+14	4.067E+04	1.826E-07
ZR 97	0.000E+00	3.899E+15	3.742E+15	3.592E+15	2.383E+15	1.457E+15
MO101	0.000E+00	2.374E+16	1.394E+15	8.106E+13	3.586E+01	5.366E-14

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37						
TC102	0.000E+00	7.137E+15	1.728E+14	4.076E+12	2.180E-04	1.274E-23
TC104	0.000E+00	1.026E+16	1.138E+15	1.158E+14	1.380E+04	1.702E-08
RH106	0.000E+00	5.853E+14	5.262E+14	5.262E+14	5.257E+14	5.252E+14
SB129	0.000E+00	2.158E+15	1.863E+15	1.587E+15	3.189E+14	4.649E+13

ML041000030.txt

SB130M	0.000E+00	8.870E+15	2.499E+13	3.407E+10	0.000E+00	0.000E+00
SB131	0.000E+00	8.405E+15	1.402E+15	2.299E+14	3.226E+06	1.216E-03
TE131M	0.000E+00	1.507E+15	1.479E+15	1.446E+15	1.148E+15	8.698E+14
I132	0.000E+00	1.296E+16	1.289E+16	1.281E+16	1.181E+16	1.062E+16
TE133	0.000E+00	1.042E+16	8.803E+14	2.531E+14	1.318E+11	1.613E+07
I133	0.000E+00	3.627E+15	3.559E+15	3.458E+15	2.488E+15	1.668E+15
I134	0.000E+00	2.711E+16	1.891E+16	1.099E+16	7.460E+12	6.003E+08
CS134	0.000E+00	4.265E+14	4.265E+14	4.264E+14	4.263E+14	4.261E+14
I135	0.000E+00	5.365E+16	4.833E+16	4.352E+16	1.525E+16	4.334E+15
I136	0.000E+00	3.457E+16	3.553E+03	3.118E-10	0.000E+00	0.000E+00
I136M	0.000E+00	2.191E+16	6.049E-08	0.000E+00	0.000E+00	0.000E+00
CS136	0.000E+00	2.131E+15	2.126E+15	2.122E+15	2.075E+15	2.021E+15
CS138	0.000E+00	8.242E+16	3.567E+16	1.049E+16	2.620E+10	4.867E+03
XE139	0.000E+00	6.018E+15	2.227E-12	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	7.535E+15	9.536E+13	1.143E+12	6.969E-08	0.000E+00
BA141	0.000E+00	8.758E+15	9.139E+14	9.378E+13	1.214E+04	1.655E-08
BA142	0.000E+00	2.792E+16	5.735E+14	1.176E+13	1.550E-04	8.602E-25
LA142	0.000E+00	1.097E+16	7.869E+15	5.042E+15	5.679E+13	2.606E+11
PR144	0.000E+00	4.023E+14	3.992E+14	3.989E+14	3.985E+14	3.980E+14
PM148	0.000E+00	2.886E+15	2.871E+15	2.855E+15	2.707E+15	2.538E+15
EU156	0.000E+00	3.199E+15	3.194E+15	3.189E+15	3.133E+15	3.065E+15

PRINCIPAL PHOTON SOURCES IN GROUP 12, PHOTONS/SEC
MEAN ENERGY= 1.750MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 88	0.000E+00	3.361E+15	2.635E+15	2.064E+15	1.796E+14	9.593E+12
RB 88	0.000E+00	6.313E+15	5.373E+15	4.250E+15	3.704E+14	1.978E+13
KR 89	0.000E+00	6.428E+15	1.302E+10	2.612E+04	0.000E+00	0.000E+00
KR 90	0.000E+00	6.006E+15	1.790E-18	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	3.890E+15	4.695E+14	5.321E+13	1.860E+04	8.352E-08
ZR 97	0.000E+00	1.094E+15	1.050E+15	1.008E+15	6.687E+14	4.088E+14
MO101	0.000E+00	8.543E+15	5.017E+14	2.917E+13	1.291E+01	1.931E-14
TC104	0.000E+00	1.427E+16	1.584E+15	1.611E+14	1.919E+04	2.367E-08
SB129	0.000E+00	1.943E+15	1.678E+15	1.429E+15	2.872E+14	4.187E+13
SB131	0.000E+00	5.561E+15	9.279E+14	1.521E+14	2.134E+06	8.048E-04
SB132	0.000E+00	2.332E+15	9.129E+08	3.234E+02	0.000E+00	0.000E+00
I132	0.000E+00	1.202E+15	1.196E+15	1.188E+15	1.095E+15	9.852E+14
TE133	0.000E+00	2.798E+15	2.364E+14	6.798E+13	3.539E+10	4.331E+06
TE133M	0.000E+00	3.110E+15	1.469E+15	6.936E+14	3.809E+11	4.662E+07
I134	0.000E+00	1.224E+16	8.538E+15	4.961E+15	3.367E+12	2.710E+08
I135	0.000E+00	1.750E+16	1.576E+16	1.419E+16	4.974E+15	1.413E+15
XE138	0.000E+00	1.267E+16	6.746E+14	3.584E+13	6.425E+00	3.251E-15
XE139	0.000E+00	3.911E+15	1.447E-12	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	2.214E+15	2.802E+13	3.357E+11	2.048E-08	0.000E+00
LA140	0.000E+00	5.984E+16	5.981E+16	5.977E+16	5.933E+16	5.863E+16

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37
 BA141 0.000E+00 3.053E+15 3.185E+14 3.269E+13 4.232E+03 5.769E-09
 LA142 0.000E+00 1.333E+16 9.565E+15 6.129E+15 6.902E+13 3.168E+11
 EU156 0.000E+00 7.171E+14 7.159E+14 7.147E+14 7.022E+14 6.870E+14

PRINCIPAL PHOTON SOURCES IN GROUP 13, PHOTONS/SEC
 MEAN ENERGY= 2.250MEV

NUCLIDE

NUCLIDE	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 88	0.000E+00	1.595E+16	1.251E+16	9.798E+15	8.526E+14	4.553E+13
KR 89	0.000E+00	1.847E+15	3.742E+09	7.505E+03	0.000E+00	0.000E+00
RB 89	0.000E+00	5.281E+15	4.271E+14	2.769E+13	3.627E+01	1.996E-13
RB 90	0.000E+00	1.123E+15	2.087E+09	1.200E+05	0.000E+00	0.000E+00
Y 93	0.000E+00	1.921E+14	1.815E+14	1.695E+14	8.533E+13	3.745E+13
Y 94	0.000E+00	1.412E+15	1.704E+14	1.931E+13	6.751E+03	3.032E-08
MO101	0.000E+00	5.765E+15	3.385E+14	1.969E+13	8.710E+00	1.303E-14
TC104	0.000E+00	3.788E+15	4.204E+14	4.278E+13	5.096E+03	6.285E-09
SB131	0.000E+00	2.678E+15	4.469E+14	7.326E+13	1.028E+06	3.876E-04
TE131M	0.000E+00	1.411E+14	1.385E+14	1.354E+14	1.075E+14	8.146E+13
I132	0.000E+00	9.584E+14	9.533E+14	9.473E+14	8.733E+14	7.854E+14
TE133M	0.000E+00	1.858E+15	8.777E+14	4.143E+14	2.275E+11	2.784E+07
I134	0.000E+00	9.095E+14	6.344E+14	3.687E+14	2.502E+11	2.014E+07
I135	0.000E+00	1.895E+15	1.707E+15	1.537E+15	5.387E+14	1.531E+14
I136	0.000E+00	6.504E+15	6.684E+02	5.866E-11	0.000E+00	0.000E+00
XE138	0.000E+00	1.311E+16	6.982E+14	3.709E+13	6.650E+00	3.365E-15
CS138	0.000E+00	1.106E+16	4.787E+15	1.408E+15	3.516E+09	6.531E+02
XE139	0.000E+00	2.580E+15	9.545E-13	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	1.654E+15	2.093E+13	2.508E+11	1.530E-08	0.000E+00
LA140	0.000E+00	6.286E+14	6.283E+14	6.279E+14	6.232E+14	6.159E+14
LA142	0.000E+00	2.152E+16	1.543E+16	9.889E+15	1.114E+14	5.112E+11
PR144	0.000E+00	3.636E+14	3.608E+14	3.606E+14	3.602E+14	3.597E+14
EU156	0.000E+00	1.184E+15	1.182E+15	1.180E+15	1.159E+15	1.134E+15

PRINCIPAL PHOTON SOURCES IN GROUP 14, PHOTONS/SEC
 MEAN ENERGY= 2.750MEV

NUCLIDE

NUCLIDE	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 87	0.000E+00	2.335E+15	1.368E+15	7.933E+14	3.405E+12	4.909E+09
BR 88	0.000E+00	1.256E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 88	0.000E+00	1.978E+14	1.551E+14	1.215E+14	1.057E+13	5.645E+11
RB 88	0.000E+00	6.181E+14	5.261E+14	4.162E+14	3.626E+13	1.937E+12

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KR 89	0.000E+00	1.762E+15	3.570E+09	7.161E+03	0.000E+00	0.000E+00
RB 89	0.000E+00	3.801E+15	3.074E+14	1.993E+13	2.610E+01	1.437E-13
RB 90M	0.000E+00	1.262E+15	8.514E+10	5.367E+06	0.000E+00	0.000E+00
RB 92	0.000E+00	6.391E+14	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	7.655E+14	9.239E+13	1.047E+13	3.660E+03	1.644E-08
NB 99M	0.000E+00	4.877E+14	5.512E+07	6.230E+00	0.000E+00	0.000E+00
TC104	0.000E+00	3.372E+15	3.742E+14	3.808E+13	4.535E+03	5.594E-09
SB132M	0.000E+00	4.825E+14	2.416E+10	1.210E+06	0.000E+00	0.000E+00
I136	0.000E+00	4.005E+15	4.116E+02	3.612E-11	0.000E+00	0.000E+00
CS138	0.000E+00	5.523E+15	2.390E+15	7.030E+14	1.756E+09	3.261E+02

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

XE139	0.000E+00	1.455E+15	5.384E-13	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	8.135E+14	1.029E+13	1.234E+11	7.525E-09	0.000E+00
LA140	0.000E+00	2.278E+15	2.277E+15	2.276E+15	2.259E+15	2.232E+15
LA142	0.000E+00	1.297E+16	9.304E+15	5.961E+15	6.714E+13	3.081E+11

PRINCIPAL PHOTON SOURCES IN GROUP 15, PHOTONS/SEC
MEAN ENERGY= 3.500MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
BR 84	0.000E+00	1.173E+15	3.529E+14	9.543E+13	1.995E+08	3.049E+01
KR 87	0.000E+00	9.211E+13	5.398E+13	3.130E+13	1.343E+11	1.937E+08
BR 88	0.000E+00	2.001E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 88	0.000E+00	1.786E+14	1.520E+14	1.202E+14	1.048E+13	5.595E+11
KR 89	0.000E+00	3.013E+15	6.105E+09	1.224E+04	0.000E+00	0.000E+00
RB 89	0.000E+00	4.743E+14	3.836E+13	2.486E+12	3.257E+00	1.793E-14
RB 90	0.000E+00	5.794E+15	1.077E+10	6.193E+05	0.000E+00	0.000E+00
RB 90M	0.000E+00	1.827E+15	1.233E+11	7.771E+06	0.000E+00	0.000E+00
RB 92	0.000E+00	4.856E+14	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 92	0.000E+00	2.827E+12	2.764E+12	2.613E+12	7.193E+11	8.947E+10
RB 94	0.000E+00	2.925E+14	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC104	0.000E+00	1.803E+15	2.001E+14	2.036E+13	2.425E+03	2.991E-09
RH106	0.000E+00	6.425E+11	5.776E+11	5.775E+11	5.771E+11	5.765E+11
I136	0.000E+00	7.017E+14	7.212E+01	6.329E-12	0.000E+00	0.000E+00
CS138	0.000E+00	3.663E+14	1.585E+14	4.663E+13	1.165E+08	2.163E+01
XE139	0.000E+00	3.152E+14	1.166E-13	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	4.441E+14	5.620E+12	6.734E+10	4.108E-09	0.000E+00
LA140	0.000E+00	1.873E+13	1.872E+13	1.871E+13	1.857E+13	1.836E+13
LA142	0.000E+00	4.685E+15	3.361E+15	2.153E+15	2.425E+13	1.113E+11

PRINCIPAL PHOTON SOURCES IN GROUP 16, PHOTONS/SEC
MEAN ENERGY= 5.000MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
BR 84	0.000E+00	1.831E+13	5.508E+12	1.489E+12	3.113E+06	4.758E-01
BR 88	0.000E+00	2.460E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 88	0.000E+00	4.103E+13	3.492E+13	2.763E+13	2.407E+12	1.286E+11
KR 89	0.000E+00	2.223E+14	4.504E+08	9.034E+02	0.000E+00	0.000E+00
RB 89	0.000E+00	2.075E+13	1.679E+12	1.088E+11	1.425E-01	7.845E-16
RB 90	0.000E+00	6.705E+15	1.246E+10	7.167E+05	0.000E+00	0.000E+00
RB 90M	0.000E+00	2.902E+14	1.959E+10	1.235E+06	0.000E+00	0.000E+00
RB 92	0.000E+00	1.164E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS138	0.000E+00	1.007E+13	4.360E+12	1.282E+12	3.203E+06	5.949E-01

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

PRINCIPAL PHOTON SOURCES IN GROUP 17, PHOTONS/SEC
MEAN ENERGY= 7.000MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
RB 92	0.000E+00	9.176E+13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 94	0.000E+00	5.692E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I136	0.000E+00	1.421E+08	1.460E-05	1.281E-18	0.000E+00	0.000E+00
CE142	0.000E+00	4.004E-06	4.004E-06	4.004E-06	4.004E-06	4.004E-06
SM147	0.000E+00	2.132E-07	2.132E-07	2.132E-07	2.133E-07	2.135E-07

PRINCIPAL PHOTON SOURCES IN GROUP 18, PHOTONS/SEC
MEAN ENERGY= 9.500MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
RB 94	0.000E+00	2.054E+10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE142	0.000E+00	2.532E-07	2.532E-07	2.532E-07	2.532E-07	2.532E-07
SM147	0.000E+00	1.348E-08	1.348E-08	1.348E-08	1.349E-08	1.350E-08

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

A

BASIS=17X17 PWR ASSEMBLY, 4.236% UO2, 38313 M

WD/MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
TIME, SEC	0.00E+00	3.60E+03	7.20E+03	4.32E+04	8.64E+04
NEUT. FLUX	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
SP POW,MW	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
BURNUP,MWD	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
K INFINITY	0.00000	0.94408	0.94185	0.93869	0.94815
NEUT PRODN	0.00E+00	4.08E+03	4.08E+03	4.08E+03	4.08E+03
NEUT DESTN	0.00E+00	4.32E+03	4.33E+03	4.35E+03	4.31E+03
TOT BURNUP	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AVG N FLUX	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00
AVG SP POW	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00

SIZE OF MMAX(I): MMAX= 1 #= 876 MMAX= 2 #= 431 MMAX= 3 #= 143
 MMAX= 4 #= 51
 MMAX= 5 #= 86 MMAX= 6 #= 58
 MMAX= 7 #= 44 MMAX= 8 #= 0 MMAX= 9 #= 0 MMAX=10 #=
 0 MMAX=11 #=
 MMAX=12 #=
 0

THE NUMBER OF NON-ZERO TERMS IN A=6473
 THE NUMBER OF NON-ZERO FISSION PRODUCT YIELDS=3254
 ILITE= 688 IACT= 129 IFP= 879 ITOT=1696
 THE NUMBER OF NON-ZERO NATURAL ABUNDANCES= 437
 THE NUMBER OF NON-ZERO PHOTON YIELDS= 7903
 THE MAXIMUM NUMBER OF TERMS IN AP= 983

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
 /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
 17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

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ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 1	1.461E+00	1.461E+00	1.461E+00	1.461E+00
H 2	2.123E-03	2.123E-03	2.123E-03	2.123E-03
H 3	1.190E-02	1.190E-02	1.190E-02	1.190E-02
HE 3	1.266E-04	1.266E-04	1.267E-04	1.275E-04
HE 4	1.251E+00	1.251E+00	1.251E+00	1.251E+00
LI 6	5.629E-03	5.629E-03	5.629E-03	5.629E-03
LI 7	5.033E-01	5.033E-01	5.033E-01	5.033E-01
BE 9	4.469E-04	4.469E-04	4.469E-04	4.469E-04
BE 10	3.342E-05	3.342E-05	3.342E-05	3.342E-05
B 10	3.278E-04	3.278E-04	3.278E-04	3.278E-04
B 11	4.735E-01	4.735E-01	4.735E-01	4.735E-01
C 12	7.246E+01	7.246E+01	7.246E+01	7.246E+01
C 13	4.620E+00	4.620E+00	4.620E+00	4.620E+00
C 14	1.370E-01	1.370E-01	1.370E-01	1.370E-01
N 14	5.237E+01	5.237E+01	5.237E+01	5.237E+01
N 15	2.129E-01	2.129E-01	2.129E-01	2.129E-01
O 16	6.197E+04	6.197E+04	6.197E+04	6.197E+04
O 17	2.509E+01	2.509E+01	2.509E+01	2.509E+01
O 18	1.426E+02	1.426E+02	1.426E+02	1.426E+02
F 19	4.936E+00	4.936E+00	4.936E+00	4.936E+00
NE 20	1.632E-04	1.632E-04	1.632E-04	1.632E-04
NA 23	6.908E+00	6.908E+00	6.908E+00	6.908E+00
MG 24	7.331E-01	7.331E-01	7.331E-01	7.331E-01
MG 25	9.514E-02	9.514E-02	9.514E-02	9.514E-02
MG 26	1.088E-01	1.088E-01	1.088E-01	1.088E-01
AL 27	4.579E+01	4.579E+01	4.579E+01	4.579E+01
SI 28	1.916E+02	1.916E+02	1.916E+02	1.916E+02
SI 29	1.007E+01	1.007E+01	1.007E+01	1.007E+01
SI 30	6.901E+00	6.901E+00	6.901E+00	6.901E+00
P 31	1.485E+02	1.485E+02	1.485E+02	1.485E+02
P 32	1.299E-03	1.296E-03	1.293E-03	1.267E-03
S 32	9.560E+00	9.560E+00	9.560E+00	9.560E+00
S 33	8.290E-02	8.290E-02	8.290E-02	8.290E-02
S 34	4.482E-01	4.482E-01	4.482E-01	4.482E-01
S 35	3.001E-04	3.000E-04	2.999E-04	2.989E-04
S 36	1.915E-03	1.915E-03	1.915E-03	1.915E-03
CL 35	1.688E+00	1.688E+00	1.688E+00	1.688E+00
CL 36	1.417E-01	1.417E-01	1.417E-01	1.417E-01
CL 37	6.187E-01	6.187E-01	6.187E-01	6.187E-01
AR 38	5.559E-04	5.560E-04	5.560E-04	5.560E-04
K 40	2.534E-04	2.534E-04	2.534E-04	2.534E-04
CA 40	8.910E-01	8.910E-01	8.910E-01	8.910E-01
CA 41	6.854E-04	6.854E-04	6.854E-04	6.854E-04
CA 42	6.238E-03	6.238E-03	6.238E-03	6.238E-03
CA 43	1.292E-03	1.292E-03	1.292E-03	1.292E-03
CA 44	2.125E-02	2.125E-02	2.125E-02	2.125E-02

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CA 46	5.130E-05	5.130E-05	5.130E-05	5.130E-05	5.130E-05
CA 48	2.094E-03	2.094E-03	2.094E-03	2.094E-03	2.094E-03
SC 45	3.250E-05	3.250E-05	3.251E-05	3.253E-05	3.255E-05
SC 46	4.512E-05	4.511E-05	4.509E-05	4.493E-05	4.475E-05
TI 46	3.950E+00	3.950E+00	3.950E+00	3.950E+00	3.950E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
/CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
TI 47	3.640E+00	3.640E+00	3.640E+00	3.640E+00	3.640E+00
TI 48	3.634E+01	3.634E+01	3.634E+01	3.634E+01	3.634E+01
TI 49	3.295E+00	3.295E+00	3.295E+00	3.295E+00	3.295E+00
TI 50	2.726E+00	2.726E+00	2.726E+00	2.726E+00	2.726E+00
V 50	2.166E-02	2.166E-02	2.166E-02	2.166E-02	2.166E-02
V 51	6.321E+00	6.321E+00	6.321E+00	6.322E+00	6.324E+00
CR 50	2.076E+02	2.076E+02	2.076E+02	2.076E+02	2.076E+02
CR 51	1.425E-01	1.423E-01	1.422E-01	1.407E-01	1.390E-01
CR 52	4.210E+03	4.210E+03	4.210E+03	4.210E+03	4.210E+03
CR 53	4.879E+02	4.879E+02	4.879E+02	4.879E+02	4.879E+02
CR 54	1.314E+02	1.314E+02	1.314E+02	1.314E+02	1.314E+02
MN 54	4.352E-02	4.352E-02	4.352E-02	4.348E-02	4.343E-02
MN 55	3.927E+02	3.927E+02	3.927E+02	3.927E+02	3.927E+02
MN 56	7.365E-04	5.629E-04	4.302E-04	2.926E-05	1.162E-06
FE 54	8.097E+02	8.097E+02	8.097E+02	8.097E+02	8.097E+02
FE 55	8.798E-01	8.798E-01	8.798E-01	8.795E-01	8.792E-01
FE 56	1.326E+04	1.326E+04	1.326E+04	1.326E+04	1.326E+04
FE 57	3.381E+02	3.381E+02	3.381E+02	3.381E+02	3.381E+02
FE 58	4.498E+01	4.498E+01	4.498E+01	4.498E+01	4.498E+01
FE 59	3.175E-03	3.173E-03	3.171E-03	3.151E-03	3.127E-03
CO 58	1.180E-01	1.179E-01	1.179E-01	1.174E-01	1.168E-01
CO 59	4.023E+01	4.023E+01	4.023E+01	4.023E+01	4.023E+01
CO 60	4.640E+00	4.640E+00	4.640E+00	4.639E+00	4.638E+00
CO 60M	2.160E-05	4.067E-07	7.660E-09	4.297E-26	0.000E+00
NI 58	3.799E+03	3.799E+03	3.799E+03	3.799E+03	3.799E+03
NI 59	2.132E+01	2.132E+01	2.132E+01	2.132E+01	2.132E+01

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NI 60	1.510E+03	1.510E+03	1.510E+03	1.510E+03	1.510E+03
NI 61	7.275E+01	7.275E+01	7.275E+01	7.275E+01	7.275E+01
NI 62	2.108E+02	2.108E+02	2.108E+02	2.108E+02	2.108E+02
NI 63	4.357E+00	4.357E+00	4.357E+00	4.357E+00	4.357E+00
NI 64	5.625E+01	5.625E+01	5.625E+01	5.625E+01	5.625E+01
NI 65	2.514E-05	1.909E-05	1.450E-05	9.265E-07	3.415E-08
CU 63	5.834E+00	5.834E+00	5.834E+00	5.834E+00	5.834E+00
CU 64	5.597E-05	5.299E-05	5.018E-05	2.907E-05	1.510E-05
CU 65	2.819E+00	2.819E+00	2.819E+00	2.819E+00	2.819E+00
ZN 64	8.838E+00	8.838E+00	8.838E+00	8.838E+00	8.838E+00
ZN 65	6.605E-03	6.604E-03	6.603E-03	6.595E-03	6.586E-03
ZN 66	5.234E+00	5.234E+00	5.234E+00	5.234E+00	5.234E+00
ZN 67	7.718E-01	7.718E-01	7.718E-01	7.718E-01	7.718E-01
ZN 68	3.632E+00	3.632E+00	3.632E+00	3.632E+00	3.632E+00
ZN 70	1.232E-01	1.232E-01	1.232E-01	1.232E-01	1.232E-01
GA 69	1.385E-02	1.386E-02	1.386E-02	1.386E-02	1.386E-02
GA 71	2.140E-05	2.140E-05	2.140E-05	2.140E-05	2.140E-05
GE 70	8.784E-05	8.784E-05	8.784E-05	8.784E-05	8.784E-05
SR 87	1.061E-03	1.061E-03	1.061E-03	1.061E-03	1.061E-03
SR 88	1.020E-01	1.020E-01	1.020E-01	1.020E-01	1.020E-01
SR 89	6.861E-04	6.857E-04	6.853E-04	6.814E-04	6.768E-04
Y 89	7.091E-03	7.092E-03	7.092E-03	7.096E-03	7.101E-03
Y 90	1.355E-03	1.340E-03	1.326E-03	1.190E-03	1.045E-03
Y 91	2.056E-03	2.055E-03	2.054E-03	2.044E-03	2.032E-03
ZR 90	5.385E+04	5.385E+04	5.385E+04	5.385E+04	5.385E+04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
ZR 91	1.180E+04	1.180E+04	1.180E+04	1.180E+04	1.180E+04
ZR 92	1.832E+04	1.832E+04	1.832E+04	1.832E+04	1.832E+04
ZR 93	5.062E+01	5.062E+01	5.062E+01	5.062E+01	5.062E+01
ZR 94	1.901E+04	1.901E+04	1.901E+04	1.901E+04	1.901E+04
ZR 95	1.069E+00	1.069E+00	1.068E+00	1.063E+00	1.058E+00
ZR 96	3.110E+03	3.110E+03	3.110E+03	3.110E+03	3.110E+03

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ZR 97	1.920E-02	1.843E-02	1.769E-02	1.174E-02	7.174E-03
NB 92	7.153E-05	7.133E-05	7.113E-05	6.913E-05	6.682E-05
NB 93	3.232E+02	3.232E+02	3.232E+02	3.232E+02	3.232E+02
NB 93M	2.953E-05	2.953E-05	2.954E-05	2.956E-05	2.959E-05
NB 94	3.475E+00	3.475E+00	3.475E+00	3.475E+00	3.475E+00
NB 95	5.974E-01	5.974E-01	5.974E-01	5.973E-01	5.972E-01
NB 95M	4.260E-04	4.259E-04	4.259E-04	4.255E-04	4.249E-04
NB 96	2.467E-05	2.395E-05	2.325E-05	1.728E-05	1.210E-05
NB 97	1.365E-03	1.349E-03	1.317E-03	8.966E-04	5.136E-04
MO 92	2.573E+01	2.573E+01	2.573E+01	2.573E+01	2.573E+01
MO 93	1.068E-02	1.068E-02	1.068E-02	1.068E-02	1.068E-02
MO 94	1.651E+01	1.651E+01	1.651E+01	1.651E+01	1.651E+01
MO 95	3.337E+01	3.337E+01	3.337E+01	3.338E+01	3.338E+01
MO 96	3.315E+01	3.315E+01	3.315E+01	3.315E+01	3.315E+01
MO 97	3.323E+01	3.323E+01	3.323E+01	3.324E+01	3.324E+01
MO 98	4.358E+01	4.358E+01	4.358E+01	4.358E+01	4.358E+01
MO 99	7.543E-03	7.465E-03	7.387E-03	6.650E-03	5.863E-03
MO100	1.808E+01	1.808E+01	1.808E+01	1.808E+01	1.808E+01
TC 99	1.724E-01	1.724E-01	1.724E-01	1.725E-01	1.726E-01
RU100	2.269E-02	2.269E-02	2.269E-02	2.269E-02	2.269E-02
RU101	7.408E-02	7.408E-02	7.408E-02	7.408E-02	7.408E-02
RU102	3.119E-03	3.119E-03	3.119E-03	3.119E-03	3.119E-03
PD108	7.374E-05	7.374E-05	7.374E-05	7.374E-05	7.374E-05
PD110	4.335E-05	4.335E-05	4.335E-05	4.335E-05	4.335E-05
AG107	2.039E-02	2.039E-02	2.039E-02	2.039E-02	2.039E-02
AG108M	2.103E-04	2.103E-04	2.103E-04	2.103E-04	2.103E-04
AG109	7.620E-03	7.620E-03	7.620E-03	7.620E-03	7.621E-03
AG110M	1.745E-04	1.744E-04	1.744E-04	1.742E-04	1.740E-04
CD106	1.414E-01	1.414E-01	1.414E-01	1.414E-01	1.414E-01
CD108	1.014E-01	1.014E-01	1.014E-01	1.014E-01	1.014E-01
CD109	2.469E-04	2.469E-04	2.468E-04	2.467E-04	2.465E-04
CD110	1.349E+00	1.349E+00	1.349E+00	1.349E+00	1.349E+00
CD111	1.418E+00	1.418E+00	1.418E+00	1.418E+00	1.418E+00
CD112	2.828E+00	2.828E+00	2.828E+00	2.828E+00	2.828E+00
CD113	5.794E-04	5.794E-04	5.794E-04	5.794E-04	5.794E-04
CD114	4.746E+00	4.746E+00	4.746E+00	4.746E+00	4.746E+00
CD115	3.507E-04	3.462E-04	3.418E-04	3.002E-04	2.570E-04
CD115M	5.174E-04	5.171E-04	5.167E-04	5.134E-04	5.094E-04
CD116	8.914E-01	8.914E-01	8.914E-01	8.914E-01	8.914E-01
IN113	2.484E-01	2.485E-01	2.485E-01	2.486E-01	2.487E-01
IN113M	2.301E-05	2.301E-05	2.300E-05	2.295E-05	2.288E-05
IN114M	2.599E-03	2.597E-03	2.596E-03	2.580E-03	2.562E-03
IN115	1.198E-02	1.198E-02	1.198E-02	1.198E-02	1.198E-02
SN112	1.608E+01	1.608E+01	1.608E+01	1.608E+01	1.608E+01
SN113	3.833E-02	3.832E-02	3.831E-02	3.821E-02	3.810E-02

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OUTPUT UNIT =

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* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
SN114	1.120E+01	1.120E+01	1.120E+01	1.120E+01	1.120E+01
SN115	5.847E+00	5.847E+00	5.847E+00	5.847E+00	5.847E+00
SN116	2.468E+02	2.468E+02	2.468E+02	2.468E+02	2.468E+02
SN117	1.340E+02	1.340E+02	1.340E+02	1.340E+02	1.340E+02
SN117M	4.057E-02	4.049E-02	4.040E-02	3.958E-02	3.861E-02
SN118	4.174E+02	4.174E+02	4.174E+02	4.174E+02	4.174E+02
SN119	1.524E+02	1.524E+02	1.524E+02	1.524E+02	1.524E+02
SN119M	6.184E-01	6.183E-01	6.182E-01	6.175E-01	6.166E-01
SN120	5.686E+02	5.686E+02	5.686E+02	5.686E+02	5.686E+02
SN121	1.737E-03	1.693E-03	1.649E-03	1.274E-03	9.337E-04
SN121M	4.440E-03	4.440E-03	4.440E-03	4.440E-03	4.440E-03
SN122	8.197E+01	8.197E+01	8.197E+01	8.197E+01	8.197E+01
SN123	1.801E-02	1.801E-02	1.800E-02	1.796E-02	1.791E-02
SN124	1.005E+02	1.005E+02	1.005E+02	1.005E+02	1.005E+02
SN125	1.045E-02	1.042E-02	1.038E-02	1.008E-02	9.722E-03
SB121	8.166E-01	8.167E-01	8.167E-01	8.171E-01	8.174E-01
SB122	5.991E-04	5.927E-04	5.864E-04	5.269E-04	4.635E-04
SB123	6.579E-02	6.580E-02	6.580E-02	6.584E-02	6.589E-02
SB124	5.618E-04	5.615E-04	5.612E-04	5.585E-04	5.553E-04
SB125	7.385E-01	7.385E-01	7.385E-01	7.386E-01	7.387E-01
SB126	3.223E-04	3.215E-04	3.208E-04	3.134E-04	3.047E-04
TE122	6.077E-02	6.078E-02	6.078E-02	6.084E-02	6.090E-02
TE123	7.427E-04	7.428E-04	7.428E-04	7.433E-04	7.438E-04
TE123M	1.849E-04	1.849E-04	1.848E-04	1.844E-04	1.839E-04
TE124	3.191E-03	3.191E-03	3.191E-03	3.194E-03	3.197E-03
TE125	2.779E-01	2.779E-01	2.779E-01	2.781E-01	2.784E-01
TE125M	8.934E-03	8.934E-03	8.935E-03	8.939E-03	8.943E-03
TE126	1.103E-02	1.103E-02	1.103E-02	1.104E-02	1.104E-02
I127	4.428E-05	4.428E-05	4.429E-05	4.433E-05	4.436E-05
EU153	2.393E-04	2.393E-04	2.393E-04	2.396E-04	2.399E-04
EU154	8.239E-05	8.239E-05	8.239E-05	8.238E-05	8.237E-05
EU155	2.709E-05	2.709E-05	2.709E-05	2.709E-05	2.708E-05
GD152	1.604E-03	1.604E-03	1.604E-03	1.604E-03	1.604E-03
GD153	2.008E-04	2.007E-04	2.007E-04	2.005E-04	2.002E-04

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GD154	1.711E-02	1.711E-02	1.711E-02	1.711E-02	1.711E-02
GD155	1.142E-04	1.142E-04	1.142E-04	1.142E-04	1.142E-04
GD156	3.707E-01	3.707E-01	3.707E-01	3.707E-01	3.707E-01
GD157	1.890E-04	1.890E-04	1.890E-04	1.890E-04	1.890E-04
GD158	4.872E-01	4.872E-01	4.872E-01	4.872E-01	4.872E-01
GD159	3.402E-05	3.278E-05	3.158E-05	2.175E-05	1.391E-05
GD160	2.531E-01	2.531E-01	2.531E-01	2.531E-01	2.531E-01
TB159	1.955E-02	1.955E-02	1.955E-02	1.956E-02	1.957E-02
TB160	7.546E-04	7.543E-04	7.540E-04	7.510E-04	7.474E-04
TB161	4.674E-05	4.655E-05	4.636E-05	4.446E-05	4.229E-05
DY160	1.976E-03	1.976E-03	1.976E-03	1.979E-03	1.983E-03
DY161	2.183E-03	2.183E-03	2.183E-03	2.185E-03	2.187E-03
DY162	1.078E-03	1.078E-03	1.078E-03	1.078E-03	1.078E-03
DY163	6.077E-04	6.077E-04	6.077E-04	6.077E-04	6.077E-04
DY164	1.055E-04	1.055E-04	1.055E-04	1.055E-04	1.055E-04
HO165	1.093E-04	1.093E-04	1.093E-04	1.093E-04	1.093E-04
LU175	5.117E-03	5.118E-03	5.118E-03	5.120E-03	5.124E-03

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
LU176	1.907E-04	1.907E-04	1.907E-04	1.907E-04	1.907E-04
HF174	5.667E-03	5.667E-03	5.667E-03	5.667E-03	5.667E-03
HF175	6.222E-04	6.219E-04	6.217E-04	6.191E-04	6.161E-04
HF176	2.719E-01	2.719E-01	2.719E-01	2.719E-01	2.719E-01
HF177	1.000E-01	1.000E-01	1.000E-01	1.000E-01	1.000E-01
HF178	1.263E+00	1.263E+00	1.263E+00	1.263E+00	1.263E+00
HF179	2.854E+00	2.854E+00	2.854E+00	2.854E+00	2.854E+00
HF180	3.837E+00	3.837E+00	3.837E+00	3.837E+00	3.837E+00
HF181	1.264E-02	1.264E-02	1.263E-02	1.254E-02	1.244E-02
HF182	6.318E-04	6.318E-04	6.318E-04	6.318E-04	6.318E-04
TA181	1.127E-01	1.127E-01	1.127E-01	1.128E-01	1.129E-01
TA182	2.760E-03	2.759E-03	2.758E-03	2.751E-03	2.743E-03
TA183	3.425E-04	3.405E-04	3.386E-04	3.200E-04	2.989E-04
W180	3.599E-03	3.599E-03	3.599E-03	3.599E-03	3.599E-03

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W181	9.274E-05	9.272E-05	9.270E-05	9.248E-05	9.221E-05
W182	5.727E-01	5.727E-01	5.727E-01	5.727E-01	5.727E-01
W183	6.218E-01	6.218E-01	6.218E-01	6.218E-01	6.219E-01
W184	1.099E+00	1.099E+00	1.099E+00	1.099E+00	1.099E+00
W185	1.587E-03	1.587E-03	1.586E-03	1.580E-03	1.573E-03
W186	6.481E-01	6.481E-01	6.481E-01	6.481E-01	6.481E-01
W187	4.081E-04	3.964E-04	3.851E-04	2.881E-04	2.035E-04
W188	9.172E-05	9.168E-05	9.164E-05	9.126E-05	9.081E-05
RE185	6.038E-03	6.038E-03	6.039E-03	6.045E-03	6.052E-03
RE186	5.143E-05	5.104E-05	5.065E-05	4.692E-05	4.281E-05
RE187	2.401E-01	2.401E-01	2.401E-01	2.402E-01	2.403E-01
RE188	9.314E-05	9.089E-05	8.745E-05	5.847E-05	3.618E-05
OS186	3.932E-03	3.932E-03	3.932E-03	3.936E-03	3.940E-03
OS188	4.083E-02	4.084E-02	4.084E-02	4.087E-02	4.089E-02
OS189	1.188E-03	1.188E-03	1.188E-03	1.188E-03	1.188E-03
OS190	1.614E-04	1.614E-04	1.614E-04	1.614E-04	1.614E-04
PB204	6.345E-03	6.345E-03	6.345E-03	6.345E-03	6.345E-03
PB206	1.053E-01	1.053E-01	1.053E-01	1.053E-01	1.053E-01
PB207	1.070E-01	1.070E-01	1.070E-01	1.070E-01	1.070E-01
PB208	2.428E-01	2.428E-01	2.428E-01	2.428E-01	2.428E-01
BI209	1.845E-01	1.845E-01	1.845E-01	1.845E-01	1.845E-01
SUMTOT	1.968E+05	1.968E+05	1.968E+05	1.968E+05	1.968E+05
TOTAL	1.968E+05	1.968E+05	1.968E+05	1.968E+05	1.968E+05

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	1.475E+00	1.475E+00	1.475E+00	1.475E+00	1.475E+00
HE	1.251E+00	1.251E+00	1.251E+00	1.251E+00	1.251E+00
LI	5.089E-01	5.089E-01	5.089E-01	5.089E-01	5.089E-01
BE	4.803E-04	4.803E-04	4.803E-04	4.803E-04	4.803E-04
B	4.738E-01	4.738E-01	4.738E-01	4.738E-01	4.738E-01
C	7.722E+01	7.722E+01	7.722E+01	7.722E+01	7.722E+01
N	5.259E+01	5.259E+01	5.259E+01	5.259E+01	5.259E+01

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O	6.214E+04	6.214E+04	6.214E+04	6.214E+04	6.214E+04
F	4.936E+00	4.936E+00	4.936E+00	4.936E+00	4.936E+00
NE	1.780E-04	1.780E-04	1.780E-04	1.780E-04	1.780E-04
NA	6.908E+00	6.908E+00	6.908E+00	6.908E+00	6.908E+00
MG	9.370E-01	9.370E-01	9.370E-01	9.370E-01	9.370E-01
AL	4.579E+01	4.579E+01	4.579E+01	4.579E+01	4.579E+01
SI	2.086E+02	2.086E+02	2.086E+02	2.086E+02	2.086E+02
P	1.485E+02	1.485E+02	1.485E+02	1.485E+02	1.485E+02
S	1.009E+01	1.009E+01	1.009E+01	1.009E+01	1.009E+01
CL	2.449E+00	2.449E+00	2.449E+00	2.449E+00	2.449E+00
AR	5.612E-04	5.612E-04	5.612E-04	5.612E-04	5.612E-04
K	2.608E-04	2.608E-04	2.608E-04	2.608E-04	2.608E-04
CA	9.226E-01	9.226E-01	9.226E-01	9.226E-01	9.226E-01
SC	8.073E-05	8.069E-05	8.065E-05	8.025E-05	7.981E-05
TI	4.995E+01	4.995E+01	4.995E+01	4.995E+01	4.995E+01
V	6.342E+00	6.342E+00	6.343E+00	6.344E+00	6.346E+00
CR	5.036E+03	5.036E+03	5.036E+03	5.036E+03	5.036E+03
MN	3.928E+02	3.928E+02	3.928E+02	3.928E+02	3.928E+02
FE	1.446E+04	1.446E+04	1.446E+04	1.446E+04	1.446E+04
CO	4.499E+01	4.499E+01	4.499E+01	4.498E+01	4.498E+01
NI	5.674E+03	5.674E+03	5.674E+03	5.674E+03	5.674E+03
CU	8.653E+00	8.653E+00	8.653E+00	8.653E+00	8.653E+00
ZN	1.860E+01	1.860E+01	1.860E+01	1.860E+01	1.860E+01
GA	1.388E-02	1.388E-02	1.388E-02	1.388E-02	1.388E-02
GE	8.815E-05	8.815E-05	8.815E-05	8.815E-05	8.815E-05
SR	1.038E-01	1.038E-01	1.038E-01	1.038E-01	1.038E-01
Y	1.052E-02	1.050E-02	1.048E-02	1.033E-02	1.018E-02
ZR	1.061E+05	1.061E+05	1.061E+05	1.061E+05	1.061E+05
NB	3.273E+02	3.273E+02	3.273E+02	3.273E+02	3.273E+02
MO	2.037E+02	2.037E+02	2.037E+02	2.037E+02	2.037E+02
TC	1.724E-01	1.724E-01	1.724E-01	1.725E-01	1.726E-01
RU	9.989E-02	9.990E-02	9.990E-02	9.990E-02	9.990E-02
PD	1.175E-04	1.175E-04	1.175E-04	1.175E-04	1.174E-04
AG	2.840E-02	2.840E-02	2.840E-02	2.840E-02	2.840E-02
CD	1.148E+01	1.148E+01	1.148E+01	1.148E+01	1.148E+01
IN	2.630E-01	2.631E-01	2.631E-01	2.631E-01	2.632E-01
SN	1.736E+03	1.736E+03	1.736E+03	1.736E+03	1.736E+03
SB	1.622E+00	1.622E+00	1.622E+00	1.623E+00	1.623E+00
TE	3.627E-01	3.627E-01	3.628E-01	3.630E-01	3.634E-01
I	4.428E-05	4.428E-05	4.429E-05	4.433E-05	4.436E-05
EU	3.543E-04	3.543E-04	3.543E-04	3.544E-04	3.546E-04
GD	1.130E+00	1.130E+00	1.130E+00	1.130E+00	1.130E+00
TB	2.035E-02	2.035E-02	2.035E-02	2.035E-02	2.036E-02
DY	5.949E-03	5.950E-03	5.950E-03	5.955E-03	5.961E-03
HO	1.100E-04	1.100E-04	1.100E-04	1.101E-04	1.100E-04
LU	5.319E-03	5.319E-03	5.319E-03	5.321E-03	5.323E-03
HF	8.345E+00	8.345E+00	8.345E+00	8.345E+00	8.344E+00
TA	1.158E-01	1.158E-01	1.158E-01	1.158E-01	1.159E-01

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W	2.947E+00	2.947E+00	2.947E+00	2.947E+00	2.947E+00
RE	2.463E-01	2.463E-01	2.463E-01	2.464E-01	2.465E-01
OS	4.611E-02	4.612E-02	4.612E-02	4.615E-02	4.618E-02
PB	4.614E-01	4.614E-01	4.614E-01	4.614E-01	4.614E-01
BI	1.845E-01	1.845E-01	1.845E-01	1.845E-01	1.845E-01
SUMTOT	1.968E+05	1.968E+05	1.968E+05	1.968E+05	1.968E+05
TOTAL	1.968E+05	1.968E+05	1.968E+05	1.968E+05	1.968E+05

CUMULATIVE TABLE TOTALS

AP+FP	1.968E+05	1.968E+05	1.968E+05	1.968E+05	1.968E+05
ACT+FP	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AP+ACT+FP	1.968E+05	1.968E+05	1.968E+05	1.968E+05	1.968E+05

□

OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	1.149E+02	1.149E+02	1.149E+02	1.149E+02	1.149E+02
H 4	2.669E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HE 6	1.446E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LI 8	1.127E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE 8	1.143E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
B 12	9.624E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C 14	6.109E-01	6.109E-01	6.109E-01	6.109E-01	6.109E-01
C 15	1.709E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	1.070E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
O 19	1.983E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
F 20	1.878E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE 23	8.871E-01	7.036E-30	0.000E+00	0.000E+00	0.000E+00
NA 24	1.328E+02	1.268E+02	1.211E+02	7.628E+01	4.381E+01
NA 24M	5.428E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 25	1.092E-02	7.167E-21	0.000E+00	0.000E+00	0.000E+00
MG 27	7.631E+00	9.411E-02	1.161E-03	9.446E-23	0.000E+00
AL 28	2.052E+02	1.780E-06	6.214E-09	4.461E-09	2.997E-09

ML041000030.txt

AL 29	4.280E-01	7.264E-04	1.233E-06	0.000E+00	0.000E+00
AL 30	4.132E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SI 31	2.085E+02	1.601E+02	1.229E+02	8.736E+00	3.659E-01
P 32	3.707E+02	3.700E+02	3.692E+02	3.618E+02	3.532E+02
P 33	1.259E-03	1.258E-03	1.256E-03	1.242E-03	1.225E-03
P 34	3.550E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S 35	1.273E+01	1.272E+01	1.272E+01	1.268E+01	1.263E+01
S 37	7.711E-03	2.078E-06	5.598E-10	0.000E+00	0.000E+00
CL 36	4.676E-03	4.676E-03	4.676E-03	4.676E-03	4.676E-03
CL 38	3.375E+00	1.104E+00	3.612E-01	5.065E-06	7.599E-12
CL 38M	4.035E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AR 37	2.383E-01	2.381E-01	2.380E-01	2.360E-01	2.337E-01
AR 39	2.824E-05	2.824E-05	2.824E-05	2.824E-05	2.824E-05
AR 41	3.637E-05	2.489E-05	1.703E-05	3.832E-07	4.038E-09
K 42	4.623E-03	4.371E-03	4.133E-03	2.359E-03	1.204E-03
K 43	1.469E-04	1.424E-04	1.381E-04	1.016E-04	7.035E-05
K 44	5.552E-05	8.384E-06	1.266E-06	7.808E-15	1.098E-24
CA 41	7.381E-05	7.381E-05	7.381E-05	7.381E-05	7.381E-05
CA 45	2.013E-01	2.012E-01	2.012E-01	2.008E-01	2.004E-01
CA 47	3.695E-04	3.672E-04	3.648E-04	3.423E-04	3.172E-04
CA 49	2.072E-02	1.836E-04	1.627E-06	4.860E-27	0.000E+00
SC 46	1.529E+00	1.529E+00	1.528E+00	1.523E+00	1.517E+00
SC 46M	2.971E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SC 47	2.450E+00	2.429E+00	2.408E+00	2.210E+00	1.992E+00
SC 48	2.288E-01	2.252E-01	2.217E-01	1.892E-01	1.565E-01
SC 49	2.430E-01	1.197E-01	5.807E-02	4.195E-05	7.134E-09
SC 50	3.913E-03	1.046E-13	2.799E-24	0.000E+00	0.000E+00
TI 51	4.599E+00	3.365E-03	2.462E-06	0.000E+00	0.000E+00
V 52	3.793E+02	5.794E-03	8.840E-08	0.000E+00	0.000E+00
V 53	6.107E-01	3.692E-12	2.233E-23	0.000E+00	0.000E+00
V 54	6.942E-03	1.373E-22	0.000E+00	0.000E+00	0.000E+00
CR 51	1.317E+04	1.316E+04	1.314E+04	1.301E+04	1.285E+04
CR 55	1.951E+02	1.595E-03	1.303E-08	0.000E+00	0.000E+00
MN 54	3.369E+02	3.369E+02	3.369E+02	3.366E+02	3.362E+02

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

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MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
MN 56	1.599E+04	1.222E+04	9.340E+03	6.353E+02	2.524E+01
MN 57	1.232E+00	7.448E-12	4.503E-23	0.000E+00	0.000E+00
MN 58	3.799E-03	9.636E-20	0.000E+00	0.000E+00	0.000E+00
FE 55	2.200E+03	2.200E+03	2.200E+03	2.200E+03	2.199E+03
FE 59	1.562E+02	1.561E+02	1.560E+02	1.550E+02	1.538E+02
CO 58	3.755E+03	3.753E+03	3.752E+03	3.736E+03	3.718E+03
CO 60	5.248E+03	5.248E+03	5.248E+03	5.247E+03	5.246E+03
CO 60M	6.467E+03	1.218E+02	2.294E+00	1.287E-17	0.000E+00
CO 61	1.067E+02	7.008E+01	4.604E+01	6.898E-01	4.461E-03
CO 62	3.867E-01	3.517E-13	3.198E-25	0.000E+00	0.000E+00
NI 59	1.616E+00	1.616E+00	1.616E+00	1.616E+00	1.616E+00
NI 63	2.689E+02	2.689E+02	2.689E+02	2.689E+02	2.688E+02
NI 65	4.811E+02	3.654E+02	2.776E+02	1.773E+01	6.536E-01
NI 66	4.045E-03	3.994E-03	3.943E-03	3.473E-03	2.982E-03
CU 64	2.159E+02	2.044E+02	1.936E+02	1.121E+02	5.826E+01
CU 66	4.899E+01	1.808E-02	3.955E-03	3.479E-03	2.987E-03
CU 67	7.740E-05	7.653E-05	7.568E-05	6.766E-05	5.915E-05
ZN 65	5.443E+01	5.442E+01	5.442E+01	5.435E+01	5.427E+01
ZN 69	4.657E+01	2.402E+01	1.308E+01	1.845E+00	1.003E+00
ZN 69M	3.129E+00	2.976E+00	2.829E+00	1.710E+00	9.342E-01
ZN 71	6.310E-02	2.803E-06	2.346E-06	4.004E-07	4.797E-08
ZN 71M	6.616E-03	5.543E-03	4.645E-03	7.926E-04	9.496E-05
GA 70	5.782E-01	8.055E-02	1.122E-02	3.090E-11	1.651E-21
GA 72	1.902E-03	1.811E-03	1.724E-03	1.054E-03	5.845E-04
GA 72M	5.877E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 71	2.014E-03	2.009E-03	2.004E-03	1.956E-03	1.899E-03
GE 71M	1.644E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 89	1.994E+01	1.993E+01	1.992E+01	1.981E+01	1.967E+01
SR 90	1.106E-03	1.106E-03	1.106E-03	1.106E-03	1.106E-03
SR 91	3.871E+00	3.599E+00	3.345E+00	1.613E+00	6.719E-01
SR 93	1.331E-02	5.199E-05	2.031E-07	0.000E+00	0.000E+00
Y 89M	1.252E-02	1.241E-02	1.230E-02	1.126E-02	1.012E-02
Y 90	7.375E+02	7.295E+02	7.217E+02	6.476E+02	5.687E+02
Y 90M	3.814E-05	3.050E-05	2.439E-05	2.607E-06	1.782E-07
Y 91	5.045E+01	5.042E+01	5.040E+01	5.016E+01	4.986E+01
Y 92	1.298E+02	1.067E+02	8.773E+01	1.237E+01	1.180E+00
Y 93	1.331E-02	1.258E-02	1.175E-02	5.914E-03	2.595E-03
Y 94	2.769E+00	3.138E-01	3.557E-02	1.243E-11	5.584E-23
Y 96	1.771E-02	2.485E-10	3.486E-18	0.000E+00	0.000E+00
ZR 89	1.254E-02	1.243E-02	1.232E-02	1.127E-02	1.014E-02
ZR 93	1.272E-01	1.272E-01	1.272E-01	1.272E-01	1.272E-01
ZR 95	2.298E+04	2.297E+04	2.296E+04	2.285E+04	2.273E+04
ZR 97	3.672E+04	3.524E+04	3.382E+04	2.244E+04	1.372E+04
NB 92	9.997E+00	9.969E+00	9.940E+00	9.662E+00	9.338E+00
NB 93M	8.351E-03	8.351E-03	8.352E-03	8.358E-03	8.366E-03

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NB 94	6.512E-01	6.512E-01	6.512E-01	6.512E-01	6.512E-01
NB 95	2.337E+04	2.337E+04	2.337E+04	2.337E+04	2.336E+04
NB 95M	1.623E+02	1.623E+02	1.623E+02	1.621E+02	1.619E+02
NB 96	3.451E+01	3.350E+01	3.252E+01	2.417E+01	1.692E+01
NB 97	3.672E+04	3.628E+04	3.541E+04	2.412E+04	1.381E+04
NB 97M	3.474E+04	3.338E+04	3.204E+04	2.126E+04	1.300E+04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
NB 98	5.113E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100	2.596E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 93M	7.248E-01	6.550E-01	5.920E-01	2.152E-01	6.390E-02
MO 93	1.174E-02	1.174E-02	1.174E-02	1.174E-02	1.174E-02
MO 99	3.619E+03	3.582E+03	3.544E+03	3.191E+03	2.813E+03
MO101	1.753E+02	1.019E+01	5.928E-01	2.622E-13	3.924E-28
TC 99	2.924E-03	2.925E-03	2.925E-03	2.926E-03	2.928E-03
TC100	1.004E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC101	1.753E+02	3.800E+01	3.697E+00	5.898E-12	1.190E-26
RU103	4.092E-02	4.089E-02	4.086E-02	4.056E-02	4.021E-02
RH104	1.089E-03	5.715E-09	3.939E-13	0.000E+00	0.000E+00
RH104M	6.955E-05	4.793E-09	3.303E-13	0.000E+00	0.000E+00
PD109	3.073E-02	2.919E-02	2.773E-02	1.657E-02	8.932E-03
PD109M	4.564E-04	6.430E-08	9.059E-12	0.000E+00	0.000E+00
PD111	7.405E-04	1.608E-04	6.750E-05	1.479E-05	3.259E-06
PD111M	9.208E-05	8.118E-05	7.157E-05	2.030E-05	4.473E-06
AG106	4.123E-04	4.109E-04	4.095E-04	3.958E-04	3.800E-04
AG108	6.712E+00	4.883E-04	4.881E-04	4.881E-04	4.881E-04
AG108M	5.484E-03	5.484E-03	5.484E-03	5.484E-03	5.484E-03
AG109M	6.683E-01	6.668E-01	6.653E-01	6.537E-01	6.456E-01
AG110	1.694E+01	1.103E-02	1.103E-02	1.101E-02	1.100E-02
AG110M	8.291E-01	8.291E-01	8.290E-01	8.280E-01	8.269E-01
AG111	1.141E-01	1.137E-01	1.133E-01	1.090E-01	1.040E-01
AG111M	5.693E-02	1.921E-04	9.118E-05	2.118E-05	4.669E-06
AG112	1.477E-04	1.184E-04	9.485E-05	1.036E-05	7.270E-07

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CD107	5.758E-01	5.175E-01	4.650E-01	1.598E-01	4.435E-02
CD109	6.376E-01	6.376E-01	6.375E-01	6.371E-01	6.367E-01
CD111M	1.098E+00	4.675E-01	1.990E-01	3.891E-05	1.379E-09
CD115	1.788E+02	1.765E+02	1.742E+02	1.531E+02	1.310E+02
CD115M	1.318E+01	1.317E+01	1.316E+01	1.308E+01	1.298E+01
CD117	5.341E+00	4.091E+00	3.134E+00	2.179E-01	8.890E-03
CD117M	1.581E-01	1.290E-01	1.052E-01	1.369E-02	1.186E-03
CD119	3.678E-04	4.406E-06	5.280E-08	3.221E-27	0.000E+00
CD121	1.108E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN113M	3.850E+02	3.850E+02	3.849E+02	3.840E+02	3.828E+02
IN114	1.533E+02	5.752E+01	5.749E+01	5.715E+01	5.675E+01
IN114M	6.014E+01	6.010E+01	6.007E+01	5.972E+01	5.930E+01
IN116	6.160E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	4.477E+01	2.077E+01	9.635E+00	4.450E-03	4.423E-07
IN117	2.971E+00	2.822E+00	2.608E+00	3.534E-01	1.869E-02
IN117M	5.037E+00	4.842E+00	4.398E+00	6.105E-01	3.101E-02
IN118	4.839E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN119	3.510E-02	4.086E-06	4.332E-07	4.065E-17	3.697E-29
IN119M	3.678E-04	7.155E-05	7.519E-06	7.001E-16	6.367E-28
IN121	9.089E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN113	3.849E+02	3.848E+02	3.847E+02	3.838E+02	3.826E+02
SN113M	1.802E+02	2.252E+01	2.815E+00	2.622E-09	3.815E-20
SN117M	3.235E+03	3.228E+03	3.221E+03	3.155E+03	3.078E+03
SN119M	2.770E+03	2.770E+03	2.770E+03	2.766E+03	2.763E+03
SN121	1.679E+03	1.636E+03	1.595E+03	1.231E+03	9.027E+02
SN121M	2.626E-01	2.626E-01	2.626E-01	2.626E-01	2.626E-01

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
SN123	1.481E+02	1.481E+02	1.480E+02	1.477E+02	1.473E+02
SN123M	5.389E-01	1.910E-01	6.766E-02	2.110E-06	8.260E-12
SN125	1.133E+03	1.129E+03	1.126E+03	1.093E+03	1.054E+03
SN125M	7.850E+02	9.946E+00	1.260E-01	1.343E-20	0.000E+00
SB122	2.376E+02	2.350E+02	2.325E+02	2.089E+02	1.838E+02

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SB122M	1.855E+00	9.291E-05	4.652E-09	0.000E+00	0.000E+00
SB124	9.831E+00	9.826E+00	9.822E+00	9.774E+00	9.718E+00
SB124M	2.922E-02	6.499E-14	1.446E-25	0.000E+00	0.000E+00
SB125	7.628E+02	7.628E+02	7.629E+02	7.630E+02	7.631E+02
SB126	2.695E+01	2.689E+01	2.683E+01	2.621E+01	2.549E+01
SB126M	1.951E+00	2.185E-01	2.449E-02	7.633E-12	2.987E-23
TE123M	1.641E+00	1.641E+00	1.640E+00	1.636E+00	1.632E+00
TE125M	1.610E+02	1.610E+02	1.610E+02	1.611E+02	1.611E+02
TE127	2.491E-01	2.323E-01	2.167E-01	1.105E-01	5.351E-02
TE127M	1.419E-02	1.419E-02	1.419E-02	1.415E-02	1.410E-02
I128	1.083E-02	2.050E-03	3.879E-04	2.287E-11	4.828E-20
EU154	2.225E-02	2.225E-02	2.225E-02	2.225E-02	2.224E-02
EU155	1.261E-02	1.261E-02	1.261E-02	1.260E-02	1.260E-02
EU156	3.038E-01	3.033E-01	3.027E-01	2.970E-01	2.903E-01
GD153	7.082E-01	7.082E-01	7.081E-01	7.072E-01	7.062E-01
GD155M	4.018E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD159	3.607E+01	3.475E+01	3.347E+01	2.306E+01	1.475E+01
GD161	3.742E+00	4.918E-05	6.460E-10	0.000E+00	0.000E+00
GD162	9.855E-04	1.540E-05	2.406E-07	2.087E-25	0.000E+00
TB160	8.521E+00	8.518E+00	8.514E+00	8.480E+00	8.440E+00
TB161	5.480E+00	5.458E+00	5.436E+00	5.213E+00	4.959E+00
TB162	9.658E-04	4.875E-05	8.904E-07	8.084E-25	0.000E+00
DY165	6.639E-01	4.971E-01	3.701E-01	1.938E-02	5.626E-04
DY165M	4.230E-01	1.762E-15	7.337E-30	0.000E+00	0.000E+00
DY166	2.300E-03	2.281E-03	2.261E-03	2.077E-03	1.875E-03
HO166	8.135E-02	7.933E-02	7.736E-02	6.023E-02	4.468E-02
ER167M	8.154E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LU176M	2.811E+00	2.330E+00	1.931E+00	2.951E-01	3.097E-02
LU177	1.032E+00	1.028E+00	1.023E+00	9.801E-01	9.308E-01
LU177M	2.393E-03	2.392E-03	2.392E-03	2.387E-03	2.382E-03
HF175	6.635E+00	6.632E+00	6.629E+00	6.602E+00	6.569E+00
HF178M	7.683E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HF179M	1.244E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HF180M	1.227E+01	1.082E+01	9.539E+00	2.705E+00	5.962E-01
HF181	2.153E+02	2.151E+02	2.150E+02	2.135E+02	2.118E+02
TA182	1.722E+01	1.722E+01	1.722E+01	1.717E+01	1.712E+01
TA182M	3.369E-02	2.710E-03	2.179E-04	2.464E-15	1.802E-28
TA183	4.793E+01	4.766E+01	4.739E+01	4.478E+01	4.184E+01
W181	5.523E-01	5.522E-01	5.521E-01	5.508E-01	5.492E-01
W183M	6.429E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W185	1.493E+01	1.492E+01	1.491E+01	1.486E+01	1.479E+01
W185M	1.716E-02	2.624E-13	4.014E-24	0.000E+00	0.000E+00
W187	2.863E+02	2.781E+02	2.701E+02	2.021E+02	1.427E+02
W188	9.183E-01	9.179E-01	9.176E-01	9.138E-01	9.092E-01
RE186	9.564E+00	9.491E+00	9.419E+00	8.725E+00	7.960E+00
RE188	9.148E+01	8.927E+01	8.588E+01	5.742E+01	3.554E+01

□

OUTPUT UNIT =

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)
□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
/CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
RE188M	8.862E+01	9.586E+00	1.037E+00	2.275E-10	5.843E-22
RE189	4.280E-04	4.160E-04	4.043E-04	3.039E-04	2.158E-04
OS191	7.625E-03	7.620E-03	7.615E-03	7.543E-03	7.421E-03
OS191M	5.335E-03	5.058E-03	4.796E-03	2.814E-03	1.484E-03
IR192	1.823E-03	1.822E-03	1.821E-03	1.814E-03	1.806E-03
IR194	7.342E-05	7.081E-05	6.829E-05	4.755E-05	3.080E-05
PB209	2.527E-04	2.048E-04	1.660E-04	2.032E-05	1.634E-06
BI210	2.016E-02	2.005E-02	1.993E-02	1.881E-02	1.756E-02
PO210	1.796E-02	1.796E-02	1.796E-02	1.796E-02	1.796E-02
SUMTOT	2.247E+05	2.070E+05	1.999E+05	1.557E+05	1.263E+05
TOTAL	2.247E+05	2.070E+05	1.999E+05	1.557E+05	1.263E+05

□

OUTPUT UNIT =

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)
□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
/CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	1.176E+02	1.149E+02	1.149E+02	1.149E+02	1.149E+02
HE	1.446E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LI	1.127E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE	1.143E+00	7.470E-07	7.470E-07	7.470E-07	7.470E-07

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B	9.624E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C	1.770E+01	6.109E-01	6.109E-01	6.109E-01	6.109E-01
N	1.070E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
O	1.983E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
F	1.878E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE	8.871E-01	7.036E-30	0.000E+00	0.000E+00	0.000E+00
NA	1.871E+02	1.268E+02	1.211E+02	7.628E+01	4.381E+01
MG	7.631E+00	9.411E-02	1.161E-03	4.453E-09	2.992E-09
AL	2.057E+02	7.282E-04	1.239E-06	4.461E-09	2.997E-09
SI	2.085E+02	1.601E+02	1.229E+02	8.736E+00	3.659E-01
P	3.707E+02	3.700E+02	3.692E+02	3.618E+02	3.532E+02
S	1.274E+01	1.272E+01	1.272E+01	1.268E+01	1.263E+01
CL	3.420E+00	1.109E+00	3.658E-01	4.681E-03	4.676E-03
AR	2.384E-01	2.382E-01	2.380E-01	2.360E-01	2.337E-01
K	4.826E-03	4.522E-03	4.272E-03	2.461E-03	1.274E-03
CA	2.224E-01	2.019E-01	2.016E-01	2.013E-01	2.008E-01
SC	4.458E+00	4.303E+00	4.216E+00	3.922E+00	3.665E+00
TI	4.599E+00	3.365E-03	2.462E-06	0.000E+00	0.000E+00
V	3.799E+02	5.794E-03	8.840E-08	3.874E-15	3.874E-15
CR	1.337E+04	1.316E+04	1.314E+04	1.301E+04	1.285E+04
MN	1.633E+04	1.256E+04	9.677E+03	9.718E+02	3.614E+02
FE	2.357E+03	2.357E+03	2.356E+03	2.355E+03	2.353E+03
CO	1.558E+04	9.193E+03	9.048E+03	8.984E+03	8.964E+03
NI	7.516E+02	6.359E+02	5.480E+02	2.882E+02	2.711E+02
CU	2.649E+02	2.044E+02	1.936E+02	1.121E+02	5.826E+01
ZN	1.042E+02	8.143E+01	7.033E+01	5.791E+01	5.621E+01
GA	5.802E-01	8.236E-02	1.295E-02	1.054E-03	5.845E-04
GE	2.179E-03	2.009E-03	2.004E-03	1.956E-03	1.899E-03
SR	2.383E+01	2.353E+01	2.327E+01	2.142E+01	2.034E+01
Y	9.205E+02	8.870E+02	8.599E+02	7.101E+02	6.197E+02
ZR	5.969E+04	5.821E+04	5.678E+04	4.530E+04	3.645E+04
NB	9.504E+04	9.324E+04	9.103E+04	6.894E+04	5.036E+04
MO	3.795E+03	3.593E+03	3.545E+03	3.191E+03	2.813E+03
TC	2.757E+02	3.800E+01	3.700E+00	2.926E-03	2.928E-03
RU	4.092E-02	4.089E-02	4.086E-02	4.056E-02	4.021E-02
RH	1.168E-03	5.275E-07	4.986E-07	3.785E-07	2.932E-07
PD	3.202E-02	2.944E-02	2.787E-02	1.660E-02	8.940E-03
AG	2.532E+01	1.627E+00	1.625E+00	1.608E+00	1.594E+00
CD	1.998E+02	1.955E+02	1.919E+02	1.672E+02	1.447E+02
IN	7.129E+02	5.310E+02	5.191E+02	5.018E+02	4.989E+02
SN	1.032E+04	9.329E+03	9.247E+03	8.777E+03	8.328E+03
SB	1.041E+03	1.035E+03	1.032E+03	1.008E+03	9.820E+02
TE	1.629E+02	1.629E+02	1.629E+02	1.628E+02	1.628E+02
I	1.083E-02	2.050E-03	3.879E-04	7.355E-09	3.742E-09
EU	3.387E-01	3.381E-01	3.375E-01	3.318E-01	3.251E-01
GD	4.052E+01	3.545E+01	3.418E+01	2.377E+01	1.545E+01
TB	1.400E+01	1.398E+01	1.395E+01	1.369E+01	1.340E+01
DY	1.089E+00	4.994E-01	3.724E-01	2.146E-02	2.438E-03

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HO	8.135E-02	7.933E-02	7.736E-02	6.023E-02	4.468E-02
ER	8.178E-04	2.435E-06	2.428E-06	2.354E-06	2.269E-06
LU	3.845E+00	3.360E+00	2.956E+00	1.278E+00	9.641E-01
HF	1.479E+03	2.326E+02	2.311E+02	2.228E+02	2.189E+02
TA	6.519E+01	6.489E+01	6.461E+01	6.196E+01	5.896E+01
W	3.033E+02	2.945E+02	2.865E+02	2.184E+02	1.590E+02
RE	1.897E+02	1.083E+02	9.634E+01	6.614E+01	4.350E+01
OS	1.297E-02	1.268E-02	1.241E-02	1.036E-02	8.905E-03
IR	1.900E-03	1.893E-03	1.890E-03	1.862E-03	1.836E-03
PB	2.527E-04	2.048E-04	1.660E-04	2.032E-05	1.635E-06
BI	2.016E-02	2.005E-02	1.993E-02	1.881E-02	1.756E-02
PO	1.796E-02	1.796E-02	1.796E-02	1.796E-02	1.796E-02
SUMTOT	2.247E+05	2.070E+05	1.999E+05	1.557E+05	1.263E+05
TOTAL	2.247E+05	2.070E+05	1.999E+05	1.557E+05	1.263E+05

CUMULATIVE TABLE TOTALS

AP+FP	2.247E+05	2.070E+05	1.999E+05	1.557E+05	1.263E+05
ACT+FP	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AP+ACT+FP	2.247E+05	2.070E+05	1.999E+05	1.557E+05	1.263E+05

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	3.869E-03	3.869E-03	3.869E-03	3.869E-03	3.869E-03
HE 6	1.344E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LI 8	4.203E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE 8	6.434E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
B 12	7.627E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C 14	1.792E-04	1.792E-04	1.792E-04	1.792E-04	1.792E-04
C 15	2.908E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	4.638E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
O 19	5.663E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
F 20	7.828E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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NE 23	1.087E-02	8.626E-32	0.000E+00	0.000E+00	0.000E+00
NA 24	3.681E+00	3.514E+00	3.356E+00	2.114E+00	1.214E+00
NA 24M	1.519E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 25	1.254E-04	8.225E-23	0.000E+00	0.000E+00	0.000E+00
MG 27	7.206E-02	8.886E-04	1.096E-05	8.920E-25	0.000E+00
AL 28	3.681E+00	3.194E-08	1.115E-10	8.002E-11	5.376E-11
AL 29	5.964E-03	1.012E-05	1.718E-08	0.000E+00	0.000E+00
AL 30	1.402E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SI 31	7.374E-01	5.660E-01	4.345E-01	3.089E-02	1.294E-03
P 32	3.758E+00	3.750E+00	3.742E+00	3.668E+00	3.580E+00
P 33	1.851E-06	1.849E-06	1.847E-06	1.826E-06	1.801E-06
P 34	1.073E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S 35	1.263E-02	1.263E-02	1.262E-02	1.258E-02	1.253E-02
S 37	2.194E-04	5.912E-08	1.593E-11	0.000E+00	0.000E+00
CL 36	6.897E-06	6.897E-06	6.897E-06	6.897E-06	6.897E-06
CL 38	6.035E-02	1.974E-02	6.457E-03	9.055E-08	1.359E-13
CL 38M	1.606E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AR 37	2.967E-06	2.964E-06	2.962E-06	2.938E-06	2.909E-06
AR 39	9.458E-08	9.458E-08	9.458E-08	9.458E-08	9.458E-08
AR 41	3.768E-07	2.579E-07	1.764E-07	3.971E-09	4.184E-11
K 42	4.675E-05	4.420E-05	4.179E-05	2.385E-05	1.217E-05
K 43	1.114E-06	1.080E-06	1.047E-06	7.706E-07	5.334E-07
K 44	1.711E-06	2.584E-07	3.903E-08	2.407E-16	3.385E-26
CA 45	9.210E-05	9.209E-05	9.207E-05	9.191E-05	9.171E-05
CA 47	3.084E-06	3.064E-06	3.045E-06	2.857E-06	2.647E-06
CA 49	6.460E-04	5.725E-06	5.073E-08	1.515E-28	0.000E+00
SC 46	1.923E-02	1.923E-02	1.922E-02	1.915E-02	1.908E-02
SC 46M	2.416E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SC 47	3.933E-03	3.899E-03	3.866E-03	3.547E-03	3.198E-03
SC 48	4.839E-03	4.763E-03	4.688E-03	4.002E-03	3.310E-03
SC 49	2.892E-03	1.424E-03	6.912E-04	4.994E-07	8.492E-11
SC 50	1.119E-04	2.994E-15	8.007E-26	0.000E+00	0.000E+00
TI 51	3.367E-02	2.463E-05	1.802E-08	0.000E+00	0.000E+00
V 52	5.653E+00	8.634E-05	1.317E-09	0.000E+00	0.000E+00
V 53	7.374E-03	4.458E-14	2.696E-25	0.000E+00	0.000E+00
V 54	3.004E-04	5.942E-24	0.000E+00	0.000E+00	0.000E+00
CR 51	2.827E+00	2.824E+00	2.821E+00	2.791E+00	2.757E+00
CR 55	1.273E+00	1.041E-05	8.502E-11	0.000E+00	0.000E+00
MN 54	1.677E+00	1.677E+00	1.677E+00	1.675E+00	1.674E+00
MN 56	2.390E+02	1.826E+02	1.396E+02	9.493E+00	3.772E-01
MN 57	8.550E-03	5.170E-14	3.126E-25	0.000E+00	0.000E+00

□

OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
/CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
MN 58	8.997E-05	2.282E-21	0.000E+00	0.000E+00	0.000E+00
FE 55	7.435E-02	7.435E-02	7.434E-02	7.432E-02	7.429E-02
FE 59	1.209E+00	1.209E+00	1.208E+00	1.200E+00	1.191E+00
CO 58	2.246E+01	2.245E+01	2.244E+01	2.235E+01	2.224E+01
CO 60	8.092E+01	8.092E+01	8.091E+01	8.090E+01	8.089E+01
CO 60M	2.416E+00	4.550E-02	8.570E-04	4.808E-21	0.000E+00
CO 61	3.452E-01	2.268E-01	1.490E-01	2.233E-03	1.444E-05
CO 62	7.335E-03	6.671E-15	6.067E-27	0.000E+00	0.000E+00
NI 59	6.417E-05	6.417E-05	6.417E-05	6.417E-05	6.417E-05
NI 63	2.709E-02	2.709E-02	2.709E-02	2.709E-02	2.709E-02
NI 65	3.368E+00	2.558E+00	1.943E+00	1.241E-01	4.576E-03
NI 66	1.606E-06	1.586E-06	1.566E-06	1.379E-06	1.185E-06
CU 64	4.005E-01	3.793E-01	3.591E-01	2.081E-01	1.081E-01
CU 66	3.354E-01	1.238E-04	2.707E-05	2.382E-05	2.045E-05
CU 67	1.243E-07	1.229E-07	1.215E-07	1.086E-07	9.498E-08
ZN 65	1.905E-01	1.905E-01	1.904E-01	1.902E-01	1.899E-01
ZN 69	8.858E-02	4.570E-02	2.488E-02	3.509E-03	1.909E-03
ZN 69M	8.139E-03	7.740E-03	7.359E-03	4.447E-03	2.430E-03
ZN 71	1.050E-03	4.662E-08	3.903E-08	6.659E-09	7.978E-10
ZN 71M	1.162E-04	9.736E-05	8.158E-05	1.392E-05	1.668E-06
GA 70	2.238E-03	3.118E-04	4.344E-05	1.196E-13	6.393E-24
GA 72	3.615E-05	3.442E-05	3.277E-05	2.004E-05	1.111E-05
GE 71	1.075E-07	1.072E-07	1.069E-07	1.043E-07	1.013E-07
GE 71M	1.910E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 89	6.894E-02	6.890E-02	6.886E-02	6.847E-02	6.800E-02
SR 90	1.283E-06	1.283E-06	1.283E-06	1.283E-06	1.283E-06
SR 91	3.102E-02	2.884E-02	2.681E-02	1.293E-02	5.385E-03
SR 93	2.016E-04	7.876E-07	3.077E-09	0.000E+00	0.000E+00
Y 89M	6.802E-05	6.742E-05	6.683E-05	6.118E-05	5.502E-05
Y 90	4.087E+00	4.043E+00	4.000E+00	3.589E+00	3.152E+00
Y 90M	1.544E-07	1.235E-07	9.873E-08	1.055E-08	7.213E-10
Y 91	1.812E-01	1.811E-01	1.810E-01	1.801E-01	1.791E-01
Y 92	1.306E+00	1.074E+00	8.830E-01	1.245E-01	1.187E-02
Y 93	9.956E-05	9.411E-05	8.788E-05	4.424E-05	1.942E-05
Y 94	4.614E-02	5.230E-03	5.927E-04	2.072E-13	9.304E-25
Y 96	4.062E-04	5.699E-12	7.995E-20	0.000E+00	0.000E+00
ZR 89	9.378E-05	9.295E-05	9.213E-05	8.434E-05	7.586E-05
ZR 93	1.478E-05	1.478E-05	1.478E-05	1.478E-05	1.478E-05

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ZR 95	1.164E+02	1.163E+02	1.163E+02	1.158E+02	1.151E+02
ZR 97	1.913E+02	1.836E+02	1.763E+02	1.170E+02	7.150E+01
NB 92	8.948E-02	8.923E-02	8.897E-02	8.648E-02	8.358E-02
NB 93M	1.480E-06	1.480E-06	1.480E-06	1.481E-06	1.482E-06
NB 94	6.636E-03	6.636E-03	6.636E-03	6.636E-03	6.636E-03
NB 95	1.121E+02	1.121E+02	1.121E+02	1.121E+02	1.121E+02
NB 95M	2.255E-01	2.255E-01	2.255E-01	2.253E-01	2.249E-01
NB 96	5.737E-01	5.570E-01	5.407E-01	4.018E-01	2.814E-01
NB 97	2.444E+02	2.415E+02	2.357E+02	1.605E+02	9.195E+01
NB 97M	1.530E+02	1.470E+02	1.411E+02	9.360E+01	5.721E+01
NB 98	6.310E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100	6.125E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 93M	1.014E-02	9.163E-03	8.281E-03	3.010E-03	8.939E-04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
MO 93	1.100E-06	1.100E-06	1.100E-06	1.100E-06	1.100E-06
MO 99	1.162E+01	1.150E+01	1.138E+01	1.025E+01	9.034E+00
MO101	2.002E+00	1.164E-01	6.771E-03	2.995E-15	4.482E-30
TC 99	1.467E-06	1.467E-06	1.467E-06	1.467E-06	1.468E-06
TC100	8.840E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC101	8.412E-01	1.824E-01	1.774E-02	2.831E-14	5.710E-29
RU103	1.369E-04	1.368E-04	1.367E-04	1.357E-04	1.345E-04
RH104	6.437E-06	3.379E-11	2.329E-15	0.000E+00	0.000E+00
PD109	8.173E-05	7.763E-05	7.373E-05	4.406E-05	2.375E-05
PD109M	5.086E-07	7.165E-11	1.010E-14	0.000E+00	0.000E+00
PD111	3.937E-06	8.552E-07	3.589E-07	7.862E-08	1.733E-08
PD111M	3.210E-07	2.830E-07	2.494E-07	7.074E-08	1.559E-08
AG106	2.979E-06	2.969E-06	2.959E-06	2.860E-06	2.746E-06
AG108	2.499E-02	1.818E-06	1.817E-06	1.817E-06	1.817E-06
AG108M	5.312E-05	5.312E-05	5.312E-05	5.311E-05	5.311E-05
AG109M	3.445E-04	3.437E-04	3.429E-04	3.370E-04	3.328E-04
AG110	1.217E-01	7.922E-05	7.921E-05	7.912E-05	7.901E-05
AG110M	1.385E-02	1.384E-02	1.384E-02	1.383E-02	1.381E-02

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AG111	2.557E-04	2.547E-04	2.537E-04	2.441E-04	2.330E-04
AG111M	2.193E-05	7.401E-08	3.513E-08	8.162E-09	1.799E-09
AG112	1.832E-06	1.468E-06	1.177E-06	1.286E-07	9.020E-09
CD107	4.120E-04	3.702E-04	3.327E-04	1.143E-04	3.173E-05
CD109	7.408E-05	7.408E-05	7.407E-05	7.402E-05	7.397E-05
CD111M	2.578E-03	1.097E-03	4.672E-04	9.134E-08	3.237E-12
CD115	5.676E-01	5.603E-01	5.531E-01	4.859E-01	4.159E-01
CD115M	4.916E-02	4.912E-02	4.909E-02	4.877E-02	4.840E-02
CD117	3.847E-02	2.947E-02	2.257E-02	1.569E-03	6.403E-05
CD117M	1.285E-03	1.048E-03	8.548E-04	1.113E-04	9.638E-06
CD119	4.033E-06	4.832E-08	5.790E-10	3.532E-29	0.000E+00
CD121	1.836E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN113M	8.969E-01	8.968E-01	8.966E-01	8.945E-01	8.919E-01
IN114	7.303E-01	2.740E-01	2.738E-01	2.722E-01	2.703E-01
IN114M	8.534E-02	8.529E-02	8.524E-02	8.475E-02	8.416E-02
IN116	5.046E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	7.369E-01	3.419E-01	1.586E-01	7.325E-05	7.281E-09
IN117	1.338E-02	1.272E-02	1.175E-02	1.592E-03	8.419E-05
IN117M	1.902E-02	1.828E-02	1.661E-02	2.305E-03	1.171E-04
IN118	5.843E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN119	2.807E-04	3.268E-08	3.464E-09	3.250E-19	2.956E-31
IN119M	3.106E-06	6.044E-07	6.351E-08	5.913E-18	5.378E-30
IN121	1.095E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN113	6.412E-02	6.410E-02	6.408E-02	6.392E-02	6.373E-02
SN113M	8.469E-02	1.059E-02	1.323E-03	1.232E-12	1.793E-23
SN117M	5.999E+00	5.987E+00	5.975E+00	5.853E+00	5.710E+00
SN119M	1.432E+00	1.432E+00	1.432E+00	1.430E+00	1.428E+00
SN121	2.031E+00	1.979E+00	1.928E+00	1.489E+00	1.092E+00
SN121M	5.262E-04	5.262E-04	5.262E-04	5.262E-04	5.262E-04
SN123	4.625E-01	4.624E-01	4.623E-01	4.613E-01	4.600E-01
SN123M	1.964E-03	6.959E-04	2.466E-04	7.689E-09	3.010E-14
SN125	7.506E+00	7.483E+00	7.461E+00	7.241E+00	6.985E+00
SN125M	5.282E+00	6.692E-02	8.478E-04	9.033E-23	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
/CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

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ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
SB122	1.417E+00	1.402E+00	1.387E+00	1.246E+00
SB122M	1.781E-03	8.922E-08	4.467E-12	0.000E+00
SB124	1.305E-01	1.305E-01	1.304E-01	1.298E-01
SB124M	7.511E-05	1.671E-16	3.717E-28	0.000E+00
SB125	2.385E+00	2.385E+00	2.385E+00	2.385E+00
SB126	4.980E-01	4.968E-01	4.957E-01	4.843E-01
SB126M	2.484E-02	2.783E-03	3.118E-04	9.719E-14
TE123M	2.390E-03	2.389E-03	2.389E-03	2.383E-03
TE125M	1.353E-01	1.353E-01	1.353E-01	1.354E-01
TE127	3.364E-04	3.137E-04	2.926E-04	1.492E-04
TE127M	7.635E-06	7.633E-06	7.631E-06	7.611E-06
I128	5.372E-05	1.017E-05	1.924E-06	1.134E-13
EU154	1.990E-04	1.990E-04	1.990E-04	1.990E-04
EU155	9.169E-06	9.169E-06	9.169E-06	9.167E-06
EU156	3.136E-03	3.130E-03	3.124E-03	3.065E-03
GD153	6.398E-04	6.397E-04	6.397E-04	6.389E-04
GD155M	2.894E-06	0.000E+00	0.000E+00	0.000E+00
GD159	1.176E-01	1.133E-01	1.091E-01	7.518E-02
GD161	2.715E-02	3.568E-07	4.687E-12	0.000E+00
GD162	3.581E-06	5.595E-08	8.743E-10	7.583E-28
TB160	6.940E-02	6.937E-02	6.935E-02	6.907E-02
TB161	1.098E-02	1.094E-02	1.089E-02	1.045E-02
TB162	9.629E-06	4.861E-07	8.877E-09	8.060E-27
DY165	3.074E-03	2.301E-03	1.714E-03	8.972E-05
DY165M	3.159E-04	1.316E-18	5.480E-33	0.000E+00
DY166	2.686E-06	2.663E-06	2.641E-06	2.425E-06
HO166	3.487E-04	3.400E-04	3.316E-04	2.581E-04
ER167M	1.005E-06	0.000E+00	0.000E+00	0.000E+00
LU176M	2.183E-02	1.809E-02	1.499E-02	2.291E-03
LU177	1.113E-03	1.109E-03	1.104E-03	1.057E-03
LU177M	1.926E-05	1.926E-05	1.925E-05	1.922E-05
HF175	1.632E-02	1.631E-02	1.630E-02	1.624E-02
HF178M	5.224E-03	0.000E+00	0.000E+00	0.000E+00
HF179M	2.787E+00	0.000E+00	0.000E+00	0.000E+00
HF180M	8.309E-02	7.325E-02	6.458E-02	1.831E-02
HF181	9.621E-01	9.614E-01	9.607E-01	9.542E-01
TA182	1.534E-01	1.533E-01	1.533E-01	1.529E-01
TA182M	1.005E-04	8.079E-06	6.497E-07	7.348E-18
TA183	3.040E-01	3.023E-01	3.006E-01	2.840E-01
W181	1.581E-04	1.581E-04	1.581E-04	1.577E-04
W183M	9.909E-04	0.000E+00	0.000E+00	0.000E+00
W185	1.124E-02	1.123E-02	1.123E-02	1.118E-02
W185M	2.003E-05	3.064E-16	4.687E-27	0.000E+00
W187	1.298E+00	1.261E+00	1.225E+00	9.167E-01
W188	5.493E-04	5.490E-04	5.488E-04	5.465E-04
RE186	2.045E-02	2.029E-02	2.014E-02	1.866E-02

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RE188	4.539E-01	4.429E-01	4.262E-01	2.849E-01	1.763E-01
RE188M	9.035E-02	9.774E-03	1.057E-03	2.320E-13	5.957E-25
RE189	2.562E-06	2.490E-06	2.420E-06	1.820E-06	1.292E-06
OS191	1.107E-05	1.107E-05	1.106E-05	1.095E-05	1.078E-05
OS191M	2.340E-06	2.219E-06	2.104E-06	1.234E-06	6.509E-07

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
 /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
 17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
IR192	1.116E-05	1.116E-05	1.115E-05	1.111E-05	1.106E-05
IR194	3.918E-07	3.779E-07	3.644E-07	2.537E-07	1.644E-07
PB209	2.906E-07	2.355E-07	1.909E-07	2.337E-08	1.879E-09
BI210	4.649E-05	4.622E-05	4.596E-05	4.338E-05	4.048E-05
PO210	5.757E-04	5.757E-04	5.757E-04	5.758E-04	5.758E-04
SUMTOT	1.256E+03	1.150E+03	1.085E+03	7.643E+02	5.993E+02
TOTAL	1.256E+03	1.150E+03	1.085E+03	7.643E+02	5.993E+02

□

OUTPUT UNIT =

6 PAGE 153
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
 /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
 17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	3.869E-03	3.869E-03	3.869E-03	3.869E-03	3.869E-03

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HE	1.344E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LI	4.203E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE	6.435E-04	8.966E-10	8.966E-10	8.966E-10	8.966E-10
B	7.627E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C	2.910E-01	1.792E-04	1.792E-04	1.792E-04	1.792E-04
N	4.638E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
O	5.663E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
F	7.828E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE	1.087E-02	8.626E-32	0.000E+00	0.000E+00	0.000E+00
NA	3.833E+00	3.514E+00	3.356E+00	2.114E+00	1.214E+00
MG	7.206E-02	8.886E-04	1.096E-05	4.047E-11	2.719E-11
AL	3.687E+00	1.016E-05	1.729E-08	8.002E-11	5.376E-11
SI	7.374E-01	5.660E-01	4.345E-01	3.089E-02	1.294E-03
P	3.759E+00	3.750E+00	3.742E+00	3.668E+00	3.580E+00
S	1.285E-02	1.263E-02	1.262E-02	1.258E-02	1.253E-02
CL	6.051E-02	1.975E-02	6.464E-03	6.987E-06	6.897E-06
AR	3.438E-06	3.317E-06	3.233E-06	3.036E-06	3.003E-06
K	4.958E-05	4.554E-05	4.288E-05	2.463E-05	1.270E-05
CA	7.412E-04	1.009E-04	9.517E-05	9.477E-05	9.436E-05
SC	3.101E-02	2.931E-02	2.847E-02	2.670E-02	2.558E-02
TI	3.367E-02	2.463E-05	1.802E-08	0.000E+00	0.000E+00
V	5.660E+00	8.634E-05	1.317E-09	4.271E-17	4.271E-17
CR	4.100E+00	2.824E+00	2.821E+00	2.791E+00	2.757E+00
MN	2.406E+02	1.843E+02	1.413E+02	1.117E+01	2.051E+00
FE	1.284E+00	1.283E+00	1.282E+00	1.275E+00	1.265E+00
CO	1.061E+02	1.036E+02	1.035E+02	1.033E+02	1.031E+02
NI	3.395E+00	2.585E+00	1.970E+00	1.513E-01	3.173E-02
CU	7.360E-01	3.794E-01	3.591E-01	2.081E-01	1.081E-01
ZN	2.884E-01	2.440E-01	2.228E-01	1.982E-01	1.943E-01
GA	2.275E-03	3.463E-04	7.621E-05	2.004E-05	1.111E-05
GE	2.984E-07	1.072E-07	1.069E-07	1.043E-07	1.013E-07
SR	1.002E-01	9.774E-02	9.568E-02	8.140E-02	7.339E-02
Y	5.622E+00	5.304E+00	5.065E+00	3.894E+00	3.343E+00
ZR	3.077E+02	3.000E+02	2.925E+02	2.327E+02	1.866E+02
NB	5.104E+02	5.015E+02	4.897E+02	3.669E+02	2.618E+02
MO	1.364E+01	1.163E+01	1.140E+01	1.025E+01	9.035E+00
TC	1.725E+00	1.824E-01	1.774E-02	1.467E-06	1.468E-06
RU	1.369E-04	1.368E-04	1.367E-04	1.357E-04	1.345E-04
RH	6.579E-06	8.290E-10	7.372E-10	5.175E-10	4.062E-10
PD	8.649E-05	7.877E-05	7.434E-05	4.421E-05	2.378E-05
AG	1.612E-01	1.458E-02	1.458E-02	1.454E-02	1.451E-02
CD	6.596E-01	6.415E-01	6.265E-01	5.365E-01	4.644E-01
IN	2.987E+00	1.629E+00	1.443E+00	1.255E+00	1.247E+00
SN	2.286E+01	1.749E+01	1.732E+01	1.654E+01	1.574E+01
SB	4.457E+00	4.417E+00	4.398E+00	4.245E+00	4.081E+00
TE	1.380E-01	1.380E-01	1.380E-01	1.379E-01	1.379E-01
I	5.372E-05	1.017E-05	1.924E-06	1.057E-10	5.386E-11
EU	3.344E-03	3.338E-03	3.332E-03	3.273E-03	3.204E-03

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GD	1.454E-01	1.139E-01	1.098E-01	7.582E-02	4.871E-02
TB	8.039E-02	8.031E-02	8.024E-02	7.952E-02	7.867E-02
DY	3.392E-03	2.304E-03	1.716E-03	9.215E-05	4.795E-06
HO	3.487E-04	3.400E-04	3.316E-04	2.582E-04	1.915E-04
ER	1.010E-06	4.908E-09	4.893E-09	4.745E-09	4.573E-09
LU	2.296E-02	1.922E-02	1.612E-02	3.368E-03	1.264E-03
HF	3.854E+00	1.051E+00	1.042E+00	9.888E-01	9.666E-01
TA	4.575E-01	4.556E-01	4.539E-01	4.369E-01	4.178E-01
W	1.311E+00	1.273E+00	1.237E+00	9.286E-01	6.591E-01
RE	5.647E-01	4.730E-01	4.474E-01	3.036E-01	1.933E-01
OS	1.350E-05	1.329E-05	1.316E-05	1.219E-05	1.143E-05
IR	1.155E-05	1.153E-05	1.152E-05	1.136E-05	1.122E-05
PB	2.906E-07	2.355E-07	1.909E-07	2.337E-08	1.879E-09
BI	4.649E-05	4.622E-05	4.596E-05	4.338E-05	4.048E-05
PO	5.757E-04	5.757E-04	5.757E-04	5.758E-04	5.758E-04
SUMTOT	1.256E+03	1.150E+03	1.085E+03	7.643E+02	5.993E+02

TOTAL 1.256E+03 1.150E+03 1.085E+03 7.643E+02 5.993E+02

CUMULATIVE TABLE TOTALS

AP+FP	1.256E+03	1.150E+03	1.085E+03	7.643E+02	5.993E+02
ACT+FP	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AP+ACT+FP	1.256E+03	1.150E+03	1.085E+03	7.643E+02	5.993E+02

□

OUTPUT UNIT =

6 PAGE 154
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

19 SUMMARY TABLE: NEUTRON ABSORPTION RATE, NEUTRON S PER SECOND

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
MTIHM, 2 CYCLE					
N 14	3.800E-01	3.800E-01	3.800E-01	3.800E-01	3.800E-01
O 16	6.261E+00	6.261E+00	6.261E+00	6.261E+00	6.261E+00
TI 48	2.416E-01	2.416E-01	2.416E-01	2.416E-01	2.416E-01
CR 50	2.718E+00	2.718E+00	2.718E+00	2.718E+00	2.718E+00
CR 52	7.315E+00	7.315E+00	7.315E+00	7.315E+00	7.315E+00
CR 53	6.884E+00	6.884E+00	6.884E+00	6.884E+00	6.884E+00

ML041000030.txt

MN 55	5.214E+00	5.214E+00	5.214E+00	5.214E+00	5.214E+00
FE 54	1.546E+00	1.546E+00	1.546E+00	1.546E+00	1.546E+00
FE 56	2.640E+01	2.640E+01	2.640E+01	2.640E+01	2.640E+01
FE 57	6.152E-01	6.152E-01	6.152E-01	6.152E-01	6.152E-01
CO 58	3.229E-01	3.227E-01	3.226E-01	3.213E-01	3.197E-01
CO 59	2.611E+00	2.611E+00	2.611E+00	2.611E+00	2.611E+00
NI 58	1.232E+01	1.232E+01	1.232E+01	1.232E+01	1.232E+01
NI 59	2.002E+00	2.002E+00	2.002E+00	2.002E+00	2.002E+00
NI 60	2.951E+00	2.951E+00	2.951E+00	2.951E+00	2.951E+00
NI 62	1.979E+00	1.979E+00	1.979E+00	1.979E+00	1.979E+00
ZR 90	8.600E+00	8.600E+00	8.600E+00	8.600E+00	8.600E+00
ZR 91	2.053E+01	2.053E+01	2.053E+01	2.053E+01	2.053E+01
ZR 92	1.261E+01	1.261E+01	1.261E+01	1.261E+01	1.261E+01
ZR 93	3.311E-01	3.311E-01	3.311E-01	3.311E-01	3.311E-01
ZR 94	2.318E+00	2.318E+00	2.318E+00	2.318E+00	2.318E+00
ZR 96	3.629E+00	3.629E+00	3.629E+00	3.629E+00	3.629E+00
NB 93	9.959E-01	9.959E-01	9.959E-01	9.959E-01	9.959E-01
MO 95	8.445E-01	8.445E-01	8.446E-01	8.447E-01	8.448E-01
MO 96	1.436E-01	1.436E-01	1.436E-01	1.436E-01	1.436E-01
MO 97	1.388E-01	1.388E-01	1.388E-01	1.388E-01	1.388E-01
MO 98	3.403E-01	3.403E-01	3.403E-01	3.403E-01	3.403E-01
SN116	7.796E-01	7.796E-01	7.796E-01	7.796E-01	7.796E-01
SN117	5.016E-01	5.016E-01	5.016E-01	5.016E-01	5.016E-01
SN118	8.425E-01	8.425E-01	8.425E-01	8.425E-01	8.425E-01
SN119	1.967E-01	1.967E-01	1.967E-01	1.967E-01	1.967E-01
SN120	1.668E-01	1.668E-01	1.668E-01	1.668E-01	1.668E-01
SN124	1.896E-01	1.896E-01	1.896E-01	1.896E-01	1.896E-01
HF178	2.096E-01	2.096E-01	2.096E-01	2.096E-01	2.096E-01
HF179	1.551E-01	1.551E-01	1.551E-01	1.551E-01	1.551E-01
SUMTOT	1.333E+02	1.333E+02	1.333E+02	1.333E+02	1.333E+02

TOTAL 1.347E+02 1.347E+02 1.347E+02 1.347E+02 1.347E+02

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

19 SUMMARY TABLE: NEUTRON ABSORPTION RATE, NEUTRON S PER SECOND

17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/MTIHM, 2 CYCLE

ML041000030.txt

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
N	3.800E-01	3.800E-01	3.800E-01	3.800E-01	3.800E-01
O	6.277E+00	6.277E+00	6.277E+00	6.277E+00	6.277E+00
TI	2.577E-01	2.577E-01	2.577E-01	2.577E-01	2.577E-01
CR	1.695E+01	1.695E+01	1.695E+01	1.695E+01	1.695E+01
MN	5.214E+00	5.214E+00	5.214E+00	5.214E+00	5.214E+00
FE	2.861E+01	2.861E+01	2.861E+01	2.861E+01	2.861E+01
CO	2.944E+00	2.943E+00	2.943E+00	2.942E+00	2.940E+00
NI	1.951E+01	1.951E+01	1.951E+01	1.951E+01	1.951E+01
ZR	4.802E+01	4.802E+01	4.802E+01	4.802E+01	4.802E+01
NB	1.088E+00	1.088E+00	1.088E+00	1.088E+00	1.088E+00
MO	1.491E+00	1.491E+00	1.491E+00	1.491E+00	1.491E+00
SN	2.858E+00	2.858E+00	2.858E+00	2.858E+00	2.858E+00
HF	4.671E-01	4.671E-01	4.671E-01	4.671E-01	4.671E-01
SUMTOT	1.341E+02	1.341E+02	1.341E+02	1.341E+02	1.341E+02
TOTAL	1.347E+02	1.347E+02	1.347E+02	1.347E+02	1.347E+02

CUMULATIVE TABLE TOTALS

AP+FP	1.347E+02	1.347E+02	1.347E+02	1.347E+02	1.347E+02
ACT+FP	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AP+ACT+FP	1.347E+02	1.347E+02	1.347E+02	1.347E+02	1.347E+02

□

OUTPUT UNIT =

6 PAGE 156
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

20 SUMMARY TABLE: NEUTRON ABSORPTION RATE, FRACTIONAL NEUTRONS PER SECOND

17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
N 14	2.821E-03	2.821E-03	2.821E-03	2.821E-03	2.821E-03
O 16	4.648E-02	4.648E-02	4.648E-02	4.648E-02	4.648E-02
TI 48	1.794E-03	1.794E-03	1.794E-03	1.794E-03	1.794E-03
CR 50	2.018E-02	2.018E-02	2.018E-02	2.018E-02	2.018E-02
CR 52	5.430E-02	5.430E-02	5.430E-02	5.430E-02	5.431E-02

ML041000030.txt

CR 53	5.110E-02	5.110E-02	5.110E-02	5.110E-02	5.110E-02
MN 55	3.871E-02	3.871E-02	3.871E-02	3.871E-02	3.871E-02
FE 54	1.148E-02	1.148E-02	1.148E-02	1.148E-02	1.148E-02
FE 56	1.960E-01	1.960E-01	1.960E-01	1.960E-01	1.960E-01
FE 57	4.567E-03	4.567E-03	4.567E-03	4.567E-03	4.567E-03
CO 58	2.397E-03	2.396E-03	2.395E-03	2.385E-03	2.373E-03
CO 59	1.938E-02	1.938E-02	1.938E-02	1.938E-02	1.938E-02
NI 58	9.148E-02	9.148E-02	9.148E-02	9.148E-02	9.148E-02
NI 59	1.486E-02	1.486E-02	1.486E-02	1.486E-02	1.486E-02
NI 60	2.191E-02	2.191E-02	2.191E-02	2.191E-02	2.191E-02
NI 62	1.469E-02	1.469E-02	1.469E-02	1.469E-02	1.469E-02
ZR 90	6.384E-02	6.384E-02	6.384E-02	6.384E-02	6.384E-02
ZR 91	1.524E-01	1.524E-01	1.524E-01	1.524E-01	1.524E-01
ZR 92	9.360E-02	9.360E-02	9.360E-02	9.360E-02	9.361E-02
ZR 93	2.458E-03	2.458E-03	2.458E-03	2.458E-03	2.458E-03
ZR 94	1.721E-02	1.721E-02	1.721E-02	1.721E-02	1.721E-02
ZR 96	2.694E-02	2.694E-02	2.694E-02	2.694E-02	2.694E-02
NB 93	7.393E-03	7.393E-03	7.393E-03	7.393E-03	7.393E-03
MO 95	6.269E-03	6.269E-03	6.269E-03	6.270E-03	6.272E-03
MO 96	1.066E-03	1.066E-03	1.066E-03	1.066E-03	1.066E-03
MO 97	1.030E-03	1.030E-03	1.030E-03	1.030E-03	1.031E-03
MO 98	2.526E-03	2.526E-03	2.526E-03	2.526E-03	2.526E-03
SN116	5.788E-03	5.788E-03	5.788E-03	5.788E-03	5.788E-03
SN117	3.724E-03	3.724E-03	3.724E-03	3.724E-03	3.724E-03
SN118	6.254E-03	6.254E-03	6.254E-03	6.254E-03	6.254E-03
SN119	1.460E-03	1.460E-03	1.460E-03	1.460E-03	1.460E-03
SN120	1.238E-03	1.238E-03	1.238E-03	1.238E-03	1.238E-03
SN124	1.407E-03	1.407E-03	1.407E-03	1.407E-03	1.407E-03
HF178	1.556E-03	1.556E-03	1.556E-03	1.556E-03	1.556E-03
HF179	1.151E-03	1.151E-03	1.151E-03	1.151E-03	1.151E-03
SUMTOT	9.894E-01	9.894E-01	9.894E-01	9.894E-01	9.894E-01

TOTAL 1.000E+00 1.000E+00 1.000E+00 1.000E+00 1.000E+00

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTIVATION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

20 SUMMARY TABLE: NEUTRON ABSORPTION RATE, FRACTIONAL NEUTRONS PER SECOND

ML041000030.txt

17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
N	2.821E-03	2.821E-03	2.821E-03	2.821E-03	2.821E-03
O	4.660E-02	4.660E-02	4.660E-02	4.660E-02	4.660E-02
TI	1.913E-03	1.913E-03	1.913E-03	1.913E-03	1.913E-03
CR	1.259E-01	1.259E-01	1.259E-01	1.259E-01	1.259E-01
MN	3.871E-02	3.871E-02	3.871E-02	3.871E-02	3.871E-02
FE	2.124E-01	2.124E-01	2.124E-01	2.124E-01	2.124E-01
CO	2.185E-02	2.185E-02	2.185E-02	2.184E-02	2.183E-02
NI	1.448E-01	1.448E-01	1.448E-01	1.448E-01	1.448E-01
ZR	3.564E-01	3.564E-01	3.564E-01	3.564E-01	3.564E-01
NB	8.075E-03	8.075E-03	8.075E-03	8.075E-03	8.075E-03
MO	1.107E-02	1.107E-02	1.107E-02	1.107E-02	1.107E-02
SN	2.122E-02	2.122E-02	2.122E-02	2.122E-02	2.122E-02
HF	3.467E-03	3.467E-03	3.467E-03	3.467E-03	3.467E-03
SUMTOT	9.952E-01	9.952E-01	9.952E-01	9.952E-01	9.952E-01
TOTAL	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS

17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
HE 4	1.430E-01	1.430E-01	1.430E-01	1.432E-01	1.434E-01
TH230	8.406E-04	8.406E-04	8.406E-04	8.410E-04	8.413E-04
TH232	1.255E-04	1.255E-04	1.255E-04	1.256E-04	1.257E-04
PA231	2.163E-04	2.164E-04	2.164E-04	2.166E-04	2.168E-04
U232	2.725E-04	2.726E-04	2.726E-04	2.729E-04	2.733E-04
U233	8.732E-04	8.732E-04	8.733E-04	8.734E-04	8.735E-04
U234	1.037E+02	1.037E+02	1.037E+02	1.037E+02	1.037E+02
U235	5.373E+03	5.373E+03	5.373E+03	5.373E+03	5.373E+03
U236	2.374E+03	2.374E+03	2.374E+03	2.374E+03	2.374E+03
U237	7.185E+00	7.155E+00	7.124E+00	6.826E+00	6.484E+00
U238	4.301E+05	4.301E+05	4.301E+05	4.301E+05	4.301E+05

ML041000030.txt

U239	2.959E-01	5.055E-02	8.634E-03	1.825E-10	1.125E-19
NP236	2.647E-04	2.647E-04	2.647E-04	2.647E-04	2.647E-04
NP237	2.941E+02	2.941E+02	2.942E+02	2.944E+02	2.948E+02
NP238	9.186E-01	9.062E-01	8.939E-01	7.799E-01	6.621E-01
NP239	4.259E+01	4.231E+01	4.184E+01	3.702E+01	3.195E+01
NP240	9.661E-04	5.095E-04	2.687E-04	4.466E-07	2.067E-10
PU236	6.565E-04	6.566E-04	6.567E-04	6.575E-04	6.581E-04
PU237	1.283E-04	1.282E-04	1.282E-04	1.274E-04	1.264E-04
PU238	9.066E+01	9.067E+01	9.068E+01	9.081E+01	9.094E+01
PU239	2.827E+03	2.828E+03	2.828E+03	2.833E+03	2.838E+03
PU240	1.067E+03	1.067E+03	1.067E+03	1.067E+03	1.067E+03
PU241	6.245E+02	6.245E+02	6.245E+02	6.244E+02	6.244E+02
PU242	1.996E+02	1.996E+02	1.996E+02	1.996E+02	1.996E+02
PU243	6.089E-02	5.294E-02	4.603E-02	1.137E-02	2.121E-03
PU244	1.194E-02	1.194E-02	1.194E-02	1.194E-02	1.194E-02
AM241	1.964E+01	1.965E+01	1.965E+01	1.969E+01	1.973E+01
AM242M	8.643E-01	8.643E-01	8.643E-01	8.643E-01	8.643E-01
AM242	4.284E-02	4.102E-02	3.929E-02	2.549E-02	1.517E-02
AM243	4.255E+01	4.256E+01	4.257E+01	4.260E+01	4.261E+01
AM244M	1.750E-03	3.536E-04	7.141E-05	8.071E-12	3.721E-20
AM244	2.141E-03	1.999E-03	1.867E-03	9.398E-04	4.124E-04
CM242	5.912E+00	5.913E+00	5.913E+00	5.914E+00	5.910E+00
CM243	1.968E-01	1.968E-01	1.968E-01	1.968E-01	1.968E-01
CM244	1.352E+01	1.352E+01	1.352E+01	1.352E+01	1.352E+01
CM245	5.567E-01	5.567E-01	5.567E-01	5.567E-01	5.567E-01
CM246	5.529E-02	5.529E-02	5.529E-02	5.529E-02	5.529E-02
CM247	5.541E-04	5.541E-04	5.541E-04	5.541E-04	5.541E-04
SUMTOT	4.432E+05	4.432E+05	4.432E+05	4.432E+05	4.432E+05
TOTAL	4.432E+05	4.432E+05	4.432E+05	4.432E+05	4.432E+05

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

ASSY DIS 1.0HR 2.0HR 12.0HR 24.0HR

HE 1.430E-01 1.430E-01 1.430E-01 1.432E-01 1.434E-01

ML041000030.txt

TH	9.751E-04	9.751E-04	9.752E-04	9.753E-04	9.756E-04
PA	2.269E-04	2.269E-04	2.269E-04	2.269E-04	2.270E-04
U	4.379E+05	4.379E+05	4.379E+05	4.379E+05	4.379E+05
NP	3.376E+02	3.373E+02	3.369E+02	3.322E+02	3.274E+02
PU	4.809E+03	4.810E+03	4.810E+03	4.815E+03	4.820E+03
AM	6.311E+01	6.312E+01	6.312E+01	6.318E+01	6.322E+01
CM	2.024E+01	2.024E+01	2.025E+01	2.025E+01	2.024E+01
SUMTOT	4.432E+05	4.432E+05	4.432E+05	4.432E+05	4.432E+05
TOTAL	4.432E+05	4.432E+05	4.432E+05	4.432E+05	4.432E+05

CUMULATIVE TABLE TOTALS

AP+FP	1.968E+05	1.968E+05	1.968E+05	1.968E+05	1.968E+05
ACT+FP	4.432E+05	4.432E+05	4.432E+05	4.432E+05	4.432E+05
AP+ACT+FP	6.400E+05	6.400E+05	6.400E+05	6.400E+05	6.400E+05

□

OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
 17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
PB212	1.196E-03	1.196E-03	1.196E-03	1.196E-03	1.195E-03
BI212	1.196E-03	1.196E-03	1.197E-03	1.196E-03	1.253E-03
PO216	1.196E-03	1.196E-03	1.196E-03	1.196E-03	1.196E-03
RN220	1.196E-03	1.196E-03	1.196E-03	1.196E-03	1.196E-03
RA224	1.196E-03	1.196E-03	1.196E-03	1.196E-03	1.196E-03
TH228	1.191E-03	1.191E-03	1.191E-03	1.193E-03	1.195E-03
TH231	5.443E-01	5.301E-01	5.162E-01	3.962E-01	2.892E-01
TH233	9.754E-03	1.486E-03	2.263E-04	1.520E-12	2.369E-22
TH234	1.448E-01	1.448E-01	1.448E-01	1.448E-01	1.448E-01
PA232	3.634E-01	3.555E-01	3.478E-01	2.790E-01	2.141E-01
PA233	2.010E-01	2.010E-01	2.010E-01	2.011E-01	2.012E-01
PA234M	1.479E-01	1.448E-01	1.448E-01	1.448E-01	1.448E-01
PA234	3.322E-03	3.014E-03	2.736E-03	1.094E-03	4.497E-04
U232	5.836E-03	5.836E-03	5.837E-03	5.844E-03	5.852E-03
U234	6.483E-01	6.483E-01	6.483E-01	6.483E-01	6.483E-01

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U235	1.162E-02	1.162E-02	1.162E-02	1.162E-02	1.162E-02
U236	1.536E-01	1.536E-01	1.536E-01	1.536E-01	1.536E-01
U237	5.867E+05	5.842E+05	5.817E+05	5.574E+05	5.295E+05
U238	1.446E-01	1.446E-01	1.446E-01	1.446E-01	1.446E-01
U239	9.897E+06	1.691E+06	2.887E+05	6.103E-03	3.763E-12
U240	1.176E+01	1.120E+01	1.066E+01	6.520E+00	3.614E+00
NP235	3.840E-03	3.840E-03	3.840E-03	3.837E-03	3.833E-03
NP236M	4.601E+00	4.461E+00	4.326E+00	3.179E+00	2.197E+00
NP237	2.074E-01	2.074E-01	2.074E-01	2.076E-01	2.079E-01
NP238	2.382E+05	2.350E+05	2.318E+05	2.022E+05	1.717E+05
NP239	9.883E+06	9.819E+06	9.709E+06	8.591E+06	7.415E+06
NP240M	2.398E+03	1.994E+01	1.078E+01	6.577E+00	3.646E+00
NP240	1.165E+04	6.143E+03	3.240E+03	5.385E+00	2.493E-03
PU236	3.490E-01	3.490E-01	3.491E-01	3.495E-01	3.498E-01
PU237	1.551E+00	1.550E+00	1.549E+00	1.539E+00	1.528E+00
PU238	1.553E+03	1.553E+03	1.553E+03	1.555E+03	1.557E+03
PU239	1.758E+02	1.758E+02	1.759E+02	1.762E+02	1.765E+02
PU240	2.433E+02	2.433E+02	2.433E+02	2.433E+02	2.433E+02
PU241	6.436E+04	6.436E+04	6.436E+04	6.436E+04	6.435E+04
PU242	7.625E-01	7.625E-01	7.625E-01	7.625E-01	7.625E-01
PU243	1.585E+05	1.378E+05	1.198E+05	2.959E+04	5.523E+03
PU245	3.358E-01	3.145E-01	2.946E-01	1.532E-01	6.990E-02
AM240	1.693E-01	1.670E-01	1.648E-01	1.438E-01	1.220E-01
AM241	6.745E+01	6.746E+01	6.747E+01	6.759E+01	6.773E+01
AM242M	8.403E+00	8.403E+00	8.403E+00	8.403E+00	8.403E+00
AM242	3.464E+04	3.318E+04	3.177E+04	2.062E+04	1.227E+04
AM243	8.486E+00	8.488E+00	8.489E+00	8.496E+00	8.498E+00
AM244M	5.190E+04	1.048E+04	2.117E+03	2.393E-04	1.103E-12
AM244	2.724E+03	2.543E+03	2.375E+03	1.196E+03	5.247E+02
AM245	3.358E-01	3.326E-01	3.244E-01	1.889E-01	8.684E-02
CM241	7.565E-03	7.559E-03	7.553E-03	7.493E-03	7.421E-03
CM242	1.956E+04	1.956E+04	1.956E+04	1.956E+04	1.955E+04
CM243	1.016E+01	1.016E+01	1.016E+01	1.016E+01	1.016E+01
CM244	1.094E+03	1.095E+03	1.095E+03	1.095E+03	1.095E+03
CM245	9.563E-02	9.563E-02	9.563E-02	9.563E-02	9.563E-02
CM246	1.699E-02	1.699E-02	1.699E-02	1.699E-02	1.699E-02

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

ML041000030.txt

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
CM249	4.715E-03	2.466E-03	1.289E-03	1.977E-06	2.930E-09
SUMTOT	2.095E+07	1.261E+07	1.106E+07	9.489E+06	8.222E+06
TOTAL	2.095E+07	1.261E+07	1.106E+07	9.489E+06	8.222E+06

□

OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
/CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
PB	1.197E-03	1.197E-03	1.196E-03	1.196E-03	1.196E-03
BI	1.197E-03	1.197E-03	1.197E-03	1.196E-03	1.253E-03
PO	1.963E-03	1.963E-03	1.963E-03	1.963E-03	1.999E-03
RN	1.196E-03	1.197E-03	1.197E-03	1.196E-03	1.196E-03
RA	1.197E-03	1.197E-03	1.197E-03	1.196E-03	1.196E-03
TH	7.001E-01	6.776E-01	6.624E-01	5.422E-01	4.352E-01
PA	7.157E-01	7.043E-01	6.963E-01	6.259E-01	5.605E-01
U	1.048E+07	2.275E+06	8.705E+05	5.574E+05	5.295E+05
NP	1.014E+07	1.006E+07	9.944E+06	8.793E+06	7.587E+06
PU	2.249E+05	2.042E+05	1.862E+05	9.592E+04	7.186E+04
AM	8.936E+04	4.629E+04	3.635E+04	2.190E+04	1.288E+04
CM	2.066E+04	2.066E+04	2.066E+04	2.067E+04	2.065E+04
BK	2.032E-03	1.735E-03	1.497E-03	6.171E-04	5.096E-04
SUMTOT	2.095E+07	1.261E+07	1.106E+07	9.489E+06	8.222E+06
TOTAL	2.095E+07	1.261E+07	1.106E+07	9.489E+06	8.222E+06

CUMULATIVE TABLE TOTALS

AP+FP	2.247E+05	2.070E+05	1.999E+05	1.557E+05	1.263E+05
ACT+FP	2.095E+07	1.261E+07	1.106E+07	9.489E+06	8.222E+06
AP+ACT+FP	2.118E+07	1.281E+07	1.126E+07	9.644E+06	8.348E+06

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
TL208	1.011E-05	1.012E-05	1.039E-05	1.011E-05	1.059E-05
PB212	2.277E-06	2.277E-06	2.277E-06	2.276E-06	2.276E-06
BI212	2.034E-05	2.035E-05	2.035E-05	2.034E-05	2.131E-05
PO212	4.061E-05	4.062E-05	4.063E-05	4.060E-05	4.254E-05
PO216	4.896E-05	4.897E-05	4.897E-05	4.895E-05	4.895E-05
RN220	4.541E-05	4.542E-05	4.541E-05	4.540E-05	4.540E-05
RA224	4.105E-05	4.105E-05	4.105E-05	4.104E-05	4.103E-05
TH228	3.894E-05	3.894E-05	3.895E-05	3.901E-05	3.909E-05
TH231	3.054E-04	2.974E-04	2.896E-04	2.223E-04	1.623E-04
TH233	2.469E-05	3.760E-06	5.727E-07	3.847E-15	5.996E-25
TH234	5.871E-05	5.871E-05	5.871E-05	5.870E-05	5.870E-05
PA232	2.376E-03	2.324E-03	2.274E-03	1.824E-03	1.400E-03
PA233	4.562E-04	4.562E-04	4.562E-04	4.564E-04	4.566E-04
PA234M	7.311E-04	7.156E-04	7.156E-04	7.156E-04	7.155E-04
PA234	4.771E-05	4.329E-05	3.930E-05	1.571E-05	6.459E-06
U232	1.873E-04	1.874E-04	1.874E-04	1.876E-04	1.879E-04
U234	1.867E-02	1.867E-02	1.867E-02	1.867E-02	1.867E-02
U235	3.043E-04	3.043E-04	3.043E-04	3.043E-04	3.043E-04
U236	4.162E-03	4.162E-03	4.162E-03	4.162E-03	4.162E-03
U237	1.110E+03	1.105E+03	1.101E+03	1.055E+03	1.002E+03
U238	3.669E-03	3.669E-03	3.669E-03	3.669E-03	3.669E-03
U239	2.664E+04	4.550E+03	7.772E+02	1.643E-05	1.013E-14
U240	9.648E-03	9.185E-03	8.745E-03	5.349E-03	2.965E-03
NP236M	3.636E-03	3.525E-03	3.418E-03	2.512E-03	1.736E-03
NP237	6.339E-03	6.339E-03	6.340E-03	6.346E-03	6.354E-03
NP238	1.141E+03	1.125E+03	1.110E+03	9.685E+02	8.222E+02
NP239	2.389E+04	2.374E+04	2.347E+04	2.077E+04	1.792E+04
NP240M	1.389E+01	1.156E-01	6.250E-02	3.811E-02	2.113E-02
NP240	1.235E+02	6.511E+01	3.434E+01	5.708E-02	2.642E-05
PU236	1.215E-02	1.215E-02	1.215E-02	1.216E-02	1.217E-02
PU237	5.719E-04	5.715E-04	5.712E-04	5.676E-04	5.633E-04

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PU238	5.146E+01	5.146E+01	5.147E+01	5.154E+01	5.161E+01
PU239	5.418E+00	5.419E+00	5.420E+00	5.429E+00	5.439E+00
PU240	7.575E+00	7.575E+00	7.575E+00	7.575E+00	7.575E+00
PU241	1.995E+00	1.995E+00	1.995E+00	1.995E+00	1.995E+00
PU242	2.252E-02	2.252E-02	2.252E-02	2.252E-02	2.252E-02
PU243	1.830E+02	1.591E+02	1.383E+02	3.415E+01	6.374E+00
PU245	7.962E-04	7.458E-04	6.986E-04	3.633E-04	1.657E-04
AM240	1.108E-03	1.093E-03	1.078E-03	9.408E-04	7.987E-04
AM241	2.241E+00	2.241E+00	2.241E+00	2.245E+00	2.250E+00
AM242M	3.320E-03	3.320E-03	3.320E-03	3.319E-03	3.319E-03
AM242	3.933E+01	3.766E+01	3.607E+01	2.340E+01	1.393E+01
AM243	2.728E-01	2.728E-01	2.729E-01	2.731E-01	2.732E-01
AM244M	1.570E+02	3.171E+01	6.405E+00	7.239E-07	3.338E-15
AM244	1.427E+01	1.333E+01	1.244E+01	6.265E+00	2.749E+00
AM245	6.230E-04	6.170E-04	6.019E-04	3.505E-04	1.611E-04
CM241	3.110E-05	3.107E-05	3.105E-05	3.080E-05	3.050E-05
CM242	7.206E+02	7.206E+02	7.207E+02	7.208E+02	7.203E+02
CM243	3.728E-01	3.728E-01	3.728E-01	3.728E-01	3.728E-01
CM244	3.828E+01	3.829E+01	3.829E+01	3.829E+01	3.829E+01
CM245	3.173E-03	3.173E-03	3.173E-03	3.173E-03	3.173E-03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
CM246	5.563E-04	5.563E-04	5.563E-04	5.563E-04	5.563E-04
CM249	8.206E-06	4.291E-06	2.244E-06	3.441E-09	5.100E-12
BK250	1.063E-05	8.570E-06	6.912E-06	8.042E-07	6.088E-08
SUMTOT	5.414E+04	3.165E+04	2.751E+04	2.368E+04	2.060E+04
TOTAL	5.414E+04	3.165E+04	2.751E+04	2.368E+04	2.060E+04

□

OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
TL	1.011E-05	1.012E-05	1.039E-05	1.011E-05	1.059E-05
PB	2.278E-06	2.278E-06	2.278E-06	2.277E-06	2.277E-06
BI	2.035E-05	2.036E-05	2.036E-05	2.035E-05	2.132E-05
PO	8.960E-05	8.962E-05	8.962E-05	8.958E-05	9.152E-05
RN	4.542E-05	4.543E-05	4.543E-05	4.542E-05	4.541E-05
RA	4.106E-05	4.106E-05	4.106E-05	4.105E-05	4.104E-05
TH	4.283E-04	3.993E-04	3.884E-04	3.205E-04	2.606E-04
PA	3.612E-03	3.540E-03	3.485E-03	3.012E-03	2.579E-03
U	2.775E+04	5.656E+03	1.878E+03	1.055E+03	1.002E+03
NP	2.517E+04	2.493E+04	2.461E+04	2.173E+04	1.875E+04
PU	2.494E+02	2.256E+02	2.048E+02	1.007E+02	7.303E+01
AM	2.131E+02	8.522E+01	5.743E+01	3.219E+01	1.920E+01
CM	7.592E+02	7.593E+02	7.593E+02	7.594E+02	7.590E+02
BK	1.100E-05	8.944E-06	7.284E-06	1.176E-06	4.320E-07
SUMTOT	5.414E+04	3.165E+04	2.751E+04	2.368E+04	2.060E+04
TOTAL	5.414E+04	3.165E+04	2.751E+04	2.368E+04	2.060E+04

CUMULATIVE TABLE TOTALS

AP+FP	1.256E+03	1.150E+03	1.085E+03	7.643E+02	5.993E+02
ACT+FP	5.414E+04	3.165E+04	2.751E+04	2.368E+04	2.060E+04
AP+ACT+FP	5.540E+04	3.280E+04	2.860E+04	2.445E+04	2.120E+04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

19 SUMMARY TABLE: NEUTRON ABSORPTION RATE, NEUTRON

S PER SECOND

17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	5.227E+00	5.227E+00	5.227E+00	5.227E+00	5.227E+00
U235	6.426E+02	6.426E+02	6.426E+02	6.426E+02	6.426E+02
U236	5.147E+01	5.147E+01	5.147E+01	5.147E+01	5.147E+01
U238	1.041E+03	1.041E+03	1.041E+03	1.041E+03	1.041E+03
NP237	2.304E+01	2.304E+01	2.304E+01	2.307E+01	2.309E+01
PU238	6.658E+00	6.659E+00	6.660E+00	6.669E+00	6.678E+00
PU239	1.117E+03	1.117E+03	1.117E+03	1.119E+03	1.121E+03
PU240	5.734E+02	5.734E+02	5.734E+02	5.734E+02	5.734E+02
PU241	2.106E+02	2.106E+02	2.106E+02	2.106E+02	2.106E+02
PU242	1.656E+01	1.656E+01	1.656E+01	1.656E+01	1.656E+01
AM241	5.147E+00	5.148E+00	5.149E+00	5.158E+00	5.169E+00
AM243	5.179E+00	5.179E+00	5.180E+00	5.185E+00	5.186E+00
SUMTOT	3.698E+03	3.698E+03	3.698E+03	3.700E+03	3.702E+03
TOTAL	3.702E+03	3.702E+03	3.702E+03	3.704E+03	3.706E+03

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

19 SUMMARY TABLE: NEUTRON ABSORPTION RATE, NEUTRON

S PER SECOND

17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
U	1.741E+03	1.741E+03	1.741E+03	1.741E+03	1.741E+03
NP	2.471E+01	2.470E+01	2.468E+01	2.451E+01	2.434E+01
PU	1.924E+03	1.924E+03	1.924E+03	1.926E+03	1.928E+03
AM	1.128E+01	1.128E+01	1.128E+01	1.129E+01	1.130E+01
SUMTOT	3.701E+03	3.701E+03	3.701E+03	3.703E+03	3.705E+03
TOTAL	3.702E+03	3.702E+03	3.702E+03	3.704E+03	3.706E+03

CUMULATIVE TABLE TOTALS

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AP+FP 1.347E+02 1.347E+02 1.347E+02 1.347E+02 1.347E+02
ACT+FP 3.702E+03 3.702E+03 3.702E+03 3.704E+03 3.706E+03
AP+ACT+FP 3.836E+03 3.837E+03 3.837E+03 3.838E+03 3.840E+03

□

OUTPUT UNIT =

6 PAGE 168
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

20 SUMMARY TABLE: NEUTRON ABSORPTION RATE, FRACTIONAL NEUTRONS PER SECOND

17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	1.412E-03	1.412E-03	1.412E-03	1.411E-03	1.411E-03
U235	1.736E-01	1.736E-01	1.736E-01	1.735E-01	1.734E-01
U236	1.390E-02	1.390E-02	1.390E-02	1.390E-02	1.389E-02
U238	2.812E-01	2.812E-01	2.812E-01	2.811E-01	2.809E-01
NP237	6.224E-03	6.225E-03	6.225E-03	6.228E-03	6.232E-03
PU238	1.799E-03	1.799E-03	1.799E-03	1.801E-03	1.802E-03
PU239	3.017E-01	3.017E-01	3.018E-01	3.022E-01	3.026E-01
PU240	1.549E-01	1.549E-01	1.549E-01	1.548E-01	1.547E-01
PU241	5.689E-02	5.689E-02	5.689E-02	5.686E-02	5.683E-02
PU242	4.473E-03	4.473E-03	4.472E-03	4.470E-03	4.468E-03
AM241	1.391E-03	1.391E-03	1.391E-03	1.393E-03	1.395E-03
AM243	1.399E-03	1.399E-03	1.399E-03	1.400E-03	1.399E-03
SUMTOT	9.989E-01	9.989E-01	9.989E-01	9.990E-01	9.991E-01
TOTAL	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00

□

OUTPUT UNIT =

6 PAGE 169
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

20 SUMMARY TABLE: NEUTRON ABSORPTION RATE, FRACTIONAL NEUTRONS PER SECOND

17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
U	4.703E-01	4.703E-01	4.702E-01	4.700E-01	4.698E-01
NP	6.675E-03	6.672E-03	6.667E-03	6.618E-03	6.568E-03
PU	5.198E-01	5.198E-01	5.198E-01	5.201E-01	5.204E-01
AM	3.048E-03	3.048E-03	3.048E-03	3.048E-03	3.049E-03
SUMTOT	9.998E-01	9.998E-01	9.998E-01	9.998E-01	9.998E-01
TOTAL	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00

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OUTPUT UNIT =

6 PAGE 170
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N/CM**2-SEC

21 SUMMARY TABLE: FISSION RATE, FISSIONS PER SECOND

17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
U235	5.198E+02	5.198E+02	5.198E+02	5.198E+02	5.198E+02
U238	1.054E+02	1.054E+02	1.054E+02	1.054E+02	1.054E+02
PU239	7.068E+02	7.069E+02	7.071E+02	7.083E+02	7.095E+02
PU240	1.605E+00	1.605E+00	1.605E+00	1.605E+00	1.605E+00
PU241	1.581E+02	1.581E+02	1.581E+02	1.581E+02	1.581E+02
SUMTOT	1.492E+03	1.492E+03	1.492E+03	1.493E+03	1.494E+03
TOTAL	1.496E+03	1.496E+03	1.496E+03	1.497E+03	1.498E+03

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OUTPUT UNIT =

6 PAGE 171
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

21 SUMMARY TABLE: FISSION RATE, FISSIONS PER SE
COND

17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/
MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
U	6.265E+02	6.265E+02	6.265E+02	6.265E+02	6.265E+02
PU	8.672E+02	8.673E+02	8.675E+02	8.687E+02	8.699E+02
SUMTOT	1.494E+03	1.494E+03	1.494E+03	1.495E+03	1.496E+03
TOTAL	1.496E+03	1.496E+03	1.496E+03	1.497E+03	1.498E+03

CUMULATIVE TABLE TOTALS

AP+FP	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACT+FP	1.496E+03	1.496E+03	1.496E+03	1.497E+03	1.498E+03
AP+ACT+FP	1.496E+03	1.496E+03	1.496E+03	1.497E+03	1.498E+03

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OUTPUT UNIT =

6 PAGE 172
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

22 SUMMARY TABLE: FISSION RATE, FRACTIONAL FIS
SIONS PER SECOND

17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/
MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
U235	3.476E-01	3.475E-01	3.475E-01	3.472E-01	3.470E-01
U238	7.047E-02	7.047E-02	7.046E-02	7.041E-02	7.035E-02
PU239	4.726E-01	4.727E-01	4.727E-01	4.731E-01	4.736E-01
PU240	1.073E-03	1.073E-03	1.073E-03	1.072E-03	1.071E-03
PU241	1.057E-01	1.057E-01	1.057E-01	1.056E-01	1.055E-01
SUMTOT	9.974E-01	9.974E-01	9.974E-01	9.974E-01	9.975E-01
TOTAL	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00

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OUTPUT UNIT =

6 PAGE 173
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

22 SUMMARY TABLE: FISSION RATE, FRACTIONAL FIS
SIONS PER SECOND

17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/
MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
U	4.189E-01	4.189E-01	4.189E-01	4.185E-01	4.182E-01
PU	5.798E-01	5.799E-01	5.799E-01	5.803E-01	5.806E-01
SUMTOT	9.988E-01	9.988E-01	9.988E-01	9.988E-01	9.988E-01
TOTAL	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00

□

OUTPUT UNIT =

6 PAGE 174
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

23 SUMMARY TABLE: ALPHA RADIOACTIVITY CURIES

17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/
MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
PU238	1.553E+03	1.553E+03	1.553E+03	1.555E+03	1.557E+03
PU239	1.758E+02	1.758E+02	1.759E+02	1.762E+02	1.765E+02
PU240	2.433E+02	2.433E+02	2.433E+02	2.433E+02	2.433E+02
AM241	6.745E+01	6.746E+01	6.747E+01	6.759E+01	6.773E+01
CM242	1.956E+04	1.956E+04	1.956E+04	1.956E+04	1.955E+04
CM244	1.094E+03	1.095E+03	1.095E+03	1.095E+03	1.095E+03
SUMTOT	2.269E+04	2.269E+04	2.269E+04	2.270E+04	2.269E+04

TOTAL 2.271E+04 2.271E+04 2.272E+04 2.272E+04 2.271E+04
□

OUTPUT UNIT =

6 PAGE 175
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)
□

ACTINIDES+DAUGHTERS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

23 SUMMARY TABLE: ALPHA RADIOACTIVITY CURIES

17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
PU	1.974E+03	1.975E+03	1.975E+03	1.977E+03	1.980E+03
AM	7.598E+01	7.599E+01	7.600E+01	7.613E+01	7.627E+01
CM	2.066E+04	2.066E+04	2.066E+04	2.067E+04	2.065E+04
SUMTOT	2.271E+04	2.271E+04	2.271E+04	2.272E+04	2.271E+04
TOTAL	2.271E+04	2.271E+04	2.272E+04	2.272E+04	2.271E+04

CUMULATIVE TABLE TOTALS

AP+FP	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACT+FP	2.271E+04	2.271E+04	2.272E+04	2.272E+04	2.271E+04
AP+ACT+FP	2.271E+04	2.271E+04	2.272E+04	2.272E+04	2.271E+04

OUTPUT UNIT =

6 PAGE 176
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)
□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS

17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
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H	3	2.966E-02	2.966E-02	2.966E-02	2.966E-02	2.966E-02
LI	6	1.068E-04	1.068E-04	1.068E-04	1.068E-04	1.068E-04
LI	7	5.455E-06	5.455E-06	5.455E-06	5.455E-06	5.455E-06
BE	9	1.050E-05	1.050E-05	1.050E-05	1.050E-05	1.050E-05
BE	10	7.009E-05	7.009E-05	7.009E-05	7.009E-05	7.009E-05
C	14	1.417E-05	1.417E-05	1.417E-05	1.417E-05	1.417E-05
ZN	68	7.140E-04	7.140E-04	7.140E-04	7.140E-04	7.140E-04
ZN	70	2.512E-03	2.512E-03	2.512E-03	2.512E-03	2.512E-03
ZN	72	3.604E-05	3.551E-05	3.498E-05	3.014E-05	2.520E-05
GA	72	1.096E-05	1.096E-05	1.094E-05	1.050E-05	9.516E-06
GE	72	1.084E-02	1.084E-02	1.084E-02	1.085E-02	1.086E-02
GA	73	7.638E-06	6.636E-06	5.757E-06	1.391E-06	2.531E-07
GE	73	2.306E-02	2.306E-02	2.306E-02	2.307E-02	2.307E-02
GE	74	5.094E-02	5.094E-02	5.094E-02	5.094E-02	5.094E-02
GE	75	8.977E-06	5.570E-06	3.370E-06	2.220E-08	5.353E-11
AS	75	1.062E-01	1.062E-01	1.062E-01	1.062E-01	1.062E-01
GE	76	2.702E-01	2.702E-01	2.702E-01	2.702E-01	2.702E-01
AS	76	1.244E-05	1.212E-05	1.180E-05	9.069E-06	6.611E-06
SE	76	3.255E-03	3.256E-03	3.256E-03	3.259E-03	3.261E-03
GE	77	1.312E-04	1.235E-04	1.162E-04	6.292E-05	3.014E-05
AS	77	1.238E-03	1.224E-03	1.210E-03	1.060E-03	8.847E-04
SE	77	5.576E-01	5.576E-01	5.576E-01	5.578E-01	5.580E-01
GE	78	1.034E-04	6.414E-05	3.977E-05	3.338E-07	1.077E-09
AS	78	1.109E-04	1.011E-04	8.310E-05	2.609E-06	1.760E-08
SE	78	1.301E+00	1.301E+00	1.301E+00	1.301E+00	1.301E+00
AS	79	2.659E-05	2.814E-07	2.770E-09	2.365E-29	0.000E+00
SE	79	3.187E+00	3.187E+00	3.187E+00	3.187E+00	3.187E+00
SE	79M	1.153E-05	2.140E-07	2.114E-09	1.800E-29	0.000E+00
BR	79	5.487E-05	5.488E-05	5.488E-05	5.492E-05	5.497E-05
GE	80	2.006E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE	80	7.289E+00	7.289E+00	7.289E+00	7.289E+00	7.289E+00
KR	80	1.114E-04	1.114E-04	1.114E-04	1.114E-04	1.114E-04
AS	81	5.474E-06	9.495E-40	0.000E+00	0.000E+00	0.000E+00
SE	81	2.041E-04	2.539E-05	4.193E-06	1.362E-09	2.247E-13
SE	81M	1.732E-05	8.381E-06	4.056E-06	2.857E-09	4.714E-13
BR	81	1.181E+01	1.181E+01	1.181E+01	1.181E+01	1.181E+01
KR	81	1.083E-05	1.083E-05	1.083E-05	1.083E-05	1.083E-05
AS	82	3.167E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE	82	1.855E+01	1.855E+01	1.855E+01	1.855E+01	1.855E+01
BR	82	2.760E-03	2.709E-03	2.656E-03	2.183E-03	1.725E-03
BR	82M	3.078E-06	3.482E-09	3.927E-12	0.000E+00	0.000E+00
KR	82	5.633E-01	5.633E-01	5.634E-01	5.639E-01	5.643E-01
AS	83	3.659E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE	83	2.240E-04	3.550E-05	5.590E-06	5.248E-14	1.222E-23
SE	83M	1.735E-05	6.714E-21	2.215E-36	0.000E+00	0.000E+00
BR	83	3.639E-03	2.896E-03	2.191E-03	1.209E-04	3.724E-06
KR	83	2.330E+01	2.330E+01	2.331E+01	2.331E+01	2.331E+01

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KR 83M	2.792E-03	2.699E-03	2.454E-03	2.880E-04	1.103E-05
SE 84	1.404E-04	4.770E-10	1.604E-15	0.000E+00	0.000E+00
BR 84	1.404E-03	4.224E-04	1.142E-04	2.387E-10	3.649E-17
BR 84M	9.828E-06	9.597E-09	9.372E-12	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
/CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 84	6.230E+01	6.230E+01	6.230E+01	6.230E+01	6.230E+01
SE 85	1.619E-05	2.679E-33	0.000E+00	0.000E+00	0.000E+00
SE 85M	5.848E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 85	1.538E-04	9.088E-11	4.548E-17	0.000E+00	0.000E+00
KR 85	1.318E+01	1.318E+01	1.318E+01	1.318E+01	1.318E+01
KR 85M	1.462E-02	1.268E-02	1.086E-02	2.312E-03	3.612E-04
RB 85	5.461E+01	5.461E+01	5.462E+01	5.462E+01	5.463E+01
SE 86	1.360E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 86	3.551E-05	8.961E-25	0.000E+00	0.000E+00	0.000E+00
BR 86M	2.919E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 86	1.064E+02	1.064E+02	1.064E+02	1.064E+02	1.064E+02
RB 86	1.413E-02	1.411E-02	1.408E-02	1.387E-02	1.361E-02
SR 86	2.378E-01	2.378E-01	2.379E-01	2.381E-01	2.383E-01
SE 87	3.745E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 87	8.301E-05	3.304E-24	1.219E-43	0.000E+00	0.000E+00
KR 87	8.093E-03	4.743E-03	2.750E-03	1.180E-05	1.701E-08
RB 87	1.367E+02	1.367E+02	1.367E+02	1.367E+02	1.367E+02
SR 87	1.747E-03	1.747E-03	1.747E-03	1.747E-03	1.747E-03
BR 88	2.600E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 88	2.570E-02	2.015E-02	1.578E-02	1.374E-03	7.335E-05
RB 88	2.732E-03	2.325E-03	1.839E-03	1.603E-04	8.560E-06
SR 88	1.964E+02	1.964E+02	1.964E+02	1.964E+02	1.964E+02
BR 89	5.029E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 89	5.866E-04	1.185E-09	2.377E-15	0.000E+00	0.000E+00
RB 89	3.017E-03	2.440E-04	1.582E-05	2.072E-17	1.141E-31
SR 89	1.532E+01	1.531E+01	1.530E+01	1.522E+01	1.511E+01
Y 89	2.413E+02	2.413E+02	2.413E+02	2.414E+02	2.415E+02

ML041000030.txt

KR 90	9.953E-05	2.966E-38	0.000E+00	0.000E+00	0.000E+00
RB 90	4.953E-04	9.204E-10	5.294E-14	0.000E+00	0.000E+00
RB 90M	1.986E-04	1.340E-08	8.448E-13	0.000E+00	0.000E+00
SR 90	2.989E+02	2.989E+02	2.989E+02	2.989E+02	2.989E+02
Y 90	7.835E-02	7.832E-02	7.828E-02	7.794E-02	7.757E-02
ZR 90	1.267E+01	1.267E+01	1.267E+01	1.268E+01	1.269E+01
KR 91	2.011E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 91	2.387E-04	6.290E-23	1.505E-41	0.000E+00	0.000E+00
SR 91	1.509E-01	1.405E-01	1.306E-01	6.298E-02	2.624E-02
Y 91	2.358E+01	2.358E+01	2.357E+01	2.353E+01	2.343E+01
Y 91M	7.640E-03	7.469E-03	7.102E-03	3.492E-03	1.454E-03
ZR 91	3.061E+02	3.061E+02	3.061E+02	3.063E+02	3.064E+02
KR 92	2.116E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 92	1.626E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 92	4.747E-02	3.677E-02	2.847E-02	2.206E-03	1.025E-04
Y 92	6.228E-02	6.090E-02	5.757E-02	1.585E-02	1.971E-03
ZR 92	3.553E+02	3.553E+02	3.553E+02	3.553E+02	3.554E+02
RB 93	1.618E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 93	2.524E-03	9.926E-06	3.876E-08	0.000E+00	0.000E+00
Y 93	2.093E-01	1.978E-01	1.847E-01	9.298E-02	4.081E-02
ZR 93	3.961E+02	3.961E+02	3.961E+02	3.962E+02	3.963E+02
NB 93	3.445E-05	3.445E-05	3.445E-05	3.448E-05	3.451E-05
NB 93M	2.660E-04	2.660E-04	2.661E-04	2.662E-04	2.665E-04
RB 94	3.987E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
SR 94	4.054E-04	1.893E-18	8.757E-33	0.000E+00	0.000E+00
Y 94	6.751E-03	8.148E-04	9.234E-05	3.228E-14	1.450E-25
ZR 94	4.079E+02	4.079E+02	4.079E+02	4.079E+02	4.079E+02
NB 94	3.600E-04	3.600E-04	3.600E-04	3.600E-04	3.600E-04
SR 95	1.307E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 95	4.051E-03	7.976E-05	1.519E-06	9.548E-24	0.000E+00
ZR 95	3.735E+01	3.734E+01	3.732E+01	3.715E+01	3.695E+01

ML041000030.txt

NB 95	2.071E+01	2.071E+01	2.071E+01	2.071E+01	2.070E+01
NB 95M	1.503E-02	1.502E-02	1.502E-02	1.500E-02	1.496E-02
MO 95	3.537E+02	3.537E+02	3.537E+02	3.539E+02	3.541E+02
SR 96	1.407E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 96	8.512E-04	1.215E-11	1.704E-19	0.000E+00	0.000E+00
ZR 96	4.355E+02	4.355E+02	4.355E+02	4.355E+02	4.355E+02
NB 96	1.192E-03	1.158E-03	1.124E-03	8.351E-04	5.848E-04
MO 96	2.056E+01	2.056E+01	2.056E+01	2.056E+01	2.056E+01
Y 97	5.962E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 97	4.148E-01	3.982E-01	3.822E-01	2.536E-01	1.550E-01
NB 97	2.977E-02	2.930E-02	2.853E-02	1.937E-02	1.110E-02
NB 97M	3.880E-04	3.719E-04	3.570E-04	2.369E-04	1.448E-04
MO 97	4.277E+02	4.277E+02	4.277E+02	4.278E+02	4.280E+02
ZR 98	2.156E-04	2.394E-39	0.000E+00	0.000E+00	0.000E+00
NB 98	1.982E-05	2.377E-40	0.000E+00	0.000E+00	0.000E+00
NB 98M	2.215E-04	9.879E-05	4.406E-05	1.370E-08	8.478E-13
MO 98	4.388E+02	4.388E+02	4.388E+02	4.388E+02	4.388E+02
TC 98	2.853E-03	2.853E-03	2.853E-03	2.853E-03	2.853E-03
ZR 99	1.668E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99	1.036E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99M	4.651E-05	5.256E-12	5.940E-19	0.000E+00	0.000E+00
MO 99	1.870E+00	1.851E+00	1.832E+00	1.649E+00	1.454E+00
TC 99	4.133E+02	4.133E+02	4.133E+02	4.135E+02	4.137E+02
TC 99M	1.494E-01	1.493E-01	1.490E-01	1.411E-01	1.268E-01
RU 99	2.067E-03	2.067E-03	2.068E-03	2.069E-03	2.071E-03
ZR100	4.591E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100	9.791E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100M	9.832E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO100	4.994E+02	4.994E+02	4.994E+02	4.994E+02	4.994E+02
TC100	3.370E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU100	5.797E+01	5.797E+01	5.797E+01	5.797E+01	5.797E+01
ZR101	1.375E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB101	4.755E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	6.386E-03	3.750E-04	2.181E-05	9.647E-18	1.443E-32
TC101	6.204E-03	1.355E-03	1.319E-04	2.107E-16	4.251E-31
RU101	4.103E+02	4.103E+02	4.103E+02	4.103E+02	4.103E+02
ZR102	6.775E-05	8.576E-43	0.000E+00	0.000E+00	0.000E+00
NB102	1.740E-05	1.429E-43	0.000E+00	0.000E+00	0.000E+00
MO102	4.654E-03	1.119E-04	2.640E-06	1.412E-22	4.145E-42
TC102	3.694E-05	8.942E-07	2.110E-08	1.128E-24	0.000E+00
TC102M	2.177E-06	1.533E-10	1.080E-14	0.000E+00	0.000E+00
RU102	4.096E+02	4.096E+02	4.096E+02	4.096E+02	4.096E+02
RH102	4.334E-04	4.333E-04	4.333E-04	4.332E-04	4.331E-04
NB103	6.344E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)
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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
 /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
 17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
MO103	4.074E-04	4.298E-22	3.728E-40	0.000E+00	0.000E+00
TC103	3.450E-04	2.148E-21	1.864E-39	0.000E+00	0.000E+00
RU103	2.354E+01	2.353E+01	2.351E+01	2.334E+01	2.313E+01
RH103	2.088E+02	2.088E+02	2.088E+02	2.090E+02	2.092E+02
RH103M	2.104E-02	2.103E-02	2.102E-02	2.088E-02	2.069E-02
NB104	1.939E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO104	5.234E-04	2.707E-15	1.393E-26	0.000E+00	0.000E+00
TC104	6.374E-03	7.073E-04	7.198E-05	8.573E-15	1.057E-26
RU104	2.748E+02	2.748E+02	2.748E+02	2.748E+02	2.748E+02
RH104	1.899E-04	1.021E-09	7.036E-14	0.000E+00	0.000E+00
RH104M	7.650E-05	5.272E-09	3.633E-13	0.000E+00	0.000E+00
PD104	1.225E+02	1.225E+02	1.225E+02	1.225E+02	1.225E+02
MO105	2.099E-04	1.803E-24	0.000E+00	0.000E+00	0.000E+00
TC105	2.309E-03	1.407E-05	7.772E-08	0.000E+00	0.000E+00
RU105	7.831E-02	6.922E-02	5.922E-02	1.243E-02	1.908E-03
RH105	5.746E-01	5.750E-01	5.738E-01	5.131E-01	4.146E-01
RH105M	6.175E-05	5.473E-05	4.683E-05	9.826E-06	1.509E-06
PD105	1.887E+02	1.887E+02	1.887E+02	1.888E+02	1.889E+02
MO106	1.878E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC106	1.254E-04	7.721E-34	0.000E+00	0.000E+00	0.000E+00
RU106	7.660E+01	7.660E+01	7.659E+01	7.653E+01	7.646E+01
RH106	8.008E-05	7.200E-05	7.199E-05	7.194E-05	7.187E-05
RH106M	9.782E-04	7.138E-04	5.209E-04	2.231E-05	5.087E-07
PD106	9.663E+01	9.664E+01	9.665E+01	9.671E+01	9.678E+01
MO107	4.866E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC107	5.425E-05	2.549E-42	0.000E+00	0.000E+00	0.000E+00
RU107	7.264E-04	3.972E-08	1.989E-12	0.000E+00	0.000E+00
RH107	3.772E-03	6.997E-04	1.029E-04	4.888E-13	5.024E-23
PD107	1.044E+02	1.044E+02	1.044E+02	1.044E+02	1.044E+02
AG107	1.245E-05	1.245E-05	1.245E-05	1.246E-05	1.248E-05
TC108	5.722E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU108	5.411E-04	5.303E-08	5.138E-12	0.000E+00	0.000E+00
RH108	3.399E-05	3.518E-09	3.409E-13	0.000E+00	0.000E+00
RH108M	6.810E-06	5.913E-09	5.134E-12	0.000E+00	0.000E+00
PD108	7.121E+01	7.121E+01	7.121E+01	7.121E+01	7.121E+01

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CD108	1.549E-04	1.549E-04	1.549E-04	1.549E-04	1.549E-04
TC109	2.635E-05	1.489E-26	0.000E+00	0.000E+00	0.000E+00
RU109	4.370E-05	3.257E-26	0.000E+00	0.000E+00	0.000E+00
RH109	1.170E-04	4.261E-16	3.875E-28	0.000E+00	0.000E+00
RH109M	3.250E-05	7.424E-25	0.000E+00	0.000E+00	0.000E+00
PD109	7.691E-02	7.351E-02	6.982E-02	4.172E-02	2.249E-02
PD109M	1.842E-04	5.212E-08	7.343E-12	0.000E+00	0.000E+00
AG109	3.536E+01	3.537E+01	3.537E+01	3.540E+01	3.542E+01
AG109M	6.282E-05	6.009E-05	5.708E-05	3.410E-05	1.838E-05
RU110	8.802E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH110	1.719E-05	1.541E-42	0.000E+00	0.000E+00	0.000E+00
PD110	2.357E+01	2.357E+01	2.357E+01	2.357E+01	2.357E+01
AG110	1.884E-05	6.330E-09	6.329E-09	6.322E-09	6.313E-09
AG110M	4.177E-01	4.177E-01	4.176E-01	4.171E-01	4.166E-01
CD110	1.692E+01	1.692E+01	1.692E+01	1.692E+01	1.692E+01
RU111	3.761E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

6 PAGE 180
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
 17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
RH111	2.090E-05	1.631E-22	1.025E-39	0.000E+00	0.000E+00
PD111	4.499E-04	7.545E-05	1.458E-05	1.089E-06	2.400E-07
PD111M	1.016E-04	8.968E-05	7.906E-05	2.242E-05	4.941E-06
AG111	2.219E-01	2.214E-01	2.207E-01	2.123E-01	2.027E-01
AG111M	2.217E-05	3.965E-06	8.242E-07	7.682E-08	1.693E-08
CD111	1.314E+01	1.315E+01	1.315E+01	1.316E+01	1.316E+01
PD112	1.305E-02	1.261E-02	1.218E-02	8.628E-03	5.704E-03
AG112	2.039E-03	2.031E-03	2.011E-03	1.566E-03	1.050E-03
CD112	8.051E+00	8.052E+00	8.052E+00	8.056E+00	8.059E+00
PD113	1.293E-05	1.201E-17	1.092E-29	0.000E+00	0.000E+00
AG113	2.471E-03	2.179E-03	1.912E-03	5.169E-04	1.076E-04
CD113	8.443E-02	8.474E-02	8.500E-02	8.638E-02	8.678E-02
CD113M	1.297E-01	1.297E-01	1.297E-01	1.297E-01	1.297E-01
IN113	6.839E-03	6.840E-03	6.841E-03	6.848E-03	6.856E-03
PD114	1.440E-05	4.367E-13	1.302E-20	0.000E+00	0.000E+00

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CD114	1.103E+01	1.103E+01	1.103E+01	1.103E+01	1.103E+01
IN114M	6.685E-05	6.681E-05	6.677E-05	6.638E-05	6.592E-05
SN114	7.112E-04	7.112E-04	7.112E-04	7.116E-04	7.120E-04
PD115	3.657E-06	1.225E-34	0.000E+00	0.000E+00	0.000E+00
AG115	8.658E-05	1.120E-05	1.400E-06	1.304E-15	1.897E-26
CD115	1.834E-02	1.819E-02	1.796E-02	1.578E-02	1.351E-02
CD115M	3.503E-02	3.501E-02	3.499E-02	3.476E-02	3.449E-02
IN115	1.087E+00	1.087E+00	1.087E+00	1.090E+00	1.092E+00
IN115M	1.478E-03	1.477E-03	1.473E-03	1.360E-03	1.178E-03
SN115	1.596E-01	1.596E-01	1.596E-01	1.597E-01	1.598E-01
AG116	6.604E-06	1.308E-12	2.384E-19	0.000E+00	0.000E+00
CD116	4.129E+00	4.129E+00	4.129E+00	4.129E+00	4.129E+00
IN116M	1.356E-04	6.292E-05	2.919E-05	1.348E-08	1.340E-12
SN116	3.681E+00	3.681E+00	3.681E+00	3.681E+00	3.681E+00
AG117	2.978E-06	4.957E-21	7.772E-36	0.000E+00	0.000E+00
CD117	5.050E-04	3.889E-04	2.979E-04	2.071E-05	8.451E-07
CD117M	3.585E-04	2.930E-04	2.390E-04	3.112E-05	2.695E-06
IN117	1.315E-04	1.271E-04	1.166E-04	1.701E-05	1.177E-06
IN117M	4.405E-04	4.247E-04	3.876E-04	5.891E-05	3.667E-06
SN117	4.163E+00	4.163E+00	4.164E+00	4.165E+00	4.165E+00
SN117M	6.365E-04	6.352E-04	6.339E-04	6.210E-04	6.058E-04
CD118	2.498E-04	1.095E-04	4.789E-05	1.229E-08	6.032E-13
SN118	4.229E+00	4.229E+00	4.229E+00	4.229E+00	4.229E+00
CD119	2.344E-05	2.841E-07	3.404E-09	2.076E-28	0.000E+00
CD119M	7.980E-06	1.869E-11	4.240E-17	0.000E+00	0.000E+00
IN119	3.590E-06	9.167E-08	9.570E-09	8.949E-19	8.139E-31
IN119M	6.737E-05	1.151E-05	1.194E-06	1.110E-16	1.009E-28
SN119	4.178E+00	4.179E+00	4.179E+00	4.179E+00	4.179E+00
SN119M	2.562E-02	2.562E-02	2.561E-02	2.558E-02	2.555E-02
CD120	4.195E-06	2.012E-27	0.000E+00	0.000E+00	0.000E+00
IN120	1.872E-06	6.974E-27	0.000E+00	0.000E+00	0.000E+00
SN120	4.289E+00	4.290E+00	4.290E+00	4.290E+00	4.290E+00
IN121	1.963E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121M	3.467E-06	1.243E-11	4.180E-17	0.000E+00	0.000E+00
SN121	8.472E-03	8.262E-03	8.051E-03	6.216E-03	4.557E-03
SN121M	1.745E-03	1.745E-03	1.745E-03	1.745E-03	1.745E-03

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

ML041000030.txt

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
SB121	4.137E+00	4.137E+00	4.137E+00	4.139E+00	4.141E+00
SN122	4.725E+00	4.725E+00	4.725E+00	4.725E+00	4.725E+00
SB122	3.042E-03	3.010E-03	2.978E-03	2.676E-03	2.354E-03
TE122	3.107E-01	3.107E-01	3.107E-01	3.110E-01	3.113E-01
SN123	2.186E-01	2.185E-01	2.185E-01	2.180E-01	2.174E-01
SN123M	2.016E-04	7.204E-05	2.553E-05	7.960E-10	3.116E-15
SB123	4.927E+00	4.927E+00	4.927E+00	4.928E+00	4.928E+00
TE123	3.800E-03	3.801E-03	3.801E-03	3.803E-03	3.806E-03
TE123M	9.463E-04	9.461E-04	9.458E-04	9.436E-04	9.408E-04
SN124	6.425E+00	6.425E+00	6.425E+00	6.425E+00	6.425E+00
SB124	4.310E-02	4.308E-02	4.306E-02	4.285E-02	4.260E-02
TE124	1.926E-01	1.926E-01	1.926E-01	1.929E-01	1.931E-01
SN125	6.231E-02	6.213E-02	6.194E-02	6.011E-02	5.799E-02
SN125M	6.910E-05	8.856E-07	1.122E-08	1.195E-27	0.000E+00
SB125	6.860E+00	6.860E+00	6.860E+00	6.860E+00	6.859E+00
TE125	2.522E+00	2.522E+00	2.523E+00	2.525E+00	2.527E+00
TE125M	8.281E-02	8.282E-02	8.282E-02	8.286E-02	8.290E-02
SN126	1.397E+01	1.397E+01	1.397E+01	1.397E+01	1.397E+01
SB126	7.143E-03	7.126E-03	7.110E-03	6.946E-03	6.755E-03
SB126M	3.140E-06	3.563E-07	4.440E-08	5.048E-09	5.048E-09
TE126	3.877E-01	3.878E-01	3.878E-01	3.879E-01	3.881E-01
SN127	2.879E-03	2.070E-03	1.488E-03	5.485E-05	1.045E-06
SN127M	4.528E-05	1.933E-09	8.248E-14	0.000E+00	0.000E+00
SB127	2.002E-01	1.996E-01	1.987E-01	1.857E-01	1.697E-01
TE127	2.003E-02	2.003E-02	2.002E-02	1.963E-02	1.863E-02
TE127M	7.371E-01	7.371E-01	7.371E-01	7.372E-01	7.371E-01
I127	2.704E+01	2.704E+01	2.704E+01	2.706E+01	2.707E+01
SN128	3.205E-03	1.584E-03	7.827E-04	6.797E-07	1.441E-10
SB128	2.696E-03	2.496E-03	2.311E-03	1.071E-03	4.255E-04
SB128M	6.151E-04	3.377E-04	1.675E-04	1.454E-07	3.084E-11
TE128	5.725E+01	5.725E+01	5.726E+01	5.726E+01	5.726E+01
I128	1.125E-04	2.130E-05	4.031E-06	2.376E-13	5.017E-22
XE128	1.717E+00	1.717E+00	1.717E+00	1.717E+00	1.717E+00
SN129	2.751E-04	1.075E-06	4.199E-09	0.000E+00	0.000E+00
SN129M	1.039E-04	6.196E-12	3.693E-19	0.000E+00	0.000E+00
SB129	2.797E-02	2.415E-02	2.057E-02	4.134E-03	6.027E-04
TE129	7.400E-03	7.121E-03	6.568E-03	2.036E-03	9.058E-04
TE129M	7.725E-01	7.724E-01	7.722E-01	7.677E-01	7.603E-01
I129	9.266E+01	9.266E+01	9.267E+01	9.269E+01	9.270E+01
XE129	9.537E-03	9.538E-03	9.538E-03	9.539E-03	9.540E-03
XE129M	2.642E-05	2.632E-05	2.623E-05	2.530E-05	2.422E-05
SN130	4.377E-04	6.112E-09	8.528E-14	0.000E+00	0.000E+00
SB130	1.420E-03	5.021E-04	1.775E-04	5.417E-09	2.067E-14

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SB130M	9.851E-04	2.775E-06	3.793E-09	0.000E+00	0.000E+00
TE130	1.864E+02	1.864E+02	1.864E+02	1.864E+02	1.864E+02
I130	9.519E-03	9.036E-03	8.544E-03	4.877E-03	2.488E-03
I130M	4.557E-05	4.485E-07	4.415E-09	3.769E-29	0.000E+00
XE130	5.817E+00	5.817E+00	5.818E+00	5.821E+00	5.824E+00
SN131	1.082E-04	6.803E-22	4.276E-39	0.000E+00	0.000E+00
SB131	6.385E-03	1.065E-03	1.747E-04	2.451E-12	9.241E-22
TE131	7.401E-03	3.551E-03	1.202E-03	2.094E-04	1.587E-04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
TE131M	8.791E-02	8.626E-02	8.435E-02	6.696E-02	5.075E-02
I131	3.875E+00	3.872E+00	3.864E+00	3.745E+00	3.603E+00
XE131	2.180E+02	2.180E+02	2.180E+02	2.182E+02	2.183E+02
XE131M	6.383E-02	6.383E-02	6.383E-02	6.379E-02	6.369E-02
SN132	3.690E-05	2.981E-32	0.000E+00	0.000E+00	0.000E+00
SB132	4.608E-04	1.804E-10	6.392E-17	0.000E+00	0.000E+00
SB132M	4.571E-04	2.289E-08	1.146E-12	0.000E+00	0.000E+00
TE132	2.238E+00	2.219E+00	2.199E+00	2.013E+00	1.810E+00
I132	6.692E-02	6.656E-02	6.615E-02	6.097E-02	5.484E-02
XE132	5.796E+02	5.796E+02	5.796E+02	5.798E+02	5.800E+02
CS132	8.427E-04	8.389E-04	8.352E-04	7.988E-04	7.571E-04
BA132	8.264E-04	8.265E-04	8.266E-04	8.273E-04	8.281E-04
SB133	4.592E-04	1.370E-11	4.082E-19	0.000E+00	0.000E+00
TE133	4.995E-03	4.221E-04	1.214E-04	6.319E-08	7.733E-12
TE133M	1.369E-02	6.468E-03	3.053E-03	1.677E-06	2.052E-10
I133	8.548E-01	8.389E-01	8.150E-01	5.864E-01	3.931E-01
I133M	3.214E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE133	5.178E+00	5.178E+00	5.177E+00	5.127E+00	4.991E+00
XE133M	6.786E-02	6.778E-02	6.768E-02	6.556E-02	6.108E-02
CS133	5.936E+02	5.936E+02	5.937E+02	5.939E+02	5.943E+02
SB134	5.886E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134M	5.312E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE134	2.341E-02	8.661E-03	3.202E-03	1.529E-07	9.983E-13

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I134	3.973E-02	2.771E-02	1.610E-02	1.093E-05	8.796E-10
I134M	2.802E-04	3.680E-09	4.834E-14	0.000E+00	0.000E+00
XE134	7.925E+02	7.926E+02	7.926E+02	7.926E+02	7.926E+02
CS134	7.049E+01	7.049E+01	7.049E+01	7.046E+01	7.043E+01
CS134M	3.381E-03	2.662E-03	2.096E-03	1.920E-04	1.091E-05
BA134	2.388E+01	2.388E+01	2.388E+01	2.391E+01	2.394E+01
TE135	9.488E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	2.578E-01	2.322E-01	2.091E-01	7.329E-02	2.083E-02
XE135	9.635E-02	1.146E-01	1.286E-01	1.492E-01	9.113E-02
XE135M	2.112E-03	1.468E-03	1.293E-03	4.525E-04	1.286E-04
CS135	2.071E+02	2.071E+02	2.071E+02	2.072E+02	2.073E+02
CS135M	5.971E-04	2.724E-04	1.243E-04	4.860E-08	3.955E-12
BA135	1.825E-01	1.825E-01	1.825E-01	1.826E-01	1.826E-01
BA135M	7.107E-05	6.938E-05	6.772E-05	5.319E-05	3.980E-05
TE136	5.486E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I136	4.270E-04	4.389E-17	3.852E-30	0.000E+00	0.000E+00
I136M	1.402E-04	3.873E-28	0.000E+00	0.000E+00	0.000E+00
XE136	1.204E+03	1.204E+03	1.204E+03	1.204E+03	1.204E+03
CS136	4.197E-01	4.187E-01	4.178E-01	4.087E-01	3.980E-01
BA136	1.098E+01	1.098E+01	1.098E+01	1.099E+01	1.100E+01
TE137	2.572E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I137	1.239E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE137	2.354E-03	4.788E-08	9.211E-13	0.000E+00	0.000E+00
CS137	6.396E+02	6.396E+02	6.396E+02	6.396E+02	6.396E+02
BA137	2.289E+01	2.289E+01	2.290E+01	2.291E+01	2.293E+01
BA137M	9.806E-05	9.788E-05	9.785E-05	9.785E-05	9.785E-05
I138	1.604E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	8.215E-03	4.373E-04	2.324E-05	4.166E-18	2.108E-33

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
CS138	2.076E-02	8.984E-03	2.642E-03	6.599E-09	1.226E-15
CS138M	9.015E-05	5.331E-11	3.152E-17	0.000E+00	0.000E+00
BA138	6.923E+02	6.923E+02	6.923E+02	6.923E+02	6.923E+02

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LA138	3.311E-03	3.311E-03	3.311E-03	3.311E-03	3.311E-03
I139	2.684E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE139	2.993E-04	1.107E-31	0.000E+00	0.000E+00	0.000E+00
CS139	5.777E-03	7.311E-05	8.760E-07	5.344E-26	0.000E+00
BA139	5.253E-02	3.585E-02	2.173E-02	1.423E-04	3.401E-07
LA139	6.601E+02	6.602E+02	6.602E+02	6.602E+02	6.602E+02
XE140	6.735E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS140	5.922E-04	7.002E-21	7.231E-38	0.000E+00	0.000E+00
BA140	1.135E+01	1.133E+01	1.130E+01	1.105E+01	1.076E+01
LA140	1.538E+00	1.537E+00	1.536E+00	1.524E+00	1.506E+00
CE140	6.504E+02	6.504E+02	6.504E+02	6.507E+02	6.510E+02
XE141	2.989E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS141	1.732E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA141	1.068E-02	1.115E-03	1.144E-04	1.481E-14	2.019E-26
LA141	1.386E-01	1.249E-01	1.056E-01	1.812E-02	2.183E-03
CE141	2.801E+01	2.801E+01	2.800E+01	2.784E+01	2.756E+01
PR141	5.779E+02	5.779E+02	5.779E+02	5.782E+02	5.785E+02
CS142	7.148E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA142	5.961E-03	1.224E-04	2.511E-06	3.309E-23	1.990E-43
LA142	5.290E-02	3.795E-02	2.432E-02	2.739E-04	1.258E-06
CE142	6.119E+02	6.119E+02	6.119E+02	6.119E+02	6.119E+02
PR142	3.588E-02	3.469E-02	3.346E-02	2.329E-02	1.508E-02
PR142M	8.943E-05	5.180E-06	3.001E-07	1.277E-19	1.823E-34
ND142	1.330E+01	1.330E+01	1.330E+01	1.331E+01	1.332E+01
CS143	3.511E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA143	1.110E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA143	7.649E-03	3.981E-04	2.041E-05	2.562E-18	8.454E-34
CE143	1.089E+00	1.074E+00	1.052E+00	8.524E-01	6.625E-01
PR143	1.067E+01	1.067E+01	1.067E+01	1.064E+01	1.056E+01
ND143	4.339E+02	4.339E+02	4.339E+02	4.341E+02	4.344E+02
BA144	6.787E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA144	3.229E-04	3.372E-31	0.000E+00	0.000E+00	0.000E+00
CE144	1.852E+02	1.852E+02	1.852E+02	1.850E+02	1.848E+02
PR144	7.885E-03	7.825E-03	7.819E-03	7.811E-03	7.801E-03
PR144M	3.913E-05	3.909E-05	3.909E-05	3.905E-05	3.900E-05
ND144	5.196E+02	5.196E+02	5.197E+02	5.198E+02	5.201E+02
BA145	1.978E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA145	1.707E-04	8.331E-42	0.000E+00	0.000E+00	0.000E+00
CE145	1.141E-03	1.306E-09	1.245E-15	0.000E+00	0.000E+00
PR145	1.365E-01	1.228E-01	1.094E-01	3.432E-02	8.541E-03
ND145	3.646E+02	3.646E+02	3.646E+02	3.647E+02	3.647E+02
BA146	2.608E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA146	3.210E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE146	4.350E-03	2.344E-04	1.253E-05	2.391E-18	1.303E-33
PR146	7.443E-03	2.671E-03	5.503E-04	1.997E-11	2.208E-20
ND146	3.732E+02	3.733E+02	3.733E+02	3.733E+02	3.733E+02
PM146	3.077E-03	3.077E-03	3.077E-03	3.076E-03	3.076E-03
SM146	2.809E-03	2.809E-03	2.809E-03	2.810E-03	2.810E-03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
LA147	1.898E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE147	2.783E-04	9.938E-20	3.279E-35	0.000E+00	0.000E+00
PR147	2.943E-03	1.023E-04	3.197E-06	2.839E-21	2.463E-39
ND147	3.910E+00	3.903E+00	3.893E+00	3.793E+00	3.676E+00
PM147	6.867E+01	6.868E+01	6.868E+01	6.876E+01	6.886E+01
SM147	3.440E+01	3.440E+01	3.440E+01	3.442E+01	3.444E+01
CE148	1.259E-04	7.981E-30	0.000E+00	0.000E+00	0.000E+00
PR148	4.507E-04	8.915E-12	1.251E-19	0.000E+00	0.000E+00
ND148	1.985E+02	1.985E+02	1.985E+02	1.985E+02	1.985E+02
PM148	8.392E-01	8.347E-01	8.303E-01	7.871E-01	7.382E-01
PM148M	7.389E-01	7.384E-01	7.379E-01	7.327E-01	7.266E-01
SM148	9.504E+01	9.505E+01	9.505E+01	9.510E+01	9.515E+01
PR149	3.176E-04	4.486E-12	6.294E-20	0.000E+00	0.000E+00
ND149	1.520E-02	1.040E-02	6.966E-03	1.267E-04	1.035E-06
PM149	7.458E-01	7.412E-01	7.350E-01	6.512E-01	5.569E-01
SM149	1.395E+00	1.405E+00	1.415E+00	1.505E+00	1.600E+00
PR150	1.920E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND150	9.271E+01	9.271E+01	9.271E+01	9.271E+01	9.271E+01
PM150	4.322E-04	3.337E-04	2.576E-04	1.940E-05	8.707E-07
SM150	1.669E+02	1.669E+02	1.669E+02	1.669E+02	1.669E+02
PR151	3.467E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND151	9.606E-04	3.370E-05	1.178E-06	3.199E-21	1.061E-38
PM151	1.321E-01	1.298E-01	1.267E-01	9.926E-02	7.405E-02
SM151	8.689E+00	8.692E+00	8.695E+00	8.723E+00	8.748E+00
EU151	6.622E-03	6.630E-03	6.637E-03	6.714E-03	6.806E-03
PR152	3.208E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND152	6.201E-04	1.677E-05	4.509E-07	8.875E-23	1.257E-41
PM152	2.270E-04	9.289E-06	2.502E-07	4.917E-23	7.029E-42
PM152M	7.785E-06	3.041E-08	1.188E-10	0.000E+00	0.000E+00
SM152	6.547E+01	6.547E+01	6.547E+01	6.547E+01	6.547E+01
EU152	2.466E-02	2.466E-02	2.466E-02	2.466E-02	2.466E-02

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EU152M	2.741E-05	2.545E-05	2.362E-05	1.123E-05	4.599E-06
GD152	2.508E-02	2.508E-02	2.508E-02	2.509E-02	2.509E-02
ND153	3.602E-05	3.342E-21	3.010E-37	0.000E+00	0.000E+00
PM153	1.965E-04	1.100E-07	4.972E-11	0.000E+00	0.000E+00
SM153	5.451E-01	5.373E-01	5.294E-01	4.564E-01	3.819E-01
EU153	6.245E+01	6.246E+01	6.247E+01	6.254E+01	6.262E+01
GD153	2.085E-03	2.085E-03	2.085E-03	2.082E-03	2.079E-03
ND154	1.118E-05	9.066E-33	0.000E+00	0.000E+00	0.000E+00
PM154	5.786E-05	2.635E-11	9.336E-18	0.000E+00	0.000E+00
PM154M	6.378E-06	5.893E-16	5.445E-26	0.000E+00	0.000E+00
SM154	1.875E+01	1.875E+01	1.875E+01	1.875E+01	1.875E+01
EU154	1.866E+01	1.866E+01	1.865E+01	1.865E+01	1.865E+01
GD154	1.283E+00	1.283E+00	1.283E+00	1.285E+00	1.287E+00
ND155	2.835E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM155	8.041E-06	4.095E-35	0.000E+00	0.000E+00	0.000E+00
SM155	3.483E-04	5.523E-05	8.484E-06	6.204E-14	1.070E-23
EU155	7.316E+00	7.316E+00	7.316E+00	7.315E+00	7.314E+00
GD155	5.588E-02	5.600E-02	5.612E-02	5.728E-02	5.868E-02
ND156	2.296E-06	6.808E-25	2.186E-43	0.000E+00	0.000E+00
SM156	5.582E-03	5.189E-03	4.820E-03	2.306E-03	9.518E-04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
EU156	1.695E+00	1.692E+00	1.689E+00	1.660E+00	1.624E+00
GD156	2.906E+01	2.906E+01	2.907E+01	2.910E+01	2.914E+01
PM157	4.083E-06	4.830E-22	5.646E-38	0.000E+00	0.000E+00
SM157	5.256E-05	3.170E-07	1.751E-09	0.000E+00	0.000E+00
EU157	9.425E-03	9.060E-03	8.656E-03	5.486E-03	3.174E-03
GD157	5.499E-02	5.541E-02	5.581E-02	5.898E-02	6.129E-02
SM158	1.582E-04	6.148E-05	2.388E-05	1.869E-09	2.207E-14
EU158	1.770E-04	1.308E-04	7.589E-05	3.048E-08	8.984E-13
GD158	8.891E+00	8.891E+00	8.891E+00	8.892E+00	8.892E+00
SM159	4.605E-06	9.633E-13	2.006E-19	0.000E+00	0.000E+00
EU159	3.742E-05	4.307E-06	4.328E-07	4.543E-17	4.816E-29

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GD159	2.990E-03	2.918E-03	2.815E-03	1.940E-03	1.240E-03
TB159	1.232E+00	1.232E+00	1.233E+00	1.233E+00	1.234E+00
SM160	3.627E-06	2.853E-09	2.244E-12	0.000E+00	0.000E+00
GD160	5.992E-01	5.992E-01	5.992E-01	5.992E-01	5.992E-01
TB160	4.532E-02	4.531E-02	4.529E-02	4.511E-02	4.489E-02
DY160	9.974E-02	9.976E-02	9.978E-02	9.996E-02	1.002E-01
TB161	5.723E-03	5.701E-03	5.677E-03	5.445E-03	5.179E-03
DY161	2.018E-01	2.018E-01	2.019E-01	2.021E-01	2.024E-01
GD162	2.240E-06	5.070E-08	7.937E-10	6.884E-28	0.000E+00
DY162	1.652E-01	1.652E-01	1.652E-01	1.652E-01	1.652E-01
TB163	1.895E-06	2.434E-07	2.884E-08	1.576E-17	1.210E-28
DY163	1.393E-01	1.393E-01	1.393E-01	1.393E-01	1.393E-01
DY164	3.435E-02	3.435E-02	3.435E-02	3.435E-02	3.435E-02
DY165	2.977E-05	2.231E-05	1.661E-05	8.697E-07	2.525E-08
HO165	6.309E-02	6.310E-02	6.310E-02	6.312E-02	6.312E-02
DY166	6.669E-05	6.613E-05	6.557E-05	6.022E-05	5.438E-05
HO166	8.674E-05	8.509E-05	8.347E-05	6.915E-05	5.571E-05
HO166M	6.063E-04	6.063E-04	6.063E-04	6.063E-04	6.063E-04
ER166	1.860E-02	1.860E-02	1.860E-02	1.862E-02	1.864E-02
ER167	1.773E-03	1.773E-03	1.773E-03	1.773E-03	1.773E-03
ER168	2.777E-03	2.777E-03	2.777E-03	2.777E-03	2.777E-03
TM169	1.806E-05	1.806E-05	1.806E-05	1.810E-05	1.814E-05
TM170	2.883E-06	2.882E-06	2.882E-06	2.875E-06	2.868E-06
YB170	2.978E-06	2.978E-06	2.979E-06	2.985E-06	2.993E-06
SUMTOT	1.834E+04	1.834E+04	1.834E+04	1.834E+04	1.834E+04
TOTAL	1.834E+04	1.834E+04	1.834E+04	1.834E+04	1.834E+04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	2.966E-02	2.966E-02	2.966E-02	2.966E-02	2.966E-02
LI	1.123E-04	1.123E-04	1.123E-04	1.123E-04	1.123E-04
BE	8.059E-05	8.059E-05	8.059E-05	8.059E-05	8.059E-05
C	1.417E-05	1.417E-05	1.417E-05	1.417E-05	1.417E-05

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ZN	3.262E-03	3.262E-03	3.261E-03	3.256E-03	3.251E-03
GA	2.164E-05	1.969E-05	1.879E-05	1.398E-05	1.186E-05
GE	3.553E-01	3.553E-01	3.552E-01	3.551E-01	3.551E-01
AS	1.076E-01	1.075E-01	1.075E-01	1.072E-01	1.071E-01
SE	3.089E+01	3.089E+01	3.089E+01	3.089E+01	3.089E+01
BR	1.182E+01	1.182E+01	1.182E+01	1.181E+01	1.181E+01
KR	2.058E+02	2.058E+02	2.058E+02	2.058E+02	2.058E+02
RB	1.913E+02	1.913E+02	1.913E+02	1.914E+02	1.914E+02
SR	5.110E+02	5.110E+02	5.110E+02	5.108E+02	5.106E+02
Y	2.652E+02	2.652E+02	2.652E+02	2.651E+02	2.650E+02
ZR	1.951E+03	1.951E+03	1.951E+03	1.951E+03	1.951E+03
NB	2.076E+01	2.076E+01	2.076E+01	2.074E+01	2.073E+01
MO	1.742E+03	1.742E+03	1.742E+03	1.742E+03	1.742E+03
TC	4.134E+02	4.134E+02	4.134E+02	4.136E+02	4.138E+02
RU	1.253E+03	1.253E+03	1.253E+03	1.253E+03	1.252E+03
RH	2.094E+02	2.094E+02	2.094E+02	2.095E+02	2.096E+02
PD	6.071E+02	6.071E+02	6.071E+02	6.073E+02	6.074E+02
AG	3.601E+01	3.601E+01	3.601E+01	3.603E+01	3.604E+01
CD	5.354E+01	5.354E+01	5.354E+01	5.355E+01	5.356E+01
IN	1.096E+00	1.096E+00	1.096E+00	1.098E+00	1.101E+00
SN	4.615E+01	4.615E+01	4.615E+01	4.614E+01	4.614E+01
SB	1.622E+01	1.621E+01	1.620E+01	1.617E+01	1.615E+01
TE	2.511E+02	2.510E+02	2.510E+02	2.508E+02	2.506E+02
I	1.248E+02	1.247E+02	1.247E+02	1.242E+02	1.239E+02
XE	2.807E+03	2.807E+03	2.807E+03	2.808E+03	2.808E+03
CS	1.511E+03	1.511E+03	1.511E+03	1.512E+03	1.512E+03
BA	7.616E+02	7.616E+02	7.616E+02	7.614E+02	7.611E+02
LA	6.619E+02	6.619E+02	6.618E+02	6.617E+02	6.617E+02
CE	1.477E+03	1.477E+03	1.477E+03	1.476E+03	1.476E+03
PR	5.888E+02	5.888E+02	5.888E+02	5.889E+02	5.891E+02
ND	2.000E+03	2.000E+03	2.000E+03	2.000E+03	2.001E+03
PM	7.113E+01	7.112E+01	7.112E+01	7.104E+01	7.095E+01
SM	3.912E+02	3.912E+02	3.912E+02	3.913E+02	3.914E+02
EU	9.016E+01	9.017E+01	9.017E+01	9.021E+01	9.024E+01
GD	3.997E+01	3.998E+01	3.998E+01	4.002E+01	4.006E+01
TB	1.283E+00	1.283E+00	1.283E+00	1.284E+00	1.284E+00
DY	6.405E-01	6.405E-01	6.405E-01	6.409E-01	6.414E-01
HO	6.378E-02	6.379E-02	6.379E-02	6.379E-02	6.378E-02
ER	2.315E-02	2.315E-02	2.315E-02	2.317E-02	2.319E-02
TM	2.119E-05	2.119E-05	2.119E-05	2.122E-05	2.125E-05
YB	3.142E-06	3.143E-06	3.143E-06	3.150E-06	3.158E-06
SUMTOT	1.834E+04	1.834E+04	1.834E+04	1.834E+04	1.834E+04
TOTAL	1.834E+04	1.834E+04	1.834E+04	1.834E+04	1.834E+04

CUMULATIVE TABLE TOTALS

AP+FP	2.152E+05	2.152E+05	2.152E+05	2.152E+05	2.152E+05
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ACT+FP 4.615E+05 4.615E+05 4.615E+05 4.615E+05 4.615E+05
AP+ACT+FP 6.583E+05 6.583E+05 6.583E+05 6.583E+05 6.583E+05

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	2.864E+02	2.864E+02	2.864E+02	2.863E+02	2.863E+02
ZN 69	9.154E-03	4.723E-03	2.571E-03	3.627E-04	1.973E-04
CO 72	7.616E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 72	1.465E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 72	2.873E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 72	3.375E+01	3.325E+01	3.276E+01	2.822E+01	2.360E+01
GA 72	3.386E+01	3.384E+01	3.380E+01	3.242E+01	2.939E+01
CO 73	2.438E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 73	1.208E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 73	3.801E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 73	6.386E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 73	6.721E+01	5.839E+01	5.066E+01	1.224E+01	2.227E+00
GE 73M	6.726E+01	5.839E+01	5.066E+01	1.224E+01	2.227E+00
CO 74	4.797E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 74	7.461E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 74	5.159E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 74	1.214E+02	4.764E-10	1.864E-21	0.000E+00	0.000E+00
GA 74	1.297E+02	9.382E-01	5.526E-03	0.000E+00	0.000E+00
NI 75	3.009E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 75	5.098E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 75	2.237E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 75	2.686E+02	8.984E-08	2.801E-17	0.000E+00	0.000E+00
GE 75	2.719E+02	1.687E+02	1.021E+02	6.724E-01	1.622E-03
GE 75M	1.232E+01	6.293E-09	1.962E-18	0.000E+00	0.000E+00
NI 76	7.791E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 76	3.859E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 76	3.844E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 76	5.811E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 76	1.950E+01	1.899E+01	1.850E+01	1.421E+01	1.036E+01

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NI 77	1.320E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 77	1.772E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 77	4.241E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 77	1.049E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 77	4.729E+02	4.451E+02	4.186E+02	2.267E+02	1.086E+02
GE 77M	1.039E+03	1.480E-17	0.000E+00	0.000E+00	0.000E+00
AS 77	1.299E+03	1.284E+03	1.269E+03	1.112E+03	9.283E+02
SE 77M	3.625E+00	3.186E+00	3.148E+00	2.759E+00	2.302E+00
NI 78	1.529E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 78	6.342E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 78	4.166E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 78	1.835E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 78	2.866E+03	1.778E+03	1.102E+03	9.253E+00	2.985E-02
AS 78	2.949E+03	2.687E+03	2.209E+03	6.938E+01	4.679E-01
CU 79	1.802E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 79	2.644E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 79	2.042E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 79	5.984E+03	3.847E-22	0.000E+00	0.000E+00	0.000E+00
AS 79	7.035E+03	7.446E+01	7.329E-01	6.257E-21	0.000E+00
SE 79	2.221E-01	2.221E-01	2.221E-01	2.221E-01	2.221E-01
SE 79M	7.057E+03	1.310E+02	1.294E+00	1.102E-20	0.000E+00
BR 79M	8.984E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES

17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
CU 80	1.909E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 80	9.603E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 80	2.055E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 80	1.179E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 80	1.524E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 80	4.253E-01	2.627E-01	2.153E-01	4.464E-02	6.797E-03
BR 80M	2.739E-01	2.341E-01	2.001E-01	4.171E-02	6.351E-03
CU 81	1.399E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 81	2.179E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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GA 81	1.196E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 81	1.406E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 81	2.384E+04	4.134E-30	0.000E+00	0.000E+00	0.000E+00
SE 81	2.562E+04	3.187E+03	5.263E+02	1.710E-01	2.821E-05
SE 81M	7.019E+02	3.397E+02	1.644E+02	1.158E-01	1.910E-05
KR 81M	1.675E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 82	2.817E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 82	4.402E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 82	1.213E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82	2.076E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82M	8.598E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 82	2.988E+03	2.933E+03	2.876E+03	2.364E+03	1.868E+03
BR 82M	1.152E+03	1.303E+00	1.469E-03	0.000E+00	0.000E+00
ZN 83	2.618E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 83	1.210E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 83	8.701E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 83	3.685E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 83	2.256E+04	3.576E+03	5.631E+02	5.286E-06	1.231E-15
SE 83M	3.370E+04	1.304E-11	4.304E-27	0.000E+00	0.000E+00
BR 83	5.751E+04	4.576E+04	3.464E+04	1.911E+03	5.886E+01
KR 83M	5.764E+04	5.571E+04	5.064E+04	5.944E+03	2.277E+02
GA 84	1.513E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 84	2.704E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 84	2.961E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 84	9.530E+04	3.237E-01	1.089E-06	0.000E+00	0.000E+00
BR 84	9.885E+04	2.974E+04	8.043E+03	1.681E-02	2.569E-09
BR 84M	3.668E+03	3.582E+00	3.498E-03	0.000E+00	0.000E+00
GE 85	6.841E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 85	1.739E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 85	5.513E+04	9.122E-24	0.000E+00	0.000E+00	0.000E+00
SE 85M	4.087E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 85	1.187E+05	7.016E-02	3.511E-08	0.000E+00	0.000E+00
KR 85	5.172E+03	5.173E+03	5.173E+03	5.173E+03	5.173E+03
KR 85M	1.204E+05	1.044E+05	8.940E+04	1.903E+04	2.973E+03
GE 86	1.292E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 86	9.255E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 86	1.076E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 86	8.472E+04	2.138E-15	0.000E+00	0.000E+00	0.000E+00
BR 86M	8.512E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 86	1.150E+03	1.148E+03	1.147E+03	1.129E+03	1.108E+03
RB 86M	1.202E+02	2.174E-16	5.179E-34	0.000E+00	0.000E+00
GE 87	1.807E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
AS 87	4.609E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 87	8.675E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 87	1.930E+05	7.683E-15	2.834E-34	0.000E+00	0.000E+00
KR 87	2.293E+05	1.344E+05	7.792E+04	3.345E+02	4.821E-01
SR 87M	3.459E+00	2.702E+00	2.111E+00	1.784E-01	9.202E-03
GE 88	6.799E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 88	3.625E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 88	3.260E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 88	2.046E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 88	3.225E+05	2.529E+05	1.981E+05	1.724E+04	9.205E+02
RB 88	3.281E+05	2.792E+05	2.209E+05	1.925E+04	1.028E+03
AS 89	3.792E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 89	9.350E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 89	1.417E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 89	3.911E+05	7.903E-01	1.585E-06	0.000E+00	0.000E+00
RB 89	4.196E+05	3.393E+04	2.200E+03	2.881E-09	1.586E-23
SR 89	4.452E+05	4.451E+05	4.448E+05	4.423E+05	4.393E+05
Y 89M	2.544E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 90	2.856E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 90	9.007E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 90	3.862E+05	1.151E-28	0.000E+00	0.000E+00	0.000E+00
RB 90	4.060E+05	7.544E-01	4.339E-05	0.000E+00	0.000E+00
RB 90M	9.654E+04	6.515E+00	4.106E-04	0.000E+00	0.000E+00
SR 90	4.079E+04	4.079E+04	4.079E+04	4.078E+04	4.078E+04
Y 90	4.265E+04	4.263E+04	4.261E+04	4.242E+04	4.222E+04
Y 90M	8.451E+00	6.758E+00	5.404E+00	5.776E-01	3.948E-02
SE 91	4.161E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 91	3.112E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 91	2.867E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 91	5.086E+05	1.340E-13	3.207E-32	0.000E+00	0.000E+00
SR 91	5.473E+05	5.096E+05	4.738E+05	2.284E+05	9.516E+04
Y 91	5.785E+05	5.784E+05	5.784E+05	5.773E+05	5.748E+05
Y 91M	3.177E+05	3.105E+05	2.953E+05	1.452E+05	6.047E+04
SE 92	2.196E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 92	3.348E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 92	1.411E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 92	4.454E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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SR 92	5.969E+05	4.624E+05	3.580E+05	2.774E+04	1.289E+03
Y 92	5.998E+05	5.864E+05	5.544E+05	1.526E+05	1.898E+04
BR 93	6.007E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 93	5.181E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 93	3.386E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 93	6.807E+05	2.677E+03	1.045E+01	0.000E+00	0.000E+00
Y 93	6.985E+05	6.602E+05	6.164E+05	3.103E+05	1.362E+05
ZR 93	9.957E-01	9.958E-01	9.958E-01	9.960E-01	9.962E-01
NB 93M	7.522E-02	7.523E-02	7.523E-02	7.528E-02	7.534E-02
BR 94	5.025E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 94	1.848E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 94	1.780E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 94	6.439E+05	3.006E-09	1.391E-23	0.000E+00	0.000E+00
Y 94	7.073E+05	8.536E+04	9.675E+03	3.382E-06	1.519E-17

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
NB 94M	5.662E-01	7.374E-04	9.593E-07	0.000E+00	0.000E+00
BR 95	4.005E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 95	2.410E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 95	8.852E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 95	5.973E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 95	7.639E+05	1.504E+04	2.865E+02	1.801E-15	0.000E+00
ZR 95	8.027E+05	8.024E+05	8.021E+05	7.985E+05	7.942E+05
NB 95	8.101E+05	8.101E+05	8.101E+05	8.101E+05	8.099E+05
NB 95M	5.725E+03	5.724E+03	5.724E+03	5.714E+03	5.701E+03
BR 96	2.115E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 96	3.728E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 96	2.546E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 96	4.134E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 96	7.252E+05	1.035E-02	1.452E-10	0.000E+00	0.000E+00
NB 96	1.668E+03	1.619E+03	1.572E+03	1.168E+03	8.180E+02
KR 97	2.197E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 97	4.882E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ML041000030.txt

SR 97	2.182E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 97	6.249E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 97	7.933E+05	7.615E+05	7.309E+05	4.850E+05	2.965E+05
NB 97	8.006E+05	7.881E+05	7.675E+05	5.211E+05	2.985E+05
NB 97M	7.524E+05	7.213E+05	6.923E+05	4.594E+05	2.808E+05
KR 98	2.545E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 98	1.075E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 98	8.593E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 98	4.434E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 98	8.010E+05	8.894E-30	0.000E+00	0.000E+00	0.000E+00
NB 98	8.153E+05	9.778E-30	0.000E+00	0.000E+00	0.000E+00
NB 98M	8.257E+03	3.682E+03	1.642E+03	5.108E-01	3.160E-05
RB 99	1.065E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 99	2.349E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 99	2.528E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 99	7.925E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99	8.258E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99M	3.399E+04	3.841E-03	4.341E-10	0.000E+00	0.000E+00
MO 99	8.975E+05	8.882E+05	8.789E+05	7.913E+05	6.976E+05
TC 99	7.009E+00	7.009E+00	7.009E+00	7.013E+00	7.016E+00
TC 99M	7.858E+05	7.853E+05	7.840E+05	7.425E+05	6.671E+05
RB100	9.212E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR100	4.584E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y100	1.133E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR100	7.298E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100	4.605E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100M	4.605E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC100	2.407E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR101	6.463E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y101	3.669E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR101	4.657E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB101	7.591E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	8.135E+05	4.777E+04	2.778E+03	1.229E-09	1.839E-24
TC101	8.137E+05	1.777E+05	1.730E+04	2.764E-08	5.575E-23

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
SR102	5.906E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y102	8.987E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR102	2.619E+05	3.316E-33	0.000E+00	0.000E+00	0.000E+00
NB102	6.419E+05	5.272E-33	0.000E+00	0.000E+00	0.000E+00
MO102	7.732E+05	1.859E+04	4.386E+02	2.345E-14	6.887E-34
TC102	7.742E+05	1.874E+04	4.421E+02	2.364E-14	0.000E+00
TC102M	9.230E+02	6.501E-02	4.580E-06	0.000E+00	0.000E+00
RH102	5.240E-01	5.240E-01	5.239E-01	5.238E-01	5.236E-01
SR103	1.960E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y103	1.287E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR103	9.599E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB103	4.436E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO103	7.441E+05	7.849E-13	6.809E-31	0.000E+00	0.000E+00
TC103	7.560E+05	4.708E-12	4.085E-30	0.000E+00	0.000E+00
RU103	7.601E+05	7.596E+05	7.590E+05	7.535E+05	7.469E+05
RH103M	6.846E+05	6.845E+05	6.841E+05	6.797E+05	6.734E+05
SR104	7.977E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y104	1.139E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR104	2.222E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB104	2.104E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO104	5.916E+05	3.060E-06	1.574E-17	0.000E+00	0.000E+00
TC104	6.334E+05	7.029E+04	7.153E+03	8.520E-07	1.051E-18
RH104	4.872E+05	2.620E+00	1.805E-04	0.000E+00	0.000E+00
RH104M	3.188E+04	2.197E+00	1.514E-04	0.000E+00	0.000E+00
Y105	5.855E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR105	2.998E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB105	7.060E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO105	4.179E+05	3.589E-15	0.000E+00	0.000E+00	0.000E+00
TC105	5.170E+05	3.150E+03	1.740E+01	0.000E+00	0.000E+00
RU105	5.268E+05	4.656E+05	3.984E+05	8.359E+04	1.283E+04
RH105	4.852E+05	4.855E+05	4.845E+05	4.333E+05	3.501E+05
RH105M	1.475E+05	1.307E+05	1.119E+05	2.347E+04	3.603E+03
ZR106	3.520E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB106	1.861E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO106	2.222E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC106	3.608E+05	2.222E-24	0.000E+00	0.000E+00	0.000E+00
RU106	2.564E+05	2.564E+05	2.564E+05	2.562E+05	2.559E+05
RH106	2.852E+05	2.564E+05	2.564E+05	2.562E+05	2.559E+05
RH106M	1.315E+04	9.596E+03	7.003E+03	2.999E+02	6.839E+00
ZR107	1.608E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB107	2.839E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO107	8.030E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC107	1.973E+05	9.271E-33	0.000E+00	0.000E+00	0.000E+00
RU107	3.040E+05	1.662E+01	8.324E-04	0.000E+00	0.000E+00
RH107	3.056E+05	5.668E+04	8.340E+03	3.960E-05	4.070E-15

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PD107	5.373E-02	5.374E-02	5.374E-02	5.374E-02	5.374E-02
PD107M	3.773E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR108	4.556E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB108	6.042E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO108	2.317E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC108	1.150E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00

□

OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
RU108	2.094E+05	2.053E+01	1.989E-03	0.000E+00	0.000E+00
RH108	2.114E+05	2.189E+01	2.121E-03	0.000E+00	0.000E+00
RH108M	2.010E+03	1.746E+00	1.516E-03	0.000E+00	0.000E+00
AG108	7.524E-01	1.251E-06	1.233E-06	1.233E-06	1.233E-06
ZR109	3.335E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB109	1.169E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO109	7.383E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC109	5.350E+04	3.023E-17	0.000E+00	0.000E+00	0.000E+00
RU109	1.293E+05	9.635E-17	0.000E+00	0.000E+00	0.000E+00
RH109	1.346E+05	4.902E-07	4.459E-19	0.000E+00	0.000E+00
RH109M	6.731E+04	1.537E-15	0.000E+00	0.000E+00	0.000E+00
PD109	1.643E+05	1.571E+05	1.492E+05	8.915E+04	4.806E+04
PD109M	6.778E+04	1.918E+01	2.702E-03	0.000E+00	0.000E+00
AG109M	1.643E+05	1.571E+05	1.492E+05	8.918E+04	4.807E+04
NB110	1.322E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO110	1.466E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC110	1.328E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU110	5.644E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH110	6.081E+04	5.454E-33	0.000E+00	0.000E+00	0.000E+00
RH110M	4.368E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG110	7.858E+04	2.640E+01	2.640E+01	2.637E+01	2.633E+01
AG110M	1.985E+03	1.985E+03	1.985E+03	1.982E+03	1.980E+03
NB111	1.122E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO111	2.999E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC111	4.290E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ML041000030.txt

RU111	2.480E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH111	3.373E+04	2.632E-13	1.654E-30	0.000E+00	0.000E+00
PD111	3.465E+04	5.812E+03	1.123E+03	8.388E+01	1.849E+01
PD111M	5.219E+02	4.605E+02	4.060E+02	1.151E+02	2.537E+01
AG111	3.505E+04	3.498E+04	3.486E+04	3.354E+04	3.202E+04
AG111M	3.468E+04	6.202E+03	1.289E+03	1.202E+02	2.649E+01
CD111M	1.377E+01	5.862E+00	2.496E+00	4.880E-04	1.729E-08
MO112	5.476E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC112	1.437E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU112	1.068E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH112	1.698E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD112	1.817E+04	1.756E+04	1.696E+04	1.202E+04	7.944E+03
AG112	1.823E+04	1.816E+04	1.798E+04	1.400E+04	9.393E+03
MO113	3.892E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC113	3.797E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU113	5.705E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH113	1.193E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD113	1.435E+04	1.333E-08	1.212E-20	0.000E+00	0.000E+00
AG113	1.294E+04	1.141E+04	1.001E+04	2.706E+03	5.633E+02
AG113M	1.455E+03	4.999E-09	4.546E-21	0.000E+00	0.000E+00
CD113M	2.813E+01	2.813E+01	2.813E+01	2.813E+01	2.813E+01
MO114	3.977E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC114	8.514E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU114	2.560E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH114	6.867E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD114	9.899E+03	3.003E-04	8.949E-12	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
AG114	1.004E+04	3.100E-04	9.239E-12	0.000E+00	0.000E+00
IN114	4.122E+00	1.480E+00	1.479E+00	1.470E+00	1.460E+00
IN114M	1.547E+00	1.546E+00	1.545E+00	1.536E+00	1.526E+00
MO115	2.662E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC115	1.793E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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RU115	1.197E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH115	5.171E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD115	9.445E+03	3.165E-25	0.000E+00	0.000E+00	0.000E+00
AG115	7.081E+03	9.158E+02	1.145E+02	1.066E-07	1.551E-18
AG115M	2.728E+03	1.546E-25	0.000E+00	0.000E+00	0.000E+00
CD115	9.353E+03	9.271E+03	9.157E+03	8.044E+03	6.885E+03
CD115M	8.923E+02	8.918E+02	8.912E+02	8.855E+02	8.786E+02
IN115M	9.371E+03	9.363E+03	9.341E+03	8.624E+03	7.470E+03
TC116	1.111E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU116	2.670E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH116	2.458E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD116	7.152E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG116	3.996E+03	7.917E-04	1.442E-10	0.000E+00	0.000E+00
AG116M	3.996E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116	5.577E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	4.062E+03	1.884E+03	8.742E+02	4.037E-01	4.013E-05
TC117	4.730E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU117	3.994E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH117	1.384E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD117	6.342E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG117	3.924E+03	6.533E-12	1.024E-26	0.000E+00	0.000E+00
AG117M	3.923E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD117	5.205E+03	4.008E+03	3.070E+03	2.135E+02	8.710E+00
CD117M	2.825E+03	2.309E+03	1.883E+03	2.452E+02	2.124E+01
IN117	4.806E+03	4.645E+03	4.262E+03	6.216E+02	4.302E+01
IN117M	6.084E+03	5.866E+03	5.353E+03	8.137E+02	5.065E+01
SN117M	5.075E+01	5.064E+01	5.054E+01	4.951E+01	4.830E+01
RU118	2.615E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH118	2.043E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD118	5.201E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG118	5.219E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG118M	3.584E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD118	7.917E+03	3.470E+03	1.518E+03	3.894E-01	1.912E-05
IN118	7.920E+03	3.476E+03	1.520E+03	3.901E-01	1.915E-05
IN118M	3.335E+00	2.913E-04	2.544E-08	0.000E+00	0.000E+00
RH119	1.650E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD119	3.802E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG119	7.197E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD119	3.942E+03	4.777E+01	5.724E-01	3.492E-20	0.000E+00
CD119M	3.942E+03	9.234E-03	2.095E-08	0.000E+00	0.000E+00
IN119	2.270E+03	5.796E+01	6.051E+00	5.658E-10	5.146E-22
IN119M	5.916E+03	1.011E+03	1.048E+02	9.745E-09	8.863E-21
SN119M	1.148E+02	1.148E+02	1.148E+02	1.146E+02	1.145E+02
RU120	5.470E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH120	2.491E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD120	1.422E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
AG120	4.944E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD120	7.767E+03	3.725E-18	0.000E+00	0.000E+00	0.000E+00
IN120	3.965E+03	1.477E-17	0.000E+00	0.000E+00	0.000E+00
IN120M	3.965E+03	1.983E-18	0.000E+00	0.000E+00	0.000E+00
RH121	3.932E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD121	5.548E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG121	3.428E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD121	7.677E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121	6.538E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121M	1.633E+03	5.855E-03	1.969E-08	0.000E+00	0.000E+00
SN121	8.190E+03	7.987E+03	7.783E+03	6.010E+03	4.406E+03
SN121M	1.032E-01	1.032E-01	1.032E-01	1.032E-01	1.032E-01
RH122	4.761E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD122	1.700E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG122	2.120E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD122	7.343E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN122	7.912E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN122M	5.711E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB122	1.206E+03	1.194E+03	1.181E+03	1.061E+03	9.333E+02
SB122M	9.484E+00	4.749E-04	2.378E-08	0.000E+00	0.000E+00
RH123	4.064E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD123	3.847E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG123	1.107E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD123	6.976E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN123	6.518E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN123M	2.746E+03	8.186E-20	0.000E+00	0.000E+00	0.000E+00
SN123	1.797E+03	1.797E+03	1.796E+03	1.792E+03	1.788E+03
SN123M	7.693E+03	2.749E+03	9.740E+02	3.037E-02	1.189E-07
TE123M	8.398E+00	8.396E+00	8.394E+00	8.373E+00	8.349E+00
PD124	7.174E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG124	5.038E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD124	6.360E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN124	1.051E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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SB124	7.542E+02	7.539E+02	7.535E+02	7.499E+02	7.456E+02
SB124M	5.652E+00	1.257E-11	2.797E-23	0.000E+00	0.000E+00
AG125	1.560E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD125	4.550E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN125	6.710E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN125M	4.919E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN125	6.755E+03	6.735E+03	6.715E+03	6.517E+03	6.287E+03
SN125M	1.092E+04	1.400E+02	1.774E+00	1.890E-19	0.000E+00
SB125	7.086E+03	7.086E+03	7.086E+03	7.086E+03	7.086E+03
TE125M	1.492E+03	1.492E+03	1.492E+03	1.493E+03	1.494E+03
PD126	1.062E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG126	4.830E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD126	3.378E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN126	1.502E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN126	3.966E-01	3.966E-01	3.966E-01	3.966E-01	3.966E-01
SB126	5.974E+02	5.960E+02	5.947E+02	5.810E+02	5.649E+02
SB126M	2.467E+02	2.799E+01	3.489E+00	3.966E-01	3.966E-01
CD127	1.881E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
IN127	8.812E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN127M	8.818E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN127	3.384E+04	2.433E+04	1.749E+04	6.448E+02	1.228E+01
SN127M	1.622E+04	6.925E-01	2.956E-05	0.000E+00	0.000E+00
SB127	5.350E+04	5.332E+04	5.308E+04	4.961E+04	4.535E+04
TE127	5.289E+04	5.289E+04	5.287E+04	5.182E+04	4.920E+04
TE127M	6.955E+03	6.956E+03	6.956E+03	6.956E+03	6.955E+03
XE127	2.711E-02	2.709E-02	2.706E-02	2.685E-02	2.660E-02
AG128	1.995E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD128	7.153E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN128	1.440E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN128	7.982E+04	3.945E+04	1.950E+04	1.693E+01	3.590E-03
SB128	7.327E+03	6.785E+03	6.282E+03	2.911E+03	1.157E+03

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SB128M	8.692E+04	4.771E+04	2.367E+04	2.055E+01	4.358E-03
I128	6.621E+03	1.253E+03	2.371E+02	1.398E-05	2.951E-14
CD129	2.920E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN129	1.193E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN129	5.348E+04	2.089E+02	8.164E-01	0.000E+00	0.000E+00
SN129M	6.060E+04	3.614E-03	2.154E-10	0.000E+00	0.000E+00
SB129	1.574E+05	1.359E+05	1.158E+05	2.326E+04	3.391E+03
TE129	1.550E+05	1.492E+05	1.376E+05	4.266E+04	1.898E+04
TE129M	2.328E+04	2.328E+04	2.327E+04	2.314E+04	2.291E+04
I129	1.636E-02	1.637E-02	1.637E-02	1.637E-02	1.637E-02
XE129M	3.344E+00	3.332E+00	3.320E+00	3.202E+00	3.066E+00
CD130	2.609E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN130	1.293E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN130	1.702E+05	2.377E+00	3.317E-05	0.000E+00	0.000E+00
SB130	5.137E+04	1.816E+04	6.422E+03	1.960E-01	7.476E-07
SB130M	2.263E+05	6.374E+02	8.712E-01	0.000E+00	0.000E+00
I130	1.857E+04	1.763E+04	1.667E+04	9.514E+03	4.854E+03
I130M	7.326E+03	7.211E+01	7.098E-01	6.060E-21	0.000E+00
CD131	4.149E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN131	4.671E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN131	1.480E+05	9.304E-13	5.847E-30	0.000E+00	0.000E+00
SB131	3.987E+05	6.652E+04	1.091E+04	1.530E-04	5.770E-14
TE131	4.251E+05	2.040E+05	6.905E+04	1.203E+04	9.114E+03
TE131M	7.013E+04	6.882E+04	6.729E+04	5.342E+04	4.048E+04
I131	4.806E+05	4.802E+05	4.792E+05	4.645E+05	4.469E+05
XE131M	5.349E+03	5.349E+03	5.349E+03	5.347E+03	5.338E+03
CD132	3.770E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN132	1.184E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN132	7.888E+04	6.372E-23	0.000E+00	0.000E+00	0.000E+00
SB132	2.345E+05	9.183E-02	3.253E-08	0.000E+00	0.000E+00
SB132M	1.551E+05	7.765E+00	3.888E-04	0.000E+00	0.000E+00
TE132	6.797E+05	6.740E+05	6.680E+05	6.114E+05	5.497E+05
I132	6.910E+05	6.873E+05	6.831E+05	6.296E+05	5.663E+05
CS132	1.288E+02	1.282E+02	1.277E+02	1.221E+02	1.157E+02
IN133	1.327E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN133	2.360E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB133	2.706E+05	8.071E-03	2.405E-10	0.000E+00	0.000E+00
TE133	5.675E+05	4.795E+04	1.379E+04	7.178E+00	8.785E-04

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N

/CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
 17X17 PWR ASSEMBLY, 4.236% UO₂, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
TE133M	3.495E+05	1.651E+05	7.794E+04	4.281E+01	5.239E-03
I133	9.687E+05	9.507E+05	9.237E+05	6.646E+05	4.455E+05
I133M	3.031E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE133	9.697E+05	9.696E+05	9.695E+05	9.601E+05	9.345E+05
XE133M	3.044E+04	3.040E+04	3.036E+04	2.940E+04	2.740E+04
IN134	7.522E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN134	3.256E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134	4.507E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134M	4.182E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE134	7.863E+05	2.909E+05	1.075E+05	5.135E+00	3.352E-05
I134	1.060E+06	7.396E+05	4.298E+05	2.917E+02	2.348E-02
I134M	1.063E+05	1.396E+00	1.834E-05	0.000E+00	0.000E+00
XE134M	7.458E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS134	9.125E+04	9.124E+04	9.124E+04	9.121E+04	9.117E+04
CS134M	2.728E+04	2.148E+04	1.691E+04	1.549E+03	8.801E+01
SN135	3.657E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB135	2.502E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE135	4.132E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	9.056E+05	8.157E+05	7.345E+05	2.574E+05	7.316E+04
XE135	2.462E+05	2.928E+05	3.285E+05	3.813E+05	2.329E+05
XE135M	1.924E+05	1.338E+05	1.179E+05	4.124E+04	1.172E+04
CS135	2.385E-01	2.385E-01	2.385E-01	2.387E-01	2.388E-01
CS135M	1.570E+04	7.163E+03	3.268E+03	1.278E+00	1.040E-04
BA135M	5.752E+01	5.615E+01	5.481E+01	4.305E+01	3.221E+01
SN136	3.194E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB136	4.885E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE136	2.168E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I136	4.270E+05	4.388E-08	3.851E-21	0.000E+00	0.000E+00
I136M	2.530E+05	6.987E-19	0.000E+00	0.000E+00	0.000E+00
CS136	3.077E+04	3.070E+04	3.063E+04	2.996E+04	2.918E+04
BA136M	5.070E+03	5.059E+03	5.048E+03	4.938E+03	4.809E+03
SB137	7.197E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE137	6.055E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I137	4.149E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE137	8.438E+05	1.717E+01	3.302E-04	0.000E+00	0.000E+00
CS137	5.566E+04	5.566E+04	5.566E+04	5.566E+04	5.566E+04
BA137M	5.276E+04	5.267E+04	5.265E+04	5.265E+04	5.265E+04
SB138	8.926E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE138	1.494E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I138	2.050E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	7.903E+05	4.207E+04	2.235E+03	4.007E-10	2.028E-25

ML041000030.txt

CS138	8.787E+05	3.803E+05	1.119E+05	2.794E-01	5.189E-08
CS138M	4.238E+04	2.506E-02	1.482E-08	0.000E+00	0.000E+00
SB139	6.575E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE139	2.892E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I139	9.082E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE139	6.153E+05	2.277E-22	0.000E+00	0.000E+00	0.000E+00
CS139	8.318E+05	1.053E+04	1.261E+02	7.693E-18	0.000E+00
BA139	8.596E+05	5.867E+05	3.556E+05	2.328E+03	5.566E+00
TE140	3.538E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I140	2.540E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

6 PAGE 197
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
 17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
XE140	3.992E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS140	7.483E+05	8.848E-12	9.138E-29	0.000E+00	0.000E+00
BA140	8.283E+05	8.265E+05	8.247E+05	8.062E+05	7.847E+05
LA140	8.560E+05	8.555E+05	8.550E+05	8.487E+05	8.387E+05
PR140	1.120E+01	5.266E-05	2.475E-10	0.000E+00	0.000E+00
TE141	1.599E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I141	4.180E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE141	1.391E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS141	5.547E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA141	7.803E+05	8.142E+04	8.355E+03	1.082E-06	1.475E-18
LA141	7.841E+05	7.064E+05	5.972E+05	1.025E+05	1.235E+04
CE141	7.982E+05	7.981E+05	7.980E+05	7.934E+05	7.855E+05
TE142	1.698E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I142	5.976E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE142	4.772E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS142	3.342E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA142	7.380E+05	1.516E+04	3.109E+02	4.096E-15	2.464E-35
LA142	7.560E+05	5.423E+05	3.475E+05	3.914E+03	1.798E+01
PR142	4.141E+04	4.003E+04	3.862E+04	2.688E+04	1.740E+04
PR142M	8.114E+03	4.700E+02	2.723E+01	1.159E-11	1.654E-26
I143	3.916E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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XE143	7.982E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS143	1.630E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA143	6.440E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA143	7.187E+05	3.741E+04	1.918E+03	2.407E-10	7.943E-26
CE143	7.234E+05	7.132E+05	6.986E+05	5.663E+05	4.401E+05
PR143	7.187E+05	7.187E+05	7.187E+05	7.168E+05	7.114E+05
I144	3.175E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE144	1.391E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS144	4.667E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA144	4.836E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA144	6.327E+05	6.607E-22	0.000E+00	0.000E+00	0.000E+00
CE144	5.911E+05	5.910E+05	5.909E+05	5.903E+05	5.896E+05
PR144	5.960E+05	5.915E+05	5.910E+05	5.904E+05	5.896E+05
PR144M	7.100E+03	7.092E+03	7.091E+03	7.084E+03	7.076E+03
XE145	1.496E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS145	1.172E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA145	2.483E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA145	4.583E+05	2.236E-32	0.000E+00	0.000E+00	0.000E+00
CE145	4.935E+05	5.647E-01	5.385E-07	0.000E+00	0.000E+00
PR145	4.937E+05	4.440E+05	3.954E+05	1.241E+05	3.088E+04
XE146	9.650E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS146	1.702E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA146	9.164E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA146	2.990E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE146	3.947E+05	2.127E+04	1.137E+03	2.169E-10	1.182E-25
PR146	3.963E+05	1.422E+05	2.930E+04	1.063E-03	1.176E-12
PM146	1.370E+00	1.370E+00	1.370E+00	1.370E+00	1.370E+00
XE147	8.499E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS147	2.779E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA147	2.106E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

ASSY DIS 1.0HR 2.0HR 12.0HR 24.0HR

LA147 1.457E+05 0.000E+00 0.000E+00 0.000E+00 0.000E+00

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CE147	3.053E+05	1.090E-10	3.597E-26	0.000E+00	0.000E+00
PR147	3.139E+05	1.091E+04	3.409E+02	3.028E-13	2.626E-31
ND147	3.142E+05	3.136E+05	3.128E+05	3.047E+05	2.953E+05
PM147	6.368E+04	6.369E+04	6.370E+04	6.377E+04	6.386E+04
CS148	1.790E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA148	3.685E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA148	5.457E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE148	2.233E+05	1.415E-20	0.000E+00	0.000E+00	0.000E+00
PR148	2.491E+05	4.927E-03	6.912E-11	0.000E+00	0.000E+00
PM148	1.379E+05	1.372E+05	1.365E+05	1.294E+05	1.213E+05
PM148M	1.579E+04	1.578E+04	1.577E+04	1.566E+04	1.553E+04
BA149	4.151E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA149	1.351E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE149	1.238E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR149	1.743E+05	2.463E-03	3.455E-11	0.000E+00	0.000E+00
ND149	1.848E+05	1.265E+05	8.472E+04	1.542E+03	1.259E+01
PM149	2.956E+05	2.938E+05	2.913E+05	2.581E+05	2.207E+05
CS150	1.678E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA150	3.100E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA150	2.578E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE150	5.712E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR150	1.165E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM150	3.370E+03	2.602E+03	2.009E+03	1.513E+02	6.790E+00
LA151	3.261E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE151	1.705E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR151	6.478E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND151	9.650E+04	3.385E+03	1.183E+02	3.214E-13	1.066E-30
PM151	9.660E+04	9.494E+04	9.267E+04	7.260E+04	5.416E+04
SM151	2.287E+02	2.288E+02	2.288E+02	2.296E+02	2.302E+02
BA152	8.199E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA152	3.646E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE152	3.727E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR152	2.864E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND152	6.673E+04	1.805E+03	4.852E+01	9.550E-15	1.352E-33
PM152	6.850E+04	2.804E+03	7.552E+01	1.484E-14	2.122E-33
PM152M	1.285E+03	5.018E+00	1.960E-02	0.000E+00	0.000E+00
EU152	4.266E+00	4.266E+00	4.266E+00	4.266E+00	4.266E+00
EU152M	6.067E+01	5.632E+01	5.228E+01	2.485E+01	1.018E+01
LA153	3.765E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE153	6.490E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR153	9.070E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND153	3.934E+04	3.651E-12	3.288E-28	0.000E+00	0.000E+00
PM153	4.475E+04	2.504E+01	1.132E-02	0.000E+00	0.000E+00
SM153	2.392E+05	2.358E+05	2.323E+05	2.003E+05	1.676E+05
GD153	7.357E+00	7.356E+00	7.355E+00	7.346E+00	7.336E+00
LA154	1.741E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE154	7.483E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR154	2.171E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ML041000030.txt

ND154 2.048E+04 1.661E-23 0.000E+00 0.000E+00 0.000E+00
PM154 2.524E+04 1.150E-02 4.073E-09 0.000E+00 0.000E+00

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OUTPUT UNIT =

6 PAGE 199
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
PM154M	4.328E+03	3.999E-07	3.695E-17	0.000E+00	0.000E+00
EU154	5.038E+03	5.038E+03	5.038E+03	5.037E+03	5.037E+03
CE155	8.570E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR155	4.308E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND155	7.923E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM155	1.602E+04	8.157E-26	0.000E+00	0.000E+00	0.000E+00
SM155	1.904E+04	3.019E+03	4.638E+02	3.391E-06	5.851E-16
EU155	3.404E+03	3.404E+03	3.404E+03	3.404E+03	3.403E+03
GD155M	3.013E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE156	8.079E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR156	8.022E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND156	2.840E+03	8.421E-16	2.704E-34	0.000E+00	0.000E+00
PM156	8.920E+03	1.085E-15	0.000E+00	0.000E+00	0.000E+00
SM156	1.194E+04	1.109E+04	1.031E+04	4.930E+03	2.035E+03
EU156	9.346E+04	9.331E+04	9.315E+04	9.153E+04	8.954E+04
CE157	6.276E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR157	1.217E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND157	7.944E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM157	4.315E+03	5.104E-13	5.967E-29	0.000E+00	0.000E+00
SM157	7.872E+03	4.747E+01	2.622E-01	0.000E+00	0.000E+00
EU157	1.238E+04	1.190E+04	1.137E+04	7.208E+03	4.170E+03
PR158	8.892E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND158	1.203E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM158	1.402E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM158	4.282E+03	1.664E+03	6.465E+02	5.059E-02	5.973E-07
EU158	4.590E+03	3.393E+03	1.969E+03	7.906E-01	2.330E-05
PR159	3.459E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND159	1.176E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM159	3.180E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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SM159	2.015E+03	4.216E-04	8.781E-11	0.000E+00	0.000E+00
EU159	2.446E+03	2.815E+02	2.829E+01	2.970E-09	3.148E-21
GD159	3.169E+03	3.093E+03	2.984E+03	2.056E+03	1.315E+03
ND160	8.887E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM160	5.257E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM160	7.328E+02	5.765E-01	4.534E-04	0.000E+00	0.000E+00
EU160	1.120E+03	6.751E-01	5.310E-04	0.000E+00	0.000E+00
TB160	5.118E+02	5.116E+02	5.114E+02	5.094E+02	5.069E+02
ND161	6.183E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM161	6.079E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM161	1.993E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU161	4.850E+02	9.831E-24	0.000E+00	0.000E+00	0.000E+00
GD161	5.662E+02	9.130E-03	1.199E-07	0.000E+00	0.000E+00
TB161	6.710E+02	6.684E+02	6.657E+02	6.384E+02	6.073E+02
PM162	2.610E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM162	2.535E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU162	1.417E+02	1.383E-02	1.330E-06	0.000E+00	0.000E+00
GD162	2.601E+02	5.887E+00	9.216E-02	7.994E-20	0.000E+00
TB162	2.576E+02	1.760E+01	3.369E-01	3.096E-19	0.000E+00
TB162M	7.918E+00	6.180E+00	4.536E+00	2.027E-01	4.863E-03
SM163	2.814E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU163	3.277E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
GD163	1.038E+02	2.291E-10	4.769E-22	0.000E+00	0.000E+00
TB163	1.121E+02	1.440E+01	1.707E+00	9.328E-10	7.158E-21
SM164	2.433E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU164	6.530E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD164	4.089E+01	6.009E+00	8.827E-01	4.131E-09	4.171E-19
TB164	5.084E+01	6.992E+00	1.024E+00	4.794E-09	4.841E-19
SM165	1.505E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU165	1.016E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD165	1.366E+01	2.094E-10	3.202E-21	0.000E+00	0.000E+00

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TB165	2.235E+01	3.110E-10	4.757E-21	0.000E+00	0.000E+00
DY165	2.407E+02	1.804E+02	1.343E+02	7.032E+00	2.041E-01
DY165M	1.495E+02	6.278E-10	9.595E-21	0.000E+00	0.000E+00
DY166	1.545E+01	1.532E+01	1.519E+01	1.396E+01	1.260E+01
HO166	6.113E+01	5.996E+01	5.882E+01	4.873E+01	3.926E+01
ER167M	1.313E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ER169	9.819E-02	9.789E-02	9.759E-02	9.464E-02	9.121E-02
TM170	1.723E-02	1.723E-02	1.722E-02	1.718E-02	1.714E-02
SUMTOT	8.349E+07	3.125E+07	2.782E+07	2.033E+07	1.734E+07

TOTAL 8.349E+07 3.125E+07 2.782E+07 2.033E+07 1.734E+07

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

7 SUMMARY TABLE: RADIOACTIVITY, CURIES
 17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	2.864E+02	2.864E+02	2.864E+02	2.863E+02	2.863E+02
CO	1.060E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI	3.812E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU	2.340E+02	1.185E-08	6.677E-11	5.666E-11	4.953E-11
ZN	2.053E+03	3.325E+01	3.276E+01	2.822E+01	2.360E+01
GA	9.833E+03	9.317E+01	8.447E+01	4.466E+01	3.162E+01
GE	6.093E+04	2.450E+03	1.674E+03	2.489E+02	1.108E+02
AS	1.778E+05	4.065E+03	3.498E+03	1.196E+03	9.391E+02
SE	5.205E+05	7.237E+03	1.258E+03	3.268E+00	2.525E+00
BR	1.117E+06	7.845E+04	4.556E+04	4.275E+03	1.926E+03
KR	2.013E+06	5.525E+05	4.212E+05	4.772E+04	9.295E+03
RB	2.842E+06	3.143E+05	2.242E+05	2.038E+04	2.136E+03
SR	4.298E+06	1.461E+06	1.317E+06	7.392E+05	5.765E+05
Y	5.915E+06	2.279E+06	2.097E+06	1.228E+06	8.327E+05
ZR	4.769E+06	1.564E+06	1.533E+06	1.283E+06	1.091E+06
NB	7.123E+06	2.331E+06	2.279E+06	1.797E+06	1.396E+06
MO	4.573E+06	9.546E+05	8.821E+05	7.913E+05	6.976E+05
TC	5.268E+06	1.055E+06	8.089E+05	7.425E+05	6.671E+05
RU	2.288E+06	1.482E+06	1.414E+06	1.093E+06	1.016E+06
RH	3.002E+06	1.623E+06	1.552E+06	1.393E+06	1.283E+06

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PD	3.439E+05	1.809E+05	1.677E+05	1.014E+05	5.605E+04
AG	4.112E+05	2.308E+05	2.155E+05	1.416E+05	9.208E+04
CD	8.136E+04	2.003E+04	1.655E+04	9.417E+03	7.822E+03
IN	1.799E+05	2.631E+04	2.146E+04	1.006E+04	7.566E+03
SN	7.039E+05	8.357E+04	5.443E+04	1.515E+04	1.266E+04
SB	1.769E+06	3.387E+05	2.257E+05	8.528E+04	5.923E+04
TE	3.827E+06	1.685E+06	1.226E+06	8.030E+05	6.988E+05
I	5.696E+06	3.693E+06	3.267E+06	2.026E+06	1.537E+06
XE	4.296E+06	1.474E+06	1.454E+06	1.417E+06	1.212E+06
CS	3.834E+06	5.972E+05	3.098E+05	1.785E+05	1.762E+05
BA	4.757E+06	1.568E+06	1.247E+06	8.662E+05	8.422E+05
LA	4.722E+06	2.142E+06	1.802E+06	9.551E+05	8.511E+05
CE	3.732E+06	2.124E+06	2.089E+06	1.950E+06	1.815E+06
PR	3.220E+06	1.955E+06	1.780E+06	1.465E+06	1.356E+06
ND	7.338E+05	4.453E+05	3.977E+05	3.063E+05	2.954E+05
PM	7.881E+05	6.108E+05	6.020E+05	5.397E+05	4.756E+05
SM	2.856E+05	2.519E+05	2.440E+05	2.054E+05	1.699E+05
EU	1.232E+05	1.174E+05	1.150E+05	1.072E+05	1.022E+05
GD	4.162E+03	3.113E+03	2.992E+03	2.063E+03	1.322E+03
TB	1.634E+03	1.225E+03	1.185E+03	1.148E+03	1.114E+03
DY	4.057E+02	1.957E+02	1.495E+02	2.099E+01	1.281E+01
HO	6.113E+01	5.996E+01	5.882E+01	4.873E+01	3.926E+01
ER	1.411E+00	9.789E-02	9.759E-02	9.464E-02	9.121E-02
TM	1.961E-02	1.752E-02	1.751E-02	1.747E-02	1.742E-02
SUMTOT	8.349E+07	3.125E+07	2.782E+07	2.033E+07	1.734E+07
TOTAL	8.349E+07	3.125E+07	2.782E+07	2.033E+07	1.734E+07

CUMULATIVE TABLE TOTALS

AP+FP	8.371E+07	3.146E+07	2.802E+07	2.048E+07	1.747E+07
ACT+FP	1.044E+08	4.386E+07	3.888E+07	2.982E+07	2.556E+07
AP+ACT+FP	1.047E+08	4.407E+07	3.908E+07	2.997E+07	2.569E+07

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

ML041000030.txt

ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	9.641E-03	9.641E-03	9.641E-03	9.640E-03
CO 72	3.873E-02	0.000E+00	0.000E+00	0.000E+00
NI 72	2.784E-01	0.000E+00	0.000E+00	0.000E+00
CU 72	7.988E-01	0.000E+00	0.000E+00	0.000E+00
ZN 72	5.107E-02	5.032E-02	4.957E-02	4.271E-02
GA 72	6.436E-01	6.433E-01	6.425E-01	6.163E-01
CO 73	1.102E-02	0.000E+00	0.000E+00	0.000E+00
NI 73	3.848E-01	0.000E+00	0.000E+00	0.000E+00
CU 73	7.792E-01	0.000E+00	0.000E+00	0.000E+00
ZN 73	9.293E-01	0.000E+00	0.000E+00	0.000E+00
GA 73	3.040E-01	2.641E-01	2.291E-01	5.537E-02
GE 73M	2.671E-02	2.319E-02	2.012E-02	4.862E-03
CO 74	2.712E-03	0.000E+00	0.000E+00	0.000E+00
NI 74	1.880E-01	0.000E+00	0.000E+00	0.000E+00
CU 74	1.714E+00	0.000E+00	0.000E+00	0.000E+00
ZN 74	7.799E-01	3.061E-12	1.198E-23	0.000E+00
GA 74	3.337E+00	2.414E-02	1.422E-04	0.000E+00
CO 75	3.216E-04	0.000E+00	0.000E+00	0.000E+00
NI 75	1.145E-01	0.000E+00	0.000E+00	0.000E+00
CU 75	1.362E+00	0.000E+00	0.000E+00	0.000E+00
ZN 75	4.347E+00	0.000E+00	0.000E+00	0.000E+00
GA 75	2.199E+00	7.354E-10	2.293E-19	0.000E+00
GE 75	7.512E-01	4.660E-01	2.820E-01	1.857E-03
GE 75M	1.015E-02	5.185E-12	1.616E-21	0.000E+00
NI 76	2.435E-02	0.000E+00	0.000E+00	0.000E+00
CU 76	1.516E+00	0.000E+00	0.000E+00	0.000E+00
ZN 76	5.011E+00	0.000E+00	0.000E+00	0.000E+00
GA 76	1.677E+01	0.000E+00	0.000E+00	0.000E+00
AS 76	1.727E-01	1.682E-01	1.638E-01	1.259E-01
NI 77	5.781E-03	0.000E+00	0.000E+00	0.000E+00
CU 77	5.802E-01	0.000E+00	0.000E+00	0.000E+00
ZN 77	1.063E+01	0.000E+00	0.000E+00	0.000E+00
GA 77	1.591E+01	0.000E+00	0.000E+00	0.000E+00
GE 77	4.858E+00	4.573E+00	4.301E+00	2.329E+00
GE 77M	6.370E+00	9.071E-20	0.000E+00	0.000E+00
AS 77	1.829E+00	1.809E+00	1.788E+00	1.567E+00
SE 77M	5.371E-03	4.721E-03	4.665E-03	4.089E-03
NI 78	5.712E-04	0.000E+00	0.000E+00	0.000E+00
CU 78	2.854E-01	0.000E+00	0.000E+00	0.000E+00
ZN 78	7.640E+00	0.000E+00	0.000E+00	0.000E+00
GA 78	4.986E+01	0.000E+00	0.000E+00	0.000E+00
GE 78	8.749E+00	5.428E+00	3.365E+00	2.825E-02
AS 78	4.609E+01	4.201E+01	3.454E+01	1.085E+00
CU 79	6.985E-02	0.000E+00	0.000E+00	0.000E+00
ZN 79	8.244E+00	0.000E+00	0.000E+00	0.000E+00
GA 79	4.238E+01	0.000E+00	0.000E+00	0.000E+00

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GE 79 7.605E+01 4.890E-24 0.000E+00 0.000E+00 0.000E+00
AS 79 3.665E+01 3.880E-01 3.819E-03 3.260E-23 0.000E+00
SE 79 5.530E-05 5.530E-05 5.530E-05 5.530E-05 5.530E-05
SE 79M 3.974E+00 7.377E-02 7.286E-04 6.206E-24 0.000E+00
CU 80 1.079E-02 0.000E+00 0.000E+00 0.000E+00 0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
/CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
ZN 80	2.314E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 80	6.849E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 80	7.193E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 80	2.826E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 80	2.021E-03	1.248E-03	1.023E-03	2.121E-04	3.229E-05
BR 80M	1.372E-04	1.173E-04	1.003E-04	2.090E-05	3.182E-06
CU 81	7.558E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 81	9.384E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 81	3.176E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 81	2.705E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 81	2.358E+02	4.090E-32	0.000E+00	0.000E+00	0.000E+00
SE 81	9.310E+01	1.158E+01	1.912E+00	6.214E-04	1.025E-07
SE 81M	4.285E-01	2.074E-01	1.004E-01	7.070E-05	1.166E-08
ZN 82	1.123E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 82	1.980E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 82	1.485E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82	4.293E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82M	2.907E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 82	4.923E+01	4.832E+01	4.738E+01	3.894E+01	3.076E+01
BR 82M	5.334E-01	6.034E-04	6.804E-07	0.000E+00	0.000E+00
ZN 83	1.276E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 83	5.121E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 83	2.600E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 83	5.813E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 83	4.014E+02	6.360E+01	1.002E+01	9.403E-08	2.189E-17
SE 83M	4.417E+02	1.709E-13	5.641E-29	0.000E+00	0.000E+00

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BR 83	1.120E+02	8.914E+01	6.746E+01	3.723E+00	1.147E-01
KR 83M	1.393E+01	1.346E+01	1.224E+01	1.436E+00	5.501E-02
GA 84	7.665E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 84	6.949E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 84	1.030E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 84	5.305E+02	1.802E-03	6.060E-09	0.000E+00	0.000E+00
BR 84	1.779E+03	5.353E+02	1.447E+02	3.026E-04	4.624E-11
BR 84M	7.967E+01	7.780E-02	7.597E-05	0.000E+00	0.000E+00
GE 85	2.461E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 85	5.192E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 85	1.096E+03	1.814E-25	0.000E+00	0.000E+00	0.000E+00
SE 85M	8.464E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 85	7.326E+02	4.329E-04	2.167E-10	0.000E+00	0.000E+00
KR 85	7.748E+00	7.748E+00	7.748E+00	7.749E+00	7.748E+00
KR 85M	2.947E+02	2.555E+02	2.189E+02	4.660E+01	7.281E+00
GE 86	4.255E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 86	3.734E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 86	1.555E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 86	2.558E+03	6.455E-17	0.000E+00	0.000E+00	0.000E+00
BR 86M	2.398E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 86	5.197E+00	5.189E+00	5.181E+00	5.101E+00	5.008E+00
RB 86M	3.989E-01	7.218E-19	1.719E-36	0.000E+00	0.000E+00
GE 87	7.632E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 87	1.611E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 87	2.179E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
BR 87	4.418E+03	1.759E-16	6.489E-36	0.000E+00	0.000E+00
KR 87	2.882E+03	1.689E+03	9.792E+02	4.203E+00	6.058E-03
SR 87M	7.934E-03	6.197E-03	4.841E-03	4.092E-04	2.110E-05
GE 88	2.619E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 88	1.699E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 88	7.202E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ML041000030.txt

BR 88	3.067E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 88	4.433E+03	3.476E+03	2.723E+03	2.370E+02	1.265E+01
RB 88	5.220E+03	4.443E+03	3.515E+03	3.063E+02	1.635E+01
AS 89	1.649E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 89	2.824E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 89	4.030E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 89	7.414E+03	1.498E-02	3.005E-08	0.000E+00	0.000E+00
RB 89	7.708E+03	6.234E+02	4.041E+01	5.293E-11	2.913E-25
SR 89	1.539E+03	1.539E+03	1.538E+03	1.529E+03	1.519E+03
Y 89M	1.383E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 90	7.769E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 90	3.029E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 90	5.932E+03	1.767E-30	0.000E+00	0.000E+00	0.000E+00
RB 90	9.677E+03	1.798E-02	1.034E-06	0.000E+00	0.000E+00
RB 90M	2.559E+03	1.727E-01	1.089E-05	0.000E+00	0.000E+00
SR 90	4.734E+01	4.734E+01	4.734E+01	4.734E+01	4.733E+01
Y 90	2.364E+02	2.363E+02	2.361E+02	2.351E+02	2.340E+02
Y 90M	3.421E-02	2.736E-02	2.188E-02	2.338E-03	1.598E-04
SE 91	1.614E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 91	9.945E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 91	5.610E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 91	1.226E+04	3.232E-15	7.730E-34	0.000E+00	0.000E+00
SR 91	4.386E+03	4.084E+03	3.797E+03	1.830E+03	7.626E+02
Y 91	2.078E+03	2.077E+03	2.077E+03	2.073E+03	2.065E+03
Y 91M	1.050E+03	1.026E+03	9.760E+02	4.799E+02	1.999E+02
SE 92	7.251E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 92	1.328E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 92	2.667E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 92	9.858E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 92	5.431E+03	4.207E+03	3.258E+03	2.524E+02	1.173E+01
Y 92	6.037E+03	5.902E+03	5.580E+03	1.536E+03	1.910E+02
BR 93	2.337E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 93	1.473E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 93	6.908E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 93	1.031E+04	4.056E+01	1.584E-01	0.000E+00	0.000E+00
Y 93	5.225E+03	4.939E+03	4.611E+03	2.322E+03	1.019E+03
ZR 93	1.157E-04	1.157E-04	1.157E-04	1.157E-04	1.157E-04
NB 93M	1.333E-05	1.333E-05	1.333E-05	1.334E-05	1.335E-05
BR 94	2.519E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 94	4.237E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 94	4.995E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 94	8.061E+03	3.764E-11	1.741E-25	0.000E+00	0.000E+00
Y 94	1.179E+04	1.422E+03	1.612E+02	5.636E-08	2.531E-19
NB 94M	1.581E-04	2.059E-07	2.678E-10	0.000E+00	0.000E+00
BR 95	1.780E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 95	8.412E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 95	2.373E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 95	1.169E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 95	1.012E+04	1.992E+02	3.794E+00	2.384E-17	0.000E+00
ZR 95	4.066E+03	4.065E+03	4.063E+03	4.044E+03	4.023E+03
NB 95	3.886E+03	3.886E+03	3.886E+03	3.886E+03	3.885E+03
NB 95M	7.955E+00	7.954E+00	7.953E+00	7.940E+00	7.922E+00
BR 96	1.174E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 96	1.072E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 96	9.313E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 96	6.058E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 96	1.663E+04	2.373E-04	3.329E-12	0.000E+00	0.000E+00
NB 96	2.773E+01	2.692E+01	2.613E+01	1.942E+01	1.360E+01
KR 97	9.113E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 97	1.514E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 97	5.416E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 97	1.147E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 97	4.134E+03	3.968E+03	3.809E+03	2.527E+03	1.545E+03
NB 97	5.330E+03	5.246E+03	5.109E+03	3.469E+03	1.987E+03
NB 97M	3.312E+03	3.175E+03	3.048E+03	2.022E+03	1.236E+03
KR 98	8.609E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 98	4.337E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 98	1.623E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 98	1.258E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 98	4.288E+03	4.761E-32	0.000E+00	0.000E+00	0.000E+00
NB 98	1.006E+04	1.207E-31	0.000E+00	0.000E+00	0.000E+00
NB 98M	1.588E+02	7.083E+01	3.159E+01	9.825E-03	6.078E-07
RB 99	3.801E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 99	7.248E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 99	5.602E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 99	1.134E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99	7.621E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99M	4.370E+02	4.939E-05	5.582E-12	0.000E+00	0.000E+00
MO 99	2.882E+03	2.853E+03	2.823E+03	2.541E+03	2.240E+03

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TC 99	3.515E-03	3.515E-03	3.515E-03	3.517E-03	3.518E-03
TC 99M	6.623E+02	6.620E+02	6.609E+02	6.259E+02	5.623E+02
RB100	4.619E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR100	1.077E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y100	3.912E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR100	5.922E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100	1.086E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100M	9.509E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC100	2.119E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR101	2.335E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y101	1.003E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR101	8.621E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB101	1.004E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	9.292E+03	5.456E+02	3.173E+01	1.404E-11	2.100E-26
TC101	3.906E+03	8.528E+02	8.304E+01	1.326E-10	2.676E-25
SR102	1.708E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y102	3.587E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
ZR102	3.369E+03	4.265E-35	0.000E+00	0.000E+00	0.000E+00
NB102	1.589E+04	1.305E-34	0.000E+00	0.000E+00	0.000E+00
MO102	1.425E+03	3.427E+01	8.086E-01	4.324E-17	1.270E-36
TC102	7.985E+03	1.933E+02	4.560E+00	2.438E-16	0.000E+00
TC102M	1.752E+01	1.234E-03	8.692E-08	0.000E+00	0.000E+00
RH102	6.684E-03	6.684E-03	6.684E-03	6.682E-03	6.680E-03
SR103	8.157E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y103	4.226E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR103	2.354E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB103	8.202E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO103	1.012E+04	1.067E-14	9.258E-33	0.000E+00	0.000E+00
TC103	5.499E+03	3.424E-14	2.971E-32	0.000E+00	0.000E+00
RU103	2.543E+03	2.541E+03	2.539E+03	2.521E+03	2.499E+03
RH103M	1.576E+02	1.575E+02	1.575E+02	1.564E+02	1.550E+02

ML041000030.txt

SR104	2.824E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y104	5.148E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR104	3.921E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB104	6.356E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO104	3.630E+03	1.877E-08	9.659E-20	0.000E+00	0.000E+00
TC104	1.377E+04	1.528E+03	1.555E+02	1.853E-08	2.285E-20
RH104	2.880E+03	1.549E-02	1.067E-06	0.000E+00	0.000E+00
RH104M	2.646E+01	1.823E-03	1.256E-07	0.000E+00	0.000E+00
Y105	2.307E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR105	8.904E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB105	1.655E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO105	7.716E+03	6.626E-17	0.000E+00	0.000E+00	0.000E+00
TC105	5.703E+03	3.475E+01	1.920E-01	0.000E+00	0.000E+00
RU105	3.697E+03	3.268E+03	2.796E+03	5.866E+02	9.007E+01
RH105	6.641E+02	6.645E+02	6.631E+02	5.930E+02	4.792E+02
RH105M	1.127E+02	9.989E+01	8.547E+01	1.793E+01	2.753E+00
ZR106	8.262E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB106	6.625E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO106	2.364E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC106	8.316E+03	5.121E-26	0.000E+00	0.000E+00	0.000E+00
RU106	1.524E+01	1.524E+01	1.524E+01	1.523E+01	1.522E+01
RH106	2.735E+03	2.459E+03	2.459E+03	2.457E+03	2.455E+03
RH106M	2.506E+02	1.829E+02	1.335E+02	5.715E+00	1.303E-01
Y107	1.637E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR107	5.719E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB107	8.362E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO107	1.758E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC107	3.276E+03	1.539E-34	0.000E+00	0.000E+00	0.000E+00
RU107	2.617E+03	1.431E-01	7.164E-06	0.000E+00	0.000E+00
RH107	1.462E+03	2.711E+02	3.989E+01	1.894E-07	1.947E-17
PD107M	4.697E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR108	1.311E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB108	2.512E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO108	3.696E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC108	3.150E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU108	6.406E+02	6.278E-02	6.083E-06	0.000E+00	0.000E+00
RH108	2.923E+03	3.025E-01	2.931E-05	0.000E+00	0.000E+00

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
 17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
RH108M	3.788E+01	3.289E-02	2.856E-05	0.000E+00	0.000E+00
AG108	2.801E-03	4.657E-09	4.589E-09	4.589E-09	4.589E-09
ZR109	1.356E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB109	4.086E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO109	2.010E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC109	1.181E+03	6.671E-19	0.000E+00	0.000E+00	0.000E+00
RU109	1.825E+03	1.360E-18	0.000E+00	0.000E+00	0.000E+00
RH109	1.017E+03	3.705E-09	3.370E-21	0.000E+00	0.000E+00
RH109M	9.975E+01	2.278E-18	0.000E+00	0.000E+00	0.000E+00
PD109	4.370E+02	4.177E+02	3.967E+02	2.371E+02	1.278E+02
PD109M	7.553E+01	2.137E-02	3.011E-06	0.000E+00	0.000E+00
AG109M	8.467E+01	8.099E+01	7.693E+01	4.597E+01	2.478E+01
NB110	6.136E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO110	3.049E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC110	4.438E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU110	5.149E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH110	1.302E+03	1.168E-34	0.000E+00	0.000E+00	0.000E+00
RH110M	6.569E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG110	5.645E+02	1.897E-01	1.896E-01	1.894E-01	1.892E-01
AG110M	3.315E+01	3.315E+01	3.314E+01	3.310E+01	3.306E+01
NB111	4.506E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO111	9.740E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC111	1.162E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU111	4.765E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH111	4.548E+02	3.550E-15	2.231E-32	0.000E+00	0.000E+00
PD111	1.843E+02	3.090E+01	5.970E+00	4.460E-01	9.830E-02
PD111M	1.819E+00	1.605E+00	1.415E+00	4.013E-01	8.844E-02
AG111	7.851E+01	7.836E+01	7.808E+01	7.513E+01	7.173E+01
AG111M	1.336E+01	2.390E+00	4.968E-01	4.630E-02	1.021E-02
CD111M	3.232E-02	1.376E-02	5.858E-03	1.145E-06	4.059E-11
MO112	1.407E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC112	5.578E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU112	1.396E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH112	4.099E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD112	1.670E+01	1.613E+01	1.559E+01	1.104E+01	7.298E+00
AG112	2.262E+02	2.253E+02	2.230E+02	1.737E+02	1.165E+02
MO113	1.479E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC113	1.221E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU113	1.367E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH113	2.130E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD113	1.690E+02	1.569E-10	1.427E-22	0.000E+00	0.000E+00
AG113	8.075E+01	7.119E+01	6.246E+01	1.689E+01	3.516E+00

ML041000030.txt

AG113M	1.019E+01	3.499E-11	3.183E-23	0.000E+00	0.000E+00
CD113M	4.736E-02	4.736E-02	4.736E-02	4.736E-02	4.736E-02
MO114	1.225E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC114	3.776E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU114	4.471E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH114	1.977E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD114	6.883E+01	2.088E-06	6.222E-14	0.000E+00	0.000E+00
AG114	1.220E+02	3.767E-06	1.123E-13	0.000E+00	0.000E+00
IN114	1.963E-02	7.047E-03	7.043E-03	7.002E-03	6.954E-03

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
IN114M	2.195E-03	2.194E-03	2.193E-03	2.180E-03	2.165E-03
MO115	1.139E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC115	6.720E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU115	3.469E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH115	1.160E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD115	1.444E+02	4.838E-27	0.000E+00	0.000E+00	0.000E+00
AG115	7.240E+01	9.364E+00	1.171E+00	1.090E-09	1.586E-20
AG115M	3.086E+01	1.749E-27	0.000E+00	0.000E+00	0.000E+00
CD115	2.969E+01	2.943E+01	2.907E+01	2.553E+01	2.186E+01
CD115M	3.328E+00	3.326E+00	3.324E+00	3.303E+00	3.277E+00
IN115M	1.869E+01	1.867E+01	1.863E+01	1.720E+01	1.490E+01
TC116	5.442E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU116	5.902E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH116	8.359E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD116	6.652E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG116	8.111E+01	1.607E-05	2.928E-12	0.000E+00	0.000E+00
AG116M	9.499E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116	4.568E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	6.686E+01	3.102E+01	1.439E+01	6.646E-03	6.606E-07
TC117	1.969E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU117	1.378E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH117	3.764E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ML041000030.txt

PD117	1.267E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG117	5.766E+01	9.600E-14	1.505E-28	0.000E+00	0.000E+00
AG117M	6.046E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD117	3.748E+01	2.887E+01	2.211E+01	1.538E+00	6.273E-02
CD117M	2.296E+01	1.877E+01	1.531E+01	1.993E+00	1.726E-01
IN117	2.165E+01	2.093E+01	1.920E+01	2.800E+00	1.938E-01
IN117M	2.297E+01	2.215E+01	2.021E+01	3.073E+00	1.913E-01
SN117M	9.412E-02	9.393E-02	9.374E-02	9.182E-02	8.958E-02
RU118	6.864E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH118	8.097E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD118	6.956E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG118	9.850E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG118M	4.510E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD118	2.060E+01	9.030E+00	3.950E+00	1.013E-03	4.975E-08
IN118	9.564E+01	4.197E+01	1.836E+01	4.710E-03	2.312E-07
IN118M	6.532E-02	5.704E-06	4.982E-10	0.000E+00	0.000E+00
RH119	5.199E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD119	9.650E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG119	1.357E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD119	4.323E+01	5.238E-01	6.277E-03	3.829E-22	0.000E+00
CD119M	4.823E+01	1.130E-04	2.563E-10	0.000E+00	0.000E+00
IN119	1.815E+01	4.635E-01	4.838E-02	4.525E-12	4.115E-24
IN119M	4.998E+01	8.538E+00	8.856E-01	8.231E-11	7.486E-23
SN119M	5.933E-02	5.932E-02	5.932E-02	5.925E-02	5.916E-02
RU120	1.725E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH120	1.090E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD120	2.488E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG120	7.529E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD120	4.364E+01	2.093E-20	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

ASSY DIS 1.0HR 2.0HR 12.0HR 24.0HR

IN120	9.180E+01	3.421E-19	0.000E+00	0.000E+00	0.000E+00
IN120M	6.353E+01	3.177E-20	0.000E+00	0.000E+00	0.000E+00

ML041000030.txt

RH121	1.453E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD121	1.631E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG121	7.847E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD121	1.272E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121	7.875E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121M	2.104E+01	7.541E-05	2.536E-10	0.000E+00	0.000E+00
SN121	9.904E+00	9.659E+00	9.412E+00	7.267E+00	5.328E+00
SN121M	2.067E-04	2.067E-04	2.067E-04	2.067E-04	2.067E-04
RH122	2.249E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD122	3.795E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG122	7.388E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD122	6.307E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN122	2.180E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN122M	1.120E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB122	7.194E+00	7.117E+00	7.042E+00	6.327E+00	5.565E+00
SB122M	9.108E-03	4.561E-07	2.283E-11	0.000E+00	0.000E+00
RH123	1.666E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD123	1.297E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG123	3.084E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD123	1.393E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN123	9.045E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN123M	4.427E+01	1.319E-21	0.000E+00	0.000E+00	0.000E+00
SN123	5.613E+00	5.612E+00	5.611E+00	5.598E+00	5.583E+00
SN123M	2.804E+01	1.002E+01	3.549E+00	1.107E-04	4.333E-10
TE123M	1.223E-02	1.223E-02	1.222E-02	1.220E-02	1.216E-02
PD124	1.921E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG124	1.981E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD124	8.622E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN124	2.777E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB124	1.001E+01	1.001E+01	1.001E+01	9.957E+00	9.900E+00
SB124M	1.453E-02	3.232E-14	7.190E-26	0.000E+00	0.000E+00
AG125	5.066E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD125	1.090E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN125	1.285E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN125M	9.772E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN125	4.477E+01	4.463E+01	4.450E+01	4.319E+01	4.166E+01
SN125M	7.349E+01	9.419E-01	1.193E-02	1.271E-21	0.000E+00
SB125	2.215E+01	2.215E+01	2.215E+01	2.215E+01	2.215E+01
TE125M	1.254E+00	1.254E+00	1.254E+00	1.255E+00	1.256E+00
PD126	3.358E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG126	2.080E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD126	5.927E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN126	4.568E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN126	4.946E-04	4.946E-04	4.946E-04	4.946E-04	4.946E-04
SB126	1.104E+01	1.101E+01	1.099E+01	1.073E+01	1.044E+01
SB126M	3.141E+00	3.564E-01	4.442E-02	5.050E-03	5.050E-03
CD127	5.196E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN127	2.124E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

IN127M 2.220E+02 0.000E+00 0.000E+00 0.000E+00 0.000E+00

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
SN127	4.899E+02	3.522E+02	2.532E+02	9.333E+00	1.778E-01
SN127M	1.566E+02	6.683E-03	2.852E-07	0.000E+00	0.000E+00
SB127	3.174E+02	3.164E+02	3.150E+02	2.943E+02	2.691E+02
TE127	7.142E+01	7.141E+01	7.139E+01	6.997E+01	6.644E+01
TE127M	3.741E+00	3.741E+00	3.741E+00	3.742E+00	3.741E+00
XE127	4.967E-05	4.963E-05	4.959E-05	4.920E-05	4.873E-05
AG128	9.334E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD128	1.567E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN128	5.009E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN128	3.852E+02	1.904E+02	9.407E+01	8.168E-02	1.732E-05
SB128	1.512E+02	1.400E+02	1.297E+02	6.009E+01	2.387E+01
SB128M	1.525E+03	8.372E+02	4.152E+02	3.606E-01	7.646E-05
I128	3.284E+01	6.215E+00	1.176E+00	6.933E-08	1.464E-16
CD129	9.394E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN129	3.267E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN129	8.020E+02	3.133E+00	1.224E-02	0.000E+00	0.000E+00
SN129M	9.652E+02	5.756E-05	3.431E-12	0.000E+00	0.000E+00
SB129	1.759E+03	1.519E+03	1.293E+03	2.599E+02	3.789E+01
TE129	5.539E+02	5.330E+02	4.916E+02	1.524E+02	6.780E+01
TE129M	4.082E+01	4.082E+01	4.081E+01	4.057E+01	4.018E+01
XE129M	4.678E-03	4.661E-03	4.644E-03	4.479E-03	4.290E-03
CD130	7.080E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN130	4.119E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN130	1.327E+03	1.853E-02	2.586E-07	0.000E+00	0.000E+00
SB130	1.203E+03	4.252E+02	1.503E+02	4.587E-03	1.750E-08
SB130M	4.984E+03	1.404E+01	1.919E-02	0.000E+00	0.000E+00
I130	2.674E+02	2.538E+02	2.400E+02	1.370E+02	6.989E+01
I130M	1.336E+01	1.315E-01	1.294E-03	1.105E-23	0.000E+00
CD131	1.821E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN131	1.500E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ML041000030.txt

SN131	2.643E+03	1.661E-14	1.044E-31	0.000E+00	0.000E+00
SB131	5.771E+03	9.629E+02	1.579E+02	2.215E-06	8.352E-16
TE131	2.870E+03	1.377E+03	4.662E+02	8.119E+01	6.153E+01
TE131M	6.742E+02	6.616E+02	6.470E+02	5.136E+02	3.892E+02
I131	1.632E+03	1.631E+03	1.627E+03	1.578E+03	1.518E+03
XE131M	5.146E+00	5.146E+00	5.146E+00	5.144E+00	5.136E+00
CD132	1.495E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN132	5.953E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN132	9.641E+02	7.788E-25	0.000E+00	0.000E+00	0.000E+00
SB132	5.472E+03	2.142E-03	7.591E-10	0.000E+00	0.000E+00
SB132M	3.614E+03	1.809E-01	9.060E-06	0.000E+00	0.000E+00
TE132	1.347E+03	1.335E+03	1.323E+03	1.211E+03	1.089E+03
I132	1.136E+04	1.130E+04	1.123E+04	1.035E+04	9.309E+03
CS132	5.561E-01	5.536E-01	5.511E-01	5.271E-01	4.996E-01
IN133	6.139E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN133	6.836E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB133	5.935E+03	1.770E-04	5.276E-12	0.000E+00	0.000E+00
TE133	5.873E+03	4.963E+02	1.427E+02	7.429E-02	9.092E-06
TE133M	6.179E+03	2.919E+03	1.378E+03	7.567E-01	9.260E-05
I133	5.817E+03	5.709E+03	5.546E+03	3.991E+03	2.675E+03
I133M	2.930E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
XE133	1.039E+03	1.039E+03	1.038E+03	1.028E+03	1.001E+03
XE133M	4.180E+01	4.175E+01	4.169E+01	4.038E+01	3.763E+01
IN134	4.079E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN134	7.981E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134	1.317E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134M	1.251E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE134	5.509E+03	2.038E+03	7.535E+02	3.598E-02	2.349E-07
I134	2.041E+04	1.424E+04	8.274E+03	5.616E+00	4.520E-04
I134M	2.185E+02	2.870E-03	3.770E-08	0.000E+00	0.000E+00
XE134M	8.417E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ML041000030.txt

CS134	9.287E+02	9.287E+02	9.286E+02	9.283E+02	9.279E+02
CS134M	2.186E+01	1.721E+01	1.355E+01	1.242E+00	7.053E-02
SN135	1.223E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB135	7.225E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE135	7.607E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	1.039E+04	9.361E+03	8.430E+03	2.954E+03	8.396E+02
XE135	8.238E+02	9.797E+02	1.099E+03	1.276E+03	7.792E+02
XE135M	6.008E+02	4.177E+02	3.680E+02	1.287E+02	3.659E+01
CS135	7.960E-05	7.960E-05	7.960E-05	7.965E-05	7.969E-05
CS135M	1.507E+02	6.874E+01	3.136E+01	1.226E-02	9.978E-07
BA135M	9.090E-02	8.873E-02	8.661E-02	6.803E-02	5.091E-02
SN136	9.273E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB136	1.904E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE136	3.651E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I136	1.077E+04	1.107E-09	9.715E-23	0.000E+00	0.000E+00
I136M	5.735E+03	1.584E-20	0.000E+00	0.000E+00	0.000E+00
CS136	4.195E+02	4.185E+02	4.176E+02	4.085E+02	3.978E+02
BA136M	6.131E+01	6.118E+01	6.104E+01	5.971E+01	5.815E+01
SB137	2.494E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE137	1.540E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I137	8.714E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE137	9.818E+03	1.997E-01	3.842E-06	0.000E+00	0.000E+00
CS137	6.157E+01	6.157E+01	6.157E+01	6.156E+01	6.156E+01
BA137M	2.072E+02	2.068E+02	2.067E+02	2.067E+02	2.067E+02
SB138	3.941E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE138	3.178E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I138	4.860E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	8.437E+03	4.491E+02	2.386E+01	4.278E-12	2.165E-27
CS138	1.853E+04	8.021E+03	2.359E+03	5.892E-03	1.094E-09
CS138M	2.346E+02	1.387E-04	8.201E-11	0.000E+00	0.000E+00
SB139	2.532E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE139	9.001E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I139	2.274E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE139	9.745E+03	3.606E-24	0.000E+00	0.000E+00	0.000E+00
CS139	9.846E+03	1.246E+02	1.493E+00	9.107E-20	0.000E+00
BA139	4.787E+03	3.267E+03	1.980E+03	1.296E+01	3.099E-02
TE140	8.897E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I140	7.559E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE140	5.308E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS140	1.802E+04	2.130E-13	2.200E-30	0.000E+00	0.000E+00
BA140	2.311E+03	2.306E+03	2.301E+03	2.250E+03	2.189E+03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
/CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
LA140	1.435E+04	1.434E+04	1.433E+04	1.423E+04	1.406E+04
PR140	4.648E-02	2.185E-07	1.027E-12	0.000E+00	0.000E+00
TE141	5.698E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I141	1.198E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE141	3.167E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS141	1.053E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA141	7.997E+03	8.345E+02	8.563E+01	1.109E-08	1.511E-20
LA141	4.605E+03	4.148E+03	3.507E+03	6.020E+02	7.253E+01
CE141	1.169E+03	1.169E+03	1.168E+03	1.162E+03	1.150E+03
TE142	4.660E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I142	2.422E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE142	8.098E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS142	9.091E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA142	6.426E+03	1.320E+02	2.707E+00	3.567E-17	2.145E-37
LA142	1.601E+04	1.148E+04	7.357E+03	8.286E+01	3.806E-01
PR142	2.129E+02	2.058E+02	1.985E+02	1.382E+02	8.944E+01
PR142M	1.202E+01	6.965E-01	4.035E-02	1.717E-14	2.451E-29
I143	1.279E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE143	2.124E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS143	3.607E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA143	1.015E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA143	8.401E+03	4.373E+02	2.242E+01	2.814E-12	9.285E-28
CE143	3.047E+03	3.004E+03	2.942E+03	2.385E+03	1.854E+03
PR143	1.339E+03	1.339E+03	1.339E+03	1.335E+03	1.325E+03
I144	1.358E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE144	2.642E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS144	1.492E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA144	4.856E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA144	1.293E+04	1.350E-23	0.000E+00	0.000E+00	0.000E+00
CE144	3.921E+02	3.920E+02	3.920E+02	3.916E+02	3.911E+02
PR144	4.381E+03	4.347E+03	4.344E+03	4.339E+03	4.334E+03
PR144M	2.429E+00	2.427E+00	2.426E+00	2.424E+00	2.421E+00
XE145	4.466E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS145	2.793E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA145	4.721E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA145	7.003E+03	3.417E-34	0.000E+00	0.000E+00	0.000E+00
CE145	4.344E+03	4.970E-03	4.740E-09	0.000E+00	0.000E+00
PR145	2.023E+03	1.820E+03	1.621E+03	5.085E+02	1.266E+02

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XE146	2.261E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS146	5.854E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA146	1.054E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA146	7.310E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE146	1.027E+03	5.537E+01	2.960E+00	5.646E-13	3.078E-28
PR146	6.021E+03	2.160E+03	4.451E+02	1.615E-05	1.786E-14
PM146	6.911E-03	6.911E-03	6.911E-03	6.910E-03	6.909E-03
XE147	2.880E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS147	8.082E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA147	4.566E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA147	2.483E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE147	3.842E+03	1.372E-12	4.526E-28	0.000E+00	0.000E+00
PR147	2.917E+03	1.014E+02	3.169E+00	2.814E-15	2.441E-33

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

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FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
ND147	7.580E+02	7.566E+02	7.547E+02	7.352E+02	7.125E+02
PM147	2.284E+01	2.284E+01	2.285E+01	2.287E+01	2.290E+01
CS148	6.966E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA148	5.722E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA148	1.488E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE148	1.305E+03	8.273E-23	0.000E+00	0.000E+00	0.000E+00
PR148	4.165E+03	8.238E-05	1.156E-12	0.000E+00	0.000E+00
PM148	1.062E+03	1.056E+03	1.051E+03	9.961E+02	9.342E+02
PM148M	2.002E+02	2.001E+02	2.000E+02	1.986E+02	1.969E+02
BA149	1.060E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA149	2.870E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE149	1.845E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR149	1.456E+03	2.057E-05	2.886E-13	0.000E+00	0.000E+00
ND149	9.751E+02	6.672E+02	4.470E+02	8.133E+00	6.641E-02
PM149	6.604E+02	6.564E+02	6.509E+02	5.767E+02	4.931E+02
CS150	7.224E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA150	6.268E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA150	8.052E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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CE150	5.147E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR150	2.219E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM150	4.561E+01	3.522E+01	2.719E+01	2.047E+00	9.189E-02
LA151	8.506E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE151	3.130E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR151	9.127E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND151	8.483E+02	2.976E+01	1.040E+00	2.825E-15	9.374E-33
PM151	3.556E+02	3.495E+02	3.411E+02	2.672E+02	1.994E+02
SM151	2.681E-02	2.682E-02	2.683E-02	2.692E-02	2.699E-02
BA152	2.037E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA152	1.312E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE152	4.939E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR152	6.766E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND152	2.223E+02	6.014E+00	1.616E-01	3.182E-17	4.505E-36
PM152	7.013E+02	2.870E+01	7.731E-01	1.519E-16	2.172E-35
PM152M	1.300E+01	5.077E-02	1.983E-04	0.000E+00	0.000E+00
EU152	3.227E-02	3.227E-02	3.227E-02	3.227E-02	3.226E-02
EU152M	2.914E-01	2.705E-01	2.512E-01	1.194E-01	4.890E-02
LA153	1.162E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE153	1.466E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR153	1.690E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND153	4.869E+02	4.518E-14	4.070E-30	0.000E+00	0.000E+00
PM153	1.989E+02	1.113E-01	5.033E-05	0.000E+00	0.000E+00
SM153	4.694E+02	4.627E+02	4.558E+02	3.930E+02	3.288E+02
GD153	6.646E-03	6.645E-03	6.644E-03	6.637E-03	6.627E-03
LA154	7.051E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE154	1.309E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR154	6.077E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND154	1.310E+02	1.062E-25	0.000E+00	0.000E+00	0.000E+00
PM154	3.958E+02	1.802E-04	6.385E-11	0.000E+00	0.000E+00
PM154M	6.558E+01	6.059E-09	5.599E-19	0.000E+00	0.000E+00
EU154	4.506E+01	4.506E+01	4.506E+01	4.506E+01	4.505E+01
CE155	2.322E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

ML041000030.txt

ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
PR155	9.919E+00	0.000E+00	0.000E+00	0.000E+00
ND155	1.199E+02	0.000E+00	0.000E+00	0.000E+00
PM155	1.862E+02	9.481E-28	0.000E+00	0.000E+00
SM155	1.111E+02	1.761E+01	2.705E+00	1.978E-08
EU155	2.476E+00	2.476E+00	2.476E+00	2.475E+00
GD155M	2.170E-04	0.000E+00	0.000E+00	0.000E+00
CE156	1.835E-02	0.000E+00	0.000E+00	0.000E+00
PR156	2.619E+00	0.000E+00	0.000E+00	0.000E+00
ND156	2.904E+01	8.611E-18	2.765E-36	0.000E+00
PM156	1.700E+02	2.068E-17	0.000E+00	0.000E+00
SM156	3.021E+01	2.808E+01	2.609E+01	1.248E+01
EU156	9.645E+02	9.629E+02	9.613E+02	9.446E+02
CE157	1.991E-03	0.000E+00	0.000E+00	0.000E+00
PR157	3.455E-01	0.000E+00	0.000E+00	0.000E+00
ND157	1.528E+01	0.000E+00	0.000E+00	0.000E+00
PM157	6.717E+01	7.946E-15	9.288E-31	0.000E+00
SM157	7.098E+01	4.280E-01	2.364E-03	0.000E+00
EU157	5.519E+01	5.306E+01	5.069E+01	3.213E+01
PR158	3.330E-02	0.000E+00	0.000E+00	0.000E+00
ND158	1.808E+00	0.000E+00	0.000E+00	0.000E+00
PM158	3.445E+01	0.000E+00	0.000E+00	0.000E+00
SM158	1.794E+01	6.974E+00	2.709E+00	2.120E-04
EU158	5.795E+01	4.284E+01	2.485E+01	9.982E-03
PR159	1.174E-03	0.000E+00	0.000E+00	0.000E+00
ND159	2.759E-01	0.000E+00	0.000E+00	0.000E+00
PM159	6.513E+00	0.000E+00	0.000E+00	0.000E+00
SM159	2.362E+01	4.940E-06	1.029E-12	0.000E+00
EU159	2.294E+01	2.640E+00	2.653E-01	2.785E-11
GD159	1.033E+01	1.008E+01	9.729E+00	6.703E+00
ND160	1.776E-02	0.000E+00	0.000E+00	0.000E+00
PM160	1.525E+00	0.000E+00	0.000E+00	0.000E+00
SM160	7.780E+00	6.120E-03	4.814E-06	0.000E+00
EU160	1.507E+01	9.080E-03	7.142E-06	0.000E+00
TB160	4.168E+00	4.167E+00	4.165E+00	4.149E+00
ND161	1.784E-03	0.000E+00	0.000E+00	0.000E+00
PM161	1.557E-01	0.000E+00	0.000E+00	0.000E+00
SM161	3.244E+00	0.000E+00	0.000E+00	0.000E+00
EU161	5.972E+00	1.210E-25	0.000E+00	0.000E+00
GD161	4.108E+00	6.624E-05	8.701E-10	0.000E+00
TB161	1.344E+00	1.339E+00	1.334E+00	1.279E+00
PM162	9.002E-03	0.000E+00	0.000E+00	0.000E+00
SM162	3.275E-01	0.000E+00	0.000E+00	0.000E+00
EU162	2.813E+00	2.745E-04	2.641E-08	0.000E+00
GD162	9.451E-01	2.139E-02	3.349E-04	2.905E-22
TB162	2.568E+00	1.755E-01	3.359E-03	3.087E-21
TB162M	8.598E-02	6.711E-02	4.926E-02	2.201E-03

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SM163	5.970E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU163	5.844E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD163	1.025E+00	2.264E-12	4.712E-24	0.000E+00	0.000E+00
TB163	6.767E-01	8.692E-02	1.030E-02	5.629E-12	4.320E-23
SM164	4.235E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00

□

OUTPUT UNIT =

6 PAGE 215
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N /CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
EU164	1.707E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD164	2.606E-01	3.829E-02	5.625E-03	2.632E-11	2.658E-21
TB164	7.121E-01	9.793E-02	1.435E-02	6.715E-11	6.781E-21
SM165	3.916E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU165	2.277E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD165	1.885E-01	2.888E-12	4.417E-23	0.000E+00	0.000E+00
TB165	2.256E-01	3.140E-12	4.802E-23	0.000E+00	0.000E+00
DY165	1.114E+00	8.350E-01	6.217E-01	3.256E-02	9.450E-04
DY165M	1.117E-01	4.689E-13	7.166E-24	0.000E+00	0.000E+00
DY166	1.805E-02	1.789E-02	1.774E-02	1.630E-02	1.472E-02
HO166	2.620E-01	2.570E-01	2.521E-01	2.089E-01	1.683E-01
HO166M	1.206E-05	1.206E-05	1.206E-05	1.206E-05	1.206E-05
ER167M	1.619E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ER169	1.979E-04	1.973E-04	1.967E-04	1.907E-04	1.838E-04
TM170	3.418E-05	3.417E-05	3.417E-05	3.409E-05	3.400E-05
SUMTOT	9.942E+05	2.017E+05	1.612E+05	9.476E+04	7.732E+04

TOTAL	9.942E+05	2.017E+05	1.612E+05	9.476E+04	7.732E+04
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□

OUTPUT UNIT =

6 PAGE 216
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:22:37

* ORIGEN2 V2.2 - PWR ASSEMBLY - EXTENDED BURNUP (PWRUE)

□

FISSION PRODUCTS

POWER= 1.00000E+00 MW, BURNUP= 1.00000E+00 MWD, FLUX= 1.00E+00 N
/CM**2-SEC

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 38313 MWD/

MTIHM, 2 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	9.641E-03	9.641E-03	9.641E-03	9.641E-03	9.640E-03
CO	5.278E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI	9.964E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU	7.117E+00	8.079E-11	1.250E-13	9.099E-14	7.954E-14
ZN	4.101E+01	5.033E-02	4.958E-02	4.271E-02	3.571E-02
GA	2.573E+02	9.315E-01	8.718E-01	6.717E-01	5.687E-01
GE	9.469E+02	1.049E+01	7.968E+00	2.364E+00	1.116E+00
AS	4.006E+03	4.437E+01	3.649E+01	2.777E+00	1.407E+00
SE	8.245E+03	7.547E+01	1.204E+01	4.836E-03	3.467E-03
BR	2.341E+04	6.728E+02	2.596E+02	4.266E+01	3.088E+01
KR	3.125E+04	5.442E+03	3.941E+03	2.969E+02	2.774E+01
RB	6.269E+04	5.072E+03	3.560E+03	3.114E+02	2.136E+01
SR	5.542E+04	9.918E+03	8.640E+03	3.659E+03	2.340E+03
Y	8.814E+04	1.580E+04	1.365E+04	6.646E+03	3.708E+03
ZR	4.458E+04	8.032E+03	7.871E+03	6.572E+03	5.567E+03
NB	9.413E+04	1.241E+04	1.211E+04	9.404E+03	7.130E+03
MO	3.980E+04	3.432E+03	2.855E+03	2.541E+03	2.240E+03
TC	5.622E+04	3.271E+03	9.042E+02	6.259E+02	5.623E+02
RU	1.270E+04	5.825E+03	5.351E+03	3.123E+03	2.604E+03
RH	1.534E+04	3.835E+03	3.538E+03	3.230E+03	3.092E+03
PD	1.503E+03	4.664E+02	4.197E+02	2.489E+02	1.353E+02
AG	2.176E+03	5.009E+02	4.755E+02	3.450E+02	2.498E+02
CD	9.193E+02	9.001E+01	7.382E+01	3.242E+01	2.542E+01
IN	3.799E+03	1.437E+02	9.173E+01	2.309E+01	1.529E+01
SN	8.671E+03	6.168E+02	4.105E+02	6.562E+01	5.290E+01
SB	3.429E+04	4.265E+03	2.512E+03	6.639E+02	3.789E+02
TE	3.634E+04	9.477E+03	5.319E+03	2.075E+03	1.719E+03
I	8.369E+04	4.250E+04	3.535E+04	1.902E+04	1.441E+04
XE	4.012E+04	2.932E+03	2.576E+03	2.479E+03	1.859E+03
CS	7.328E+04	9.641E+03	3.814E+03	1.400E+03	1.388E+03
BA	4.310E+04	6.808E+03	4.637E+03	2.529E+03	2.454E+03
LA	7.495E+04	3.041E+04	2.522E+04	1.491E+04	1.413E+04
CE	1.786E+04	4.620E+03	4.506E+03	3.938E+03	3.395E+03
PR	2.658E+04	9.977E+03	7.953E+03	6.324E+03	5.878E+03
ND	3.588E+03	1.460E+03	1.203E+03	7.433E+02	7.126E+02
PM	4.187E+03	2.349E+03	2.294E+03	2.063E+03	1.847E+03
SM	7.346E+02	5.158E+02	4.874E+02	4.055E+02	3.340E+02
EU	1.173E+03	1.109E+03	1.085E+03	1.024E+03	9.903E+02
GD	1.687E+01	1.015E+01	9.741E+00	6.710E+00	4.293E+00

ML041000030.txt

TB	9.782E+00	5.933E+00	5.576E+00	5.430E+00	5.345E+00
DY	1.244E+00	8.529E-01	6.395E-01	4.885E-02	1.566E-02
HO	2.620E-01	2.570E-01	2.521E-01	2.089E-01	1.683E-01
ER	1.817E-03	1.973E-04	1.967E-04	1.907E-04	1.838E-04
TM	3.452E-05	3.451E-05	3.450E-05	3.439E-05	3.427E-05
SUMTOT	9.942E+05	2.017E+05	1.612E+05	9.476E+04	7.732E+04
TOTAL	9.942E+05	2.017E+05	1.612E+05	9.476E+04	7.732E+04

CUMULATIVE TABLE TOTALS

AP+FP	9.954E+05	2.029E+05	1.623E+05	9.552E+04	7.791E+04
ACT+FP	1.048E+06	2.334E+05	1.887E+05	1.184E+05	9.791E+04
AP+ACT+FP	1.050E+06	2.345E+05	1.898E+05	1.192E+05	9.851E+04