

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 1	0.000E+00	3.852E-03	3.852E-03	3.852E-03	3.852E-03	3.852E-03
H 3	0.000E+00	1.681E-02	1.681E-02	1.681E-02	1.681E-02	1.680E-02
HE 3	0.000E+00	2.026E-04	2.027E-04	2.028E-04	2.039E-04	2.051E-04
HE 4	0.000E+00	1.209E+00	1.209E+00	1.209E+00	1.209E+00	1.209E+00
LI 6	6.498E-02	3.083E-02	3.083E-02	3.083E-02	3.083E-02	3.083E-02
LI 7	9.350E-01	1.059E+00	1.059E+00	1.059E+00	1.059E+00	1.059E+00
BE 9	0.000E+00	2.970E-04	2.970E-04	2.970E-04	2.970E-04	2.970E-04
BE 10	0.000E+00	1.783E-05	1.783E-05	1.783E-05	1.783E-05	1.783E-05
B 10	1.852E-01	7.513E-03	7.513E-03	7.513E-03	7.513E-03	7.513E-03
B 11	8.148E-01	8.213E-01	8.213E-01	8.213E-01	8.213E-01	8.213E-01
C 12	8.833E+01	8.833E+01	8.833E+01	8.833E+01	8.833E+01	8.833E+01
C 13	1.074E+00	4.680E+00	4.680E+00	4.680E+00	4.680E+00	4.680E+00
C 14	0.000E+00	5.105E-02	5.105E-02	5.105E-02	5.105E-02	5.105E-02
N 14	2.490E+01	2.485E+01	2.485E+01	2.485E+01	2.485E+01	2.485E+01
N 15	9.801E-02	1.008E-01	1.008E-01	1.008E-01	1.008E-01	1.008E-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	5.428E+01	5.428E+01	5.428E+01	5.428E+01	5.428E+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	1.577E-04	1.577E-04	1.577E-04	1.577E-04	1.577E-04
NA 23	1.500E+01	1.499E+01	1.499E+01	1.499E+01	1.499E+01	1.499E+01
NA 24	0.000E+00	2.543E-05	2.428E-05	2.318E-05	1.460E-05	8.387E-06
MG 24	1.559E+00	1.572E+00	1.572E+00	1.572E+00	1.572E+00	1.572E+00
MG 25	2.056E-01	2.056E-01	2.056E-01	2.056E-01	2.056E-01	2.056E-01
MG 26	2.354E-01	2.354E-01	2.354E-01	2.354E-01	2.354E-01	2.354E-01
AL 27	1.670E+01	1.670E+01	1.670E+01	1.670E+01	1.670E+01	1.670E+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	5.845E-01	5.845E-01	5.845E-01	5.845E-01	5.845E-01
SI 30	4.003E-01	4.004E-01	4.004E-01	4.004E-01	4.004E-01	4.004E-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	2.409E-04	2.404E-04	2.400E-04	2.352E-04	2.295E-04
S 32	0.000E+00	5.246E-03	5.247E-03	5.247E-03	5.252E-03	5.257E-03
S 35	0.000E+00	4.980E-04	4.978E-04	4.977E-04	4.960E-04	4.941E-04
CL 35	3.961E+00	3.823E+00	3.823E+00	3.823E+00	3.823E+00	3.823E+00

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CL 36	0.000E+00	1.406E-01	1.406E-01	1.406E-01	1.406E-01	1.406E-01	1.406E-01
CL 37	1.339E+00	1.339E+00	1.339E+00	1.339E+00	1.339E+00	1.339E+00	1.339E+00
AR 38	0.000E+00	5.371E-04	5.371E-04	5.371E-04	5.371E-04	5.371E-04	5.371E-04
K 40	0.000E+00	2.493E-04	2.493E-04	2.493E-04	2.493E-04	2.493E-04	2.493E-04
CA 40	1.933E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00	1.932E+00
CA 41	0.000E+00	6.623E-04	6.623E-04	6.623E-04	6.623E-04	6.623E-04	6.623E-04
CA 42	1.354E-02	1.353E-02	1.353E-02	1.353E-02	1.353E-02	1.353E-02	1.353E-02
CA 43	2.787E-03	2.778E-03	2.778E-03	2.778E-03	2.778E-03	2.778E-03	2.778E-03
CA 44	4.585E-02	4.583E-02	4.583E-02	4.583E-02	4.583E-02	4.583E-02	4.583E-02
CA 45	0.000E+00	1.732E-05	1.732E-05	1.732E-05	1.729E-05	1.725E-05	1.725E-05
CA 46	8.027E-05	8.034E-05	8.034E-05	8.034E-05	8.034E-05	8.034E-05	8.034E-05
CA 48	4.547E-03	4.543E-03	4.543E-03	4.543E-03	4.543E-03	4.543E-03	4.543E-03
SC 45	0.000E+00	2.313E-05	2.314E-05	2.314E-05	2.317E-05	2.321E-05	2.321E-05
TI 46	7.920E-02	7.915E-02	7.915E-02	7.915E-02	7.915E-02	7.915E-02	7.915E-02
TI 47	7.307E-02	7.299E-02	7.299E-02	7.299E-02	7.299E-02	7.299E-02	7.299E-02
TI 48	7.383E-01	7.335E-01	7.335E-01	7.335E-01	7.335E-01	7.335E-01	7.335E-01
TI 49	5.522E-02	6.005E-02	6.005E-02	6.005E-02	6.005E-02	6.005E-02	6.005E-02

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
TI 50	5.426E-02	5.437E-02	5.437E-02	5.437E-02	5.437E-02	5.437E-02
V 50	7.353E-03	6.878E-03	6.878E-03	6.878E-03	6.878E-03	6.878E-03
V 51	2.993E+00	2.983E+00	2.983E+00	2.983E+00	2.983E+00	2.983E+00
CR 50	1.671E-01	1.649E-01	1.649E-01	1.649E-01	1.649E-01	1.649E-01
CR 51	0.000E+00	1.925E-04	1.923E-04	1.921E-04	1.901E-04	1.877E-04
CR 52	3.348E+00	3.355E+00	3.355E+00	3.355E+00	3.355E+00	3.355E+00
CR 53	3.869E-01	3.873E-01	3.873E-01	3.873E-01	3.873E-01	3.873E-01
CR 54	9.793E-02	1.040E-01	1.040E-01	1.040E-01	1.040E-01	1.040E-01
MN 54	0.000E+00	1.137E-04	1.137E-04	1.136E-04	1.135E-04	1.134E-04
MN 55	1.700E+00	1.675E+00	1.675E+00	1.675E+00	1.675E+00	1.675E+00
FE 54	1.010E+00	1.008E+00	1.008E+00	1.008E+00	1.008E+00	1.008E+00
FE 55	0.000E+00	1.897E-03	1.897E-03	1.897E-03	1.896E-03	1.896E-03
FE 56	1.654E+01	1.653E+01	1.653E+01	1.653E+01	1.653E+01	1.653E+01
FE 57	3.945E-01	4.319E-01	4.319E-01	4.319E-01	4.319E-01	4.319E-01

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FE 58	5.415E-02	5.729E-02	5.729E-02	5.729E-02	5.730E-02	5.730E-02
CO 58	0.000E+00	5.594E-04	5.592E-04	5.590E-04	5.567E-04	5.540E-04
CO 59	1.000E+00	9.258E-01	9.258E-01	9.258E-01	9.258E-01	9.258E-01
CO 60	0.000E+00	7.063E-02	7.063E-02	7.062E-02	7.061E-02	7.060E-02
NI 58	1.617E+01	1.611E+01	1.611E+01	1.611E+01	1.611E+01	1.611E+01
NI 59	0.000E+00	5.562E-02	5.562E-02	5.562E-02	5.562E-02	5.562E-02
NI 60	6.397E+00	6.391E+00	6.391E+00	6.391E+00	6.391E+00	6.391E+00
NI 61	2.816E-01	2.967E-01	2.967E-01	2.967E-01	2.967E-01	2.967E-01
NI 62	9.092E-01	8.990E-01	8.990E-01	8.990E-01	8.990E-01	8.990E-01
NI 63	0.000E+00	1.087E-02	1.087E-02	1.087E-02	1.087E-02	1.087E-02
NI 64	2.379E-01	2.397E-01	2.397E-01	2.397E-01	2.397E-01	2.397E-01
CU 63	6.853E-01	6.822E-01	6.822E-01	6.822E-01	6.822E-01	6.822E-01
CU 65	3.147E-01	3.227E-01	3.227E-01	3.227E-01	3.227E-01	3.227E-01
ZN 64	1.915E+01	1.913E+01	1.913E+01	1.913E+01	1.913E+01	1.913E+01
ZN 65	0.000E+00	1.002E-02	1.002E-02	1.002E-02	1.001E-02	9.992E-03
ZN 66	1.133E+01	1.133E+01	1.133E+01	1.133E+01	1.133E+01	1.133E+01
ZN 67	1.691E+00	1.683E+00	1.683E+00	1.683E+00	1.683E+00	1.683E+00
ZN 68	7.861E+00	7.866E+00	7.866E+00	7.866E+00	7.866E+00	7.866E+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	1.342E-02	1.343E-02	1.343E-02	1.343E-02	1.343E-02
GA 71	0.000E+00	2.068E-05	2.068E-05	2.068E-05	2.068E-05	2.068E-05
GE 70	0.000E+00	3.795E-05	3.795E-05	3.795E-05	3.795E-05	3.795E-05
ZR 92	0.000E+00	3.901E-05	3.902E-05	3.902E-05	3.904E-05	3.906E-05
MO 92	1.418E+00	1.418E+00	1.418E+00	1.418E+00	1.418E+00	1.418E+00
MO 93	0.000E+00	2.623E-04	2.623E-04	2.623E-04	2.623E-04	2.623E-04
MO 94	9.104E-01	9.099E-01	9.099E-01	9.099E-01	9.099E-01	9.099E-01
MO 95	1.573E+00	1.497E+00	1.497E+00	1.497E+00	1.497E+00	1.497E+00
MO 96	1.670E+00	1.732E+00	1.732E+00	1.732E+00	1.732E+00	1.732E+00
MO 97	9.697E-01	9.764E-01	9.764E-01	9.764E-01	9.764E-01	9.764E-01
MO 98	2.460E+00	2.429E+00	2.429E+00	2.429E+00	2.429E+00	2.429E+00
MO 99	0.000E+00	3.263E-04	3.229E-04	3.196E-04	2.877E-04	2.536E-04
MO100	9.997E-01	9.979E-01	9.979E-01	9.979E-01	9.979E-01	9.979E-01
TC 99	0.000E+00	4.544E-03	4.544E-03	4.544E-03	4.548E-03	4.553E-03
RU100	0.000E+00	2.609E-04	2.609E-04	2.609E-04	2.609E-04	2.609E-04
RU101	0.000E+00	1.860E-03	1.860E-03	1.860E-03	1.860E-03	1.860E-03
RU102	0.000E+00	3.470E-05	3.470E-05	3.470E-05	3.470E-05	3.470E-05
PD108	0.000E+00	7.757E-05	7.757E-05	7.757E-05	7.757E-05	7.757E-05

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
 1 MTIHM 4.236% UO₂, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
PD110	0.000E+00	5.450E-05	5.450E-05	5.450E-05	5.450E-05	5.450E-05
AG107	5.137E-02	4.803E-02	4.803E-02	4.803E-02	4.803E-02	4.803E-02
AG108M	0.000E+00	2.126E-04	2.126E-04	2.126E-04	2.126E-04	2.126E-04
AG109	4.863E-02	2.989E-02	2.989E-02	2.989E-02	2.989E-02	2.989E-02
AG110M	0.000E+00	4.366E-04	4.365E-04	4.365E-04	4.360E-04	4.354E-04
CD106	3.062E-01	3.060E-01	3.060E-01	3.060E-01	3.060E-01	3.060E-01
CD108	2.136E-01	2.163E-01	2.163E-01	2.163E-01	2.163E-01	2.163E-01
CD109	0.000E+00	3.802E-04	3.802E-04	3.802E-04	3.799E-04	3.797E-04
CD110	3.055E+00	2.997E+00	2.997E+00	2.997E+00	2.997E+00	2.997E+00
CD111	3.157E+00	3.117E+00	3.117E+00	3.117E+00	3.117E+00	3.117E+00
CD112	6.000E+00	6.053E+00	6.053E+00	6.053E+00	6.053E+00	6.053E+00
CD113	3.063E+00	1.229E-03	1.229E-03	1.229E-03	1.229E-03	1.229E-03
CD114	7.270E+00	1.031E+01	1.031E+01	1.031E+01	1.031E+01	1.031E+01
CD115	0.000E+00	5.916E-04	5.840E-04	5.765E-04	5.064E-04	4.334E-04
CD115M	0.000E+00	8.777E-04	8.771E-04	8.766E-04	8.709E-04	8.642E-04
CD116	1.933E+00	1.931E+00	1.931E+00	1.931E+00	1.931E+00	1.931E+00
IN113	8.457E-02	7.361E-02	7.361E-02	7.361E-02	7.361E-02	7.361E-02
IN114M	0.000E+00	6.569E-04	6.565E-04	6.561E-04	6.523E-04	6.477E-04
IN115	1.915E+00	2.687E-01	2.687E-01	2.687E-01	2.687E-01	2.687E-01
IN116M	0.000E+00	2.603E-05	1.207E-05	5.601E-06	2.587E-09	2.571E-13
SN112	3.772E-02	3.740E-02	3.740E-02	3.740E-02	3.740E-02	3.740E-02
SN113	0.000E+00	7.240E-05	7.238E-05	7.236E-05	7.218E-05	7.196E-05
SN114	2.572E-02	3.583E-02	3.583E-02	3.583E-02	3.583E-02	3.584E-02
SN115	1.472E-02	1.412E-02	1.412E-02	1.412E-02	1.412E-02	1.412E-02
SN116	5.742E-01	2.229E+00	2.229E+00	2.229E+00	2.229E+00	2.229E+00
SN117	3.053E-01	3.177E-01	3.177E-01	3.177E-01	3.177E-01	3.177E-01
SN117M	0.000E+00	2.991E-04	2.985E-04	2.979E-04	2.918E-04	2.847E-04
SN118	9.656E-01	9.637E-01	9.637E-01	9.637E-01	9.637E-01	9.637E-01
SN119	3.446E-01	3.473E-01	3.473E-01	3.473E-01	3.473E-01	3.473E-01
SN119M	0.000E+00	1.050E-03	1.050E-03	1.050E-03	1.049E-03	1.047E-03
SN120	1.309E+00	1.309E+00	1.309E+00	1.309E+00	1.309E+00	1.309E+00
SN122	1.890E-01	1.889E-01	1.889E-01	1.889E-01	1.889E-01	1.889E-01
SN123	0.000E+00	3.347E-05	3.347E-05	3.346E-05	3.338E-05	3.329E-05
SN124	2.338E-01	2.327E-01	2.327E-01	2.327E-01	2.327E-01	2.327E-01
SN125	0.000E+00	1.975E-05	1.969E-05	1.963E-05	1.905E-05	1.838E-05
SB121	0.000E+00	9.173E-04	9.174E-04	9.175E-04	9.182E-04	9.189E-04
SB123	0.000E+00	5.906E-05	5.907E-05	5.908E-05	5.915E-05	5.924E-05
SB125	0.000E+00	9.433E-04	9.434E-04	9.434E-04	9.437E-04	9.441E-04
TE122	0.000E+00	3.049E-05	3.049E-05	3.050E-05	3.055E-05	3.060E-05
TE125	0.000E+00	1.544E-04	1.545E-04	1.545E-04	1.547E-04	1.551E-04
EU153	0.000E+00	2.456E-04	2.457E-04	2.457E-04	2.461E-04	2.466E-04
EU154	0.000E+00	4.435E-05	4.435E-05	4.435E-05	4.434E-05	4.434E-05

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GD152	4.831E-03	4.172E-03	4.172E-03	4.172E-03	4.172E-03	4.172E-03
GD153	0.000E+00	3.535E-04	3.535E-04	3.534E-04	3.530E-04	3.525E-04
GD154	5.139E-02	4.443E-02	4.443E-02	4.443E-02	4.443E-02	4.443E-02
GD155	3.645E-01	2.962E-04	2.962E-04	2.962E-04	2.962E-04	2.962E-04
GD156	5.107E-01	8.442E-01	8.442E-01	8.442E-01	8.442E-01	8.442E-01
GD157	3.917E-01	4.304E-04	4.304E-04	4.304E-04	4.304E-04	4.304E-04
GD158	6.227E-01	1.035E+00	1.035E+00	1.035E+00	1.035E+00	1.035E+00
GD159	0.000E+00	5.527E-05	5.325E-05	5.130E-05	3.534E-05	2.260E-05
GD160	5.543E-01	5.517E-01	5.517E-01	5.517E-01	5.517E-01	5.517E-01

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
TB159	0.000E+00	2.073E-02	2.073E-02	2.074E-02	2.075E-02	2.076E-02
TB160	0.000E+00	5.852E-04	5.849E-04	5.847E-04	5.824E-04	5.796E-04
TB161	0.000E+00	6.289E-05	6.264E-05	6.238E-05	5.983E-05	5.691E-05
DY160	0.000E+00	9.771E-04	9.774E-04	9.776E-04	9.799E-04	9.827E-04
DY161	0.000E+00	2.022E-03	2.022E-03	2.022E-03	2.025E-03	2.028E-03
DY162	0.000E+00	6.313E-04	6.313E-04	6.313E-04	6.313E-04	6.313E-04
DY163	0.000E+00	1.811E-04	1.811E-04	1.811E-04	1.811E-04	1.811E-04
DY164	0.000E+00	1.924E-05	1.924E-05	1.924E-05	1.924E-05	1.924E-05
TA181	0.000E+00	8.870E-05	8.871E-05	8.872E-05	8.884E-05	8.898E-05
W180	2.545E-03	2.400E-03	2.400E-03	2.400E-03	2.400E-03	2.400E-03
W181	0.000E+00	4.919E-05	4.918E-05	4.917E-05	4.905E-05	4.891E-05
W182	5.206E-01	4.345E-01	4.345E-01	4.345E-01	4.345E-01	4.345E-01
W183	2.846E-01	3.385E-01	3.385E-01	3.385E-01	3.385E-01	3.385E-01
W184	6.137E-01	6.433E-01	6.433E-01	6.433E-01	6.433E-01	6.433E-01
W185	0.000E+00	7.501E-04	7.499E-04	7.496E-04	7.467E-04	7.432E-04
W186	5.785E-01	4.895E-01	4.895E-01	4.895E-01	4.895E-01	4.895E-01
W187	0.000E+00	2.510E-04	2.438E-04	2.369E-04	1.772E-04	1.251E-04
W188	0.000E+00	4.397E-05	4.395E-05	4.393E-05	4.375E-05	4.353E-05
RE185	0.000E+00	2.022E-03	2.022E-03	2.023E-03	2.025E-03	2.029E-03
RE187	0.000E+00	8.312E-02	8.313E-02	8.314E-02	8.320E-02	8.325E-02
RE188	0.000E+00	2.527E-05	2.466E-05	2.374E-05	1.594E-05	9.936E-06
OS186	0.000E+00	4.812E-04	4.813E-04	4.814E-04	4.823E-04	4.833E-04

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OS188	0.000E+00	6.088E-03	6.089E-03	6.090E-03	6.098E-03	6.104E-03
OS189	0.000E+00	8.189E-05	8.189E-05	8.189E-05	8.189E-05	8.189E-05
PB204	1.378E-02	1.377E-02	1.377E-02	1.377E-02	1.377E-02	1.377E-02
PB206	2.396E-01	2.344E-01	2.344E-01	2.344E-01	2.344E-01	2.344E-01
PB207	2.207E-01	2.258E-01	2.258E-01	2.258E-01	2.258E-01	2.258E-01
PB208	5.259E-01	5.261E-01	5.261E-01	5.261E-01	5.261E-01	5.261E-01
BI209	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

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	0.000E+00	2.066E-02	2.066E-02	2.066E-02	2.066E-02	2.066E-02
HE	0.000E+00	1.209E+00	1.209E+00	1.209E+00	1.209E+00	1.209E+00
LI	1.000E+00	1.090E+00	1.090E+00	1.090E+00	1.090E+00	1.090E+00
BE	0.000E+00	3.149E-04	3.149E-04	3.149E-04	3.149E-04	3.149E-04
B	1.000E+00	8.288E-01	8.288E-01	8.288E-01	8.288E-01	8.288E-01
C	8.940E+01	9.306E+01	9.306E+01	9.306E+01	9.306E+01	9.306E+01
N	2.500E+01	2.495E+01	2.495E+01	2.495E+01	2.495E+01	2.495E+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	1.719E-04	1.719E-04	1.719E-04	1.719E-04	1.719E-04
NA	1.500E+01	1.499E+01	1.499E+01	1.499E+01	1.499E+01	1.499E+01
MG	2.000E+00	2.013E+00	2.013E+00	2.013E+00	2.013E+00	2.013E+00
AL	1.670E+01	1.670E+01	1.670E+01	1.670E+01	1.670E+01	1.670E+01
SI	1.210E+01	1.210E+01	1.210E+01	1.210E+01	1.210E+01	1.210E+01
P	3.500E+01	3.499E+01	3.499E+01	3.499E+01	3.499E+01	3.499E+01
S	0.000E+00	5.749E-03	5.750E-03	5.750E-03	5.753E-03	5.757E-03
CL	5.300E+00	5.303E+00	5.303E+00	5.303E+00	5.303E+00	5.303E+00
AR	0.000E+00	5.428E-04	5.429E-04	5.429E-04	5.428E-04	5.428E-04
K	0.000E+00	2.525E-04	2.525E-04	2.525E-04	2.525E-04	2.525E-04
CA	2.000E+00	2.000E+00	2.000E+00	2.000E+00	2.000E+00	2.000E+00
SC	0.000E+00	2.398E-05	2.398E-05	2.398E-05	2.400E-05	2.403E-05

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TI	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00	1.000E+00
V	3.000E+00	2.990E+00	2.990E+00	2.990E+00	2.990E+00	2.990E+00
CR	4.000E+00	4.011E+00	4.011E+00	4.011E+00	4.011E+00	4.011E+00
MN	1.700E+00	1.675E+00	1.675E+00	1.675E+00	1.675E+00	1.675E+00
FE	1.800E+01	1.803E+01	1.803E+01	1.803E+01	1.803E+01	1.803E+01
CO	1.000E+00	9.969E-01	9.969E-01	9.969E-01	9.969E-01	9.969E-01
NI	2.400E+01	2.400E+01	2.400E+01	2.400E+01	2.400E+01	2.400E+01
CU	1.000E+00	1.005E+00	1.005E+00	1.005E+00	1.005E+00	1.005E+00
ZN	4.030E+01	4.028E+01	4.028E+01	4.028E+01	4.028E+01	4.028E+01
GA	0.000E+00	1.345E-02	1.345E-02	1.345E-02	1.345E-02	1.345E-02
GE	0.000E+00	3.808E-05	3.808E-05	3.808E-05	3.808E-05	3.808E-05
ZR	0.000E+00	4.553E-05	4.553E-05	4.554E-05	4.556E-05	4.558E-05
MO	1.000E+01	9.961E+00	9.961E+00	9.961E+00	9.961E+00	9.961E+00
TC	0.000E+00	4.544E-03	4.544E-03	4.544E-03	4.548E-03	4.553E-03
RU	0.000E+00	2.155E-03	2.155E-03	2.155E-03	2.155E-03	2.155E-03
PD	0.000E+00	1.323E-04	1.323E-04	1.323E-04	1.323E-04	1.323E-04
AG	1.000E-01	7.857E-02	7.857E-02	7.857E-02	7.857E-02	7.857E-02
CD	2.500E+01	2.494E+01	2.494E+01	2.494E+01	2.494E+01	2.494E+01
IN	2.000E+00	3.430E-01	3.430E-01	3.430E-01	3.430E-01	3.430E-01
SN	4.000E+00	5.677E+00	5.677E+00	5.677E+00	5.677E+00	5.677E+00
SB	0.000E+00	1.921E-03	1.921E-03	1.921E-03	1.922E-03	1.923E-03
TE	0.000E+00	2.016E-04	2.016E-04	2.017E-04	2.020E-04	2.024E-04
EU	0.000E+00	3.010E-04	3.011E-04	3.011E-04	3.015E-04	3.020E-04
GD	2.500E+00	2.481E+00	2.481E+00	2.481E+00	2.481E+00	2.481E+00
TB	0.000E+00	2.138E-02	2.138E-02	2.138E-02	2.139E-02	2.140E-02
DY	0.000E+00	3.830E-03	3.831E-03	3.831E-03	3.836E-03	3.842E-03
TA	0.000E+00	9.071E-05	9.072E-05	9.073E-05	9.084E-05	9.096E-05
W	2.000E+00	1.909E+00	1.909E+00	1.909E+00	1.909E+00	1.909E+00
RE	0.000E+00	8.518E-02	8.519E-02	8.520E-02	8.525E-02	8.530E-02
OS	0.000E+00	6.655E-03	6.657E-03	6.658E-03	6.667E-03	6.674E-03
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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	0.000E+00	1.622E+02	1.622E+02	1.622E+02	1.622E+02	1.622E+02
H 4	0.000E+00	4.359E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HE 6	0.000E+00	2.833E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LI 8	0.000E+00	1.841E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE 8	0.000E+00	1.849E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE 10	0.000E+00	3.987E-07	3.987E-07	3.987E-07	3.987E-07	3.987E-07
BE 11	0.000E+00	5.977E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
B 12	0.000E+00	1.298E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C 14	0.000E+00	2.276E-01	2.276E-01	2.276E-01	2.276E-01	2.276E-01
C 15	0.000E+00	2.870E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	1.798E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
O 19	0.000E+00	3.331E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
F 20	0.000E+00	3.160E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE 23	0.000E+00	1.494E+00	1.185E-29	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	2.214E+02	2.114E+02	2.019E+02	1.272E+02	7.304E+01
NA 24M	0.000E+00	9.140E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 25	0.000E+00	1.832E-02	1.202E-20	0.000E+00	0.000E+00	0.000E+00
MG 27	0.000E+00	2.267E+00	2.795E-02	3.448E-04	2.806E-23	0.000E+00
AL 28	0.000E+00	5.569E+01	4.828E-07	1.433E-09	1.029E-09	6.910E-10
AL 29	0.000E+00	6.083E-02	1.033E-04	1.749E-07	0.000E+00	0.000E+00
AL 30	0.000E+00	5.890E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SI 31	0.000E+00	3.966E+01	3.044E+01	2.337E+01	1.661E+00	6.959E-02
P 32	0.000E+00	6.878E+01	6.864E+01	6.850E+01	6.713E+01	6.552E+01
P 34	0.000E+00	4.850E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S 35	0.000E+00	2.112E+01	2.111E+01	2.111E+01	2.104E+01	2.096E+01
S 37	0.000E+00	9.723E-03	2.620E-06	7.059E-10	0.000E+00	0.000E+00
CL 36	0.000E+00	4.641E-03	4.641E-03	4.641E-03	4.641E-03	4.641E-03
CL 38	0.000E+00	5.670E+00	1.855E+00	6.067E-01	8.507E-06	1.277E-11
CL 38M	0.000E+00	6.778E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AR 37	0.000E+00	4.015E-01	4.012E-01	4.009E-01	3.976E-01	3.937E-01
AR 39	0.000E+00	2.790E-05	2.790E-05	2.790E-05	2.790E-05	2.790E-05
AR 41	0.000E+00	4.495E-05	3.076E-05	2.105E-05	4.736E-07	4.991E-09
K 42	0.000E+00	7.603E-03	7.188E-03	6.796E-03	3.879E-03	1.979E-03
K 43	0.000E+00	2.451E-04	2.377E-04	2.306E-04	1.697E-04	1.174E-04
K 44	0.000E+00	9.293E-05	1.403E-05	2.119E-06	1.307E-14	1.838E-24
CA 41	0.000E+00	7.133E-05	7.133E-05	7.133E-05	7.133E-05	7.133E-05
CA 45	0.000E+00	3.086E-01	3.085E-01	3.085E-01	3.079E-01	3.073E-01
CA 47	0.000E+00	4.112E-04	4.086E-04	4.060E-04	3.810E-04	3.529E-04

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CA 49	0.000E+00	3.489E-02	3.092E-04	2.740E-06	8.183E-27	0.000E+00
SC 46	0.000E+00	2.687E-02	2.686E-02	2.685E-02	2.676E-02	2.665E-02
SC 46M	0.000E+00	1.641E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SC 47	0.000E+00	3.861E-02	3.828E-02	3.796E-02	3.485E-02	3.146E-02
SC 48	0.000E+00	3.813E-03	3.753E-03	3.694E-03	3.153E-03	2.608E-03
SC 49	0.000E+00	3.804E-02	2.146E-02	1.044E-02	7.541E-06	1.282E-09
SC 50	0.000E+00	6.068E-05	1.623E-15	4.341E-26	0.000E+00	0.000E+00
TI 51	0.000E+00	7.649E-02	5.596E-05	4.094E-08	0.000E+00	0.000E+00
V 50	1.315E-15	1.230E-15	1.230E-15	1.230E-15	1.230E-15	1.230E-15
V 52	0.000E+00	9.912E+01	1.512E-03	2.307E-08	0.000E+00	0.000E+00
V 53	0.000E+00	8.094E-04	4.894E-15	2.959E-26	0.000E+00	0.000E+00
V 54	0.000E+00	8.606E-06	1.702E-25	0.000E+00	0.000E+00	0.000E+00
CR 51	0.000E+00	1.779E+01	1.777E+01	1.776E+01	1.757E+01	1.735E+01

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
CR 55	0.000E+00	2.903E-01	2.370E-06	1.936E-11	0.000E+00	0.000E+00
MN 54	0.000E+00	8.799E-01	8.798E-01	8.797E-01	8.789E-01	8.779E-01
MN 56	0.000E+00	1.861E+02	1.422E+02	1.087E+02	7.394E+00	2.938E-01
MN 57	0.000E+00	3.399E-03	2.055E-14	1.243E-25	0.000E+00	0.000E+00
MN 58	0.000E+00	1.103E-05	2.797E-22	0.000E+00	0.000E+00	0.000E+00
FE 55	0.000E+00	4.744E+00	4.744E+00	4.744E+00	4.742E+00	4.741E+00
FE 59	0.000E+00	4.862E-01	4.858E-01	4.855E-01	4.824E-01	4.787E-01
CO 58	0.000E+00	1.780E+01	1.779E+01	1.779E+01	1.771E+01	1.763E+01
CO 60	0.000E+00	7.989E+01	7.989E+01	7.989E+01	7.987E+01	7.986E+01
CO 60M	0.000E+00	1.614E+02	3.039E+00	5.724E-02	3.211E-19	0.000E+00
CO 61	0.000E+00	1.249E+00	8.206E-01	5.391E-01	8.078E-03	5.224E-05
CO 62	0.000E+00	2.451E-03	2.229E-15	2.028E-27	0.000E+00	0.000E+00
NI 59	0.000E+00	4.214E-03	4.214E-03	4.214E-03	4.214E-03	4.214E-03
NI 63	0.000E+00	6.705E-01	6.705E-01	6.705E-01	6.705E-01	6.705E-01
NI 65	0.000E+00	2.054E+00	1.560E+00	1.185E+00	7.569E-02	2.790E-03
NI 66	0.000E+00	1.346E-05	1.329E-05	1.312E-05	1.155E-05	9.922E-06
CU 64	0.000E+00	1.984E+01	1.879E+01	1.779E+01	1.031E+01	5.354E+00
CU 66	0.000E+00	4.405E+00	1.279E-03	1.351E-05	1.157E-05	9.938E-06

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CU 67	0.000E+00	5.404E-06	5.343E-06	5.284E-06	4.724E-06	4.129E-06
ZN 65	0.000E+00	8.258E+01	8.257E+01	8.256E+01	8.246E+01	8.234E+01
ZN 69	0.000E+00	7.827E+01	4.038E+01	2.198E+01	3.101E+00	1.687E+00
ZN 69M	0.000E+00	5.260E+00	5.001E+00	4.756E+00	2.874E+00	1.570E+00
ZN 71	0.000E+00	1.061E-01	4.715E-06	3.947E-06	6.735E-07	8.069E-08
ZN 71M	0.000E+00	1.113E-02	9.325E-03	7.814E-03	1.333E-03	1.597E-04
GA 70	0.000E+00	4.348E-01	6.057E-02	8.439E-03	2.324E-11	1.242E-21
GA 72	0.000E+00	1.426E-03	1.358E-03	1.292E-03	7.905E-04	4.383E-04
GA 72M	0.000E+00	4.406E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 71	0.000E+00	6.753E-04	6.737E-04	6.720E-04	6.558E-04	6.368E-04
GE 71M	0.000E+00	5.511E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 89M	0.000E+00	5.351E-04	5.304E-04	5.258E-04	4.813E-04	4.329E-04
Y 90	0.000E+00	6.919E-07	6.845E-07	6.771E-07	6.076E-07	5.336E-07
ZR 89	0.000E+00	5.360E-04	5.313E-04	5.266E-04	4.821E-04	4.336E-04
ZR 95	0.000E+00	1.806E-03	1.805E-03	1.804E-03	1.796E-03	1.786E-03
ZR 97	0.000E+00	4.236E-05	4.066E-05	3.903E-05	2.590E-05	1.583E-05
NB 92	0.000E+00	1.067E-01	1.064E-01	1.061E-01	1.031E-01	9.965E-02
NB 94	0.000E+00	3.847E-07	3.847E-07	3.847E-07	3.847E-07	3.847E-07
NB 95	0.000E+00	4.458E-03	4.456E-03	4.454E-03	4.432E-03	4.406E-03
NB 95M	0.000E+00	1.276E-05	1.275E-05	1.275E-05	1.274E-05	1.272E-05
NB 96	0.000E+00	3.835E-03	3.723E-03	3.614E-03	2.685E-03	1.881E-03
NB 97	0.000E+00	1.505E-03	8.633E-04	5.022E-04	2.927E-05	1.594E-05
NB 97M	0.000E+00	4.009E-05	3.852E-05	3.697E-05	2.453E-05	1.499E-05
NB 98	0.000E+00	2.212E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100	0.000E+00	1.112E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 93M	0.000E+00	3.099E-02	2.801E-02	2.531E-02	9.201E-03	2.732E-03
MO 93	0.000E+00	2.883E-04	2.883E-04	2.883E-04	2.883E-04	2.883E-04
MO 99	0.000E+00	1.566E+02	1.549E+02	1.533E+02	1.380E+02	1.217E+02
MO101	0.000E+00	7.509E+00	4.367E-01	2.540E-02	1.124E-14	1.681E-29
TC 99	0.000E+00	7.706E-05	7.707E-05	7.707E-05	7.714E-05	7.721E-05
TC100	0.000E+00	2.054E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC101	0.000E+00	7.509E+00	1.628E+00	1.584E-01	2.527E-13	5.097E-28
RU103	0.000E+00	3.204E-04	3.201E-04	3.199E-04	3.175E-04	3.147E-04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

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	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
RH104	0.000E+00	5.125E-05	2.181E-11	1.503E-15	0.000E+00	0.000E+00
RH106	0.000E+00	2.646E-05	9.481E-16	9.480E-16	9.473E-16	9.464E-16
PD109	0.000E+00	2.511E-02	2.385E-02	2.266E-02	1.354E-02	7.298E-03
PD109M	0.000E+00	3.726E-04	5.250E-08	7.396E-12	0.000E+00	0.000E+00
PD111	0.000E+00	7.225E-04	1.569E-04	6.586E-05	1.443E-05	3.180E-06
PD111M	0.000E+00	8.985E-05	7.921E-05	6.983E-05	1.980E-05	4.364E-06
AG106	0.000E+00	7.531E-04	7.506E-04	7.480E-04	7.230E-04	6.941E-04
AG108	0.000E+00	1.227E+01	4.937E-04	4.933E-04	4.933E-04	4.933E-04
AG108M	0.000E+00	5.543E-03	5.543E-03	5.543E-03	5.543E-03	5.543E-03
AG109M	0.000E+00	1.007E+00	1.006E+00	1.005E+00	9.949E-01	9.879E-01
AG110	0.000E+00	5.156E+01	2.759E-02	2.759E-02	2.756E-02	2.752E-02
AG110M	0.000E+00	2.075E+00	2.075E+00	2.074E+00	2.072E+00	2.069E+00
AG111	0.000E+00	2.206E-01	2.198E-01	2.189E-01	2.106E-01	2.010E-01
AG111M	0.000E+00	1.098E-01	1.874E-04	8.897E-05	2.067E-05	4.556E-06
AG112	0.000E+00	2.216E-04	1.776E-04	1.423E-04	1.554E-05	1.091E-06
CD107	0.000E+00	9.673E-01	8.693E-01	7.812E-01	2.685E-01	7.450E-02
CD109	0.000E+00	9.821E-01	9.820E-01	9.820E-01	9.813E-01	9.806E-01
CD111M	0.000E+00	1.893E+00	8.059E-01	3.431E-01	6.709E-05	2.377E-09
CD115	0.000E+00	3.016E+02	2.977E+02	2.939E+02	2.582E+02	2.210E+02
CD115M	0.000E+00	2.236E+01	2.234E+01	2.233E+01	2.218E+01	2.201E+01
CD117	0.000E+00	8.957E+00	6.861E+00	5.255E+00	3.654E-01	1.491E-02
CD117M	0.000E+00	2.658E-01	2.168E-01	1.768E-01	2.302E-02	1.994E-03
CD119	0.000E+00	6.915E-07	8.286E-09	9.928E-11	6.056E-30	0.000E+00
IN113M	0.000E+00	7.273E-01	7.272E-01	7.271E-01	7.254E-01	7.232E-01
IN114	0.000E+00	3.661E+01	1.454E+01	1.453E+01	1.445E+01	1.435E+01
IN114M	0.000E+00	1.520E+01	1.519E+01	1.518E+01	1.510E+01	1.499E+01
IN115	1.192E-11	1.672E-12	1.672E-12	1.672E-12	1.672E-12	1.672E-12
IN116	0.000E+00	1.070E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	7.794E+02	3.616E+02	1.677E+02	7.747E-02	7.701E-06
IN117	0.000E+00	4.746E+00	4.642E+00	4.339E+00	5.927E-01	3.135E-02
IN117M	0.000E+00	8.447E+00	8.120E+00	7.376E+00	1.024E+00	5.201E-02
IN118	0.000E+00	1.018E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN119	0.000E+00	6.520E-05	7.684E-09	8.146E-10	7.644E-20	6.948E-32
IN119M	0.000E+00	6.915E-07	1.345E-07	1.414E-08	1.316E-18	1.197E-30
SN113	0.000E+00	7.271E-01	7.269E-01	7.268E-01	7.249E-01	7.228E-01
SN113M	0.000E+00	3.421E-01	4.277E-02	5.346E-03	4.979E-12	7.245E-23
SN117M	0.000E+00	2.385E+01	2.380E+01	2.375E+01	2.327E+01	2.270E+01
SN119M	0.000E+00	4.705E+00	4.705E+00	4.704E+00	4.698E+00	4.692E+00
SN121	0.000E+00	3.155E+00	3.075E+00	2.996E+00	2.314E+00	1.696E+00
SN121M	0.000E+00	2.864E-04	2.864E-04	2.864E-04	2.864E-04	2.864E-04
SN123	0.000E+00	2.752E-01	2.752E-01	2.751E-01	2.745E-01	2.738E-01
SN123M	0.000E+00	1.013E-03	3.591E-04	1.272E-04	3.968E-09	1.553E-14
SN125	0.000E+00	2.141E+00	2.135E+00	2.128E+00	2.066E+00	1.993E+00
SN125M	0.000E+00	1.484E+00	1.880E-02	2.382E-04	2.538E-23	0.000E+00
SB122	0.000E+00	2.075E-01	2.053E-01	2.032E-01	1.825E-01	1.606E-01
SB122M	0.000E+00	1.621E-03	8.115E-08	4.063E-12	0.000E+00	0.000E+00

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SB124	0.000E+00	5.935E-03	5.932E-03	5.929E-03	5.901E-03	5.867E-03
SB124M	0.000E+00	2.040E-05	4.538E-17	1.009E-28	0.000E+00	0.000E+00
SB125	0.000E+00	9.744E-01	9.745E-01	9.745E-01	9.748E-01	9.752E-01
SB126	0.000E+00	2.674E-02	2.668E-02	2.662E-02	2.600E-02	2.529E-02
SB126M	0.000E+00	1.938E-03	2.171E-04	2.433E-05	7.584E-15	2.968E-26

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
TE123M	0.000E+00	5.021E-04	5.019E-04	5.018E-04	5.006E-04	4.992E-04
TE125M	0.000E+00	1.897E-01	1.897E-01	1.897E-01	1.899E-01	1.901E-01
TE127	0.000E+00	8.870E-05	8.265E-05	7.703E-05	3.880E-05	1.830E-05
TE127M	0.000E+00	4.117E-06	4.116E-06	4.115E-06	4.104E-06	4.091E-06
I128	0.000E+00	1.759E-06	3.330E-07	6.301E-08	3.714E-15	7.842E-24
SM153	0.000E+00	1.310E-06	1.291E-06	1.272E-06	1.096E-06	9.173E-07
EU154	0.000E+00	1.198E-02	1.198E-02	1.198E-02	1.197E-02	1.197E-02
EU155	0.000E+00	4.448E-03	4.448E-03	4.448E-03	4.447E-03	4.447E-03
EU156	0.000E+00	8.232E-02	8.216E-02	8.201E-02	8.046E-02	7.865E-02
GD152	1.053E-13	9.091E-14	9.091E-14	9.091E-14	9.091E-14	9.091E-14
GD153	0.000E+00	1.247E+00	1.247E+00	1.247E+00	1.245E+00	1.244E+00
GD155M	0.000E+00	8.097E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD159	0.000E+00	5.860E+01	5.645E+01	5.439E+01	3.747E+01	2.396E+01
GD161	0.000E+00	6.331E+00	8.319E-05	1.093E-09	0.000E+00	0.000E+00
GD162	0.000E+00	1.294E-03	2.022E-05	3.159E-07	2.740E-25	0.000E+00
TB160	0.000E+00	6.608E+00	6.605E+00	6.602E+00	6.576E+00	6.545E+00
TB161	0.000E+00	7.373E+00	7.345E+00	7.314E+00	7.015E+00	6.673E+00
TB162	0.000E+00	1.268E-03	6.401E-05	1.169E-06	1.061E-24	0.000E+00
DY165	0.000E+00	9.361E-02	7.009E-02	5.219E-02	2.733E-03	7.933E-05
DY165M	0.000E+00	5.985E-02	2.493E-16	1.038E-30	0.000E+00	0.000E+00
DY166	0.000E+00	2.517E-04	2.495E-04	2.474E-04	2.273E-04	2.052E-04
HO166	0.000E+00	4.978E-03	4.858E-03	4.740E-03	3.714E-03	2.780E-03
ER167M	0.000E+00	2.054E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TA182	0.000E+00	1.147E-02	1.146E-02	1.146E-02	1.143E-02	1.140E-02
TA182M	0.000E+00	2.063E-05	1.659E-06	1.334E-07	1.509E-18	1.104E-31
TA183	0.000E+00	2.477E-02	2.463E-02	2.449E-02	2.314E-02	2.162E-02

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W181	0.000E+00	2.930E-01	2.929E-01	2.928E-01	2.921E-01	2.913E-01
W183M	0.000E+00	3.974E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W185	0.000E+00	7.053E+00	7.050E+00	7.048E+00	7.021E+00	6.988E+00
W185M	0.000E+00	8.034E-03	1.229E-13	1.879E-24	0.000E+00	0.000E+00
W187	0.000E+00	1.761E+02	1.711E+02	1.662E+02	1.243E+02	8.779E+01
W188	0.000E+00	4.402E-01	4.400E-01	4.398E-01	4.380E-01	4.358E-01
RE186	0.000E+00	2.486E+00	2.467E+00	2.448E+00	2.268E+00	2.069E+00
RE188	0.000E+00	2.482E+01	2.422E+01	2.331E+01	1.565E+01	9.758E+00
RE188M	0.000E+00	2.386E+01	2.581E+00	2.792E-01	6.125E-11	1.573E-22
RE189	0.000E+00	9.012E-05	8.759E-05	8.513E-05	6.400E-05	4.545E-05
OS191	0.000E+00	1.763E-04	1.762E-04	1.760E-04	1.744E-04	1.716E-04
OS191M	0.000E+00	1.234E-04	1.170E-04	1.109E-04	6.506E-05	3.431E-05
IR192	0.000E+00	1.849E-05	1.848E-05	1.847E-05	1.840E-05	1.832E-05
IR194	0.000E+00	2.677E-07	2.582E-07	2.490E-07	1.734E-07	1.123E-07
PB204	1.726E-16	1.724E-16	1.724E-16	1.724E-16	1.724E-16	1.724E-16
PB209	0.000E+00	4.249E-04	3.444E-04	2.792E-04	3.417E-05	2.748E-06
BI210	0.000E+00	3.391E-02	3.372E-02	3.353E-02	3.165E-02	2.953E-02
PO210	0.000E+00	2.966E-02	2.966E-02	2.966E-02	2.967E-02	2.967E-02
SUMTOT	1.203E-11	4.505E+03	2.125E+03	1.835E+03	1.301E+03	1.114E+03

TOTAL 1.203E-11 4.505E+03 2.125E+03 1.835E+03 1.301E+03 1.114E+03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	0.000E+00	1.666E+02	1.622E+02	1.622E+02	1.622E+02	1.622E+02
HE	0.000E+00	2.833E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LI	0.000E+00	1.841E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE	0.000E+00	1.849E+00	3.987E-07	3.987E-07	3.987E-07	3.987E-07
B	0.000E+00	1.298E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C	0.000E+00	2.893E+01	2.276E-01	2.276E-01	2.276E-01	2.276E-01
N	0.000E+00	1.798E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
O	0.000E+00	3.331E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
F	0.000E+00	3.160E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE	0.000E+00	1.494E+00	1.185E-29	0.000E+00	0.000E+00	0.000E+00

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NA	0.000E+00	3.128E+02	2.114E+02	2.019E+02	1.272E+02	7.304E+01
MG	0.000E+00	2.267E+00	2.795E-02	3.448E-04	1.027E-09	6.898E-10
AL	0.000E+00	5.575E+01	1.037E-04	1.763E-07	1.029E-09	6.910E-10
SI	0.000E+00	3.966E+01	3.044E+01	2.337E+01	1.661E+00	6.959E-02
P	0.000E+00	6.882E+01	6.864E+01	6.850E+01	6.713E+01	6.552E+01
S	0.000E+00	2.113E+01	2.111E+01	2.111E+01	2.104E+01	2.096E+01
CL	0.000E+00	5.742E+00	1.859E+00	6.113E-01	4.650E-03	4.641E-03
AR	0.000E+00	4.016E-01	4.013E-01	4.009E-01	3.976E-01	3.937E-01
K	0.000E+00	7.941E-03	7.440E-03	7.029E-03	4.049E-03	2.097E-03
CA	0.000E+00	3.439E-01	3.093E-01	3.089E-01	3.084E-01	3.077E-01
SC	0.000E+00	1.090E-01	9.035E-02	7.894E-02	6.477E-02	6.072E-02
TI	0.000E+00	7.649E-02	5.596E-05	4.094E-08	0.000E+00	0.000E+00
V	1.315E-15	9.912E+01	1.512E-03	2.307E-08	1.230E-15	1.230E-15
CR	0.000E+00	1.808E+01	1.777E+01	1.776E+01	1.757E+01	1.735E+01
MN	0.000E+00	1.870E+02	1.431E+02	1.096E+02	8.273E+00	1.172E+00
FE	0.000E+00	5.230E+00	5.230E+00	5.229E+00	5.225E+00	5.219E+00
CO	0.000E+00	2.603E+02	1.015E+02	9.827E+01	9.760E+01	9.749E+01
NI	0.000E+00	2.728E+00	2.234E+00	1.859E+00	7.504E-01	6.775E-01
CU	0.000E+00	2.425E+01	1.879E+01	1.779E+01	1.031E+01	5.354E+00
ZN	0.000E+00	1.662E+02	1.280E+02	1.093E+02	8.844E+01	8.560E+01
GA	0.000E+00	4.363E-01	6.193E-02	9.731E-03	7.905E-04	4.383E-04
GE	0.000E+00	7.304E-04	6.737E-04	6.720E-04	6.558E-04	6.368E-04
Y	0.000E+00	5.360E-04	5.313E-04	5.266E-04	4.819E-04	4.334E-04
ZR	0.000E+00	2.384E-03	2.377E-03	2.370E-03	2.304E-03	2.235E-03
NB	0.000E+00	1.168E-01	1.155E-01	1.147E-01	1.103E-01	1.060E-01
MO	0.000E+00	1.641E+02	1.554E+02	1.534E+02	1.381E+02	1.217E+02
TC	0.000E+00	9.563E+00	1.628E+00	1.585E-01	7.714E-05	7.721E-05
RU	0.000E+00	3.204E-04	3.201E-04	3.199E-04	3.175E-04	3.147E-04
RH	0.000E+00	7.798E-05	2.351E-09	2.231E-09	1.699E-09	1.317E-09
PD	0.000E+00	2.630E-02	2.409E-02	2.279E-02	1.357E-02	7.306E-03
AG	0.000E+00	6.724E+01	3.335E+00	3.332E+00	3.312E+00	3.292E+00
CD	0.000E+00	3.371E+02	3.298E+02	3.238E+02	2.820E+02	2.441E+02
IN	1.192E-11	1.915E+03	4.048E+02	2.099E+02	3.196E+01	3.014E+01
SN	0.000E+00	3.668E+01	3.478E+01	3.459E+01	3.334E+01	3.207E+01
SB	0.000E+00	1.218E+00	1.213E+00	1.210E+00	1.189E+00	1.167E+00
TE	0.000E+00	1.903E-01	1.903E-01	1.903E-01	1.904E-01	1.906E-01
I	0.000E+00	1.759E-06	3.330E-07	6.301E-08	2.609E-13	1.313E-13
PM	0.000E+00	3.007E-07	2.513E-07	2.130E-07	8.052E-08	5.363E-08
SM	0.000E+00	1.406E-06	1.306E-06	1.274E-06	1.096E-06	9.175E-07
EU	0.000E+00	9.874E-02	9.859E-02	9.843E-02	9.688E-02	9.507E-02
GD	1.053E-13	6.618E+01	5.770E+01	5.563E+01	3.871E+01	2.520E+01
TB	0.000E+00	1.398E+01	1.395E+01	1.392E+01	1.359E+01	1.322E+01
DY	0.000E+00	1.537E-01	7.034E-02	5.243E-02	2.960E-03	2.845E-04
HO	0.000E+00	4.978E-03	4.858E-03	4.740E-03	3.714E-03	2.780E-03
ER	0.000E+00	2.055E-05	1.290E-08	1.286E-08	1.247E-08	1.202E-08
TA	0.000E+00	3.626E-02	3.610E-02	3.595E-02	3.457E-02	3.302E-02
W	0.000E+00	1.843E+02	1.788E+02	1.739E+02	1.321E+02	9.551E+01
RE	0.000E+00	5.116E+01	2.927E+01	2.604E+01	1.792E+01	1.183E+01

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OS	0.000E+00	3.001E-04	2.931E-04	2.869E-04	2.394E-04	2.059E-04
IR	0.000E+00	1.877E-05	1.874E-05	1.872E-05	1.857E-05	1.843E-05
PB	1.726E-16	4.249E-04	3.444E-04	2.792E-04	3.417E-05	2.749E-06
BI	0.000E+00	3.391E-02	3.372E-02	3.353E-02	3.165E-02	2.953E-02
PO	0.000E+00	2.966E-02	2.966E-02	2.966E-02	2.967E-02	2.967E-02
SUMTOT	1.203E-11	4.505E+03	2.125E+03	1.835E+03	1.301E+03	1.114E+03
TOTAL	1.203E-11	4.505E+03	2.125E+03	1.835E+03	1.301E+03	1.114E+03

CUMULATIVE TABLE TOTALS

AP+FP	1.203E-11	4.505E+03	2.125E+03	1.835E+03	1.301E+03	1.114E+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	4.505E+03	2.125E+03	1.835E+03	1.301E+03	1.114E+03

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	0.000E+00	5.463E-03	5.463E-03	5.463E-03	5.462E-03	5.462E-03
HE 6	0.000E+00	2.633E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LI 8	0.000E+00	6.865E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE 8	0.000E+00	1.041E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE 11	0.000E+00	4.078E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
B 12	0.000E+00	1.029E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C 14	0.000E+00	6.675E-05	6.675E-05	6.675E-05	6.675E-05	6.675E-05
C 15	0.000E+00	4.884E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	7.790E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
O 19	0.000E+00	9.515E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
F 20	0.000E+00	1.317E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE 23	0.000E+00	1.831E-02	1.452E-31	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	6.136E+00	5.859E+00	5.594E+00	3.524E+00	2.024E+00
NA 24M	0.000E+00	2.557E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 25	0.000E+00	2.103E-04	1.380E-22	0.000E+00	0.000E+00	0.000E+00
MG 27	0.000E+00	2.140E-02	2.640E-04	3.256E-06	2.650E-25	0.000E+00
AL 28	0.000E+00	9.989E-01	8.661E-09	2.570E-11	1.845E-11	1.239E-11

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AL 29	0.000E+00	8.477E-04	1.439E-06	2.437E-09	0.000E+00	0.000E+00
AL 30	0.000E+00	1.998E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SI 31	0.000E+00	1.402E-01	1.076E-01	8.263E-02	5.874E-03	2.460E-04
P 32	0.000E+00	6.971E-01	6.957E-01	6.943E-01	6.804E-01	6.641E-01
P 34	0.000E+00	1.466E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S 35	0.000E+00	2.096E-02	2.095E-02	2.094E-02	2.088E-02	2.079E-02
S 37	0.000E+00	2.766E-04	7.454E-08	2.009E-11	0.000E+00	0.000E+00
CL 36	0.000E+00	6.845E-06	6.845E-06	6.845E-06	6.845E-06	6.845E-06
CL 38	0.000E+00	1.014E-01	3.316E-02	1.085E-02	1.521E-07	2.282E-13
CL 38M	0.000E+00	2.697E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AR 37	0.000E+00	4.998E-06	4.994E-06	4.990E-06	4.949E-06	4.900E-06
AR 39	0.000E+00	9.345E-08	9.345E-08	9.345E-08	9.345E-08	9.345E-08
AR 41	0.000E+00	4.657E-07	3.187E-07	2.181E-07	4.907E-09	5.171E-11
K 42	0.000E+00	7.688E-05	7.269E-05	6.873E-05	3.923E-05	2.002E-05
K 43	0.000E+00	1.859E-06	1.802E-06	1.748E-06	1.286E-06	8.902E-07
K 44	0.000E+00	2.865E-06	4.326E-07	6.532E-08	4.029E-16	5.666E-26
CA 41	0.000E+00	1.142E-09	1.142E-09	1.142E-09	1.142E-09	1.142E-09
CA 45	0.000E+00	1.412E-04	1.412E-04	1.412E-04	1.409E-04	1.406E-04
CA 47	0.000E+00	3.432E-06	3.410E-06	3.389E-06	3.180E-06	2.946E-06
CA 49	0.000E+00	1.088E-03	9.640E-06	8.542E-08	2.552E-28	0.000E+00
SC 46	0.000E+00	3.380E-04	3.379E-04	3.378E-04	3.366E-04	3.352E-04
SC 46M	0.000E+00	1.335E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SC 47	0.000E+00	6.197E-05	6.145E-05	6.093E-05	5.595E-05	5.051E-05
SC 48	0.000E+00	8.064E-05	7.937E-05	7.813E-05	6.669E-05	5.516E-05
SC 49	0.000E+00	4.528E-04	2.554E-04	1.242E-04	8.975E-08	1.526E-11
SC 50	0.000E+00	1.736E-06	4.644E-17	1.242E-27	0.000E+00	0.000E+00
TI 51	0.000E+00	5.599E-04	4.096E-07	2.997E-10	0.000E+00	0.000E+00
V 50	1.450E-17	1.356E-17	1.356E-17	1.356E-17	1.356E-17	1.356E-17
V 52	0.000E+00	1.477E+00	2.253E-05	3.438E-10	0.000E+00	0.000E+00
V 53	0.000E+00	9.773E-06	5.909E-17	3.573E-28	0.000E+00	0.000E+00
V 54	0.000E+00	3.724E-07	7.366E-27	0.000E+00	0.000E+00	0.000E+00
CR 51	0.000E+00	3.818E-03	3.814E-03	3.810E-03	3.771E-03	3.724E-03
CR 55	0.000E+00	1.895E-03	1.546E-08	1.263E-13	0.000E+00	0.000E+00
MN 54	0.000E+00	4.380E-03	4.380E-03	4.379E-03	4.375E-03	4.370E-03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
MN 56	0.000E+00	2.781E+00	2.126E+00	1.625E+00	1.105E-01	4.390E-03
MN 57	0.000E+00	2.359E-05	1.427E-16	8.625E-28	0.000E+00	0.000E+00
MN 58	0.000E+00	2.612E-07	6.625E-24	0.000E+00	0.000E+00	0.000E+00
FE 55	0.000E+00	1.603E-04	1.603E-04	1.603E-04	1.602E-04	1.602E-04
FE 59	0.000E+00	3.764E-03	3.761E-03	3.759E-03	3.735E-03	3.706E-03
CO 58	0.000E+00	1.065E-01	1.064E-01	1.064E-01	1.060E-01	1.054E-01
CO 60	0.000E+00	1.232E+00	1.232E+00	1.232E+00	1.231E+00	1.231E+00
CO 60M	0.000E+00	6.030E-02	1.136E-03	2.139E-05	1.200E-22	0.000E+00
CO 61	0.000E+00	4.043E-03	2.656E-03	1.745E-03	2.614E-05	1.691E-07
CO 62	0.000E+00	4.650E-05	4.229E-17	3.846E-29	0.000E+00	0.000E+00
NI 59	0.000E+00	1.674E-07	1.674E-07	1.674E-07	1.674E-07	1.674E-07
NI 63	0.000E+00	6.757E-05	6.757E-05	6.757E-05	6.757E-05	6.757E-05
NI 65	0.000E+00	1.438E-02	1.092E-02	8.293E-03	5.299E-04	1.953E-05
NI 66	0.000E+00	5.344E-09	5.277E-09	5.210E-09	4.589E-09	3.941E-09
CU 64	0.000E+00	3.681E-02	3.486E-02	3.300E-02	1.912E-02	9.934E-03
CU 66	0.000E+00	3.016E-02	8.759E-06	9.247E-08	7.923E-08	6.804E-08
CU 67	0.000E+00	8.677E-09	8.580E-09	8.485E-09	7.585E-09	6.631E-09
ZN 65	0.000E+00	2.890E-01	2.890E-01	2.889E-01	2.886E-01	2.882E-01
ZN 69	0.000E+00	1.489E-01	7.681E-02	4.182E-02	5.898E-03	3.208E-03
ZN 69M	0.000E+00	1.368E-02	1.301E-02	1.237E-02	7.475E-03	4.084E-03
ZN 71	0.000E+00	1.766E-03	7.842E-08	6.565E-08	1.120E-08	1.342E-09
ZN 71M	0.000E+00	1.955E-04	1.638E-04	1.372E-04	2.342E-05	2.805E-06
GA 70	0.000E+00	1.683E-03	2.345E-04	3.267E-05	8.996E-14	4.808E-24
GA 72	0.000E+00	2.711E-05	2.581E-05	2.457E-05	1.503E-05	8.331E-06
GA 72M	0.000E+00	3.134E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 71	0.000E+00	3.603E-08	3.594E-08	3.585E-08	3.498E-08	3.397E-08
GE 71M	0.000E+00	6.403E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 89M	0.000E+00	2.908E-06	2.883E-06	2.857E-06	2.616E-06	2.353E-06
Y 90	0.000E+00	3.835E-09	3.794E-09	3.753E-09	3.368E-09	2.957E-09
ZR 89	0.000E+00	4.009E-06	3.974E-06	3.939E-06	3.606E-06	3.243E-06
ZR 95	0.000E+00	9.145E-06	9.141E-06	9.137E-06	9.096E-06	9.047E-06
ZR 97	0.000E+00	2.208E-07	2.119E-07	2.034E-07	1.349E-07	8.249E-08
NB 92	0.000E+00	9.550E-04	9.523E-04	9.495E-04	9.229E-04	8.920E-04
NB 94	0.000E+00	3.920E-09	3.920E-09	3.920E-09	3.920E-09	3.920E-09
NB 95	0.000E+00	2.139E-05	2.137E-05	2.136E-05	2.126E-05	2.114E-05
NB 95M	0.000E+00	1.772E-08	1.772E-08	1.772E-08	1.770E-08	1.768E-08
NB 96	0.000E+00	6.376E-05	6.189E-05	6.008E-05	4.465E-05	3.127E-05
NB 97	0.000E+00	1.002E-05	5.746E-06	3.343E-06	1.948E-07	1.061E-07
NB 97M	0.000E+00	1.765E-07	1.696E-07	1.627E-07	1.080E-07	6.601E-08
NB 98	0.000E+00	2.730E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100	0.000E+00	2.624E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 93M	0.000E+00	4.335E-04	3.918E-04	3.541E-04	1.287E-04	3.822E-05
MO 93	0.000E+00	2.700E-08	2.700E-08	2.700E-08	2.700E-08	2.700E-08
MO 99	0.000E+00	5.029E-01	4.976E-01	4.924E-01	4.433E-01	3.908E-01
MO101	0.000E+00	8.578E-02	4.988E-03	2.901E-04	1.283E-16	1.920E-31

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TC 99	0.000E+00	3.864E-08	3.865E-08	3.865E-08	3.868E-08	3.872E-08
TC100	0.000E+00	1.808E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC101	0.000E+00	3.604E-02	7.814E-03	7.602E-04	1.213E-15	2.446E-30
RU103	0.000E+00	1.072E-06	1.071E-06	1.070E-06	1.062E-06	1.053E-06
RH104	0.000E+00	3.030E-07	1.289E-13	8.884E-18	0.000E+00	0.000E+00
RH106	0.000E+00	2.538E-07	9.093E-18	9.093E-18	9.085E-18	9.077E-18

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
PD109	0.000E+00	6.678E-05	6.343E-05	6.025E-05	3.600E-05	1.941E-05
PD109M	0.000E+00	4.152E-07	5.850E-11	8.242E-15	0.000E+00	0.000E+00
PD111	0.000E+00	3.842E-06	8.344E-07	3.502E-07	7.671E-08	1.691E-08
PD111M	0.000E+00	3.132E-07	2.761E-07	2.434E-07	6.902E-08	1.521E-08
AG106	0.000E+00	5.442E-06	5.423E-06	5.405E-06	5.224E-06	5.016E-06
AG108	0.000E+00	4.567E-02	1.838E-06	1.837E-06	1.837E-06	1.837E-06
AG108M	0.000E+00	5.369E-05	5.369E-05	5.369E-05	5.369E-05	5.369E-05
AG109M	0.000E+00	5.192E-04	5.185E-04	5.179E-04	5.128E-04	5.092E-04
AG110	0.000E+00	3.704E-01	1.982E-04	1.982E-04	1.980E-04	1.977E-04
AG110M	0.000E+00	3.465E-02	3.464E-02	3.464E-02	3.460E-02	3.455E-02
AG111	0.000E+00	4.942E-04	4.924E-04	4.904E-04	4.718E-04	4.504E-04
AG111M	0.000E+00	4.231E-05	7.222E-08	3.428E-08	7.964E-09	1.755E-09
AG112	0.000E+00	2.749E-06	2.203E-06	1.765E-06	1.929E-07	1.353E-08
CD107	0.000E+00	6.921E-04	6.220E-04	5.590E-04	1.921E-04	5.330E-05
CD109	0.000E+00	1.141E-04	1.141E-04	1.141E-04	1.140E-04	1.139E-04
CD111M	0.000E+00	4.444E-03	1.892E-03	8.054E-04	1.575E-07	5.580E-12
CD115	0.000E+00	9.574E-01	9.451E-01	9.329E-01	8.195E-01	7.015E-01
CD115M	0.000E+00	8.339E-02	8.333E-02	8.328E-02	8.274E-02	8.210E-02
CD117	0.000E+00	6.451E-02	4.941E-02	3.785E-02	2.632E-03	1.074E-04
CD117M	0.000E+00	2.160E-03	1.762E-03	1.437E-03	1.871E-04	1.620E-05
CD119	0.000E+00	7.583E-09	9.087E-11	1.089E-12	6.641E-32	0.000E+00
IN113M	0.000E+00	1.694E-03	1.694E-03	1.694E-03	1.690E-03	1.685E-03
IN114	0.000E+00	1.744E-01	6.925E-02	6.921E-02	6.881E-02	6.833E-02
IN114M	0.000E+00	2.157E-02	2.156E-02	2.155E-02	2.142E-02	2.127E-02
IN115	1.710E-14	2.399E-15	2.399E-15	2.399E-15	2.399E-15	2.399E-15

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IN116	0.000E+00	8.765E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	1.283E+01	5.952E+00	2.761E+00	1.275E-03	1.268E-07
IN117	0.000E+00	2.138E-02	2.091E-02	1.955E-02	2.670E-03	1.412E-04
IN117M	0.000E+00	3.190E-02	3.066E-02	2.785E-02	3.866E-03	1.964E-04
IN118	0.000E+00	1.229E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN119	0.000E+00	5.214E-07	6.144E-11	6.514E-12	6.112E-22	5.556E-34
IN119M	0.000E+00	5.841E-09	1.136E-09	1.194E-10	1.112E-20	1.011E-32
SN113	0.000E+00	1.211E-04	1.211E-04	1.211E-04	1.208E-04	1.204E-04
SN113M	0.000E+00	1.608E-04	2.010E-05	2.513E-06	2.340E-15	3.406E-26
SN117M	0.000E+00	4.423E-02	4.414E-02	4.405E-02	4.315E-02	4.210E-02
SN119M	0.000E+00	2.432E-03	2.432E-03	2.431E-03	2.429E-03	2.425E-03
SN121	0.000E+00	3.816E-03	3.718E-03	3.623E-03	2.798E-03	2.051E-03
SN121M	0.000E+00	5.739E-07	5.739E-07	5.739E-07	5.739E-07	5.739E-07
SN123	0.000E+00	8.596E-04	8.594E-04	8.592E-04	8.573E-04	8.550E-04
SN123M	0.000E+00	3.693E-06	1.309E-06	4.637E-07	1.446E-11	5.661E-17
SN125	0.000E+00	1.419E-02	1.415E-02	1.411E-02	1.369E-02	1.321E-02
SN125M	0.000E+00	9.985E-03	1.265E-04	1.603E-06	1.708E-25	0.000E+00
SB122	0.000E+00	1.238E-03	1.224E-03	1.211E-03	1.089E-03	9.575E-04
SB122M	0.000E+00	1.557E-06	7.793E-11	3.902E-15	0.000E+00	0.000E+00
SB124	0.000E+00	7.880E-05	7.876E-05	7.872E-05	7.835E-05	7.790E-05
SB124M	0.000E+00	5.245E-08	1.167E-19	2.595E-31	0.000E+00	0.000E+00
SB125	0.000E+00	3.046E-03	3.046E-03	3.047E-03	3.048E-03	3.049E-03
SB126	0.000E+00	4.941E-04	4.929E-04	4.918E-04	4.805E-04	4.672E-04
SB126M	0.000E+00	2.468E-05	2.765E-06	3.098E-07	9.656E-17	3.779E-28
TE123M	0.000E+00	7.312E-07	7.311E-07	7.309E-07	7.291E-07	7.270E-07
TE125M	0.000E+00	1.594E-04	1.594E-04	1.594E-04	1.596E-04	1.598E-04

□

OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
TE127	0.000E+00	1.198E-07	1.116E-07	1.040E-07	5.240E-08	2.471E-08
TE127M	0.000E+00	2.214E-09	2.214E-09	2.213E-09	2.207E-09	2.200E-09
I128	0.000E+00	8.727E-09	1.652E-09	3.126E-10	1.842E-17	3.890E-26
PM150	0.000E+00	2.769E-09	2.138E-09	1.651E-09	1.243E-10	5.578E-12
SM153	0.000E+00	2.570E-09	2.532E-09	2.495E-09	2.151E-09	1.800E-09

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EU152	0.000E+00	8.362E-10	8.362E-10	8.362E-10	8.361E-10	8.361E-10
EU154	0.000E+00	1.071E-04	1.071E-04	1.071E-04	1.071E-04	1.071E-04
EU155	0.000E+00	3.235E-06	3.235E-06	3.235E-06	3.235E-06	3.234E-06
EU156	0.000E+00	8.495E-04	8.479E-04	8.463E-04	8.304E-04	8.116E-04
GD152	1.371E-15	1.184E-15	1.184E-15	1.184E-15	1.184E-15	1.184E-15
GD153	0.000E+00	1.127E-03	1.127E-03	1.126E-03	1.125E-03	1.123E-03
GD155M	0.000E+00	5.832E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD159	0.000E+00	1.910E-01	1.840E-01	1.773E-01	1.222E-01	7.811E-02
GD161	0.000E+00	4.593E-02	6.036E-07	7.928E-12	0.000E+00	0.000E+00
GD162	0.000E+00	4.701E-06	7.346E-08	1.148E-09	9.956E-28	0.000E+00
TB160	0.000E+00	5.382E-02	5.380E-02	5.377E-02	5.356E-02	5.330E-02
TB161	0.000E+00	1.477E-02	1.472E-02	1.465E-02	1.406E-02	1.337E-02
TB162	0.000E+00	1.264E-05	6.382E-07	1.165E-08	1.058E-26	0.000E+00
DY165	0.000E+00	4.334E-04	3.245E-04	2.416E-04	1.265E-05	3.672E-07
DY165M	0.000E+00	4.470E-05	1.862E-19	7.754E-34	0.000E+00	0.000E+00
DY166	0.000E+00	2.939E-07	2.914E-07	2.889E-07	2.654E-07	2.396E-07
HO166	0.000E+00	2.134E-05	2.082E-05	2.032E-05	1.592E-05	1.192E-05
ER167M	0.000E+00	2.532E-08	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TA182	0.000E+00	1.021E-04	1.021E-04	1.020E-04	1.018E-04	1.015E-04
TA182M	0.000E+00	6.153E-08	4.948E-09	3.979E-10	4.500E-21	3.291E-34
TA183	0.000E+00	1.571E-04	1.562E-04	1.553E-04	1.468E-04	1.371E-04
W181	0.000E+00	8.388E-05	8.386E-05	8.384E-05	8.364E-05	8.341E-05
W183M	0.000E+00	6.125E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W185	0.000E+00	5.310E-03	5.308E-03	5.306E-03	5.285E-03	5.261E-03
W185M	0.000E+00	9.381E-06	1.435E-16	2.195E-27	0.000E+00	0.000E+00
W187	0.000E+00	7.986E-01	7.758E-01	7.536E-01	5.639E-01	3.982E-01
W188	0.000E+00	2.633E-04	2.632E-04	2.631E-04	2.620E-04	2.607E-04
RE186	0.000E+00	5.314E-03	5.274E-03	5.234E-03	4.848E-03	4.423E-03
RE188	0.000E+00	1.231E-01	1.202E-01	1.157E-01	7.766E-02	4.842E-02
RE188M	0.000E+00	2.432E-02	2.631E-03	2.846E-04	6.245E-14	1.604E-25
RE189	0.000E+00	5.396E-07	5.244E-07	5.096E-07	3.832E-07	2.721E-07
OS191	0.000E+00	2.560E-07	2.558E-07	2.557E-07	2.532E-07	2.491E-07
OS191M	0.000E+00	5.411E-08	5.130E-08	4.864E-08	2.854E-08	1.505E-08
IR192	0.000E+00	1.132E-07	1.132E-07	1.131E-07	1.127E-07	1.121E-07
IR194	0.000E+00	1.428E-09	1.378E-09	1.329E-09	9.252E-10	5.992E-10
PB204	2.660E-18	2.657E-18	2.657E-18	2.657E-18	2.657E-18	2.657E-18
PB209	0.000E+00	4.886E-07	3.961E-07	3.210E-07	3.929E-08	3.160E-09
BI210	0.000E+00	7.820E-05	7.775E-05	7.731E-05	7.298E-05	6.810E-05
PO210	0.000E+00	9.508E-04	9.509E-04	9.509E-04	9.511E-04	9.511E-04
PO211	0.000E+00	1.422E-08	9.873E-21	3.271E-29	0.000E+00	0.000E+00
SUMTOT	1.849E-14	4.860E+01	1.959E+01	1.546E+01	8.418E+00	6.347E+00

TOTAL 1.849E-14 4.860E+01 1.959E+01 1.546E+01 8.418E+00 6.347E+00

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	0.000E+00	5.463E-03	5.463E-03	5.463E-03	5.462E-03	5.462E-03
HE	0.000E+00	2.633E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LI	0.000E+00	6.865E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE	0.000E+00	1.041E-03	4.785E-10	4.785E-10	4.785E-10	4.785E-10
B	0.000E+00	1.029E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C	0.000E+00	4.885E-01	6.675E-05	6.675E-05	6.675E-05	6.675E-05
N	0.000E+00	7.790E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
O	0.000E+00	9.515E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
F	0.000E+00	1.317E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE	0.000E+00	1.831E-02	1.452E-31	0.000E+00	0.000E+00	0.000E+00
NA	0.000E+00	6.392E+00	5.859E+00	5.594E+00	3.524E+00	2.024E+00
MG	0.000E+00	2.140E-02	2.640E-04	3.256E-06	9.330E-12	6.268E-12
AL	0.000E+00	9.998E-01	1.448E-06	2.463E-09	1.845E-11	1.239E-11
SI	0.000E+00	1.402E-01	1.076E-01	8.263E-02	5.874E-03	2.460E-04
P	0.000E+00	6.986E-01	6.957E-01	6.943E-01	6.804E-01	6.641E-01
S	0.000E+00	2.124E-02	2.095E-02	2.094E-02	2.088E-02	2.079E-02
CL	0.000E+00	1.016E-01	3.316E-02	1.085E-02	6.997E-06	6.845E-06
AR	0.000E+00	5.557E-06	5.406E-06	5.301E-06	5.047E-06	4.994E-06
K	0.000E+00	8.161E-05	7.493E-05	7.054E-05	4.051E-05	2.091E-05
CA	0.000E+00	1.232E-03	1.542E-04	1.446E-04	1.441E-04	1.436E-04
SC	0.000E+00	9.364E-04	7.341E-04	6.010E-04	4.593E-04	4.409E-04
TI	0.000E+00	5.599E-04	4.096E-07	2.997E-10	0.000E+00	0.000E+00
V	1.450E-17	1.477E+00	2.253E-05	3.438E-10	1.356E-17	1.356E-17
CR	0.000E+00	5.713E-03	3.814E-03	3.810E-03	3.771E-03	3.724E-03
MN	0.000E+00	2.786E+00	2.130E+00	1.629E+00	1.149E-01	8.760E-03
FE	0.000E+00	3.924E-03	3.921E-03	3.919E-03	3.895E-03	3.866E-03
CO	0.000E+00	1.403E+00	1.342E+00	1.340E+00	1.337E+00	1.337E+00
NI	0.000E+00	1.444E-02	1.099E-02	8.361E-03	5.976E-04	8.727E-05
CU	0.000E+00	6.697E-02	3.487E-02	3.301E-02	1.912E-02	9.934E-03
ZN	0.000E+00	4.535E-01	3.789E-01	3.433E-01	3.020E-01	2.955E-01
GA	0.000E+00	1.710E-03	2.603E-04	5.724E-05	1.503E-05	8.331E-06
GE	0.000E+00	1.001E-07	3.594E-08	3.585E-08	3.498E-08	3.397E-08
Y	0.000E+00	2.914E-06	2.888E-06	2.863E-06	2.619E-06	2.356E-06
ZR	0.000E+00	1.338E-05	1.333E-05	1.328E-05	1.284E-05	1.237E-05
NB	0.000E+00	1.053E-03	1.041E-03	1.035E-03	9.892E-04	9.446E-04
MO	0.000E+00	5.891E-01	5.030E-01	4.931E-01	4.435E-01	3.909E-01

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TC	0.000E+00	5.412E-02	7.814E-03	7.602E-04	3.868E-08	3.872E-08
RU	0.000E+00	1.072E-06	1.071E-06	1.070E-06	1.062E-06	1.053E-06
RH	0.000E+00	5.570E-07	3.532E-12	3.186E-12	2.305E-12	1.809E-12
PD	0.000E+00	7.135E-05	6.454E-05	6.084E-05	3.615E-05	1.944E-05
AG	0.000E+00	4.518E-01	3.591E-02	3.591E-02	3.584E-02	3.577E-02
CD	0.000E+00	1.113E+00	1.082E+00	1.057E+00	9.054E-01	7.839E-01
IN	1.710E-14	2.185E+01	6.096E+00	2.901E+00	9.973E-02	9.162E-02
SN	0.000E+00	7.580E-02	6.557E-02	6.520E-02	6.305E-02	6.075E-02
SB	0.000E+00	4.883E-03	4.845E-03	4.829E-03	4.695E-03	4.551E-03
TE	0.000E+00	1.603E-04	1.603E-04	1.603E-04	1.604E-04	1.605E-04
I	0.000E+00	8.727E-09	1.652E-09	3.126E-10	3.721E-15	1.889E-15
PM	0.000E+00	3.126E-09	2.481E-09	1.986E-09	3.869E-10	2.015E-10
SM	0.000E+00	3.131E-09	2.618E-09	2.508E-09	2.151E-09	1.800E-09
EU	0.000E+00	9.599E-04	9.583E-04	9.567E-04	9.407E-04	9.220E-04
GD	1.371E-15	2.381E-01	1.852E-01	1.784E-01	1.233E-01	7.923E-02
TB	0.000E+00	6.860E-02	6.851E-02	6.843E-02	6.762E-02	6.667E-02
DY	0.000E+00	4.784E-04	3.248E-04	2.419E-04	1.292E-05	6.069E-07
HO	0.000E+00	2.134E-05	2.082E-05	2.032E-05	1.592E-05	1.192E-05
ER	0.000E+00	2.535E-08	2.600E-11	2.592E-11	2.514E-11	2.423E-11
TA	0.000E+00	2.593E-04	2.583E-04	2.574E-04	2.486E-04	2.386E-04
W	0.000E+00	8.049E-01	7.814E-01	7.593E-01	5.695E-01	4.038E-01
RE	0.000E+00	1.528E-01	1.281E-01	1.212E-01	8.250E-02	5.284E-02
OS	0.000E+00	3.145E-07	3.072E-07	3.043E-07	2.818E-07	2.642E-07
IR	0.000E+00	1.146E-07	1.145E-07	1.144E-07	1.136E-07	1.127E-07
PB	2.660E-18	4.886E-07	3.961E-07	3.210E-07	3.929E-08	3.160E-09
BI	0.000E+00	7.820E-05	7.775E-05	7.731E-05	7.298E-05	6.810E-05
PO	0.000E+00	9.508E-04	9.509E-04	9.509E-04	9.511E-04	9.511E-04
SUMTOT	1.849E-14	4.860E+01	1.959E+01	1.546E+01	8.418E+00	6.347E+00
TOTAL	1.849E-14	4.860E+01	1.959E+01	1.546E+01	8.418E+00	6.347E+00

CUMULATIVE TABLE TOTALS

AP+FP	1.849E-14	4.860E+01	1.959E+01	1.546E+01	8.418E+00	6.347E+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	4.860E+01	1.959E+01	1.546E+01	8.418E+00	6.347E+00

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, NEUTRON

S PER SECOND

1 MTIHM 4.236% UO2, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
HE 3	0.000E+00	1.680E-02	1.681E-02	1.682E-02	1.691E-02	1.702E-02
LI 6	3.921E-01	1.860E-01	1.860E-01	1.860E-01	1.860E-01	1.860E-01
B 10	2.881E+00	1.169E-01	1.169E-01	1.169E-01	1.169E-01	1.169E-01
N 14	1.807E-01	1.803E-01	1.803E-01	1.803E-01	1.803E-01	1.803E-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	3.042E-02	3.042E-02	3.042E-02	3.042E-02	3.042E-02
NA 23	2.701E-02	2.699E-02	2.699E-02	2.699E-02	2.699E-02	2.699E-02
CL 35	1.967E-01	1.898E-01	1.898E-01	1.898E-01	1.898E-01	1.898E-01
MN 55	2.257E-02	2.224E-02	2.224E-02	2.224E-02	2.224E-02	2.224E-02
FE 56	3.293E-02	3.291E-02	3.291E-02	3.291E-02	3.291E-02	3.291E-02
CO 59	6.490E-02	6.008E-02	6.008E-02	6.008E-02	6.008E-02	6.008E-02
NI 58	5.247E-02	5.227E-02	5.227E-02	5.227E-02	5.227E-02	5.227E-02
MO 95	3.981E-02	3.790E-02	3.790E-02	3.790E-02	3.790E-02	3.790E-02
MO 98	1.920E-02	1.897E-02	1.897E-02	1.897E-02	1.897E-02	1.897E-02
CD110	3.435E-02	3.369E-02	3.369E-02	3.369E-02	3.369E-02	3.369E-02
CD111	5.215E-02	5.148E-02	5.148E-02	5.148E-02	5.148E-02	5.148E-02
CD112	2.913E-02	2.938E-02	2.938E-02	2.938E-02	2.938E-02	2.938E-02
CD113	4.923E+01	1.976E-02	1.976E-02	1.976E-02	1.976E-02	1.976E-02
CD114	2.769E-02	3.928E-02	3.928E-02	3.928E-02	3.928E-02	3.928E-02
IN115	1.596E+00	2.239E-01	2.239E-01	2.239E-01	2.239E-01	2.239E-01
GD155	2.528E+00	2.054E-03	2.054E-03	2.054E-03	2.054E-03	2.054E-03
GD157	1.135E+01	1.247E-02	1.247E-02	1.247E-02	1.247E-02	1.247E-02
W182	2.511E-02	2.095E-02	2.095E-02	2.095E-02	2.095E-02	2.095E-02
W186	2.525E-02	2.137E-02	2.137E-02	2.137E-02	2.137E-02	2.137E-02
SUMTOT	8.238E+01	1.497E+01	1.497E+01	1.497E+01	1.497E+01	1.497E+01
TOTAL	8.258E+01	1.520E+01	1.520E+01	1.520E+01	1.520E+01	1.520E+01

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, NEUTRON

S PER SECOND

1 MTIHM 4.236% UO2, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
HE	0.000E+00	1.680E-02	1.681E-02	1.682E-02	1.691E-02	1.702E-02
LI	3.927E-01	1.868E-01	1.868E-01	1.868E-01	1.868E-01	1.868E-01
B	2.881E+00	1.169E-01	1.169E-01	1.169E-01	1.169E-01	1.169E-01
N	1.807E-01	1.803E-01	1.803E-01	1.803E-01	1.803E-01	1.803E-01
O	1.358E+01	1.358E+01	1.358E+01	1.358E+01	1.358E+01	1.358E+01
NA	2.701E-02	2.699E-02	2.699E-02	2.699E-02	2.699E-02	2.699E-02
CL	1.974E-01	1.921E-01	1.921E-01	1.921E-01	1.921E-01	1.921E-01
MN	2.257E-02	2.224E-02	2.224E-02	2.224E-02	2.224E-02	2.224E-02
FE	3.563E-02	3.567E-02	3.567E-02	3.567E-02	3.567E-02	3.567E-02
CO	6.490E-02	6.176E-02	6.176E-02	6.176E-02	6.176E-02	6.175E-02
NI	7.426E-02	7.936E-02	7.936E-02	7.936E-02	7.936E-02	7.936E-02
ZN	4.302E-02	4.294E-02	4.294E-02	4.294E-02	4.294E-02	4.294E-02
MO	7.160E-02	6.975E-02	6.975E-02	6.975E-02	6.975E-02	6.975E-02
CD	4.937E+01	1.752E-01	1.752E-01	1.752E-01	1.752E-01	1.752E-01
IN	1.601E+00	2.284E-01	2.284E-01	2.284E-01	2.284E-01	2.284E-01
GD	1.389E+01	3.697E-02	3.697E-02	3.697E-02	3.697E-02	3.697E-02
W	5.911E-02	5.265E-02	5.265E-02	5.265E-02	5.263E-02	5.262E-02
SUMTOT	8.250E+01	1.511E+01	1.511E+01	1.511E+01	1.511E+01	1.511E+01
TOTAL	8.258E+01	1.520E+01	1.520E+01	1.520E+01	1.520E+01	1.520E+01

CUMULATIVE TABLE TOTALS

AP+FP	8.258E+01	1.520E+01	1.520E+01	1.520E+01	1.520E+01	1.520E+01
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	1.520E+01	1.520E+01	1.520E+01	1.520E+01	1.520E+01

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

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

1 MTIHM 4.236% UO2, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
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ML041000029.txt

HE	3	0.000E+00	1.106E-03	1.106E-03	1.107E-03	1.113E-03	1.120E-03
LI	6	4.747E-03	1.224E-02	1.224E-02	1.224E-02	1.224E-02	1.224E-02
B	10	3.489E-02	7.692E-03	7.692E-03	7.692E-03	7.692E-03	7.692E-03
N	14	2.188E-03	1.186E-02	1.186E-02	1.186E-02	1.186E-02	1.186E-02
O	16	1.641E-01	8.915E-01	8.915E-01	8.915E-01	8.915E-01	8.914E-01
O	17	3.683E-04	2.002E-03	2.002E-03	2.002E-03	2.002E-03	2.002E-03
NA	23	3.271E-04	1.776E-03	1.776E-03	1.776E-03	1.776E-03	1.776E-03
CL	35	2.382E-03	1.249E-02	1.249E-02	1.249E-02	1.249E-02	1.249E-02
MN	55	2.733E-04	1.463E-03	1.463E-03	1.463E-03	1.463E-03	1.463E-03
FE	56	3.988E-04	2.165E-03	2.165E-03	2.165E-03	2.165E-03	2.165E-03
CO	59	7.859E-04	3.953E-03	3.953E-03	3.953E-03	3.953E-03	3.953E-03
NI	58	6.353E-04	3.439E-03	3.439E-03	3.439E-03	3.439E-03	3.439E-03
MO	95	4.821E-04	2.494E-03	2.494E-03	2.494E-03	2.494E-03	2.494E-03
MO	98	2.326E-04	1.248E-03	1.248E-03	1.248E-03	1.248E-03	1.248E-03
CD	110	4.159E-04	2.217E-03	2.217E-03	2.217E-03	2.217E-03	2.217E-03
CD	111	6.315E-04	3.387E-03	3.387E-03	3.387E-03	3.387E-03	3.387E-03
CD	112	3.528E-04	1.934E-03	1.934E-03	1.934E-03	1.934E-03	1.934E-03
CD	113	5.961E-01	1.300E-03	1.300E-03	1.300E-03	1.300E-03	1.300E-03
CD	114	3.352E-04	2.585E-03	2.585E-03	2.585E-03	2.585E-03	2.584E-03
IN	115	1.933E-02	1.473E-02	1.473E-02	1.473E-02	1.473E-02	1.474E-02
GD	155	3.062E-02	1.352E-04	1.352E-04	1.352E-04	1.352E-04	1.352E-04
GD	157	1.374E-01	8.204E-04	8.204E-04	8.204E-04	8.204E-04	8.204E-04
W	182	3.040E-04	1.379E-03	1.379E-03	1.379E-03	1.379E-03	1.379E-03
W	186	3.058E-04	1.406E-03	1.406E-03	1.406E-03	1.406E-03	1.406E-03
SUMTOT		9.976E-01	9.853E-01	9.853E-01	9.853E-01	9.853E-01	9.853E-01

TOTAL 1.000E+00 1.000E+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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
--	----------	----------	-------	-------	--------	--------

HE	0.000E+00	1.106E-03	1.106E-03	1.107E-03	1.113E-03	1.120E-03
LI	4.756E-03	1.229E-02	1.229E-02	1.229E-02	1.229E-02	1.229E-02

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B	3.489E-02	7.693E-03	7.693E-03	7.693E-03	7.693E-03	7.693E-03
N	2.188E-03	1.186E-02	1.186E-02	1.186E-02	1.186E-02	1.186E-02
O	1.645E-01	8.937E-01	8.937E-01	8.937E-01	8.937E-01	8.937E-01
NA	3.271E-04	1.776E-03	1.776E-03	1.776E-03	1.776E-03	1.776E-03
CL	2.390E-03	1.264E-02	1.264E-02	1.264E-02	1.264E-02	1.264E-02
MN	2.733E-04	1.463E-03	1.463E-03	1.463E-03	1.463E-03	1.463E-03
FE	4.314E-04	2.347E-03	2.347E-03	2.347E-03	2.347E-03	2.347E-03
CO	7.859E-04	4.064E-03	4.064E-03	4.064E-03	4.064E-03	4.063E-03
NI	8.992E-04	5.222E-03	5.222E-03	5.222E-03	5.222E-03	5.222E-03
ZN	5.209E-04	2.826E-03	2.826E-03	2.826E-03	2.826E-03	2.826E-03
MO	8.670E-04	4.590E-03	4.590E-03	4.590E-03	4.589E-03	4.589E-03
CD	5.979E-01	1.153E-02	1.153E-02	1.153E-02	1.153E-02	1.153E-02
IN	1.939E-02	1.503E-02	1.503E-02	1.503E-02	1.503E-02	1.503E-02
GD	1.682E-01	2.433E-03	2.433E-03	2.433E-03	2.433E-03	2.433E-03
W	7.157E-04	3.464E-03	3.464E-03	3.464E-03	3.463E-03	3.463E-03
SUMTOT	9.990E-01	9.940E-01	9.940E-01	9.940E-01	9.940E-01	9.940E-01

TOTAL 1.000E+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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
HE 4	0.000E+00	1.582E-02	1.583E-02	1.583E-02	1.589E-02	1.595E-02
TH230	0.000E+00	1.116E-03	1.116E-03	1.116E-03	1.117E-03	1.118E-03
PA231	0.000E+00	1.653E-04	1.654E-04	1.654E-04	1.657E-04	1.659E-04
U232	0.000E+00	1.046E-04	1.047E-04	1.047E-04	1.048E-04	1.050E-04
U233	0.000E+00	1.395E-03	1.395E-03	1.395E-03	1.395E-03	1.395E-03
U234	3.838E+02	3.020E+02	3.020E+02	3.020E+02	3.020E+02	3.020E+02
U235	4.236E+04	2.381E+04	2.381E+04	2.381E+04	2.381E+04	2.381E+04
U236	0.000E+00	3.375E+03	3.375E+03	3.375E+03	3.375E+03	3.375E+03
U237	0.000E+00	8.362E+00	8.327E+00	8.291E+00	7.944E+00	7.546E+00
U238	9.573E+05	9.460E+05	9.460E+05	9.460E+05	9.460E+05	9.460E+05
U239	0.000E+00	5.052E-01	8.628E-02	1.474E-02	3.115E-10	1.921E-19
NP236	0.000E+00	1.291E-04	1.291E-04	1.291E-04	1.291E-04	1.291E-04
NP237	0.000E+00	2.132E+02	2.132E+02	2.133E+02	2.136E+02	2.140E+02

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NP238	0.000E+00	5.180E-01	5.110E-01	5.040E-01	4.398E-01	3.733E-01
NP239	0.000E+00	7.272E+01	7.225E+01	7.144E+01	6.321E+01	5.456E+01
NP240	0.000E+00	1.280E-03	6.751E-04	3.561E-04	5.930E-07	2.745E-10
PU236	0.000E+00	2.423E-04	2.424E-04	2.425E-04	2.429E-04	2.433E-04
PU238	0.000E+00	2.960E+01	2.960E+01	2.961E+01	2.968E+01	2.975E+01
PU239	0.000E+00	4.634E+03	4.635E+03	4.635E+03	4.644E+03	4.652E+03
PU240	0.000E+00	1.035E+03	1.035E+03	1.035E+03	1.035E+03	1.035E+03
PU241	0.000E+00	6.066E+02	6.066E+02	6.066E+02	6.066E+02	6.065E+02
PU242	0.000E+00	7.785E+01	7.785E+01	7.785E+01	7.785E+01	7.785E+01
PU243	0.000E+00	1.955E-02	1.700E-02	1.478E-02	3.649E-03	6.811E-04
PU244	0.000E+00	1.072E-03	1.072E-03	1.072E-03	1.072E-03	1.072E-03
AM241	0.000E+00	1.015E+01	1.015E+01	1.015E+01	1.019E+01	1.023E+01
AM242M	0.000E+00	3.134E-01	3.134E-01	3.134E-01	3.134E-01	3.134E-01
AM242	0.000E+00	1.978E-02	1.894E-02	1.814E-02	1.177E-02	7.005E-03
AM243	0.000E+00	7.184E+00	7.186E+00	7.189E+00	7.200E+00	7.203E+00
AM244M	0.000E+00	2.293E-04	4.632E-05	9.356E-06	1.057E-12	4.876E-21
AM244	0.000E+00	2.807E-04	2.620E-04	2.447E-04	1.232E-04	5.406E-05
CM242	0.000E+00	1.491E+00	1.492E+00	1.492E+00	1.495E+00	1.495E+00
CM243	0.000E+00	1.933E-02	1.933E-02	1.933E-02	1.933E-02	1.933E-02
CM244	0.000E+00	8.622E-01	8.624E-01	8.625E-01	8.626E-01	8.626E-01
CM245	0.000E+00	1.810E-02	1.810E-02	1.810E-02	1.810E-02	1.810E-02
CM246	0.000E+00	6.872E-04	6.872E-04	6.872E-04	6.872E-04	6.872E-04
SUMTOT	1.000E+06	9.801E+05	9.801E+05	9.801E+05	9.801E+05	9.801E+05
TOTAL	1.000E+06	9.801E+05	9.801E+05	9.801E+05	9.801E+05	9.801E+05

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS

1 MTIHM 4.236% UO2, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
HE	0.000E+00	1.582E-02	1.583E-02	1.583E-02	1.589E-02	1.595E-02
TH	0.000E+00	1.203E-03	1.203E-03	1.203E-03	1.204E-03	1.205E-03
PA	0.000E+00	1.723E-04	1.724E-04	1.724E-04	1.726E-04	1.727E-04
U	1.000E+06	9.735E+05	9.735E+05	9.735E+05	9.735E+05	9.735E+05
NP	0.000E+00	2.864E+02	2.860E+02	2.852E+02	2.773E+02	2.689E+02
PU	0.000E+00	6.383E+03	6.384E+03	6.385E+03	6.393E+03	6.402E+03

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AM	0.000E+00	1.766E+01	1.767E+01	1.767E+01	1.771E+01	1.775E+01
CM	0.000E+00	2.391E+00	2.392E+00	2.393E+00	2.395E+00	2.396E+00
SUMTOT	1.000E+06	9.801E+05	9.801E+05	9.801E+05	9.801E+05	9.801E+05
TOTAL	1.000E+06	9.801E+05	9.801E+05	9.801E+05	9.801E+05	9.801E+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	9.801E+05	9.801E+05	9.801E+05	9.801E+05	9.801E+05
AP+ACT+FP	1.135E+06	1.115E+06	1.115E+06	1.115E+06	1.115E+06	1.115E+06

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OUTPUT UNIT =

6 PAGE 39
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
TH231	0.000E+00	6.001E-01	5.854E-01	5.711E-01	4.475E-01	3.373E-01
TH233	0.000E+00	4.351E-03	6.627E-04	1.009E-04	6.781E-13	1.057E-22
TH234	0.000E+00	3.184E-01	3.184E-01	3.184E-01	3.184E-01	3.184E-01
PA232	0.000E+00	2.157E-01	2.110E-01	2.064E-01	1.656E-01	1.271E-01
PA233	0.000E+00	1.348E-01	1.348E-01	1.349E-01	1.350E-01	1.352E-01
PA234M	0.000E+00	3.200E-01	3.184E-01	3.184E-01	3.184E-01	3.184E-01
U232	0.000E+00	2.240E-03	2.241E-03	2.241E-03	2.245E-03	2.248E-03
U234	2.399E+00	1.888E+00	1.888E+00	1.888E+00	1.888E+00	1.888E+00
U235	9.161E-02	5.148E-02	5.148E-02	5.148E-02	5.148E-02	5.148E-02
U236	0.000E+00	2.185E-01	2.185E-01	2.185E-01	2.185E-01	2.185E-01
U237	0.000E+00	6.828E+05	6.799E+05	6.770E+05	6.487E+05	6.162E+05
U238	3.220E-01	3.182E-01	3.182E-01	3.182E-01	3.182E-01	3.182E-01
U239	0.000E+00	1.689E+07	2.886E+06	4.929E+05	1.042E-02	6.424E-12
U240	0.000E+00	1.558E+01	1.483E+01	1.412E+01	8.637E+00	4.788E+00
NP235	0.000E+00	1.826E-03	1.826E-03	1.825E-03	1.824E-03	1.822E-03
NP236M	0.000E+00	2.586E+00	2.508E+00	2.431E+00	1.787E+00	1.235E+00
NP237	0.000E+00	1.503E-01	1.504E-01	1.504E-01	1.506E-01	1.509E-01
NP238	0.000E+00	1.343E+05	1.325E+05	1.307E+05	1.140E+05	9.680E+04
NP239	0.000E+00	1.688E+07	1.677E+07	1.658E+07	1.467E+07	1.266E+07
NP240M	0.000E+00	3.177E+03	2.642E+01	1.429E+01	8.713E+00	4.830E+00

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NP240	0.000E+00	1.544E+04	8.141E+03	4.293E+03	7.150E+00	3.310E-03
PU236	0.000E+00	1.288E-01	1.289E-01	1.289E-01	1.291E-01	1.293E-01
PU237	0.000E+00	4.233E-01	4.231E-01	4.228E-01	4.201E-01	4.170E-01
PU238	0.000E+00	5.069E+02	5.070E+02	5.071E+02	5.083E+02	5.094E+02
PU239	0.000E+00	2.881E+02	2.882E+02	2.883E+02	2.888E+02	2.893E+02
PU240	0.000E+00	2.360E+02	2.360E+02	2.360E+02	2.360E+02	2.360E+02
PU241	0.000E+00	6.252E+04	6.252E+04	6.252E+04	6.252E+04	6.251E+04
PU242	0.000E+00	2.973E-01	2.973E-01	2.973E-01	2.974E-01	2.974E-01
PU243	0.000E+00	5.089E+04	4.425E+04	3.847E+04	9.500E+03	1.773E+03
PU245	0.000E+00	2.339E-02	2.191E-02	2.053E-02	1.067E-02	4.870E-03
AM240	0.000E+00	6.756E-02	6.664E-02	6.574E-02	5.735E-02	4.869E-02
AM241	0.000E+00	3.483E+01	3.485E+01	3.486E+01	3.497E+01	3.511E+01
AM242M	0.000E+00	3.047E+00	3.047E+00	3.047E+00	3.047E+00	3.047E+00
AM242	0.000E+00	1.600E+04	1.532E+04	1.467E+04	9.520E+03	5.665E+03
AM243	0.000E+00	1.433E+00	1.433E+00	1.434E+00	1.436E+00	1.436E+00
AM244M	0.000E+00	6.800E+03	1.374E+03	2.774E+02	3.135E-05	1.446E-13
AM244	0.000E+00	3.571E+02	3.334E+02	3.113E+02	1.567E+02	6.877E+01
AM245	0.000E+00	2.339E-02	2.317E-02	2.260E-02	1.316E-02	6.050E-03
CM242	0.000E+00	4.932E+03	4.934E+03	4.935E+03	4.944E+03	4.946E+03
CM243	0.000E+00	9.983E-01	9.983E-01	9.983E-01	9.983E-01	9.983E-01
CM244	0.000E+00	6.979E+01	6.980E+01	6.981E+01	6.982E+01	6.982E+01
CM245	0.000E+00	3.109E-03	3.109E-03	3.109E-03	3.109E-03	3.109E-03
SUMTOT	2.813E+00	3.475E+07	2.060E+07	1.801E+07	1.552E+07	1.345E+07

TOTAL 2.813E+00 3.475E+07 2.060E+07 1.801E+07 1.552E+07 1.345E+07

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
TH	0.000E+00	9.232E-01	9.048E-01	8.899E-01	7.662E-01	6.561E-01
PA	0.000E+00	6.726E-01	6.661E-01	6.614E-01	6.199E-01	5.813E-01
U	2.813E+00	1.758E+07	3.566E+06	1.170E+06	6.487E+05	6.162E+05
NP	0.000E+00	1.703E+07	1.691E+07	1.671E+07	1.478E+07	1.276E+07
PU	0.000E+00	1.144E+05	1.078E+05	1.020E+05	7.305E+04	6.532E+04
AM	0.000E+00	2.319E+04	1.707E+04	1.530E+04	9.716E+03	5.774E+03

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CM	0.000E+00	5.003E+03	5.004E+03	5.006E+03	5.014E+03	5.017E+03
SUMTOT	2.813E+00	3.475E+07	2.060E+07	1.801E+07	1.552E+07	1.345E+07
TOTAL	2.813E+00	3.475E+07	2.060E+07	1.801E+07	1.552E+07	1.345E+07

CUMULATIVE TABLE TOTALS

AP+FP	1.203E-11	4.505E+03	2.125E+03	1.835E+03	1.301E+03	1.114E+03
ACT+FP	2.813E+00	3.475E+07	2.060E+07	1.801E+07	1.552E+07	1.345E+07
AP+ACT+FP	2.813E+00	3.475E+07	2.060E+07	1.801E+07	1.552E+07	1.345E+07

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
BI212	0.000E+00	5.407E-06	5.409E-06	5.410E-06	5.407E-06	5.666E-06
PO212	0.000E+00	1.080E-05	1.080E-05	1.080E-05	1.079E-05	1.131E-05
PO216	0.000E+00	1.302E-05	1.302E-05	1.302E-05	1.302E-05	1.302E-05
RN220	0.000E+00	1.207E-05	1.207E-05	1.207E-05	1.207E-05	1.208E-05
RA224	0.000E+00	1.091E-05	1.091E-05	1.091E-05	1.091E-05	1.091E-05
TH228	0.000E+00	1.037E-05	1.037E-05	1.038E-05	1.040E-05	1.043E-05
TH231	0.000E+00	3.367E-04	3.285E-04	3.204E-04	2.511E-04	1.893E-04
TH233	0.000E+00	1.101E-05	1.677E-06	2.555E-07	1.716E-15	2.675E-25
TH234	0.000E+00	1.291E-04	1.291E-04	1.291E-04	1.291E-04	1.291E-04
PA232	0.000E+00	1.410E-03	1.379E-03	1.349E-03	1.082E-03	8.308E-04
PA233	0.000E+00	3.060E-04	3.061E-04	3.061E-04	3.065E-04	3.069E-04
PA234M	0.000E+00	1.582E-03	1.574E-03	1.574E-03	1.574E-03	1.574E-03
PA234	0.000E+00	2.938E-05	2.708E-05	2.500E-05	1.271E-05	7.896E-06
U232	0.000E+00	7.193E-05	7.194E-05	7.195E-05	7.206E-05	7.218E-05
U234	6.910E-02	5.437E-02	5.437E-02	5.437E-02	5.437E-02	5.437E-02
U235	2.399E-03	1.348E-03	1.348E-03	1.348E-03	1.348E-03	1.348E-03
U236	0.000E+00	5.918E-03	5.918E-03	5.918E-03	5.918E-03	5.918E-03
U237	0.000E+00	1.292E+03	1.286E+03	1.281E+03	1.227E+03	1.166E+03
U238	8.166E-03	8.070E-03	8.070E-03	8.070E-03	8.070E-03	8.070E-03
U239	0.000E+00	4.548E+04	7.768E+03	1.327E+03	2.804E-05	1.729E-14
U240	0.000E+00	1.278E-02	1.217E-02	1.158E-02	7.086E-03	3.928E-03

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NP236M	0.000E+00	2.043E-03	1.981E-03	1.921E-03	1.412E-03	9.755E-04
NP237	0.000E+00	4.595E-03	4.596E-03	4.597E-03	4.604E-03	4.613E-03
NP238	0.000E+00	6.433E+02	6.345E+02	6.259E+02	5.461E+02	4.636E+02
NP239	0.000E+00	4.079E+04	4.053E+04	4.008E+04	3.546E+04	3.061E+04
NP240M	0.000E+00	1.841E+01	1.531E-01	8.279E-02	5.049E-02	2.799E-02
NP240	0.000E+00	1.636E+02	8.628E+01	4.551E+01	7.578E-02	3.508E-05
PU236	0.000E+00	4.483E-03	4.484E-03	4.485E-03	4.494E-03	4.501E-03
PU237	0.000E+00	1.561E-04	1.560E-04	1.559E-04	1.549E-04	1.537E-04
PU238	0.000E+00	1.680E+01	1.680E+01	1.681E+01	1.684E+01	1.688E+01
PU239	0.000E+00	8.880E+00	8.882E+00	8.883E+00	8.899E+00	8.916E+00
PU240	0.000E+00	7.350E+00	7.350E+00	7.350E+00	7.350E+00	7.350E+00
PU241	0.000E+00	1.938E+00	1.938E+00	1.938E+00	1.938E+00	1.938E+00
PU242	0.000E+00	8.781E-03	8.781E-03	8.781E-03	8.781E-03	8.781E-03
PU243	0.000E+00	5.874E+01	5.107E+01	4.440E+01	1.096E+01	2.046E+00
PU245	0.000E+00	5.547E-05	5.196E-05	4.867E-05	2.531E-05	1.155E-05
AM240	0.000E+00	4.421E-04	4.361E-04	4.302E-04	3.753E-04	3.186E-04
AM241	0.000E+00	1.157E+00	1.158E+00	1.158E+00	1.162E+00	1.166E+00
AM242M	0.000E+00	1.204E-03	1.204E-03	1.204E-03	1.204E-03	1.204E-03
AM242	0.000E+00	1.816E+01	1.739E+01	1.665E+01	1.081E+01	6.431E+00
AM243	0.000E+00	4.605E-02	4.607E-02	4.608E-02	4.615E-02	4.617E-02
AM244M	0.000E+00	2.057E+01	4.155E+00	8.392E-01	9.484E-08	4.373E-16
AM244	0.000E+00	1.871E+00	1.747E+00	1.631E+00	8.211E-01	3.604E-01
AM245	0.000E+00	4.341E-05	4.299E-05	4.193E-05	2.442E-05	1.123E-05
CM241	0.000E+00	4.769E-06	4.766E-06	4.762E-06	4.724E-06	4.678E-06
CM242	0.000E+00	1.817E+02	1.818E+02	1.818E+02	1.822E+02	1.822E+02
CM243	0.000E+00	3.663E-02	3.663E-02	3.663E-02	3.662E-02	3.662E-02
CM244	0.000E+00	2.441E+00	2.442E+00	2.442E+00	2.442E+00	2.442E+00
CM245	0.000E+00	1.032E-04	1.032E-04	1.032E-04	1.032E-04	1.032E-04
CM246	0.000E+00	6.913E-06	6.913E-06	6.913E-06	6.913E-06	6.913E-06
SUMTOT	7.967E-02	8.871E+04	5.060E+04	4.364E+04	3.748E+04	3.247E+04
TOTAL	7.967E-02	8.871E+04	5.060E+04	4.364E+04	3.748E+04	3.247E+04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
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BI	0.000E+00	5.412E-06	5.414E-06	5.415E-06	5.411E-06	5.671E-06
PO	0.000E+00	2.382E-05	2.383E-05	2.383E-05	2.382E-05	2.434E-05
RN	0.000E+00	1.208E-05	1.208E-05	1.208E-05	1.208E-05	1.208E-05
RA	0.000E+00	1.092E-05	1.092E-05	1.092E-05	1.092E-05	1.092E-05
TH	0.000E+00	4.878E-04	4.703E-04	4.608E-04	3.912E-04	3.295E-04
PA	0.000E+00	3.327E-03	3.286E-03	3.254E-03	2.975E-03	2.719E-03
U	7.967E-02	4.677E+04	9.054E+03	2.608E+03	1.227E+03	1.166E+03
NP	0.000E+00	4.162E+04	4.125E+04	4.075E+04	3.600E+04	3.107E+04
PU	0.000E+00	9.372E+01	8.606E+01	7.940E+01	4.601E+01	3.715E+01
AM	0.000E+00	4.181E+01	2.450E+01	2.033E+01	1.284E+01	8.005E+00
CM	0.000E+00	1.842E+02	1.843E+02	1.843E+02	1.846E+02	1.847E+02
SUMTOT	7.967E-02	8.871E+04	5.060E+04	4.364E+04	3.748E+04	3.247E+04
TOTAL	7.967E-02	8.871E+04	5.060E+04	4.364E+04	3.748E+04	3.247E+04

CUMULATIVE TABLE TOTALS

AP+FP	1.849E-14	4.860E+01	1.959E+01	1.546E+01	8.418E+00	6.347E+00
ACT+FP	7.967E-02	8.871E+04	5.060E+04	4.364E+04	3.748E+04	3.247E+04
AP+ACT+FP	7.967E-02	8.876E+04	5.062E+04	4.365E+04	3.748E+04	3.247E+04

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

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

1 MTIHM 4.236% UO2, 19157 MWD/MTIHM BURNUP, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	1.934E+01	1.522E+01	1.522E+01	1.522E+01	1.522E+01	1.522E+01
U235	5.067E+03	2.847E+03	2.847E+03	2.847E+03	2.847E+03	2.847E+03
U236	0.000E+00	7.319E+01	7.319E+01	7.319E+01	7.319E+01	7.319E+01
U238	2.317E+03	2.290E+03	2.290E+03	2.290E+03	2.290E+03	2.290E+03
NP237	0.000E+00	1.670E+01	1.671E+01	1.671E+01	1.674E+01	1.677E+01
PU239	0.000E+00	1.830E+03	1.831E+03	1.831E+03	1.834E+03	1.838E+03
PU240	0.000E+00	5.564E+02	5.564E+02	5.564E+02	5.564E+02	5.564E+02
PU241	0.000E+00	2.046E+02	2.046E+02	2.046E+02	2.046E+02	2.045E+02
SUMTOT	7.403E+03	7.833E+03	7.834E+03	7.834E+03	7.837E+03	7.841E+03

TOTAL 7.403E+03 7.849E+03 7.849E+03 7.850E+03 7.853E+03 7.856E+03
□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP, 1 CYCLE
FUEL CHG FUEL DIS 1.0HR 2.0HR 12.0HR 24.0HR

U	7.403E+03	5.226E+03	5.226E+03	5.226E+03	5.226E+03	5.226E+03
NP	0.000E+00	1.919E+01	1.918E+01	1.915E+01	1.889E+01	1.863E+01
PU	0.000E+00	2.600E+03	2.600E+03	2.601E+03	2.604E+03	2.607E+03
SUMTOT	7.403E+03	7.845E+03	7.845E+03	7.846E+03	7.849E+03	7.852E+03
TOTAL	7.403E+03	7.849E+03	7.849E+03	7.850E+03	7.853E+03	7.856E+03

CUMULATIVE TABLE TOTALS

AP+FP	8.258E+01	1.520E+01	1.520E+01	1.520E+01	1.520E+01	1.520E+01
ACT+FP	7.403E+03	7.849E+03	7.849E+03	7.850E+03	7.853E+03	7.856E+03
AP+ACT+FP	7.485E+03	7.864E+03	7.865E+03	7.865E+03	7.868E+03	7.871E+03

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

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

1 MTIHM 4.236% UO2, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	2.613E-03	1.939E-03	1.939E-03	1.939E-03	1.938E-03	1.937E-03
U235	6.844E-01	3.628E-01	3.627E-01	3.627E-01	3.626E-01	3.624E-01
U236	0.000E+00	9.325E-03	9.325E-03	9.325E-03	9.321E-03	9.317E-03
U238	3.130E-01	2.917E-01	2.917E-01	2.917E-01	2.916E-01	2.915E-01
NP237	0.000E+00	2.128E-03	2.128E-03	2.128E-03	2.131E-03	2.134E-03
PU239	0.000E+00	2.332E-01	2.332E-01	2.333E-01	2.336E-01	2.339E-01
PU240	0.000E+00	7.088E-02	7.088E-02	7.088E-02	7.085E-02	7.082E-02
PU241	0.000E+00	2.606E-02	2.606E-02	2.606E-02	2.605E-02	2.604E-02
SUMTOT	1.000E+00	9.980E-01	9.980E-01	9.980E-01	9.980E-01	9.981E-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 =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

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

1 MTIHM 4.236% UO2, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U	1.000E+00	6.658E-01	6.658E-01	6.658E-01	6.655E-01	6.652E-01
NP	0.000E+00	2.445E-03	2.443E-03	2.440E-03	2.406E-03	2.371E-03
PU	0.000E+00	3.312E-01	3.313E-01	3.313E-01	3.316E-01	3.319E-01
SUMTOT	1.000E+00	9.995E-01	9.995E-01	9.995E-01	9.995E-01	9.995E-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 =

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PAGE 47

ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

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

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ACTINIDES+DAUGHTERS

ML041000029.txt

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, 19157 MWD/MTIHM BURNUP, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U235	4.098E+03	2.303E+03	2.303E+03	2.303E+03	2.303E+03	2.303E+03
U238	2.346E+02	2.318E+02	2.318E+02	2.318E+02	2.318E+02	2.318E+02
PU239	0.000E+00	1.158E+03	1.159E+03	1.159E+03	1.161E+03	1.163E+03
PU241	0.000E+00	1.536E+02	1.536E+02	1.536E+02	1.535E+02	1.535E+02
SUMTOT	4.333E+03	3.847E+03	3.847E+03	3.847E+03	3.849E+03	3.852E+03
TOTAL	4.333E+03	3.852E+03	3.852E+03	3.852E+03	3.854E+03	3.856E+03

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OUTPUT UNIT =

6 PAGE 48 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U	4.333E+03	2.537E+03	2.537E+03	2.537E+03	2.537E+03	2.537E+03
PU	0.000E+00	1.314E+03	1.314E+03	1.314E+03	1.316E+03	1.318E+03
SUMTOT	4.333E+03	3.851E+03	3.851E+03	3.851E+03	3.853E+03	3.855E+03
TOTAL	4.333E+03	3.852E+03	3.852E+03	3.852E+03	3.854E+03	3.856E+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	3.852E+03	3.852E+03	3.852E+03	3.854E+03	3.856E+03
AP+ACT+FP	4.333E+03	3.852E+03	3.852E+03	3.852E+03	3.854E+03	3.856E+03

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OUTPUT UNIT =

6 PAGE 49

ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U235	9.458E-01	5.980E-01	5.979E-01	5.979E-01	5.976E-01	5.972E-01
U238	5.414E-02	6.019E-02	6.018E-02	6.018E-02	6.015E-02	6.012E-02
PU239	0.000E+00	3.008E-01	3.008E-01	3.008E-01	3.012E-01	3.016E-01
PU241	0.000E+00	3.987E-02	3.986E-02	3.986E-02	3.984E-02	3.981E-02
SUMTOT	9.999E-01	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 50

ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U	1.000E+00	6.587E-01	6.586E-01	6.586E-01	6.583E-01	6.579E-01
PU	0.000E+00	3.411E-01	3.411E-01	3.412E-01	3.415E-01	3.419E-01
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 51

ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	2.399E+00	1.888E+00	1.888E+00	1.888E+00	1.888E+00	1.888E+00
U235	9.161E-02	5.148E-02	5.148E-02	5.148E-02	5.148E-02	5.148E-02
U238	3.220E-01	3.182E-01	3.182E-01	3.182E-01	3.182E-01	3.182E-01
PU238	0.000E+00	5.069E+02	5.070E+02	5.071E+02	5.083E+02	5.094E+02
PU239	0.000E+00	2.881E+02	2.882E+02	2.883E+02	2.888E+02	2.893E+02
PU240	0.000E+00	2.360E+02	2.360E+02	2.360E+02	2.360E+02	2.360E+02
AM241	0.000E+00	3.483E+01	3.485E+01	3.486E+01	3.497E+01	3.511E+01
CM242	0.000E+00	4.932E+03	4.934E+03	4.935E+03	4.944E+03	4.946E+03
CM244	0.000E+00	6.979E+01	6.980E+01	6.981E+01	6.982E+01	6.982E+01
SUMTOT	2.813E+00	6.070E+03	6.072E+03	6.073E+03	6.084E+03	6.088E+03
TOTAL	2.813E+00	6.075E+03	6.076E+03	6.078E+03	6.088E+03	6.093E+03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U	2.813E+00	2.478E+00	2.478E+00	2.478E+00	2.478E+00	2.478E+00
PU	0.000E+00	1.033E+03	1.033E+03	1.033E+03	1.035E+03	1.037E+03
AM	0.000E+00	3.628E+01	3.629E+01	3.631E+01	3.642E+01	3.656E+01

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CM	0.000E+00	5.003E+03	5.004E+03	5.006E+03	5.014E+03	5.017E+03
SUMTOT	2.813E+00	6.075E+03	6.076E+03	6.078E+03	6.088E+03	6.093E+03
TOTAL	2.813E+00	6.075E+03	6.076E+03	6.078E+03	6.088E+03	6.093E+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	2.813E+00	6.075E+03	6.076E+03	6.078E+03	6.088E+03	6.093E+03
AP+ACT+FP	2.813E+00	6.075E+03	6.076E+03	6.078E+03	6.088E+03	6.093E+03

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OUTPUT UNIT =

6 PAGE 53
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	0.000E+00	3.151E-02	3.151E-02	3.151E-02	3.151E-02	3.151E-02
LI 6	0.000E+00	1.772E-04	1.772E-04	1.772E-04	1.772E-04	1.772E-04
LI 7	0.000E+00	5.924E-06	5.924E-06	5.924E-06	5.924E-06	5.924E-06
BE 9	0.000E+00	1.142E-05	1.142E-05	1.142E-05	1.142E-05	1.142E-05
BE 10	0.000E+00	7.614E-05	7.614E-05	7.614E-05	7.614E-05	7.614E-05
C 14	0.000E+00	1.540E-05	1.540E-05	1.540E-05	1.540E-05	1.540E-05
ZN 68	0.000E+00	7.189E-04	7.189E-04	7.189E-04	7.189E-04	7.189E-04
ZN 70	0.000E+00	2.461E-03	2.461E-03	2.461E-03	2.461E-03	2.461E-03
ZN 72	0.000E+00	6.393E-05	6.298E-05	6.205E-05	5.346E-05	4.470E-05
GA 72	0.000E+00	1.944E-05	1.943E-05	1.940E-05	1.862E-05	1.688E-05
GE 72	0.000E+00	1.050E-02	1.050E-02	1.050E-02	1.051E-02	1.052E-02
GA 73	0.000E+00	1.481E-05	1.287E-05	1.116E-05	2.698E-06	4.908E-07
GE 73	0.000E+00	2.433E-02	2.434E-02	2.434E-02	2.435E-02	2.435E-02
GE 74	0.000E+00	5.353E-02	5.353E-02	5.353E-02	5.353E-02	5.353E-02
GE 75	0.000E+00	1.912E-05	1.186E-05	7.178E-06	4.727E-08	1.141E-10
AS 75	0.000E+00	1.169E-01	1.169E-01	1.169E-01	1.169E-01	1.169E-01
GE 76	0.000E+00	3.040E-01	3.040E-01	3.040E-01	3.040E-01	3.040E-01
AS 76	0.000E+00	1.072E-05	1.044E-05	1.017E-05	7.813E-06	5.696E-06
SE 76	0.000E+00	1.598E-03	1.598E-03	1.598E-03	1.601E-03	1.603E-03
GE 77	0.000E+00	3.000E-04	2.824E-04	2.656E-04	1.438E-04	6.888E-05
AS 77	0.000E+00	2.888E-03	2.855E-03	2.822E-03	2.471E-03	2.060E-03

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SE 77	0.000E+00	6.463E-01	6.464E-01	6.464E-01	6.469E-01	6.474E-01
GE 78	0.000E+00	2.305E-04	1.430E-04	8.866E-05	7.442E-07	2.401E-09
AS 78	0.000E+00	2.456E-04	2.243E-04	1.846E-04	5.811E-06	3.921E-08
SE 78	0.000E+00	1.409E+00	1.409E+00	1.409E+00	1.410E+00	1.410E+00
GE 79	0.000E+00	4.064E-06	2.617E-31	0.000E+00	0.000E+00	0.000E+00
AS 79	0.000E+00	6.067E-05	6.417E-07	6.317E-09	5.393E-29	0.000E+00
SE 79	0.000E+00	3.555E+00	3.555E+00	3.555E+00	3.555E+00	3.555E+00
SE 79M	0.000E+00	2.626E-05	4.880E-07	4.820E-09	4.105E-29	0.000E+00
BR 79	0.000E+00	2.890E-05	2.890E-05	2.891E-05	2.895E-05	2.900E-05
GE 80	0.000E+00	4.973E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 80	0.000E+00	4.184E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 80	0.000E+00	8.194E+00	8.194E+00	8.194E+00	8.194E+00	8.194E+00
KR 80	0.000E+00	9.282E-05	9.283E-05	9.284E-05	9.286E-05	9.287E-05
GE 81	0.000E+00	2.645E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 81	0.000E+00	1.310E-05	2.314E-39	0.000E+00	0.000E+00	0.000E+00
SE 81	0.000E+00	4.826E-04	6.052E-05	1.019E-05	3.420E-09	5.643E-13
SE 81M	0.000E+00	4.348E-05	2.104E-05	1.018E-05	7.173E-09	1.183E-12
BR 81	0.000E+00	1.375E+01	1.375E+01	1.375E+01	1.375E+01	1.375E+01
KR 81	0.000E+00	5.795E-06	5.795E-06	5.795E-06	5.795E-06	5.795E-06
AS 82	0.000E+00	8.257E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82M	0.000E+00	2.014E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 82	0.000E+00	2.141E+01	2.141E+01	2.141E+01	2.141E+01	2.141E+01
BR 82	0.000E+00	2.614E-03	2.566E-03	2.516E-03	2.068E-03	1.634E-03
BR 82M	0.000E+00	2.866E-06	3.242E-09	3.677E-12	0.000E+00	0.000E+00
KR 82	0.000E+00	3.046E-01	3.047E-01	3.047E-01	3.052E-01	3.056E-01
AS 83	0.000E+00	9.935E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 83	0.000E+00	5.416E-04	8.588E-05	1.353E-05	1.270E-13	2.956E-23
SE 83M	0.000E+00	4.399E-05	1.721E-20	5.677E-36	0.000E+00	0.000E+00
BR 83	0.000E+00	8.997E-03	7.152E-03	5.412E-03	2.986E-04	9.196E-06
KR 83	0.000E+00	3.114E+01	3.114E+01	3.115E+01	3.116E+01	3.116E+01

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 83M	0.000E+00	6.890E-03	6.663E-03	6.057E-03	7.111E-04	2.724E-05

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AS 84	0.000E+00	3.376E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 84	0.000E+00	3.642E-04	1.236E-09	4.156E-15	0.000E+00	0.000E+00	0.000E+00
BR 84	0.000E+00	3.609E-03	1.087E-03	2.939E-04	6.143E-10	9.389E-17	
BR 84M	0.000E+00	1.959E-05	1.913E-08	1.868E-11	0.000E+00	0.000E+00	
KR 84	0.000E+00	6.905E+01	6.905E+01	6.906E+01	6.906E+01	6.906E+01	
SE 85	0.000E+00	4.385E-05	7.259E-33	0.000E+00	0.000E+00	0.000E+00	
SE 85M	0.000E+00	1.568E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
BR 85	0.000E+00	4.015E-04	2.385E-10	1.194E-16	0.000E+00	0.000E+00	
KR 85	0.000E+00	1.646E+01	1.646E+01	1.646E+01	1.646E+01	1.646E+01	
KR 85M	0.000E+00	3.810E-02	3.304E-02	2.831E-02	6.026E-03	9.414E-04	
RB 85	0.000E+00	6.399E+01	6.399E+01	6.399E+01	6.401E+01	6.402E+01	
SE 86	0.000E+00	3.810E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
BR 86	0.000E+00	9.521E-05	2.426E-24	0.000E+00	0.000E+00	0.000E+00	
BR 86M	0.000E+00	7.841E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
KR 86	0.000E+00	1.271E+02	1.271E+02	1.271E+02	1.271E+02	1.271E+02	
RB 86	0.000E+00	1.289E-02	1.287E-02	1.285E-02	1.265E-02	1.242E-02	
SR 86	0.000E+00	1.157E-01	1.157E-01	1.158E-01	1.160E-01	1.162E-01	
SE 87	0.000E+00	1.010E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
BR 87	0.000E+00	2.226E-04	8.863E-24	3.657E-43	0.000E+00	0.000E+00	
KR 87	0.000E+00	2.168E-02	1.271E-02	7.367E-03	3.164E-05	4.562E-08	
RB 87	0.000E+00	1.639E+02	1.639E+02	1.639E+02	1.639E+02	1.639E+02	
SR 87	0.000E+00	7.945E-04	7.946E-04	7.946E-04	7.947E-04	7.947E-04	
BR 88	0.000E+00	7.275E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
KR 88	0.000E+00	6.907E-02	5.416E-02	4.243E-02	3.692E-03	1.972E-04	
RB 88	0.000E+00	7.311E-03	6.247E-03	4.944E-03	4.309E-04	2.301E-05	
SR 88	0.000E+00	2.356E+02	2.356E+02	2.356E+02	2.357E+02	2.357E+02	
BR 89	0.000E+00	1.473E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
KR 89	0.000E+00	1.612E-03	3.284E-09	6.586E-15	0.000E+00	0.000E+00	
RB 89	0.000E+00	8.158E-03	6.620E-04	4.291E-05	5.621E-17	3.094E-31	
SR 89	0.000E+00	4.125E+01	4.124E+01	4.122E+01	4.098E+01	4.070E+01	
Y 89	0.000E+00	2.681E+02	2.681E+02	2.682E+02	2.684E+02	2.687E+02	
BR 90	0.000E+00	3.479E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
KR 90	0.000E+00	2.745E-04	8.186E-38	0.000E+00	0.000E+00	0.000E+00	
RB 90	0.000E+00	1.355E-03	2.381E-09	1.365E-13	0.000E+00	0.000E+00	
RB 90M	0.000E+00	5.096E-04	3.456E-08	2.178E-12	0.000E+00	0.000E+00	
SR 90	0.000E+00	3.678E+02	3.678E+02	3.678E+02	3.678E+02	3.678E+02	
Y 90	0.000E+00	9.525E-02	9.521E-02	9.518E-02	9.488E-02	9.455E-02	
ZR 90	0.000E+00	6.834E+00	6.835E+00	6.836E+00	6.846E+00	6.859E+00	
KR 91	0.000E+00	5.537E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
RB 91	0.000E+00	6.347E-04	1.678E-22	4.017E-41	0.000E+00	0.000E+00	
SR 91	0.000E+00	3.950E-01	3.678E-01	3.419E-01	1.648E-01	6.868E-02	
Y 91	0.000E+00	6.154E+01	6.154E+01	6.153E+01	6.142E+01	6.115E+01	
Y 91M	0.000E+00	1.999E-02	1.955E-02	1.859E-02	9.140E-03	3.807E-03	
ZR 91	0.000E+00	3.311E+02	3.311E+02	3.312E+02	3.315E+02	3.318E+02	
KR 92	0.000E+00	5.518E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
RB 92	0.000E+00	4.248E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
SR 92	0.000E+00	1.206E-01	9.344E-02	7.235E-02	5.606E-03	2.604E-04	
Y 92	0.000E+00	1.581E-01	1.546E-01	1.462E-01	4.025E-02	5.007E-03	

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ZR 92 0.000E+00 4.161E+02 4.162E+02 4.162E+02 4.164E+02 4.164E+02
RB 93 0.000E+00 4.172E-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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
SR 93	0.000E+00	6.205E-03	2.441E-05	9.536E-08	0.000E+00	0.000E+00
Y 93	0.000E+00	5.122E-01	4.841E-01	4.520E-01	2.276E-01	9.988E-02
ZR 93	0.000E+00	4.606E+02	4.607E+02	4.607E+02	4.609E+02	4.611E+02
NB 93	0.000E+00	1.442E-05	1.443E-05	1.443E-05	1.445E-05	1.447E-05
NB 93M	0.000E+00	1.390E-04	1.390E-04	1.390E-04	1.392E-04	1.395E-04
RB 94	0.000E+00	1.005E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 94	0.000E+00	9.844E-04	4.598E-18	2.127E-32	0.000E+00	0.000E+00
Y 94	0.000E+00	1.615E-02	1.951E-03	2.211E-04	7.730E-14	3.471E-25
ZR 94	0.000E+00	4.612E+02	4.613E+02	4.613E+02	4.613E+02	4.613E+02
NB 94	0.000E+00	2.831E-04	2.831E-04	2.831E-04	2.831E-04	2.831E-04
SR 95	0.000E+00	3.168E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 95	0.000E+00	9.475E-03	1.868E-04	3.557E-06	2.236E-23	0.000E+00
ZR 95	0.000E+00	8.696E+01	8.693E+01	8.689E+01	8.650E+01	8.604E+01
NB 95	0.000E+00	4.822E+01	4.822E+01	4.822E+01	4.822E+01	4.821E+01
NB 95M	0.000E+00	3.490E-02	3.490E-02	3.490E-02	3.484E-02	3.477E-02
MO 95	0.000E+00	3.444E+02	3.445E+02	3.445E+02	3.449E+02	3.454E+02
SR 96	0.000E+00	3.404E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 96	0.000E+00	1.979E-03	2.826E-11	3.964E-19	0.000E+00	0.000E+00
ZR 96	0.000E+00	4.877E+02	4.877E+02	4.877E+02	4.877E+02	4.877E+02
NB 96	0.000E+00	1.992E-03	1.933E-03	1.877E-03	1.395E-03	9.767E-04
MO 96	0.000E+00	7.459E+00	7.459E+00	7.459E+00	7.460E+00	7.460E+00
Y 97	0.000E+00	1.371E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	9.204E-01	8.834E-01	8.479E-01	5.627E-01	3.439E-01
NB 97	0.000E+00	6.593E-02	6.495E-02	6.327E-02	4.299E-02	2.462E-02
NB 97M	0.000E+00	8.606E-04	8.253E-04	7.921E-04	5.256E-04	3.213E-04
MO 97	0.000E+00	4.718E+02	4.718E+02	4.718E+02	4.722E+02	4.724E+02
Y 98	0.000E+00	2.666E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 98	0.000E+00	4.740E-04	5.265E-39	0.000E+00	0.000E+00	0.000E+00
NB 98	0.000E+00	4.342E-05	5.228E-40	0.000E+00	0.000E+00	0.000E+00

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NB 98M	0.000E+00	3.921E-04	1.749E-04	7.798E-05	2.426E-08	1.501E-12
MO 98	0.000E+00	4.808E+02	4.808E+02	4.808E+02	4.808E+02	4.808E+02
TC 98	0.000E+00	1.367E-03	1.367E-03	1.367E-03	1.367E-03	1.367E-03
Y 99	0.000E+00	4.062E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 99	0.000E+00	3.655E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	2.255E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99M	0.000E+00	8.765E-05	9.906E-12	1.120E-18	0.000E+00	0.000E+00
MO 99	0.000E+00	3.950E+00	3.909E+00	3.868E+00	3.483E+00	3.070E+00
TC 99	0.000E+00	4.757E+02	4.757E+02	4.758E+02	4.762E+02	4.766E+02
TC 99M	0.000E+00	3.154E-01	3.152E-01	3.147E-01	2.980E-01	2.678E-01
RU 99	0.000E+00	1.052E-03	1.052E-03	1.052E-03	1.054E-03	1.056E-03
ZR100	0.000E+00	1.011E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100	0.000E+00	2.104E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100M	0.000E+00	2.113E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO100	0.000E+00	5.389E+02	5.389E+02	5.389E+02	5.389E+02	5.389E+02
TC100	0.000E+00	3.011E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU100	0.000E+00	2.788E+01	2.788E+01	2.788E+01	2.788E+01	2.788E+01
ZR101	0.000E+00	3.049E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB101	0.000E+00	1.006E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	0.000E+00	1.328E-02	7.801E-04	4.537E-05	2.007E-17	3.003E-32
TC101	0.000E+00	1.290E-02	2.818E-03	2.744E-04	4.384E-16	8.844E-31
RU101	0.000E+00	4.458E+02	4.458E+02	4.459E+02	4.459E+02	4.459E+02

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
ZR102	0.000E+00	1.451E-04	2.001E-42	0.000E+00	0.000E+00	0.000E+00
NB102	0.000E+00	3.553E-05	2.859E-43	0.000E+00	0.000E+00	0.000E+00
MO102	0.000E+00	9.264E-03	2.230E-04	5.262E-06	2.813E-22	8.433E-42
TC102	0.000E+00	7.351E-05	1.782E-06	4.205E-08	2.248E-24	0.000E+00
TC102M	0.000E+00	3.404E-06	2.398E-10	1.689E-14	0.000E+00	0.000E+00
RU102	0.000E+00	4.129E+02	4.129E+02	4.129E+02	4.129E+02	4.129E+02
RH102	0.000E+00	2.140E-04	2.140E-04	2.140E-04	2.140E-04	2.139E-04
ZR103	0.000E+00	3.094E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB103	0.000E+00	1.221E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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MO103	0.000E+00	7.516E-04	7.990E-22	6.929E-40	0.000E+00	0.000E+00
TC103	0.000E+00	6.349E-04	3.994E-21	3.465E-39	0.000E+00	0.000E+00
RU103	0.000E+00	4.288E+01	4.285E+01	4.282E+01	4.250E+01	4.213E+01
RH103	0.000E+00	2.478E+02	2.478E+02	2.478E+02	2.481E+02	2.485E+02
RH103M	0.000E+00	3.831E-02	3.830E-02	3.829E-02	3.804E-02	3.768E-02
NB104	0.000E+00	3.412E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO104	0.000E+00	8.869E-04	4.588E-15	2.361E-26	0.000E+00	0.000E+00
TC104	0.000E+00	1.074E-02	1.192E-03	1.213E-04	1.445E-14	1.783E-26
RU104	0.000E+00	2.500E+02	2.500E+02	2.500E+02	2.500E+02	2.500E+02
RH104	0.000E+00	1.749E-04	9.404E-10	6.480E-14	0.000E+00	0.000E+00
RH104M	0.000E+00	7.045E-05	4.855E-09	3.345E-13	0.000E+00	0.000E+00
PD104	0.000E+00	5.450E+01	5.450E+01	5.450E+01	5.450E+01	5.450E+01
MO105	0.000E+00	3.322E-04	2.854E-24	0.000E+00	0.000E+00	0.000E+00
TC105	0.000E+00	3.613E-03	2.204E-05	1.218E-07	0.000E+00	0.000E+00
RU105	0.000E+00	1.219E-01	1.078E-01	9.219E-02	1.934E-02	2.970E-03
RH105	0.000E+00	9.111E-01	9.114E-01	9.091E-01	8.119E-01	6.558E-01
RH105M	0.000E+00	9.610E-05	8.520E-05	7.290E-05	1.530E-05	2.348E-06
PD105	0.000E+00	1.638E+02	1.638E+02	1.638E+02	1.640E+02	1.641E+02
MO106	0.000E+00	2.727E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC106	0.000E+00	1.786E-04	1.104E-33	0.000E+00	0.000E+00	0.000E+00
RU106	0.000E+00	7.989E+01	7.988E+01	7.988E+01	7.981E+01	7.974E+01
RH106	0.000E+00	8.504E-05	7.509E-05	7.508E-05	7.502E-05	7.495E-05
RH106M	0.000E+00	1.204E-03	8.787E-04	6.412E-04	2.746E-05	6.262E-07
PD106	0.000E+00	4.855E+01	4.856E+01	4.857E+01	4.863E+01	4.871E+01
MO107	0.000E+00	6.661E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC107	0.000E+00	7.225E-05	3.449E-42	0.000E+00	0.000E+00	0.000E+00
RU107	0.000E+00	9.822E-04	5.365E-08	2.686E-12	0.000E+00	0.000E+00
RH107	0.000E+00	5.102E-03	9.460E-04	1.392E-04	6.610E-13	6.793E-23
PD107	0.000E+00	7.585E+01	7.585E+01	7.586E+01	7.586E+01	7.586E+01
AG107	0.000E+00	4.360E-06	4.361E-06	4.362E-06	4.371E-06	4.382E-06
TC108	0.000E+00	7.656E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU108	0.000E+00	7.130E-04	6.988E-08	6.770E-12	0.000E+00	0.000E+00
RH108	0.000E+00	4.479E-05	4.637E-09	4.492E-13	0.000E+00	0.000E+00
RH108M	0.000E+00	9.062E-06	7.869E-09	6.832E-12	0.000E+00	0.000E+00
PD108	0.000E+00	5.020E+01	5.020E+01	5.020E+01	5.020E+01	5.020E+01
CD108	0.000E+00	5.158E-05	5.158E-05	5.158E-05	5.158E-05	5.158E-05
TC109	0.000E+00	3.674E-05	2.077E-26	0.000E+00	0.000E+00	0.000E+00
RU109	0.000E+00	5.796E-05	4.543E-26	0.000E+00	0.000E+00	0.000E+00
RH109	0.000E+00	1.547E-04	5.746E-16	5.226E-28	0.000E+00	0.000E+00
RH109M	0.000E+00	4.298E-05	1.034E-24	0.000E+00	0.000E+00	0.000E+00
PD109	0.000E+00	9.094E-02	8.698E-02	8.261E-02	4.937E-02	2.661E-02
PD109M	0.000E+00	2.426E-04	6.911E-08	9.737E-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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
AG109	0.000E+00	2.843E+01	2.843E+01	2.844E+01	2.847E+01	2.849E+01
AG109M	0.000E+00	7.427E-05	7.110E-05	6.753E-05	4.035E-05	2.175E-05
RU110	0.000E+00	1.191E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH110	0.000E+00	2.315E-05	2.158E-42	0.000E+00	0.000E+00	0.000E+00
PD110	0.000E+00	1.691E+01	1.691E+01	1.691E+01	1.691E+01	1.691E+01
AG110	0.000E+00	1.175E-05	2.829E-09	2.829E-09	2.825E-09	2.821E-09
AG110M	0.000E+00	1.867E-01	1.867E-01	1.867E-01	1.864E-01	1.862E-01
CD110	0.000E+00	5.637E+00	5.637E+00	5.637E+00	5.637E+00	5.638E+00
RU111	0.000E+00	5.419E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH111	0.000E+00	2.938E-05	2.306E-22	1.449E-39	0.000E+00	0.000E+00
PD111	0.000E+00	6.274E-04	1.048E-04	1.985E-05	1.374E-06	3.029E-07
PD111M	0.000E+00	1.282E-04	1.132E-04	9.977E-05	2.829E-05	6.235E-06
AG111	0.000E+00	3.076E-01	3.070E-01	3.059E-01	2.944E-01	2.810E-01
AG111M	0.000E+00	3.081E-05	5.497E-06	1.115E-06	9.695E-08	2.137E-08
CD111	0.000E+00	9.964E+00	9.965E+00	9.967E+00	9.978E+00	9.992E+00
PD112	0.000E+00	1.955E-02	1.889E-02	1.825E-02	1.293E-02	8.547E-03
AG112	0.000E+00	3.056E-03	3.043E-03	3.013E-03	2.346E-03	1.574E-03
CD112	0.000E+00	6.549E+00	6.550E+00	6.551E+00	6.557E+00	6.562E+00
PD113	0.000E+00	2.020E-05	1.878E-17	1.708E-29	0.000E+00	0.000E+00
AG113	0.000E+00	3.860E-03	3.404E-03	2.986E-03	8.075E-04	1.681E-04
CD113	0.000E+00	1.680E-01	1.684E-01	1.689E-01	1.710E-01	1.716E-01
CD113M	0.000E+00	1.034E-01	1.034E-01	1.034E-01	1.034E-01	1.034E-01
IN113	0.000E+00	2.878E-03	2.878E-03	2.879E-03	2.884E-03	2.891E-03
PD114	0.000E+00	2.386E-05	7.242E-13	2.158E-20	0.000E+00	0.000E+00
CD114	0.000E+00	9.812E+00	9.812E+00	9.812E+00	9.812E+00	9.812E+00
IN114M	0.000E+00	1.871E-05	1.870E-05	1.869E-05	1.858E-05	1.845E-05
SN114	0.000E+00	1.120E-04	1.120E-04	1.120E-04	1.121E-04	1.123E-04
PD115	0.000E+00	6.224E-06	2.088E-34	0.000E+00	0.000E+00	0.000E+00
AG115	0.000E+00	1.473E-04	1.905E-05	2.381E-06	2.217E-15	3.227E-26
CD115	0.000E+00	3.037E-02	3.011E-02	2.974E-02	2.612E-02	2.236E-02
CD115M	0.000E+00	5.809E-02	5.805E-02	5.801E-02	5.764E-02	5.719E-02
IN115	0.000E+00	1.968E+00	1.968E+00	1.969E+00	1.973E+00	1.977E+00
IN115M	0.000E+00	2.447E-03	2.445E-03	2.439E-03	2.252E-03	1.951E-03
SN115	0.000E+00	1.526E-01	1.526E-01	1.526E-01	1.527E-01	1.529E-01
AG116	0.000E+00	1.161E-05	2.300E-12	4.191E-19	0.000E+00	0.000E+00
CD116	0.000E+00	3.995E+00	3.995E+00	3.995E+00	3.995E+00	3.995E+00
IN116M	0.000E+00	1.906E-04	8.842E-05	4.102E-05	1.894E-08	1.883E-12

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SN116	0.000E+00	2.456E+00	2.456E+00	2.456E+00	2.456E+00	2.456E+00
AG117	0.000E+00	5.280E-06	8.815E-21	1.382E-35	0.000E+00	0.000E+00
CD117	0.000E+00	8.903E-04	6.857E-04	5.252E-04	3.652E-05	1.490E-06
CD117M	0.000E+00	6.319E-04	5.166E-04	4.213E-04	5.486E-05	4.751E-06
IN117	0.000E+00	2.319E-04	2.241E-04	2.056E-04	2.999E-05	2.076E-06
IN117M	0.000E+00	7.765E-04	7.487E-04	6.833E-04	1.039E-04	6.466E-06
SN117	0.000E+00	4.039E+00	4.040E+00	4.040E+00	4.042E+00	4.042E+00
SN117M	0.000E+00	3.295E-04	3.289E-04	3.282E-04	3.215E-04	3.136E-04
CD118	0.000E+00	4.457E-04	1.953E-04	8.545E-05	2.192E-08	1.076E-12
SN118	0.000E+00	4.121E+00	4.121E+00	4.121E+00	4.121E+00	4.121E+00
CD119	0.000E+00	4.151E-05	5.028E-07	6.025E-09	3.675E-28	0.000E+00
CD119M	0.000E+00	1.413E-05	3.314E-11	7.517E-17	0.000E+00	0.000E+00
IN119	0.000E+00	6.362E-06	1.623E-07	1.694E-08	1.585E-18	1.441E-30
IN119M	0.000E+00	1.193E-04	2.038E-05	2.114E-06	1.965E-16	1.787E-28

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OUTPUT UNIT =

6 PAGE 58
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
SN119	0.000E+00	4.044E+00	4.045E+00	4.045E+00	4.045E+00	4.045E+00
SN119M	0.000E+00	3.500E-02	3.499E-02	3.499E-02	3.495E-02	3.490E-02
CD120	0.000E+00	7.484E-06	3.588E-27	0.000E+00	0.000E+00	0.000E+00
IN120	0.000E+00	3.335E-06	1.244E-26	0.000E+00	0.000E+00	0.000E+00
SN120	0.000E+00	4.178E+00	4.178E+00	4.178E+00	4.178E+00	4.178E+00
IN121	0.000E+00	3.506E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121M	0.000E+00	6.236E-06	2.231E-11	7.501E-17	0.000E+00	0.000E+00
SN121	0.000E+00	1.514E-02	1.476E-02	1.439E-02	1.111E-02	8.144E-03
SN121M	0.000E+00	1.548E-03	1.548E-03	1.548E-03	1.548E-03	1.548E-03
SB121	0.000E+00	4.211E+00	4.211E+00	4.212E+00	4.215E+00	4.218E+00
SN122	0.000E+00	4.626E+00	4.626E+00	4.626E+00	4.626E+00	4.626E+00
SB122	0.000E+00	2.403E-03	2.377E-03	2.352E-03	2.114E-03	1.859E-03
TE122	0.000E+00	1.386E-01	1.386E-01	1.386E-01	1.389E-01	1.391E-01
IN123M	0.000E+00	2.570E-06	7.668E-29	0.000E+00	0.000E+00	0.000E+00
SN123	0.000E+00	3.895E-01	3.894E-01	3.893E-01	3.885E-01	3.874E-01
SN123M	0.000E+00	3.622E-04	1.294E-04	4.585E-05	1.430E-09	5.598E-15
SB123	0.000E+00	4.794E+00	4.795E+00	4.795E+00	4.796E+00	4.797E+00

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TE123	0.000E+00	1.066E-03	1.066E-03	1.066E-03	1.067E-03	1.068E-03
TE123M	0.000E+00	2.561E-04	2.560E-04	2.559E-04	2.553E-04	2.546E-04
CD124	0.000E+00	2.187E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN124	0.000E+00	6.368E+00	6.368E+00	6.368E+00	6.368E+00	6.368E+00
SB124	0.000E+00	2.980E-02	2.978E-02	2.977E-02	2.963E-02	2.946E-02
TE124	0.000E+00	6.878E-02	6.879E-02	6.880E-02	6.895E-02	6.912E-02
SN125	0.000E+00	1.093E-01	1.089E-01	1.086E-01	1.054E-01	1.017E-01
SN125M	0.000E+00	1.201E-04	1.539E-06	1.949E-08	2.077E-27	0.000E+00
SB125	0.000E+00	7.657E+00	7.658E+00	7.658E+00	7.659E+00	7.660E+00
TE125	0.000E+00	1.205E+00	1.205E+00	1.205E+00	1.207E+00	1.210E+00
TE125M	0.000E+00	8.429E-02	8.429E-02	8.430E-02	8.439E-02	8.448E-02
SN126	0.000E+00	1.343E+01	1.343E+01	1.343E+01	1.343E+01	1.343E+01
SB126	0.000E+00	1.005E-02	1.003E-02	1.000E-02	9.774E-03	9.505E-03
SB126M	0.000E+00	5.061E-06	5.714E-07	6.832E-08	4.850E-09	4.850E-09
TE126	0.000E+00	3.029E-01	3.029E-01	3.029E-01	3.031E-01	3.034E-01
SN127	0.000E+00	5.094E-03	3.663E-03	2.633E-03	9.705E-05	1.849E-06
SN127M	0.000E+00	8.061E-05	3.440E-09	1.468E-13	0.000E+00	0.000E+00
SB127	0.000E+00	3.536E-01	3.525E-01	3.509E-01	3.279E-01	2.998E-01
TE127	0.000E+00	3.521E-02	3.520E-02	3.519E-02	3.449E-02	3.274E-02
TE127M	0.000E+00	1.252E+00	1.253E+00	1.253E+00	1.253E+00	1.253E+00
I127	0.000E+00	2.574E+01	2.574E+01	2.575E+01	2.577E+01	2.580E+01
SN128	0.000E+00	6.245E-03	3.087E-03	1.525E-03	1.325E-06	2.808E-10
SB128	0.000E+00	4.518E-03	4.183E-03	3.874E-03	1.795E-03	7.132E-04
SB128M	0.000E+00	1.182E-03	6.577E-04	3.264E-04	2.834E-07	6.010E-11
TE128	0.000E+00	5.700E+01	5.700E+01	5.700E+01	5.701E+01	5.701E+01
I128	0.000E+00	8.326E-05	1.576E-05	2.982E-06	1.758E-13	3.711E-22
XE128	0.000E+00	7.003E-01	7.003E-01	7.003E-01	7.003E-01	7.003E-01
SN129	0.000E+00	5.166E-04	2.018E-06	7.885E-09	0.000E+00	0.000E+00
SN129M	0.000E+00	2.139E-04	1.275E-11	7.602E-19	0.000E+00	0.000E+00
SB129	0.000E+00	5.314E-02	4.590E-02	3.909E-02	7.856E-03	1.145E-03
TE129	0.000E+00	1.405E-02	1.353E-02	1.248E-02	3.866E-03	1.718E-03
TE129M	0.000E+00	1.464E+00	1.464E+00	1.464E+00	1.455E+00	1.441E+00
I129	0.000E+00	9.461E+01	9.462E+01	9.463E+01	9.468E+01	9.470E+01
XE129	0.000E+00	1.803E-03	1.803E-03	1.803E-03	1.803E-03	1.804E-03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
XE129M	0.000E+00	8.383E-06	8.353E-06	8.323E-06	8.028E-06	7.687E-06
SN130	0.000E+00	8.856E-04	1.235E-08	1.724E-13	0.000E+00	0.000E+00
SB130	0.000E+00	2.657E-03	9.394E-04	3.321E-04	1.014E-08	3.866E-14
SB130M	0.000E+00	1.988E-03	5.609E-06	7.661E-09	0.000E+00	0.000E+00
TE130	0.000E+00	1.912E+02	1.912E+02	1.912E+02	1.912E+02	1.912E+02
I130	0.000E+00	7.669E-03	7.280E-03	6.883E-03	3.929E-03	2.005E-03
I130M	0.000E+00	3.649E-05	3.592E-07	3.536E-09	3.019E-29	0.000E+00
XE130	0.000E+00	2.582E+00	2.582E+00	2.583E+00	2.586E+00	2.588E+00
SN131	0.000E+00	2.311E-04	1.453E-21	9.129E-39	0.000E+00	0.000E+00
SB131	0.000E+00	1.348E-02	2.250E-03	3.689E-04	5.175E-12	1.952E-21
TE131	0.000E+00	1.534E-02	7.418E-03	2.495E-03	4.149E-04	3.144E-04
TE131M	0.000E+00	1.741E-01	1.709E-01	1.671E-01	1.327E-01	1.006E-01
I131	0.000E+00	7.993E+00	7.987E+00	7.969E+00	7.724E+00	7.429E+00
XE131	0.000E+00	2.820E+02	2.821E+02	2.821E+02	2.824E+02	2.827E+02
XE131M	0.000E+00	1.314E-01	1.314E-01	1.314E-01	1.313E-01	1.311E-01
SN132	0.000E+00	8.316E-05	6.718E-32	0.000E+00	0.000E+00	0.000E+00
SB132	0.000E+00	1.009E-03	3.962E-10	1.404E-16	0.000E+00	0.000E+00
SB132M	0.000E+00	9.840E-04	4.926E-08	2.467E-12	0.000E+00	0.000E+00
TE132	0.000E+00	4.686E+00	4.647E+00	4.606E+00	4.215E+00	3.790E+00
I132	0.000E+00	1.396E-01	1.390E-01	1.382E-01	1.277E-01	1.148E-01
XE132	0.000E+00	5.546E+02	5.547E+02	5.547E+02	5.551E+02	5.555E+02
CS132	0.000E+00	7.681E-04	7.647E-04	7.613E-04	7.280E-04	6.901E-04
BA132	0.000E+00	3.969E-04	3.969E-04	3.970E-04	3.977E-04	3.984E-04
SB133	0.000E+00	1.065E-03	3.176E-11	9.464E-19	0.000E+00	0.000E+00
TE133	0.000E+00	1.074E-02	9.509E-04	2.813E-04	1.470E-07	1.799E-11
TE133M	0.000E+00	3.186E-02	1.505E-02	7.104E-03	3.902E-06	4.775E-10
I133	0.000E+00	1.851E+00	1.817E+00	1.766E+00	1.271E+00	8.523E-01
I133M	0.000E+00	6.022E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE133	0.000E+00	1.119E+01	1.119E+01	1.119E+01	1.108E+01	1.079E+01
XE133M	0.000E+00	1.433E-01	1.432E-01	1.430E-01	1.389E-01	1.297E-01
CS133	0.000E+00	6.979E+02	6.980E+02	6.980E+02	6.986E+02	6.994E+02
SB134	0.000E+00	1.217E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134M	0.000E+00	1.103E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE134	0.000E+00	5.465E-02	2.022E-02	7.475E-03	3.569E-07	2.330E-12
I134	0.000E+00	8.681E-02	6.194E-02	3.634E-02	2.505E-05	2.018E-09
I134M	0.000E+00	5.200E-04	6.828E-09	8.968E-14	0.000E+00	0.000E+00
XE134	0.000E+00	8.632E+02	8.633E+02	8.633E+02	8.634E+02	8.634E+02
CS134	0.000E+00	4.163E+01	4.163E+01	4.162E+01	4.161E+01	4.159E+01
CS134M	0.000E+00	3.086E-03	2.430E-03	1.913E-03	1.753E-04	9.957E-06
BA134	0.000E+00	6.503E+00	6.504E+00	6.506E+00	6.522E+00	6.541E+00
TE135	0.000E+00	2.148E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	0.000E+00	5.559E-01	5.007E-01	4.509E-01	1.580E-01	4.491E-02
XE135	0.000E+00	2.453E-01	2.817E-01	3.093E-01	3.368E-01	2.025E-01
XE135M	0.000E+00	4.326E-03	3.150E-03	2.788E-03	9.757E-04	2.773E-04
CS135	0.000E+00	2.343E+02	2.344E+02	2.344E+02	2.346E+02	2.349E+02

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CS135M	0.000E+00	2.857E-04	1.304E-04	5.948E-05	2.325E-08	1.892E-12
BA135	0.000E+00	1.909E-02	1.909E-02	1.909E-02	1.910E-02	1.910E-02
BA135M	0.000E+00	1.539E-05	1.502E-05	1.466E-05	1.152E-05	8.618E-06
TE136	0.000E+00	1.293E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I136	0.000E+00	9.297E-04	9.671E-17	8.487E-30	0.000E+00	0.000E+00
I136M	0.000E+00	3.136E-04	8.661E-28	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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
XE136	0.000E+00	1.276E+03	1.276E+03	1.276E+03	1.276E+03	1.276E+03
CS136	0.000E+00	4.361E-01	4.352E-01	4.342E-01	4.248E-01	4.137E-01
BA136	0.000E+00	6.243E+00	6.244E+00	6.245E+00	6.254E+00	6.265E+00
TE137	0.000E+00	5.675E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I137	0.000E+00	2.800E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE137	0.000E+00	5.117E-03	1.042E-07	2.004E-12	0.000E+00	0.000E+00
CS137	0.000E+00	7.031E+02	7.031E+02	7.031E+02	7.031E+02	7.030E+02
BA137	0.000E+00	1.116E+01	1.117E+01	1.117E+01	1.119E+01	1.121E+01
BA137M	0.000E+00	1.079E-04	1.076E-04	1.076E-04	1.076E-04	1.076E-04
I138	0.000E+00	3.692E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	0.000E+00	1.862E-02	9.911E-04	5.266E-05	9.440E-18	4.777E-33
CS138	0.000E+00	4.651E-02	2.021E-02	5.947E-03	1.485E-08	2.759E-15
CS138M	0.000E+00	1.842E-04	1.089E-10	6.439E-17	0.000E+00	0.000E+00
BA138	0.000E+00	7.653E+02	7.653E+02	7.653E+02	7.653E+02	7.653E+02
LA138	0.000E+00	4.852E-03	4.852E-03	4.852E-03	4.852E-03	4.852E-03
I139	0.000E+00	6.263E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE139	0.000E+00	6.897E-04	2.552E-31	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	1.296E-02	1.642E-04	1.968E-06	1.200E-25	0.000E+00
BA139	0.000E+00	1.169E-01	7.984E-02	4.839E-02	3.168E-04	7.586E-07
LA139	0.000E+00	7.327E+02	7.328E+02	7.328E+02	7.329E+02	7.329E+02
XE140	0.000E+00	1.604E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS140	0.000E+00	1.331E-03	1.586E-20	1.638E-37	0.000E+00	0.000E+00
BA140	0.000E+00	2.526E+01	2.520E+01	2.514E+01	2.458E+01	2.392E+01
LA140	0.000E+00	3.355E+00	3.354E+00	3.353E+00	3.338E+00	3.308E+00
CE140	0.000E+00	6.952E+02	6.952E+02	6.953E+02	6.958E+02	6.965E+02

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XE141	0.000E+00	6.992E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS141	0.000E+00	3.953E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA141	0.000E+00	2.388E-02	2.493E-03	2.558E-04	3.312E-14	4.515E-26
LA141	0.000E+00	3.096E-01	2.789E-01	2.358E-01	4.048E-02	4.878E-03
CE141	0.000E+00	6.252E+01	6.251E+01	6.250E+01	6.214E+01	6.152E+01
PR141	0.000E+00	6.144E+02	6.144E+02	6.145E+02	6.150E+02	6.157E+02
CS142	0.000E+00	1.674E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA142	0.000E+00	1.352E-02	2.776E-04	5.695E-06	7.504E-23	3.980E-43
LA142	0.000E+00	1.197E-01	8.586E-02	5.502E-02	6.196E-04	2.846E-06
CE142	0.000E+00	6.797E+02	6.798E+02	6.798E+02	6.799E+02	6.799E+02
PR142	0.000E+00	2.961E-02	2.862E-02	2.761E-02	1.922E-02	1.244E-02
PR142M	0.000E+00	7.378E-05	4.274E-06	2.476E-07	1.054E-19	1.504E-34
ND142	0.000E+00	5.717E+00	5.719E+00	5.720E+00	5.728E+00	5.735E+00
CS143	0.000E+00	8.576E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA143	0.000E+00	2.563E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA143	0.000E+00	1.766E-02	9.192E-04	4.713E-05	5.916E-18	1.952E-33
CE143	0.000E+00	2.510E+00	2.475E+00	2.424E+00	1.965E+00	1.527E+00
PR143	0.000E+00	2.464E+01	2.464E+01	2.464E+01	2.458E+01	2.439E+01
ND143	0.000E+00	5.673E+02	5.674E+02	5.674E+02	5.679E+02	5.686E+02
BA144	0.000E+00	1.612E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA144	0.000E+00	7.551E-04	7.911E-31	0.000E+00	0.000E+00	0.000E+00
CE144	0.000E+00	3.529E+02	3.529E+02	3.528E+02	3.525E+02	3.521E+02
PR144	0.000E+00	1.502E-02	1.491E-02	1.490E-02	1.488E-02	1.487E-02
PR144M	0.000E+00	7.457E-05	7.449E-05	7.448E-05	7.440E-05	7.431E-05
ND144	0.000E+00	3.476E+02	3.476E+02	3.476E+02	3.480E+02	3.484E+02
BA145	0.000E+00	4.540E-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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
LA145	0.000E+00	3.913E-04	1.910E-41	0.000E+00	0.000E+00	0.000E+00
CE145	0.000E+00	2.602E-03	2.980E-09	2.842E-15	0.000E+00	0.000E+00
PR145	0.000E+00	3.113E-01	2.800E-01	2.493E-01	7.824E-02	1.947E-02
ND145	0.000E+00	4.351E+02	4.352E+02	4.352E+02	4.354E+02	4.354E+02
BA146	0.000E+00	5.838E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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LA146	0.000E+00	7.231E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE146	0.000E+00	9.716E-03	5.236E-04	2.799E-05	5.340E-18	2.911E-33
PR146	0.000E+00	1.662E-02	5.963E-03	1.229E-03	4.459E-11	4.932E-20
ND146	0.000E+00	3.829E+02	3.829E+02	3.829E+02	3.829E+02	3.829E+02
PM146	0.000E+00	2.375E-03	2.375E-03	2.375E-03	2.375E-03	2.375E-03
SM146	0.000E+00	8.061E-04	8.061E-04	8.062E-04	8.063E-04	8.064E-04
LA147	0.000E+00	4.205E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE147	0.000E+00	6.134E-04	2.191E-19	7.230E-35	0.000E+00	0.000E+00
PR147	0.000E+00	6.478E-03	2.252E-04	7.037E-06	6.250E-21	5.421E-39
ND147	0.000E+00	8.565E+00	8.549E+00	8.527E+00	8.308E+00	8.051E+00
PM147	0.000E+00	1.411E+02	1.411E+02	1.412E+02	1.413E+02	1.415E+02
SM147	0.000E+00	2.890E+01	2.890E+01	2.891E+01	2.895E+01	2.900E+01
LA148	0.000E+00	1.996E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE148	0.000E+00	2.708E-04	1.716E-29	0.000E+00	0.000E+00	0.000E+00
PR148	0.000E+00	9.658E-04	1.912E-11	2.683E-19	0.000E+00	0.000E+00
ND148	0.000E+00	2.157E+02	2.157E+02	2.157E+02	2.157E+02	2.157E+02
PM148	0.000E+00	1.412E+00	1.405E+00	1.397E+00	1.325E+00	1.242E+00
PM148M	0.000E+00	1.440E+00	1.439E+00	1.438E+00	1.427E+00	1.416E+00
SM148	0.000E+00	6.478E+01	6.479E+01	6.480E+01	6.488E+01	6.497E+01
CE149	0.000E+00	3.414E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR149	0.000E+00	6.570E-04	9.280E-12	1.302E-19	0.000E+00	0.000E+00
ND149	0.000E+00	3.069E-02	2.101E-02	1.407E-02	2.561E-04	2.091E-06
PM149	0.000E+00	1.342E+00	1.335E+00	1.325E+00	1.175E+00	1.005E+00
SM149	0.000E+00	3.201E+00	3.219E+00	3.236E+00	3.400E+00	3.570E+00
PR150	0.000E+00	3.740E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND150	0.000E+00	9.470E+01	9.470E+01	9.470E+01	9.470E+01	9.470E+01
PM150	0.000E+00	6.110E-04	4.717E-04	3.642E-04	2.742E-05	1.231E-06
SM150	0.000E+00	1.695E+02	1.695E+02	1.695E+02	1.695E+02	1.695E+02
PR151	0.000E+00	6.543E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND151	0.000E+00	1.767E-03	6.201E-05	2.167E-06	5.887E-21	1.953E-38
PM151	0.000E+00	2.432E-01	2.390E-01	2.333E-01	1.828E-01	1.364E-01
SM151	0.000E+00	1.445E+01	1.446E+01	1.446E+01	1.451E+01	1.456E+01
EU151	0.000E+00	1.415E-02	1.417E-02	1.418E-02	1.431E-02	1.446E-02
PR152	0.000E+00	5.893E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND152	0.000E+00	1.119E-03	3.028E-05	8.139E-07	1.602E-22	2.279E-41
PM152	0.000E+00	4.086E-04	1.677E-05	4.516E-07	8.876E-23	1.257E-41
PM152M	0.000E+00	1.319E-05	5.152E-08	2.013E-10	0.000E+00	0.000E+00
SM152	0.000E+00	7.728E+01	7.728E+01	7.728E+01	7.728E+01	7.728E+01
EU152	0.000E+00	3.699E-02	3.699E-02	3.699E-02	3.699E-02	3.698E-02
EU152M	0.000E+00	4.547E-05	4.221E-05	3.919E-05	1.863E-05	7.630E-06
GD152	0.000E+00	1.823E-02	1.823E-02	1.823E-02	1.825E-02	1.825E-02
ND153	0.000E+00	6.384E-05	5.925E-21	5.336E-37	0.000E+00	0.000E+00
PM153	0.000E+00	3.466E-04	1.942E-07	8.779E-11	0.000E+00	0.000E+00
SM153	0.000E+00	5.858E-01	5.776E-01	5.691E-01	4.906E-01	4.106E-01
EU153	0.000E+00	4.846E+01	4.847E+01	4.848E+01	4.856E+01	4.864E+01
GD153	0.000E+00	7.485E-04	7.484E-04	7.483E-04	7.474E-04	7.464E-04

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OUTPUT UNIT =

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
ND154	0.000E+00	1.833E-05	1.487E-32	0.000E+00	0.000E+00	0.000E+00
PM154	0.000E+00	9.432E-05	4.298E-11	1.523E-17	0.000E+00	0.000E+00
PM154M	0.000E+00	1.013E-05	9.360E-16	8.649E-26	0.000E+00	0.000E+00
SM154	0.000E+00	1.643E+01	1.643E+01	1.643E+01	1.643E+01	1.643E+01
EU154	0.000E+00	8.935E+00	8.935E+00	8.935E+00	8.934E+00	8.933E+00
GD154	0.000E+00	2.964E-01	2.965E-01	2.966E-01	2.974E-01	2.984E-01
ND155	0.000E+00	4.478E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM155	0.000E+00	1.257E-05	6.439E-35	0.000E+00	0.000E+00	0.000E+00
SM155	0.000E+00	5.250E-04	8.335E-05	1.280E-05	9.362E-14	1.615E-23
EU155	0.000E+00	4.768E+00	4.768E+00	4.768E+00	4.768E+00	4.767E+00
GD155	0.000E+00	4.201E-02	4.208E-02	4.216E-02	4.292E-02	4.383E-02
ND156	0.000E+00	3.345E-06	9.919E-25	2.186E-43	0.000E+00	0.000E+00
PM156	0.000E+00	2.349E-06	2.863E-25	0.000E+00	0.000E+00	0.000E+00
SM156	0.000E+00	8.139E-03	7.566E-03	7.028E-03	3.362E-03	1.388E-03
EU156	0.000E+00	1.064E+00	1.063E+00	1.061E+00	1.045E+00	1.023E+00
GD156	0.000E+00	1.286E+01	1.287E+01	1.287E+01	1.289E+01	1.291E+01
PM157	0.000E+00	5.694E-06	6.738E-22	7.876E-38	0.000E+00	0.000E+00
SM157	0.000E+00	7.389E-05	4.452E-07	2.460E-09	0.000E+00	0.000E+00
EU157	0.000E+00	1.020E-02	9.827E-03	9.389E-03	5.951E-03	3.443E-03
GD157	0.000E+00	6.261E-02	6.307E-02	6.350E-02	6.694E-02	6.945E-02
SM158	0.000E+00	2.160E-04	8.396E-05	3.262E-05	2.552E-09	3.014E-14
EU158	0.000E+00	2.418E-04	1.787E-04	1.037E-04	4.163E-08	1.227E-12
GD158	0.000E+00	5.689E+00	5.689E+00	5.689E+00	5.690E+00	5.690E+00
SM159	0.000E+00	6.051E-06	1.266E-12	2.637E-19	0.000E+00	0.000E+00
EU159	0.000E+00	4.943E-05	5.685E-06	5.713E-07	5.997E-17	6.357E-29
GD159	0.000E+00	3.405E-03	3.330E-03	3.213E-03	2.214E-03	1.416E-03
TB159	0.000E+00	8.768E-01	8.769E-01	8.771E-01	8.781E-01	8.789E-01
SM160	0.000E+00	4.866E-06	3.828E-09	3.011E-12	0.000E+00	0.000E+00
GD160	0.000E+00	4.239E-01	4.239E-01	4.239E-01	4.239E-01	4.239E-01
TB160	0.000E+00	2.281E-02	2.280E-02	2.280E-02	2.270E-02	2.260E-02
DY160	0.000E+00	3.201E-02	3.202E-02	3.202E-02	3.212E-02	3.222E-02
GD161	0.000E+00	2.353E-06	3.800E-11	4.991E-16	0.000E+00	0.000E+00
TB161	0.000E+00	6.690E-03	6.665E-03	6.637E-03	6.366E-03	6.055E-03

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DY161	0.000E+00	1.597E-01	1.597E-01	1.598E-01	1.600E-01	1.604E-01
GD162	0.000E+00	3.111E-06	7.041E-08	1.102E-09	9.561E-28	0.000E+00
TB162	0.000E+00	2.302E-06	1.572E-07	3.010E-09	2.767E-27	0.000E+00
DY162	0.000E+00	1.181E-01	1.181E-01	1.181E-01	1.181E-01	1.181E-01
TB163	0.000E+00	2.663E-06	3.421E-07	4.054E-08	2.215E-17	1.700E-28
DY163	0.000E+00	7.452E-02	7.452E-02	7.452E-02	7.452E-02	7.452E-02
DY164	0.000E+00	2.081E-02	2.081E-02	2.081E-02	2.081E-02	2.081E-02
DY165	0.000E+00	1.682E-05	1.262E-05	9.396E-06	4.920E-07	1.428E-08
HO165	0.000E+00	2.649E-02	2.649E-02	2.650E-02	2.651E-02	2.651E-02
DY166	0.000E+00	9.116E-05	9.039E-05	8.962E-05	8.231E-05	7.433E-05
HO166	0.000E+00	5.112E-05	5.058E-05	5.004E-05	4.506E-05	3.989E-05
HO166M	0.000E+00	1.306E-04	1.306E-04	1.306E-04	1.306E-04	1.306E-04
ER166	0.000E+00	8.515E-03	8.516E-03	8.517E-03	8.530E-03	8.543E-03
ER167	0.000E+00	1.943E-03	1.943E-03	1.943E-03	1.943E-03	1.943E-03
ER168	0.000E+00	1.295E-03	1.295E-03	1.295E-03	1.295E-03	1.295E-03
TM169	0.000E+00	4.180E-06	4.182E-06	4.183E-06	4.196E-06	4.211E-06
SUMTOT	0.000E+00	1.987E+04	1.987E+04	1.987E+04	1.987E+04	1.987E+04

TOTAL 0.000E+00 1.987E+04 1.987E+04 1.987E+04 1.987E+04 1.987E+04

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	0.000E+00	3.151E-02	3.151E-02	3.151E-02	3.151E-02	3.151E-02
LI	0.000E+00	1.831E-04	1.831E-04	1.831E-04	1.831E-04	1.831E-04
BE	0.000E+00	8.755E-05	8.755E-05	8.755E-05	8.755E-05	8.755E-05
C	0.000E+00	1.540E-05	1.540E-05	1.540E-05	1.540E-05	1.540E-05
ZN	0.000E+00	3.244E-03	3.243E-03	3.242E-03	3.234E-03	3.225E-03
GA	0.000E+00	3.753E-05	3.349E-05	3.175E-05	2.250E-05	1.855E-05
GE	0.000E+00	3.929E-01	3.928E-01	3.928E-01	3.926E-01	3.925E-01
AS	0.000E+00	1.201E-01	1.200E-01	1.199E-01	1.194E-01	1.190E-01
SE	0.000E+00	3.522E+01	3.522E+01	3.522E+01	3.522E+01	3.522E+01
BR	0.000E+00	1.376E+01	1.376E+01	1.375E+01	1.375E+01	1.375E+01
KR	0.000E+00	2.442E+02	2.442E+02	2.442E+02	2.441E+02	2.441E+02
RB	0.000E+00	2.279E+02	2.279E+02	2.279E+02	2.279E+02	2.279E+02

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SR	0.000E+00	6.453E+02	6.453E+02	6.452E+02	6.448E+02	6.444E+02
Y	0.000E+00	3.305E+02	3.304E+02	3.304E+02	3.302E+02	3.300E+02
ZR	0.000E+00	2.252E+03	2.252E+03	2.252E+03	2.252E+03	2.251E+03
NB	0.000E+00	4.833E+01	4.833E+01	4.832E+01	4.830E+01	4.827E+01
MO	0.000E+00	1.847E+03	1.847E+03	1.847E+03	1.848E+03	1.848E+03
TC	0.000E+00	4.760E+02	4.761E+02	4.761E+02	4.765E+02	4.769E+02
RU	0.000E+00	1.259E+03	1.259E+03	1.259E+03	1.259E+03	1.258E+03
RH	0.000E+00	2.487E+02	2.488E+02	2.488E+02	2.490E+02	2.492E+02
PD	0.000E+00	4.099E+02	4.099E+02	4.099E+02	4.101E+02	4.103E+02
AG	0.000E+00	2.893E+01	2.893E+01	2.894E+01	2.896E+01	2.896E+01
CD	0.000E+00	3.632E+01	3.632E+01	3.632E+01	3.634E+01	3.635E+01
IN	0.000E+00	1.975E+00	1.975E+00	1.975E+00	1.978E+00	1.982E+00
SN	0.000E+00	4.398E+01	4.397E+01	4.397E+01	4.396E+01	4.395E+01
SB	0.000E+00	1.714E+01	1.711E+01	1.710E+01	1.705E+01	1.702E+01
TE	0.000E+00	2.577E+02	2.576E+02	2.576E+02	2.571E+02	2.566E+02
I	0.000E+00	1.310E+02	1.309E+02	1.307E+02	1.297E+02	1.289E+02
XE	0.000E+00	2.991E+03	2.991E+03	2.991E+03	2.992E+03	2.992E+03
CS	0.000E+00	1.677E+03	1.677E+03	1.678E+03	1.678E+03	1.679E+03
BA	0.000E+00	8.146E+02	8.145E+02	8.144E+02	8.139E+02	8.133E+02
LA	0.000E+00	7.366E+02	7.365E+02	7.365E+02	7.363E+02	7.362E+02
CE	0.000E+00	1.793E+03	1.793E+03	1.793E+03	1.792E+03	1.791E+03
PR	0.000E+00	6.394E+02	6.394E+02	6.394E+02	6.397E+02	6.401E+02
ND	0.000E+00	2.058E+03	2.058E+03	2.058E+03	2.059E+03	2.060E+03
PM	0.000E+00	1.456E+02	1.456E+02	1.455E+02	1.454E+02	1.453E+02
SM	0.000E+00	3.751E+02	3.752E+02	3.752E+02	3.754E+02	3.757E+02
EU	0.000E+00	6.329E+01	6.330E+01	6.330E+01	6.336E+01	6.341E+01
GD	0.000E+00	1.940E+01	1.940E+01	1.941E+01	1.943E+01	1.946E+01
TB	0.000E+00	9.063E-01	9.064E-01	9.065E-01	9.071E-01	9.075E-01
DY	0.000E+00	4.053E-01	4.053E-01	4.054E-01	4.057E-01	4.061E-01
HO	0.000E+00	2.667E-02	2.668E-02	2.668E-02	2.668E-02	2.668E-02
ER	0.000E+00	1.175E-02	1.175E-02	1.176E-02	1.177E-02	1.178E-02
TM	0.000E+00	4.580E-06	4.581E-06	4.582E-06	4.594E-06	4.609E-06
SUMTOT	0.000E+00	1.987E+04	1.987E+04	1.987E+04	1.987E+04	1.987E+04
TOTAL	0.000E+00	1.987E+04	1.987E+04	1.987E+04	1.987E+04	1.987E+04

CUMULATIVE TABLE TOTALS

AP+FP	1.348E+05	1.547E+05	1.547E+05	1.547E+05	1.547E+05	1.547E+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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	0.000E+00	3.042E+02	3.042E+02	3.042E+02	3.042E+02	3.042E+02
CO 72	0.000E+00	1.360E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 72	0.000E+00	2.681E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 72	0.000E+00	5.189E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 72	0.000E+00	5.986E+01	5.898E+01	5.811E+01	5.006E+01	4.186E+01
GA 72	0.000E+00	6.002E+01	5.999E+01	5.992E+01	5.749E+01	5.212E+01
CO 73	0.000E+00	4.182E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 73	0.000E+00	2.147E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 73	0.000E+00	7.293E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 73	0.000E+00	1.248E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 73	0.000E+00	1.303E+02	1.132E+02	9.824E+01	2.374E+01	4.319E+00
GE 73M	0.000E+00	1.304E+02	1.132E+02	9.824E+01	2.374E+01	4.319E+00
CO 74	0.000E+00	8.819E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 74	0.000E+00	1.485E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 74	0.000E+00	1.094E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 74	0.000E+00	2.530E+02	9.930E-10	3.886E-21	0.000E+00	0.000E+00
GA 74	0.000E+00	2.673E+02	1.938E+00	1.141E-02	0.000E+00	0.000E+00
NI 75	0.000E+00	6.005E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 75	0.000E+00	1.112E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 75	0.000E+00	4.896E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 75	0.000E+00	5.740E+02	1.923E-07	5.994E-17	0.000E+00	0.000E+00
GE 75	0.000E+00	5.790E+02	3.593E+02	2.174E+02	1.432E+00	3.455E-03
GE 75M	0.000E+00	2.540E+01	1.347E-08	4.199E-18	0.000E+00	0.000E+00
NI 76	0.000E+00	1.617E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 76	0.000E+00	9.002E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 76	0.000E+00	9.297E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 76	0.000E+00	1.355E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 76	0.000E+00	1.680E+01	1.636E+01	1.594E+01	1.225E+01	8.928E+00
NI 77	0.000E+00	2.659E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 77	0.000E+00	4.083E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 77	0.000E+00	1.050E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 77	0.000E+00	2.544E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 77	0.000E+00	1.081E+03	1.017E+03	9.569E+02	5.182E+02	2.482E+02
GE 77M	0.000E+00	2.457E+03	3.520E-17	0.000E+00	0.000E+00	0.000E+00
AS 77	0.000E+00	3.030E+03	2.996E+03	2.960E+03	2.592E+03	2.162E+03
SE 77M	0.000E+00	7.675E+00	7.431E+00	7.343E+00	6.429E+00	5.362E+00
NI 78	0.000E+00	3.058E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 78	0.000E+00	1.482E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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ZN 78	0.000E+00	1.094E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 78	0.000E+00	4.709E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 78	0.000E+00	6.389E+03	3.964E+03	2.458E+03	2.063E+01	6.656E-02
AS 78	0.000E+00	6.530E+03	5.964E+03	4.909E+03	1.545E+02	1.043E+00
CU 79	0.000E+00	3.530E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 79	0.000E+00	5.965E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 79	0.000E+00	4.904E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 79	0.000E+00	1.350E+04	8.694E-22	0.000E+00	0.000E+00	0.000E+00
AS 79	0.000E+00	1.605E+04	1.698E+02	1.671E+00	1.427E-20	0.000E+00
SE 79	0.000E+00	2.477E-01	2.477E-01	2.477E-01	2.477E-01	2.477E-01
SE 79M	0.000E+00	1.608E+04	2.987E+02	2.950E+00	2.513E-20	0.000E+00
CU 80	0.000E+00	3.887E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 80	0.000E+00	2.321E+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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
GA 80	0.000E+00	5.471E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 80	0.000E+00	2.923E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 80	0.000E+00	3.578E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 80	0.000E+00	6.531E-01	4.001E-01	3.275E-01	6.788E-02	1.034E-02
BR 80M	0.000E+00	4.166E-01	3.561E-01	3.044E-01	6.343E-02	9.659E-03
CU 81	0.000E+00	2.718E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 81	0.000E+00	4.917E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 81	0.000E+00	3.103E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 81	0.000E+00	3.649E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 81	0.000E+00	5.706E+04	1.008E-29	0.000E+00	0.000E+00	0.000E+00
SE 81	0.000E+00	6.058E+04	7.598E+03	1.279E+03	4.294E-01	7.083E-05
SE 81M	0.000E+00	1.762E+03	8.528E+02	4.127E+02	2.907E-01	4.796E-05
KR 81M	0.000E+00	1.923E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 82	0.000E+00	5.996E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 82	0.000E+00	1.098E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 82	0.000E+00	3.270E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82	0.000E+00	5.412E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82M	0.000E+00	2.133E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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BR 82	0.000E+00	2.831E+03	2.779E+03	2.725E+03	2.239E+03	1.769E+03
BR 82M	0.000E+00	1.073E+03	1.213E+00	1.376E-03	0.000E+00	0.000E+00
ZN 83	0.000E+00	5.388E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 83	0.000E+00	2.933E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 83	0.000E+00	2.375E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 83	0.000E+00	1.001E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 83	0.000E+00	5.455E+04	8.650E+03	1.362E+03	1.279E-05	2.978E-15
SE 83M	0.000E+00	8.546E+04	3.342E-11	1.103E-26	0.000E+00	0.000E+00
BR 83	0.000E+00	1.422E+05	1.130E+05	8.553E+04	4.719E+03	1.453E+02
KR 83M	0.000E+00	1.422E+05	1.375E+05	1.250E+05	1.468E+04	5.622E+02
GA 84	0.000E+00	3.041E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 84	0.000E+00	6.233E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 84	0.000E+00	7.821E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 84	0.000E+00	2.471E+05	8.386E-01	2.820E-06	0.000E+00	0.000E+00
BR 84	0.000E+00	2.542E+05	7.654E+04	2.070E+04	4.326E-02	6.612E-09
BR 84M	0.000E+00	7.312E+03	7.141E+00	6.974E-03	0.000E+00	0.000E+00
GE 85	0.000E+00	1.753E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 85	0.000E+00	4.844E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 85	0.000E+00	1.493E+05	2.471E-23	0.000E+00	0.000E+00	0.000E+00
SE 85M	0.000E+00	1.096E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 85	0.000E+00	3.099E+05	1.841E-01	9.215E-08	0.000E+00	0.000E+00
KR 85	0.000E+00	6.460E+03	6.461E+03	6.461E+03	6.462E+03	6.462E+03
KR 85M	0.000E+00	3.137E+05	2.720E+05	2.330E+05	4.960E+04	7.750E+03
GE 86	0.000E+00	3.254E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 86	0.000E+00	2.630E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 86	0.000E+00	3.012E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 86	0.000E+00	2.272E+05	5.789E-15	0.000E+00	0.000E+00	0.000E+00
BR 86M	0.000E+00	2.287E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 86	0.000E+00	1.049E+03	1.048E+03	1.046E+03	1.030E+03	1.011E+03
RB 86M	0.000E+00	1.319E+02	2.387E-16	5.179E-34	0.000E+00	0.000E+00
GE 87	0.000E+00	4.817E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 87	0.000E+00	1.398E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 87	0.000E+00	2.340E+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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

ML041000029.txt

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
BR 87	0.000E+00	5.174E+05	2.060E-14	8.503E-34	0.000E+00	0.000E+00
KR 87	0.000E+00	6.144E+05	3.601E+05	2.088E+05	8.965E+02	1.293E+00
SR 87M	0.000E+00	2.460E+00	1.922E+00	1.501E+00	1.269E-01	6.543E-03
GE 88	0.000E+00	1.347E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 88	0.000E+00	8.566E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 88	0.000E+00	8.772E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 88	0.000E+00	5.724E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 88	0.000E+00	8.668E+05	6.797E+05	5.325E+05	4.634E+04	2.474E+03
RB 88	0.000E+00	8.779E+05	7.503E+05	5.938E+05	5.174E+04	2.763E+03
AS 89	0.000E+00	8.344E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 89	0.000E+00	2.437E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 89	0.000E+00	4.152E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 89	0.000E+00	1.075E+06	2.189E+00	4.391E-06	0.000E+00	0.000E+00
RB 89	0.000E+00	1.134E+06	9.206E+04	5.967E+03	7.817E-09	4.302E-23
SR 89	0.000E+00	1.199E+06	1.199E+06	1.198E+06	1.191E+06	1.183E+06
Y 89M	0.000E+00	3.927E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 90	0.000E+00	7.893E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 90	0.000E+00	2.726E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 90	0.000E+00	1.065E+06	3.176E-28	0.000E+00	0.000E+00	0.000E+00
RB 90	0.000E+00	1.110E+06	1.952E+00	1.119E-04	0.000E+00	0.000E+00
RB 90M	0.000E+00	2.477E+05	1.680E+01	1.059E-03	0.000E+00	0.000E+00
SR 90	0.000E+00	5.019E+04	5.019E+04	5.019E+04	5.019E+04	5.019E+04
Y 90	0.000E+00	5.184E+04	5.182E+04	5.181E+04	5.164E+04	5.147E+04
Y 90M	0.000E+00	1.265E+01	1.011E+01	8.088E+00	8.645E-01	5.909E-02
SE 91	0.000E+00	1.012E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 91	0.000E+00	8.999E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 91	0.000E+00	7.894E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 91	0.000E+00	1.353E+06	3.577E-13	8.560E-32	0.000E+00	0.000E+00
SR 91	0.000E+00	1.432E+06	1.334E+06	1.240E+06	5.978E+05	2.491E+05
Y 91	0.000E+00	1.510E+06	1.510E+06	1.510E+06	1.507E+06	1.500E+06
Y 91M	0.000E+00	8.311E+05	8.127E+05	7.728E+05	3.800E+05	1.583E+05
SE 92	0.000E+00	4.125E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 92	0.000E+00	7.235E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 92	0.000E+00	3.679E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 92	0.000E+00	1.163E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 92	0.000E+00	1.517E+06	1.175E+06	9.098E+05	7.049E+04	3.275E+03
Y 92	0.000E+00	1.522E+06	1.488E+06	1.407E+06	3.876E+05	4.821E+04
BR 93	0.000E+00	1.437E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 93	0.000E+00	1.307E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 93	0.000E+00	8.729E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 93	0.000E+00	1.673E+06	6.583E+03	2.572E+01	0.000E+00	0.000E+00
Y 93	0.000E+00	1.710E+06	1.616E+06	1.509E+06	7.596E+05	3.334E+05
ZR 93	0.000E+00	1.158E+00	1.158E+00	1.158E+00	1.159E+00	1.159E+00
NB 93M	0.000E+00	3.930E-02	3.930E-02	3.931E-02	3.937E-02	3.945E-02
BR 94	0.000E+00	1.139E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 94	0.000E+00	5.198E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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RB 94	0.000E+00	4.486E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 94	0.000E+00	1.563E+06	7.302E-09	3.378E-23	0.000E+00	0.000E+00
Y 94	0.000E+00	1.692E+06	2.044E+05	2.317E+04	8.099E-06	3.636E-17
NB 94M	0.000E+00	8.515E-01	1.109E-03	1.444E-06	0.000E+00	0.000E+00
BR 95	0.000E+00	7.360E+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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 95	0.000E+00	4.868E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 95	0.000E+00	2.282E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 95	0.000E+00	1.448E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 95	0.000E+00	1.787E+06	3.522E+04	6.708E+02	4.216E-15	0.000E+00
ZR 95	0.000E+00	1.869E+06	1.868E+06	1.867E+06	1.859E+06	1.849E+06
NB 95	0.000E+00	1.886E+06	1.886E+06	1.886E+06	1.886E+06	1.886E+06
NB 95M	0.000E+00	1.330E+04	1.330E+04	1.330E+04	1.328E+04	1.325E+04
BR 96	0.000E+00	3.877E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 96	0.000E+00	7.717E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 96	0.000E+00	5.962E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 96	0.000E+00	1.001E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 96	0.000E+00	1.686E+06	2.407E-02	3.377E-10	0.000E+00	0.000E+00
NB 96	0.000E+00	2.785E+03	2.704E+03	2.625E+03	1.951E+03	1.366E+03
KR 97	0.000E+00	3.971E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 97	0.000E+00	1.119E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 97	0.000E+00	5.229E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 97	0.000E+00	1.437E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	1.760E+06	1.690E+06	1.622E+06	1.076E+06	6.578E+05
NB 97	0.000E+00	1.773E+06	1.747E+06	1.702E+06	1.156E+06	6.623E+05
NB 97M	0.000E+00	1.669E+06	1.600E+06	1.536E+06	1.019E+06	6.231E+05
KR 98	0.000E+00	4.683E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 98	0.000E+00	2.258E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 98	0.000E+00	2.018E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 98	0.000E+00	1.023E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 98	0.000E+00	1.761E+06	1.956E-29	0.000E+00	0.000E+00	0.000E+00
NB 98	0.000E+00	1.786E+06	2.150E-29	0.000E+00	0.000E+00	0.000E+00

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NB 98M	0.000E+00	1.461E+04	6.517E+03	2.906E+03	9.041E-01	5.593E-05
RB 99	0.000E+00	2.126E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 99	0.000E+00	5.190E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 99	0.000E+00	5.789E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 99	0.000E+00	1.736E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	1.798E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99M	0.000E+00	6.405E+04	7.239E-03	8.182E-10	0.000E+00	0.000E+00
MO 99	0.000E+00	1.895E+06	1.876E+06	1.856E+06	1.671E+06	1.473E+06
TC 99	0.000E+00	8.068E+00	8.069E+00	8.069E+00	8.076E+00	8.084E+00
TC 99M	0.000E+00	1.659E+06	1.658E+06	1.656E+06	1.568E+06	1.409E+06
RB100	0.000E+00	1.691E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR100	0.000E+00	9.584E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y100	0.000E+00	2.582E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR100	0.000E+00	1.608E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100	0.000E+00	9.895E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100M	0.000E+00	9.895E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC100	0.000E+00	2.151E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR101	0.000E+00	1.327E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y101	0.000E+00	8.290E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR101	0.000E+00	1.032E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB101	0.000E+00	1.606E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	0.000E+00	1.692E+06	9.938E+04	5.780E+03	2.557E-09	3.826E-24
TC101	0.000E+00	1.692E+06	3.696E+05	3.600E+04	5.750E-08	1.160E-22
SR102	0.000E+00	1.143E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y102	0.000E+00	1.904E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
ZR102	0.000E+00	5.611E+05	7.737E-33	0.000E+00	0.000E+00	0.000E+00
NB102	0.000E+00	1.310E+06	1.054E-32	0.000E+00	0.000E+00	0.000E+00
MO102	0.000E+00	1.539E+06	3.705E+04	8.742E+02	4.674E-14	1.401E-33
TC102	0.000E+00	1.541E+06	3.735E+04	8.812E+02	4.712E-14	0.000E+00
TC102M	0.000E+00	1.443E+03	1.016E-01	7.161E-06	0.000E+00	0.000E+00
RH102	0.000E+00	2.588E-01	2.588E-01	2.588E-01	2.587E-01	2.586E-01

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SR103	0.000E+00	3.559E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y103	0.000E+00	2.473E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR103	0.000E+00	1.916E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB103	0.000E+00	8.537E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO103	0.000E+00	1.373E+06	1.459E-12	1.266E-30	0.000E+00	0.000E+00
TC103	0.000E+00	1.391E+06	8.753E-12	7.594E-30	0.000E+00	0.000E+00
RU103	0.000E+00	1.384E+06	1.383E+06	1.382E+06	1.372E+06	1.360E+06
RH103M	0.000E+00	1.247E+06	1.247E+06	1.246E+06	1.238E+06	1.226E+06
SR104	0.000E+00	1.310E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y104	0.000E+00	1.905E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR104	0.000E+00	3.875E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB104	0.000E+00	3.703E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO104	0.000E+00	1.003E+06	5.187E-06	2.668E-17	0.000E+00	0.000E+00
TC104	0.000E+00	1.067E+06	1.185E+05	1.206E+04	1.436E-06	1.772E-18
RH104	0.000E+00	4.487E+05	2.413E+00	1.662E-04	0.000E+00	0.000E+00
RH104M	0.000E+00	2.936E+04	2.023E+00	1.394E-04	0.000E+00	0.000E+00
Y105	0.000E+00	1.073E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR105	0.000E+00	5.121E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB105	0.000E+00	1.157E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO105	0.000E+00	6.613E+05	5.681E-15	0.000E+00	0.000E+00	0.000E+00
TC105	0.000E+00	8.090E+05	4.935E+03	2.727E+01	0.000E+00	0.000E+00
RU105	0.000E+00	8.198E+05	7.248E+05	6.202E+05	1.301E+05	1.998E+04
RH105	0.000E+00	7.694E+05	7.696E+05	7.677E+05	6.855E+05	5.538E+05
RH105M	0.000E+00	2.296E+05	2.035E+05	1.741E+05	3.654E+04	5.609E+03
ZR106	0.000E+00	7.348E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB106	0.000E+00	3.125E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO106	0.000E+00	3.227E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC106	0.000E+00	5.140E+05	3.176E-24	0.000E+00	0.000E+00	0.000E+00
RU106	0.000E+00	2.674E+05	2.674E+05	2.674E+05	2.672E+05	2.669E+05
RH106	0.000E+00	3.028E+05	2.674E+05	2.674E+05	2.672E+05	2.669E+05
RH106M	0.000E+00	1.619E+04	1.181E+04	8.621E+03	3.692E+02	8.418E+00
ZR107	0.000E+00	3.458E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB107	0.000E+00	4.678E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO107	0.000E+00	1.099E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC107	0.000E+00	2.628E+05	1.254E-32	0.000E+00	0.000E+00	0.000E+00
RU107	0.000E+00	4.111E+05	2.246E+01	1.124E-03	0.000E+00	0.000E+00
RH107	0.000E+00	4.133E+05	7.664E+04	1.128E+04	5.355E-05	5.504E-15
PD107	0.000E+00	3.903E-02	3.903E-02	3.903E-02	3.903E-02	3.903E-02
PD107M	0.000E+00	1.584E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR108	0.000E+00	7.999E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB108	0.000E+00	1.064E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO108	0.000E+00	3.475E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC108	0.000E+00	1.539E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU108	0.000E+00	2.760E+05	2.705E+01	2.621E-03	0.000E+00	0.000E+00
RH108	0.000E+00	2.786E+05	2.884E+01	2.794E-03	0.000E+00	0.000E+00

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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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
RH108M	0.000E+00	2.675E+03	2.323E+00	2.017E-03	0.000E+00	0.000E+00
AG108	0.000E+00	4.690E-01	8.108E-07	7.995E-07	7.994E-07	7.994E-07
ZR109	0.000E+00	5.695E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB109	0.000E+00	1.977E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO109	0.000E+00	1.150E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC109	0.000E+00	7.460E+04	4.216E-17	0.000E+00	0.000E+00	0.000E+00
RU109	0.000E+00	1.715E+05	1.344E-16	0.000E+00	0.000E+00	0.000E+00
RH109	0.000E+00	1.780E+05	6.610E-07	6.012E-19	0.000E+00	0.000E+00
RH109M	0.000E+00	8.901E+04	2.141E-15	0.000E+00	0.000E+00	0.000E+00
PD109	0.000E+00	1.943E+05	1.859E+05	1.765E+05	1.055E+05	5.686E+04
PD109M	0.000E+00	8.928E+04	2.543E+01	3.583E-03	0.000E+00	0.000E+00
AG109M	0.000E+00	1.942E+05	1.859E+05	1.766E+05	1.055E+05	5.688E+04
NB110	0.000E+00	2.259E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO110	0.000E+00	2.455E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC110	0.000E+00	1.974E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU110	0.000E+00	7.637E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH110	0.000E+00	8.192E+04	7.635E-33	0.000E+00	0.000E+00	0.000E+00
RH110M	0.000E+00	5.553E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG110	0.000E+00	4.902E+04	1.180E+01	1.180E+01	1.178E+01	1.177E+01
AG110M	0.000E+00	8.873E+02	8.872E+02	8.871E+02	8.861E+02	8.848E+02
NB111	0.000E+00	1.916E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO111	0.000E+00	5.098E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC111	0.000E+00	6.905E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU111	0.000E+00	3.573E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH111	0.000E+00	4.742E+04	3.721E-13	2.338E-30	0.000E+00	0.000E+00
PD111	0.000E+00	4.833E+04	8.075E+03	1.529E+03	1.059E+02	2.333E+01
PD111M	0.000E+00	6.585E+02	5.812E+02	5.123E+02	1.453E+02	3.202E+01
AG111	0.000E+00	4.859E+04	4.850E+04	4.832E+04	4.650E+04	4.439E+04
AG111M	0.000E+00	4.820E+04	8.599E+03	1.744E+03	1.517E+02	3.342E+01
CD111M	0.000E+00	3.561E+00	1.516E+00	6.454E-01	1.262E-04	4.472E-09
MO112	0.000E+00	9.342E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC112	0.000E+00	2.414E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU112	0.000E+00	1.669E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH112	0.000E+00	2.560E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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PD112	0.000E+00	2.723E+04	2.631E+04	2.542E+04	1.801E+04	1.190E+04
AG112	0.000E+00	2.732E+04	2.721E+04	2.694E+04	2.098E+04	1.408E+04
MO113	0.000E+00	6.641E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC113	0.000E+00	6.446E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU113	0.000E+00	9.408E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH113	0.000E+00	1.892E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD113	0.000E+00	2.242E+04	2.084E-08	1.896E-20	0.000E+00	0.000E+00
AG113	0.000E+00	2.021E+04	1.782E+04	1.563E+04	4.227E+03	8.800E+02
AG113M	0.000E+00	2.271E+03	7.816E-09	7.109E-21	0.000E+00	0.000E+00
CD113M	0.000E+00	2.243E+01	2.243E+01	2.243E+01	2.244E+01	2.244E+01
MO114	0.000E+00	6.792E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC114	0.000E+00	1.457E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU114	0.000E+00	4.387E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH114	0.000E+00	1.161E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD114	0.000E+00	1.641E+04	4.979E-04	1.484E-11	0.000E+00	0.000E+00
AG114	0.000E+00	1.661E+04	5.140E-04	1.532E-11	0.000E+00	0.000E+00
IN114	0.000E+00	1.277E+00	4.142E-01	4.140E-01	4.115E-01	4.087E-01

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
IN114M	0.000E+00	4.331E-01	4.328E-01	4.325E-01	4.300E-01	4.270E-01
MO115	0.000E+00	4.545E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC115	0.000E+00	3.064E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU115	0.000E+00	2.056E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH115	0.000E+00	8.920E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD115	0.000E+00	1.608E+04	5.393E-25	0.000E+00	0.000E+00	0.000E+00
AG115	0.000E+00	1.204E+04	1.558E+03	1.947E+02	1.813E-07	2.639E-18
AG115M	0.000E+00	4.624E+03	2.635E-25	0.000E+00	0.000E+00	0.000E+00
CD115	0.000E+00	1.548E+04	1.535E+04	1.516E+04	1.332E+04	1.140E+04
CD115M	0.000E+00	1.480E+03	1.479E+03	1.478E+03	1.468E+03	1.457E+03
IN115M	0.000E+00	1.551E+04	1.550E+04	1.546E+04	1.428E+04	1.237E+04
TC116	0.000E+00	1.900E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU116	0.000E+00	4.594E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH116	0.000E+00	4.301E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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PD116	0.000E+00	1.262E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG116	0.000E+00	7.023E+03	1.392E-03	2.536E-10	0.000E+00	0.000E+00	0.000E+00
AG116M	0.000E+00	7.023E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116	0.000E+00	7.836E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	5.707E+03	2.648E+03	1.228E+03	5.673E-01	5.639E-05	
TC117	0.000E+00	8.168E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU117	0.000E+00	7.238E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH117	0.000E+00	2.904E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD117	0.000E+00	1.168E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG117	0.000E+00	6.959E+03	1.162E-11	1.821E-26	0.000E+00	0.000E+00	0.000E+00
AG117M	0.000E+00	6.957E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD117	0.000E+00	9.176E+03	7.067E+03	5.413E+03	3.764E+02	1.536E+01	
CD117M	0.000E+00	4.980E+03	4.071E+03	3.321E+03	4.323E+02	3.744E+01	
IN117	0.000E+00	8.473E+03	8.189E+03	7.513E+03	1.096E+03	7.585E+01	
IN117M	0.000E+00	1.073E+04	1.034E+04	9.438E+03	1.435E+03	8.930E+01	
SN117M	0.000E+00	2.627E+01	2.622E+01	2.616E+01	2.563E+01	2.500E+01	
RU118	0.000E+00	4.463E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH118	0.000E+00	3.495E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD118	0.000E+00	9.110E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG118	0.000E+00	9.448E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG118M	0.000E+00	6.295E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD118	0.000E+00	1.413E+04	6.191E+03	2.708E+03	6.948E-01	3.411E-05	
IN118	0.000E+00	1.413E+04	6.201E+03	2.713E+03	6.959E-01	3.417E-05	
IN118M	0.000E+00	5.150E+00	4.498E-04	3.928E-08	0.000E+00	0.000E+00	0.000E+00
RH119	0.000E+00	2.677E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD119	0.000E+00	6.327E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG119	0.000E+00	1.248E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD119	0.000E+00	6.980E+03	8.456E+01	1.013E+00	6.180E-20	0.000E+00	0.000E+00
CD119M	0.000E+00	6.980E+03	1.637E-02	3.713E-08	0.000E+00	0.000E+00	0.000E+00
IN119	0.000E+00	4.023E+03	1.026E+02	1.071E+01	1.002E-09	9.112E-22	
IN119M	0.000E+00	1.048E+04	1.790E+03	1.856E+02	1.726E-08	1.569E-20	
SN119M	0.000E+00	1.568E+02	1.568E+02	1.568E+02	1.566E+02	1.564E+02	
RU120	0.000E+00	9.327E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH120	0.000E+00	4.257E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD120	0.000E+00	2.469E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG120	0.000E+00	8.792E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD120	0.000E+00	1.386E+04	6.643E-18	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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
IN120	0.000E+00	7.065E+03	2.635E-17	0.000E+00	0.000E+00	0.000E+00
IN120M	0.000E+00	7.065E+03	3.536E-18	0.000E+00	0.000E+00	0.000E+00
RH121	0.000E+00	6.702E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD121	0.000E+00	9.550E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG121	0.000E+00	6.070E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD121	0.000E+00	1.374E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121	0.000E+00	1.168E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121M	0.000E+00	2.938E+03	1.051E-02	3.534E-08	0.000E+00	0.000E+00
SN121	0.000E+00	1.464E+04	1.427E+04	1.391E+04	1.074E+04	7.874E+03
SN121M	0.000E+00	9.155E-02	9.155E-02	9.155E-02	9.155E-02	9.154E-02
RH122	0.000E+00	8.115E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD122	0.000E+00	2.920E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG122	0.000E+00	3.739E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD122	0.000E+00	1.325E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN122	0.000E+00	1.424E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN122M	0.000E+00	9.956E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB122	0.000E+00	9.529E+02	9.427E+02	9.327E+02	8.381E+02	7.371E+02
SB122M	0.000E+00	7.538E+00	3.775E-04	1.890E-08	0.000E+00	0.000E+00
RH123	0.000E+00	6.953E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD123	0.000E+00	6.643E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG123	0.000E+00	1.960E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD123	0.000E+00	1.261E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN123	0.000E+00	1.174E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN123M	0.000E+00	4.912E+03	1.466E-19	0.000E+00	0.000E+00	0.000E+00
SN123	0.000E+00	3.203E+03	3.202E+03	3.201E+03	3.194E+03	3.185E+03
SN123M	0.000E+00	1.382E+04	4.938E+03	1.750E+03	5.456E-02	2.136E-07
TE123M	0.000E+00	2.272E+00	2.272E+00	2.271E+00	2.266E+00	2.259E+00
PD124	0.000E+00	1.225E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG124	0.000E+00	8.841E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD124	0.000E+00	1.160E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN124	0.000E+00	1.927E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB124	0.000E+00	5.215E+02	5.212E+02	5.210E+02	5.185E+02	5.155E+02
SB124M	0.000E+00	7.326E+00	1.630E-11	3.625E-23	0.000E+00	0.000E+00
AG125	0.000E+00	2.649E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD125	0.000E+00	7.913E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN125	0.000E+00	1.164E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN125M	0.000E+00	8.526E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN125	0.000E+00	1.184E+04	1.181E+04	1.177E+04	1.143E+04	1.102E+04
SN125M	0.000E+00	1.898E+04	2.432E+02	3.081E+00	3.283E-19	0.000E+00
SB125	0.000E+00	7.910E+03	7.910E+03	7.910E+03	7.911E+03	7.912E+03
TE125M	0.000E+00	1.519E+03	1.519E+03	1.519E+03	1.521E+03	1.522E+03
PD126	0.000E+00	1.742E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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AG126	0.000E+00	8.149E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD126	0.000E+00	6.064E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN126	0.000E+00	2.771E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN126	0.000E+00	3.811E-01	3.811E-01	3.811E-01	3.811E-01	3.811E-01
SB126	0.000E+00	8.406E+02	8.387E+02	8.368E+02	8.175E+02	7.950E+02
SB126M	0.000E+00	3.977E+02	4.490E+01	5.369E+00	3.811E-01	3.811E-01
CD127	0.000E+00	3.139E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN127	0.000E+00	1.564E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN127M	0.000E+00	1.566E+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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
SN127	0.000E+00	5.989E+04	4.306E+04	3.095E+04	1.141E+03	2.173E+01
SN127M	0.000E+00	2.889E+04	1.233E+00	5.261E-05	0.000E+00	0.000E+00
SB127	0.000E+00	9.449E+04	9.419E+04	9.376E+04	8.763E+04	8.010E+04
TE127	0.000E+00	9.296E+04	9.295E+04	9.291E+04	9.107E+04	8.645E+04
TE127M	0.000E+00	1.182E+04	1.182E+04	1.182E+04	1.182E+04	1.182E+04
XE127	0.000E+00	7.753E-03	7.747E-03	7.741E-03	7.680E-03	7.607E-03
AG128	0.000E+00	3.102E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD128	0.000E+00	1.212E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN128	0.000E+00	2.754E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN128	0.000E+00	1.556E+05	7.689E+04	3.800E+04	3.299E+01	6.996E-03
SB128	0.000E+00	1.228E+04	1.137E+04	1.053E+04	4.879E+03	1.938E+03
SB128M	0.000E+00	1.671E+05	9.294E+04	4.612E+04	4.005E+01	8.492E-03
I128	0.000E+00	4.897E+03	9.269E+02	1.754E+02	1.034E-05	2.183E-14
CD129	0.000E+00	4.741E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN129	0.000E+00	2.149E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN129	0.000E+00	1.004E+05	3.924E+02	1.533E+00	0.000E+00	0.000E+00
SN129M	0.000E+00	1.248E+05	7.440E-03	4.434E-10	0.000E+00	0.000E+00
SB129	0.000E+00	2.990E+05	2.582E+05	2.200E+05	4.420E+04	6.444E+03
TE129	0.000E+00	2.945E+05	2.834E+05	2.614E+05	8.100E+04	3.599E+04
TE129M	0.000E+00	4.413E+04	4.412E+04	4.411E+04	4.386E+04	4.343E+04
I129	0.000E+00	1.671E-02	1.671E-02	1.671E-02	1.672E-02	1.672E-02
XE129M	0.000E+00	1.061E+00	1.057E+00	1.053E+00	1.016E+00	9.731E-01

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CD130	0.000E+00	5.037E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN130	0.000E+00	2.706E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN130	0.000E+00	3.445E+05	4.805E+00	6.705E-05	0.000E+00	0.000E+00
SB130	0.000E+00	9.612E+04	3.398E+04	1.201E+04	3.667E-01	1.399E-06
SB130M	0.000E+00	4.567E+05	1.288E+03	1.760E+00	0.000E+00	0.000E+00
I130	0.000E+00	1.496E+04	1.420E+04	1.343E+04	7.665E+03	3.911E+03
I130M	0.000E+00	5.867E+03	5.775E+01	5.684E-01	4.853E-21	0.000E+00
CD131	0.000E+00	7.618E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN131	0.000E+00	9.645E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN131	0.000E+00	3.161E+05	1.987E-12	1.248E-29	0.000E+00	0.000E+00
SB131	0.000E+00	8.417E+05	1.405E+05	2.303E+04	3.231E-04	1.218E-13
TE131	0.000E+00	8.814E+05	4.260E+05	1.433E+05	2.383E+04	1.806E+04
TE131M	0.000E+00	1.389E+05	1.364E+05	1.333E+05	1.058E+05	8.022E+04
I131	0.000E+00	9.913E+05	9.905E+05	9.883E+05	9.579E+05	9.214E+05
XE131M	0.000E+00	1.101E+04	1.101E+04	1.101E+04	1.101E+04	1.099E+04
CD132	0.000E+00	6.926E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN132	0.000E+00	2.553E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN132	0.000E+00	1.778E+05	1.436E-22	0.000E+00	0.000E+00	0.000E+00
SB132	0.000E+00	5.135E+05	2.016E-01	7.143E-08	0.000E+00	0.000E+00
SB132M	0.000E+00	3.339E+05	1.671E+01	8.369E-04	0.000E+00	0.000E+00
TE132	0.000E+00	1.423E+06	1.411E+06	1.399E+06	1.280E+06	1.151E+06
I132	0.000E+00	1.442E+06	1.435E+06	1.427E+06	1.318E+06	1.186E+06
CS132	0.000E+00	1.174E+02	1.169E+02	1.164E+02	1.113E+02	1.055E+02
IN133	0.000E+00	2.566E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN133	0.000E+00	5.322E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB133	0.000E+00	6.274E+05	1.872E-02	5.578E-10	0.000E+00	0.000E+00
TE133	0.000E+00	1.221E+06	1.080E+05	3.196E+04	1.670E+01	2.044E-03
TE133M	0.000E+00	8.133E+05	3.842E+05	1.814E+05	9.961E+01	1.219E-02
I133	0.000E+00	2.097E+06	2.060E+06	2.002E+06	1.441E+06	9.659E+05

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
I133M	0.000E+00	5.678E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE133	0.000E+00	2.096E+06	2.096E+06	2.096E+06	2.076E+06	2.020E+06

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XE133M	0.000E+00	6.429E+04	6.423E+04	6.416E+04	6.230E+04	5.816E+04
IN134	0.000E+00	1.327E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN134	0.000E+00	6.310E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134	0.000E+00	9.317E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134M	0.000E+00	8.686E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE134	0.000E+00	1.835E+06	6.790E+05	2.510E+05	1.199E+01	7.826E-05
I134	0.000E+00	2.317E+06	1.653E+06	9.699E+05	6.687E+02	5.387E-02
I134M	0.000E+00	1.973E+05	2.591E+00	3.403E-05	0.000E+00	0.000E+00
XE134M	0.000E+00	1.311E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS134	0.000E+00	5.388E+04	5.388E+04	5.388E+04	5.386E+04	5.384E+04
CS134M	0.000E+00	2.490E+04	1.961E+04	1.544E+04	1.414E+03	8.033E+01
SN135	0.000E+00	7.203E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB135	0.000E+00	5.799E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE135	0.000E+00	9.353E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	0.000E+00	1.953E+06	1.759E+06	1.584E+06	5.551E+05	1.578E+05
XE135	0.000E+00	6.269E+05	7.198E+05	7.904E+05	8.605E+05	5.174E+05
XE135M	0.000E+00	3.942E+05	2.871E+05	2.541E+05	8.892E+04	2.527E+04
CS135	0.000E+00	2.699E-01	2.699E-01	2.700E-01	2.703E-01	2.706E-01
CS135M	0.000E+00	7.512E+03	3.427E+03	1.564E+03	6.113E-01	4.975E-05
BA135M	0.000E+00	1.245E+01	1.216E+01	1.187E+01	9.321E+00	6.975E+00
SN136	0.000E+00	5.866E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB136	0.000E+00	1.064E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE136	0.000E+00	5.110E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I136	0.000E+00	9.296E+05	9.669E-08	8.485E-21	0.000E+00	0.000E+00
I136M	0.000E+00	5.659E+05	1.563E-18	0.000E+00	0.000E+00	0.000E+00
CS136	0.000E+00	3.197E+04	3.190E+04	3.183E+04	3.114E+04	3.033E+04
BA136M	0.000E+00	5.269E+03	5.258E+03	5.246E+03	5.132E+03	4.998E+03
SB137	0.000E+00	1.384E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE137	0.000E+00	1.336E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I137	0.000E+00	9.379E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE137	0.000E+00	1.834E+06	3.736E+01	7.186E-04	0.000E+00	0.000E+00
CS137	0.000E+00	6.118E+04	6.118E+04	6.118E+04	6.118E+04	6.118E+04
BA137M	0.000E+00	5.806E+04	5.790E+04	5.788E+04	5.788E+04	5.788E+04
SB138	0.000E+00	1.623E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE138	0.000E+00	3.215E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I138	0.000E+00	4.718E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	0.000E+00	1.791E+06	9.534E+04	5.066E+03	9.081E-10	4.596E-25
CS138	0.000E+00	1.969E+06	8.556E+05	2.517E+05	6.288E-01	1.168E-07
CS138M	0.000E+00	8.658E+04	5.119E-02	3.027E-08	0.000E+00	0.000E+00
SB139	0.000E+00	1.168E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE139	0.000E+00	5.959E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I139	0.000E+00	2.119E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE139	0.000E+00	1.418E+06	5.246E-22	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	1.865E+06	2.364E+04	2.833E+02	1.728E-17	0.000E+00
BA139	0.000E+00	1.912E+06	1.306E+06	7.919E+05	5.184E+03	1.241E+01
TE140	0.000E+00	7.039E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I140	0.000E+00	6.123E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE140	0.000E+00	9.511E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00

CS140 0.000E+00 1.682E+06 2.004E-11 2.069E-28 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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
BA140	0.000E+00	1.843E+06	1.839E+06	1.834E+06	1.793E+06	1.745E+06
LA140	0.000E+00	1.868E+06	1.868E+06	1.867E+06	1.858E+06	1.842E+06
PR140	0.000E+00	9.243E+00	4.345E-05	2.042E-10	0.000E+00	0.000E+00
TE141	0.000E+00	3.081E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I141	0.000E+00	9.735E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE141	0.000E+00	3.254E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS141	0.000E+00	1.266E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA141	0.000E+00	1.744E+06	1.820E+05	1.868E+04	2.419E-06	3.297E-18
LA141	0.000E+00	1.752E+06	1.578E+06	1.334E+06	2.290E+05	2.759E+04
CE141	0.000E+00	1.781E+06	1.781E+06	1.781E+06	1.771E+06	1.753E+06
TE142	0.000E+00	2.955E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I142	0.000E+00	1.200E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE142	0.000E+00	1.113E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS142	0.000E+00	7.828E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA142	0.000E+00	1.674E+06	3.437E+04	7.050E+02	9.290E-15	4.927E-35
LA142	0.000E+00	1.710E+06	1.227E+06	7.862E+05	8.855E+03	4.067E+01
PR142	0.000E+00	3.417E+04	3.303E+04	3.186E+04	2.218E+04	1.436E+04
PR142M	0.000E+00	6.695E+03	3.878E+02	2.246E+01	9.559E-12	1.365E-26
I143	0.000E+00	7.324E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE143	0.000E+00	1.740E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS143	0.000E+00	3.982E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA143	0.000E+00	1.488E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA143	0.000E+00	1.659E+06	8.637E+04	4.428E+03	5.558E-10	1.834E-25
CE143	0.000E+00	1.668E+06	1.644E+06	1.611E+06	1.306E+06	1.015E+06
PR143	0.000E+00	1.660E+06	1.659E+06	1.659E+06	1.655E+06	1.642E+06
I144	0.000E+00	5.665E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE144	0.000E+00	2.861E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS144	0.000E+00	1.015E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA144	0.000E+00	1.148E+06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA144	0.000E+00	1.480E+06	1.550E-21	0.000E+00	0.000E+00	0.000E+00

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CE144	0.000E+00	1.126E+06	1.126E+06	1.126E+06	1.125E+06	1.124E+06
PR144	0.000E+00	1.135E+06	1.127E+06	1.126E+06	1.125E+06	1.124E+06
PR144M	0.000E+00	1.353E+04	1.351E+04	1.351E+04	1.350E+04	1.348E+04
XE145	0.000E+00	2.589E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS145	0.000E+00	2.506E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA145	0.000E+00	5.700E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA145	0.000E+00	1.050E+06	5.126E-32	0.000E+00	0.000E+00	0.000E+00
CE145	0.000E+00	1.125E+06	1.289E+00	1.229E-06	0.000E+00	0.000E+00
PR145	0.000E+00	1.125E+06	1.012E+06	9.014E+05	2.829E+05	7.040E+04
XE146	0.000E+00	1.741E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS146	0.000E+00	3.458E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA146	0.000E+00	2.051E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA146	0.000E+00	6.735E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE146	0.000E+00	8.816E+05	4.751E+04	2.540E+03	4.845E-10	2.641E-25
PR146	0.000E+00	8.847E+05	3.175E+05	6.543E+04	2.374E-03	2.626E-12
PM146	0.000E+00	1.058E+00	1.058E+00	1.058E+00	1.058E+00	1.058E+00
XE147	0.000E+00	1.467E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS147	0.000E+00	5.167E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA147	0.000E+00	4.527E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA147	0.000E+00	3.229E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE147	0.000E+00	6.728E+05	2.403E-10	7.930E-26	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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
PR147	0.000E+00	6.908E+05	2.401E+04	7.504E+02	6.665E-13	5.781E-31
ND147	0.000E+00	6.881E+05	6.869E+05	6.851E+05	6.675E+05	6.469E+05
PM147	0.000E+00	1.309E+05	1.309E+05	1.309E+05	1.311E+05	1.313E+05
CS148	0.000E+00	3.180E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA148	0.000E+00	7.333E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA148	0.000E+00	1.171E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE148	0.000E+00	4.802E+05	3.043E-20	0.000E+00	0.000E+00	0.000E+00
PR148	0.000E+00	5.337E+05	1.057E-02	1.483E-10	0.000E+00	0.000E+00
PM148	0.000E+00	2.321E+05	2.309E+05	2.296E+05	2.177E+05	2.042E+05
PM148M	0.000E+00	3.077E+04	3.075E+04	3.072E+04	3.051E+04	3.026E+04

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BA149	0.000E+00	7.644E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA149	0.000E+00	2.742E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE149	0.000E+00	2.586E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR149	0.000E+00	3.606E+05	5.094E-03	7.147E-11	0.000E+00	0.000E+00	0.000E+00
ND149	0.000E+00	3.732E+05	2.555E+05	1.712E+05	3.115E+03	2.543E+01	
PM149	0.000E+00	5.321E+05	5.293E+05	5.252E+05	4.658E+05	3.984E+05	
CS150	0.000E+00	2.888E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA150	0.000E+00	5.525E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA150	0.000E+00	4.936E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE150	0.000E+00	1.123E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR150	0.000E+00	2.269E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM150	0.000E+00	4.765E+03	3.679E+03	2.841E+03	2.139E+02	9.600E+00	
LA151	0.000E+00	5.963E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE151	0.000E+00	3.230E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR151	0.000E+00	1.223E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND151	0.000E+00	1.776E+05	6.230E+03	2.177E+02	5.914E-13	1.962E-30	
PM151	0.000E+00	1.779E+05	1.748E+05	1.706E+05	1.337E+05	9.973E+04	
SM151	0.000E+00	3.803E+02	3.805E+02	3.807E+02	3.820E+02	3.832E+02	
BA152	0.000E+00	1.405E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA152	0.000E+00	6.397E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE152	0.000E+00	6.846E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR152	0.000E+00	5.260E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND152	0.000E+00	1.204E+05	3.259E+03	8.759E+01	1.724E-14	2.453E-33	
PM152	0.000E+00	1.233E+05	5.061E+03	1.363E+02	2.679E-14	3.793E-33	
PM152M	0.000E+00	2.176E+03	8.501E+00	3.321E-02	0.000E+00	0.000E+00	0.000E+00
EU152	0.000E+00	6.399E+00	6.399E+00	6.399E+00	6.399E+00	6.398E+00	
EU152M	0.000E+00	1.006E+02	9.343E+01	8.673E+01	4.122E+01	1.689E+01	
LA153	0.000E+00	6.442E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE153	0.000E+00	1.132E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR153	0.000E+00	1.611E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND153	0.000E+00	6.973E+04	6.471E-12	5.828E-28	0.000E+00	0.000E+00	0.000E+00
PM153	0.000E+00	7.892E+04	4.421E+01	1.999E-02	0.000E+00	0.000E+00	0.000E+00
SM153	0.000E+00	2.571E+05	2.535E+05	2.498E+05	2.153E+05	1.802E+05	
GD153	0.000E+00	2.641E+00	2.640E+00	2.640E+00	2.637E+00	2.633E+00	
LA154	0.000E+00	2.964E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE154	0.000E+00	1.266E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR154	0.000E+00	3.626E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND154	0.000E+00	3.358E+04	2.724E-23	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM154	0.000E+00	4.114E+04	1.875E-02	6.642E-09	0.000E+00	0.000E+00	0.000E+00
PM154M	0.000E+00	6.874E+03	6.352E-07	5.869E-17	0.000E+00	0.000E+00	0.000E+00
EU154	0.000E+00	2.413E+03	2.413E+03	2.413E+03	2.413E+03	2.412E+03	

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
CE155	0.000E+00	1.436E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR155	0.000E+00	6.948E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND155	0.000E+00	1.251E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM155	0.000E+00	2.504E+04	1.283E-25	0.000E+00	0.000E+00	0.000E+00
SM155	0.000E+00	2.870E+04	4.556E+03	6.999E+02	5.118E-06	8.830E-16
EU155	0.000E+00	2.218E+03	2.219E+03	2.219E+03	2.218E+03	2.218E+03
GD155M	0.000E+00	5.402E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE156	0.000E+00	1.347E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR156	0.000E+00	1.237E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND156	0.000E+00	4.138E+03	1.227E-15	2.704E-34	0.000E+00	0.000E+00
PM156	0.000E+00	1.297E+04	1.581E-15	0.000E+00	0.000E+00	0.000E+00
SM156	0.000E+00	1.740E+04	1.618E+04	1.503E+04	7.188E+03	2.967E+03
EU156	0.000E+00	5.867E+04	5.859E+04	5.851E+04	5.761E+04	5.642E+04
CE157	0.000E+00	1.058E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR157	0.000E+00	1.914E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND157	0.000E+00	1.123E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM157	0.000E+00	6.018E+03	7.121E-13	8.324E-29	0.000E+00	0.000E+00
SM157	0.000E+00	1.107E+04	6.668E+01	3.684E-01	0.000E+00	0.000E+00
EU157	0.000E+00	1.341E+04	1.291E+04	1.234E+04	7.818E+03	4.523E+03
PR158	0.000E+00	1.433E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND158	0.000E+00	1.687E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM158	0.000E+00	1.895E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM158	0.000E+00	5.847E+03	2.273E+03	8.828E+02	6.908E-02	8.158E-07
EU158	0.000E+00	6.272E+03	4.635E+03	2.689E+03	1.080E+00	3.183E-05
PR159	0.000E+00	5.665E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND159	0.000E+00	1.676E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM159	0.000E+00	4.178E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM159	0.000E+00	2.648E+03	5.540E-04	1.154E-10	0.000E+00	0.000E+00
EU159	0.000E+00	3.231E+03	3.716E+02	3.734E+01	3.920E-09	4.155E-21
GD159	0.000E+00	3.610E+03	3.530E+03	3.406E+03	2.347E+03	1.501E+03
ND160	0.000E+00	1.435E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM160	0.000E+00	7.478E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM160	0.000E+00	9.833E+02	7.735E-01	6.084E-04	0.000E+00	0.000E+00
EU160	0.000E+00	1.493E+03	9.059E-01	7.125E-04	0.000E+00	0.000E+00
TB160	0.000E+00	2.576E+02	2.575E+02	2.574E+02	2.564E+02	2.552E+02
ND161	0.000E+00	1.003E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM161	0.000E+00	8.541E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM161	0.000E+00	2.640E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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EU161	0.000E+00	6.415E+02	1.301E-23	0.000E+00	0.000E+00	0.000E+00
GD161	0.000E+00	7.429E+02	1.200E-02	1.576E-07	0.000E+00	0.000E+00
TB161	0.000E+00	7.844E+02	7.814E+02	7.782E+02	7.464E+02	7.099E+02
PM162	0.000E+00	3.930E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM162	0.000E+00	3.583E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU162	0.000E+00	1.967E+02	1.919E-02	1.847E-06	0.000E+00	0.000E+00
GD162	0.000E+00	3.613E+02	8.176E+00	1.280E-01	1.110E-19	0.000E+00
TB162	0.000E+00	3.579E+02	2.444E+01	4.680E-01	4.300E-19	0.000E+00
TB162M	0.000E+00	1.105E+01	8.620E+00	6.327E+00	2.827E-01	6.783E-03
SM163	0.000E+00	4.161E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU163	0.000E+00	4.655E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD163	0.000E+00	1.458E+02	3.222E-10	6.707E-22	0.000E+00	0.000E+00
TB163	0.000E+00	1.576E+02	2.024E+01	2.399E+00	1.311E-09	1.006E-20

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OUTPUT UNIT =

6 PAGE 77
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
SM164	0.000E+00	3.798E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU164	0.000E+00	9.701E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD164	0.000E+00	5.897E+01	8.665E+00	1.273E+00	5.957E-09	6.015E-19
TB164	0.000E+00	7.309E+01	1.008E+01	1.477E+00	6.913E-09	6.981E-19
SM165	0.000E+00	2.436E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU165	0.000E+00	1.574E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD165	0.000E+00	2.027E+01	3.106E-10	4.751E-21	0.000E+00	0.000E+00
TB165	0.000E+00	3.278E+01	4.615E-10	7.058E-21	0.000E+00	0.000E+00
DY165	0.000E+00	1.360E+02	1.020E+02	7.597E+01	3.978E+00	1.155E-01
DY165M	0.000E+00	8.205E+01	9.308E-10	1.424E-20	0.000E+00	0.000E+00
DY166	0.000E+00	2.112E+01	2.095E+01	2.077E+01	1.907E+01	1.722E+01
HO166	0.000E+00	3.603E+01	3.564E+01	3.526E+01	3.176E+01	2.811E+01
ER167M	0.000E+00	4.667E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ER169	0.000E+00	3.552E-02	3.541E-02	3.530E-02	3.424E-02	3.300E-02
SUMTOT	0.000E+00	1.794E+08	6.657E+07	5.899E+07	4.230E+07	3.585E+07
TOTAL	0.000E+00	1.794E+08	6.657E+07	5.899E+07	4.230E+07	3.585E+07

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OUTPUT UNIT =

6 PAGE 78
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	0.000E+00	3.042E+02	3.042E+02	3.042E+02	3.042E+02	3.042E+02
CO	0.000E+00	1.878E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI	0.000E+00	7.105E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU	0.000E+00	4.950E+02	3.351E-08	1.489E-10	1.245E-10	1.088E-10
ZN	0.000E+00	4.885E+03	5.898E+01	5.811E+01	5.006E+01	4.186E+01
GA	0.000E+00	2.454E+04	1.752E+02	1.582E+02	8.123E+01	5.644E+01
GE	0.000E+00	1.547E+05	5.454E+03	3.730E+03	5.640E+02	2.526E+02
AS	0.000E+00	4.618E+05	9.146E+03	7.887E+03	2.759E+03	2.172E+03
SE	0.000E+00	1.381E+06	1.741E+04	3.064E+03	7.397E+00	5.610E+00
BR	0.000E+00	3.050E+06	1.924E+05	1.090E+05	6.958E+03	1.914E+03
KR	0.000E+00	5.429E+06	1.456E+06	1.106E+06	1.180E+05	1.725E+04
RB	0.000E+00	7.510E+06	8.434E+05	6.008E+05	5.277E+04	3.774E+03
SR	0.000E+00	1.067E+07	3.764E+06	3.398E+06	1.910E+06	1.486E+06
Y	0.000E+00	1.419E+07	5.718E+06	5.274E+06	3.086E+06	2.092E+06
ZR	0.000E+00	1.056E+07	3.558E+06	3.489E+06	2.935E+06	2.507E+06
NB	0.000E+00	1.528E+07	5.256E+06	5.143E+06	4.077E+06	3.186E+06
MO	0.000E+00	8.645E+06	2.012E+06	1.863E+06	1.671E+06	1.473E+06
TC	0.000E+00	9.412E+06	2.189E+06	1.705E+06	1.568E+06	1.409E+06
RU	0.000E+00	3.476E+06	2.376E+06	2.270E+06	1.770E+06	1.647E+06
RH	0.000E+00	4.215E+06	2.576E+06	2.475E+06	2.227E+06	2.053E+06
PD	0.000E+00	4.583E+05	2.208E+05	2.040E+05	1.237E+05	6.882E+04
AG	0.000E+00	5.020E+05	2.905E+05	2.703E+05	1.783E+05	1.172E+05
CD	0.000E+00	1.437E+05	3.427E+04	2.810E+04	1.562E+04	1.293E+04
IN	0.000E+00	3.245E+05	4.477E+04	3.655E+04	1.681E+04	1.253E+04
SN	0.000E+00	1.431E+06	1.550E+05	9.977E+04	2.672E+04	2.229E+04
SB	0.000E+00	3.703E+06	6.428E+05	4.156E+05	1.468E+05	9.845E+04
TE	0.000E+00	8.377E+06	3.579E+06	2.552E+06	1.639E+06	1.429E+06
I	0.000E+00	1.227E+07	7.913E+06	6.985E+06	4.281E+06	3.235E+06
XE	0.000E+00	9.657E+06	3.274E+06	3.220E+06	3.098E+06	2.632E+06
CS	0.000E+00	8.360E+06	1.049E+06	4.160E+05	1.477E+05	1.455E+05
BA	0.000E+00	1.070E+07	3.425E+06	2.709E+06	1.862E+06	1.808E+06
LA	0.000E+00	1.067E+07	4.759E+06	3.992E+06	2.096E+06	1.869E+06

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CE	0.000E+00	8.147E+06	4.599E+06	4.520E+06	4.201E+06	3.891E+06
PR	0.000E+00	6.867E+06	4.187E+06	3.799E+06	3.099E+06	2.864E+06
ND	0.000E+00	1.481E+06	9.519E+05	8.566E+05	6.706E+05	6.469E+05
PM	0.000E+00	1.407E+06	1.105E+06	1.090E+06	9.790E+05	8.638E+05
SM	0.000E+00	3.244E+05	2.769E+05	2.667E+05	2.229E+05	1.835E+05
EU	0.000E+00	8.871E+04	8.124E+04	7.830E+04	7.011E+04	6.559E+04
GD	0.000E+00	4.942E+03	3.550E+03	3.410E+03	2.350E+03	1.503E+03
TB	0.000E+00	1.674E+03	1.102E+03	1.046E+03	1.003E+03	9.651E+02
DY	0.000E+00	2.391E+02	1.230E+02	9.674E+01	2.305E+01	1.734E+01
HO	0.000E+00	3.603E+01	3.564E+01	3.527E+01	3.176E+01	2.811E+01
ER	0.000E+00	5.022E-01	3.541E-02	3.530E-02	3.424E-02	3.300E-02
SUMTOT	0.000E+00	1.794E+08	6.657E+07	5.899E+07	4.230E+07	3.585E+07
TOTAL	0.000E+00	1.794E+08	6.657E+07	5.899E+07	4.230E+07	3.585E+07

CUMULATIVE TABLE TOTALS

AP+FP	1.203E-11	1.794E+08	6.657E+07	5.899E+07	4.230E+07	3.585E+07
ACT+FP	2.813E+00	2.141E+08	8.717E+07	7.700E+07	5.782E+07	4.930E+07
AP+ACT+FP	2.813E+00	2.141E+08	8.717E+07	7.700E+07	5.782E+07	4.930E+07

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OUTPUT UNIT =

6 PAGE 79
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	0.000E+00	1.024E-02	1.024E-02	1.024E-02	1.024E-02	1.024E-02
CO 72	0.000E+00	6.917E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 72	0.000E+00	5.097E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 72	0.000E+00	1.443E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 72	0.000E+00	9.059E-02	8.925E-02	8.793E-02	7.575E-02	6.335E-02
GA 72	0.000E+00	1.141E+00	1.140E+00	1.139E+00	1.093E+00	9.908E-01
CO 73	0.000E+00	1.890E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 73	0.000E+00	6.840E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 73	0.000E+00	1.495E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 73	0.000E+00	1.816E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 73	0.000E+00	5.894E-01	5.121E-01	4.443E-01	1.074E-01	1.953E-02

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GE 73M	0.000E+00	5.179E-02	4.497E-02	3.902E-02	9.429E-03	1.715E-03
CO 74	0.000E+00	4.986E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 74	0.000E+00	3.741E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 74	0.000E+00	3.636E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 74	0.000E+00	1.626E+00	6.381E-12	2.497E-23	0.000E+00	0.000E+00
GA 74	0.000E+00	6.879E+00	4.986E-02	2.937E-04	0.000E+00	0.000E+00
CO 75	0.000E+00	5.910E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 75	0.000E+00	2.285E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 75	0.000E+00	2.969E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 75	0.000E+00	9.514E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 75	0.000E+00	4.699E+00	1.574E-09	4.907E-19	0.000E+00	0.000E+00
GE 75	0.000E+00	1.599E+00	9.924E-01	6.006E-01	3.956E-03	9.544E-06
GE 75M	0.000E+00	2.093E-02	1.110E-11	3.460E-21	0.000E+00	0.000E+00
NI 76	0.000E+00	5.054E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 76	0.000E+00	3.537E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 76	0.000E+00	1.212E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 76	0.000E+00	3.910E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 76	0.000E+00	1.488E-01	1.449E-01	1.411E-01	1.085E-01	7.906E-02
NI 77	0.000E+00	1.165E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 77	0.000E+00	1.337E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 77	0.000E+00	2.631E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 77	0.000E+00	3.858E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 77	0.000E+00	1.110E+01	1.045E+01	9.830E+00	5.323E+00	2.550E+00
GE 77M	0.000E+00	1.506E+01	2.157E-19	0.000E+00	0.000E+00	0.000E+00
AS 77	0.000E+00	4.268E+00	4.220E+00	4.170E+00	3.651E+00	3.045E+00
SE 77M	0.000E+00	1.137E-02	1.101E-02	1.088E-02	9.528E-03	7.946E-03
NI 78	0.000E+00	1.142E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 78	0.000E+00	6.668E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 78	0.000E+00	2.006E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 78	0.000E+00	1.280E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 78	0.000E+00	1.950E+01	1.210E+01	7.503E+00	6.297E-02	2.032E-04
AS 78	0.000E+00	1.021E+02	9.323E+01	7.673E+01	2.415E+00	1.630E-02
CU 79	0.000E+00	1.368E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 79	0.000E+00	1.860E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 79	0.000E+00	1.018E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 79	0.000E+00	1.716E+02	1.105E-23	0.000E+00	0.000E+00	0.000E+00
AS 79	0.000E+00	8.363E+01	8.846E-01	8.708E-03	7.434E-23	0.000E+00
SE 79	0.000E+00	6.167E-05	6.168E-05	6.168E-05	6.168E-05	6.168E-05
SE 79M	0.000E+00	9.053E+00	1.682E-01	1.661E-03	1.415E-23	0.000E+00
CU 80	0.000E+00	2.197E-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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
ZN 80	0.000E+00	5.592E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 80	0.000E+00	1.824E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 80	0.000E+00	1.783E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 80	0.000E+00	6.636E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 80	0.000E+00	3.103E-03	1.901E-03	1.556E-03	3.225E-04	4.911E-05
BR 80M	0.000E+00	2.087E-04	1.784E-04	1.525E-04	3.178E-05	4.840E-06
CU 81	0.000E+00	1.468E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 81	0.000E+00	2.118E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 81	0.000E+00	8.240E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 81	0.000E+00	7.023E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 81	0.000E+00	5.645E+02	9.969E-32	0.000E+00	0.000E+00	0.000E+00
SE 81	0.000E+00	2.201E+02	2.761E+01	4.647E+00	1.560E-03	2.574E-07
SE 81M	0.000E+00	1.076E+00	5.207E-01	2.520E-01	1.775E-04	2.928E-08
ZN 82	0.000E+00	2.392E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 82	0.000E+00	4.942E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 82	0.000E+00	4.001E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82	0.000E+00	1.119E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82M	0.000E+00	7.211E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 82	0.000E+00	4.663E+01	4.578E+01	4.489E+01	3.688E+01	2.914E+01
BR 82M	0.000E+00	4.967E-01	5.619E-04	6.373E-07	0.000E+00	0.000E+00
ZN 83	0.000E+00	2.627E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 83	0.000E+00	1.241E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 83	0.000E+00	7.097E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 83	0.000E+00	1.578E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 83	0.000E+00	9.704E+02	1.539E+02	2.423E+01	2.275E-07	5.297E-17
SE 83M	0.000E+00	1.120E+03	4.380E-13	1.445E-28	0.000E+00	0.000E+00
BR 83	0.000E+00	2.770E+02	2.202E+02	1.666E+02	9.192E+00	2.831E-01
KR 83M	0.000E+00	3.436E+01	3.323E+01	3.021E+01	3.546E+00	1.358E-01
GA 84	0.000E+00	1.540E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 84	0.000E+00	1.602E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 84	0.000E+00	2.719E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 84	0.000E+00	1.375E+03	4.668E-03	1.570E-08	0.000E+00	0.000E+00
BR 84	0.000E+00	4.574E+03	1.377E+03	3.725E+02	7.786E-04	1.190E-10
BR 84M	0.000E+00	1.588E+02	1.551E-01	1.515E-04	0.000E+00	0.000E+00
GE 85	0.000E+00	6.307E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 85	0.000E+00	1.446E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 85	0.000E+00	2.968E+03	4.913E-25	0.000E+00	0.000E+00	0.000E+00
SE 85M	0.000E+00	2.269E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 85	0.000E+00	1.912E+03	1.136E-03	5.686E-10	0.000E+00	0.000E+00

ML041000029.txt

KR 85	0.000E+00	9.677E+00	9.678E+00	9.678E+00	9.680E+00	9.680E+00
KR 85M	0.000E+00	7.681E+02	6.660E+02	5.706E+02	1.215E+02	1.898E+01
GE 86	0.000E+00	1.072E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 86	0.000E+00	1.061E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 86	0.000E+00	4.355E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 86	0.000E+00	6.859E+03	1.748E-16	0.000E+00	0.000E+00	0.000E+00
BR 86M	0.000E+00	6.442E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 86	0.000E+00	4.741E+00	4.734E+00	4.726E+00	4.654E+00	4.568E+00
RB 86M	0.000E+00	4.378E-01	7.922E-19	1.719E-36	0.000E+00	0.000E+00
GE 87	0.000E+00	2.035E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 87	0.000E+00	4.886E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 87	0.000E+00	5.880E+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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
BR 87	0.000E+00	1.185E+04	4.717E-16	1.947E-35	0.000E+00	0.000E+00
KR 87	0.000E+00	7.721E+03	4.525E+03	2.624E+03	1.127E+01	1.624E-02
SR 87M	0.000E+00	5.642E-03	4.407E-03	3.442E-03	2.910E-04	1.501E-05
GE 88	0.000E+00	5.191E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 88	0.000E+00	4.014E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 88	0.000E+00	1.938E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 88	0.000E+00	8.581E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 88	0.000E+00	1.192E+04	9.344E+03	7.320E+03	6.370E+02	3.401E+01
RB 88	0.000E+00	1.397E+04	1.194E+04	9.447E+03	8.232E+02	4.396E+01
AS 89	0.000E+00	3.627E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 89	0.000E+00	7.361E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 89	0.000E+00	1.181E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 89	0.000E+00	2.038E+04	4.150E-02	8.325E-08	0.000E+00	0.000E+00
RB 89	0.000E+00	2.084E+04	1.691E+03	1.096E+02	1.436E-10	7.903E-25
SR 89	0.000E+00	4.145E+03	4.144E+03	4.141E+03	4.118E+03	4.090E+03
Y 89M	0.000E+00	2.134E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 90	0.000E+00	2.148E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 90	0.000E+00	9.170E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 90	0.000E+00	1.636E+04	4.878E-30	0.000E+00	0.000E+00	0.000E+00

ML041000029.txt

RB 90	0.000E+00	2.647E+04	4.652E-02	2.667E-06	0.000E+00	0.000E+00
RB 90M	0.000E+00	6.566E+03	4.453E-01	2.807E-05	0.000E+00	0.000E+00
SR 90	0.000E+00	5.826E+01	5.826E+01	5.826E+01	5.826E+01	5.825E+01
Y 90	0.000E+00	2.873E+02	2.872E+02	2.871E+02	2.862E+02	2.852E+02
Y 90M	0.000E+00	5.121E-02	4.095E-02	3.275E-02	3.500E-03	2.392E-04
SE 91	0.000E+00	3.924E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 91	0.000E+00	2.876E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 91	0.000E+00	1.545E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 91	0.000E+00	3.261E+04	8.622E-15	2.064E-33	0.000E+00	0.000E+00
SR 91	0.000E+00	1.148E+04	1.069E+04	9.938E+03	4.791E+03	1.996E+03
Y 91	0.000E+00	5.423E+03	5.423E+03	5.422E+03	5.412E+03	5.389E+03
Y 91M	0.000E+00	2.747E+03	2.686E+03	2.554E+03	1.256E+03	5.231E+02
SE 92	0.000E+00	1.362E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 92	0.000E+00	2.869E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 92	0.000E+00	6.954E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 92	0.000E+00	2.575E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 92	0.000E+00	1.380E+04	1.069E+04	8.278E+03	6.414E+02	2.979E+01
Y 92	0.000E+00	1.532E+04	1.498E+04	1.417E+04	3.901E+03	4.853E+02
BR 93	0.000E+00	5.589E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 93	0.000E+00	3.717E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 93	0.000E+00	1.781E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 93	0.000E+00	2.535E+04	9.974E+01	3.897E-01	0.000E+00	0.000E+00
Y 93	0.000E+00	1.279E+04	1.209E+04	1.129E+04	5.682E+03	2.494E+03
ZR 93	0.000E+00	1.345E-04	1.345E-04	1.345E-04	1.346E-04	1.347E-04
BR 94	0.000E+00	5.711E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 94	0.000E+00	1.192E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 94	0.000E+00	1.259E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 94	0.000E+00	1.957E+04	9.142E-11	4.229E-25	0.000E+00	0.000E+00
Y 94	0.000E+00	2.820E+04	3.406E+03	3.860E+02	1.349E-07	6.059E-19
NB 94M	0.000E+00	2.377E-04	3.096E-07	4.032E-10	0.000E+00	0.000E+00
BR 95	0.000E+00	3.271E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 95	0.000E+00	1.699E+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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
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ML041000029.txt

RB 95	0.000E+00	6.117E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 95	0.000E+00	2.832E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 95	0.000E+00	2.366E+04	4.664E+02	8.884E+00	5.583E-17	0.000E+00
ZR 95	0.000E+00	9.467E+03	9.463E+03	9.459E+03	9.417E+03	9.366E+03
NB 95	0.000E+00	9.049E+03	9.049E+03	9.048E+03	9.048E+03	9.046E+03
NB 95M	0.000E+00	1.848E+01	1.848E+01	1.847E+01	1.845E+01	1.841E+01
BR 96	0.000E+00	2.153E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 96	0.000E+00	2.220E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 96	0.000E+00	2.181E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 96	0.000E+00	1.466E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 96	0.000E+00	3.867E+04	5.521E-04	7.746E-12	0.000E+00	0.000E+00
NB 96	0.000E+00	4.631E+01	4.496E+01	4.364E+01	3.243E+01	2.271E+01
KR 97	0.000E+00	1.647E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 97	0.000E+00	3.469E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 97	0.000E+00	1.298E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 97	0.000E+00	2.639E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	9.173E+03	8.804E+03	8.451E+03	5.607E+03	3.428E+03
NB 97	0.000E+00	1.180E+04	1.163E+04	1.133E+04	7.697E+03	4.409E+03
NB 97M	0.000E+00	7.347E+03	7.046E+03	6.763E+03	4.487E+03	2.743E+03
KR 98	0.000E+00	1.584E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 98	0.000E+00	9.108E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 98	0.000E+00	3.811E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 98	0.000E+00	2.904E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 98	0.000E+00	9.425E+03	1.047E-31	0.000E+00	0.000E+00	0.000E+00
NB 98	0.000E+00	2.204E+04	2.654E-31	0.000E+00	0.000E+00	0.000E+00
NB 98M	0.000E+00	2.811E+02	1.254E+02	5.591E+01	1.739E-02	1.076E-06
RB 99	0.000E+00	7.589E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 99	0.000E+00	1.601E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 99	0.000E+00	1.283E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 99	0.000E+00	2.485E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	1.660E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99M	0.000E+00	8.235E+02	9.307E-05	1.052E-11	0.000E+00	0.000E+00
MO 99	0.000E+00	6.087E+03	6.024E+03	5.961E+03	5.367E+03	4.731E+03
TC 99	0.000E+00	4.046E-03	4.046E-03	4.047E-03	4.050E-03	4.054E-03
TC 99M	0.000E+00	1.399E+03	1.398E+03	1.396E+03	1.322E+03	1.187E+03
RB100	0.000E+00	8.480E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR100	0.000E+00	2.252E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y100	0.000E+00	8.916E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR100	0.000E+00	1.305E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100	0.000E+00	2.335E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100M	0.000E+00	2.044E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC100	0.000E+00	1.893E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR101	0.000E+00	4.794E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y101	0.000E+00	2.267E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR101	0.000E+00	1.911E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB101	0.000E+00	2.124E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	0.000E+00	1.933E+04	1.135E+03	6.602E+01	2.921E-11	4.370E-26

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TC101	0.000E+00	8.123E+03	1.774E+03	1.728E+02	2.760E-10	5.567E-25
SR102	0.000E+00	3.306E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y102	0.000E+00	7.600E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR102	0.000E+00	7.217E+03	9.952E-35	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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
NB102	0.000E+00	3.243E+04	2.609E-34	0.000E+00	0.000E+00	0.000E+00
MO102	0.000E+00	2.837E+03	6.831E+01	1.612E+00	8.617E-17	2.583E-36
TC102	0.000E+00	1.589E+04	3.852E+02	9.089E+00	4.860E-16	0.000E+00
TC102M	0.000E+00	2.739E+01	1.929E-03	1.359E-07	0.000E+00	0.000E+00
RH102	0.000E+00	3.301E-03	3.301E-03	3.301E-03	3.300E-03	3.299E-03
SR103	0.000E+00	1.482E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y103	0.000E+00	8.118E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR103	0.000E+00	4.698E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB103	0.000E+00	1.578E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO103	0.000E+00	1.867E+04	1.984E-14	1.721E-32	0.000E+00	0.000E+00
TC103	0.000E+00	1.012E+04	6.366E-14	5.523E-32	0.000E+00	0.000E+00
RU103	0.000E+00	4.632E+03	4.628E+03	4.625E+03	4.591E+03	4.551E+03
RH103M	0.000E+00	2.870E+02	2.869E+02	2.868E+02	2.849E+02	2.823E+02
SR104	0.000E+00	4.636E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y104	0.000E+00	8.613E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR104	0.000E+00	6.838E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB104	0.000E+00	1.118E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO104	0.000E+00	6.151E+03	3.182E-08	1.637E-19	0.000E+00	0.000E+00
TC104	0.000E+00	2.321E+04	2.577E+03	2.622E+02	3.123E-08	3.852E-20
RH104	0.000E+00	2.653E+03	1.426E-02	9.829E-07	0.000E+00	0.000E+00
RH104M	0.000E+00	2.437E+01	1.679E-03	1.157E-07	0.000E+00	0.000E+00
Y105	0.000E+00	4.228E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR105	0.000E+00	1.521E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB105	0.000E+00	2.714E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO105	0.000E+00	1.221E+04	1.049E-16	0.000E+00	0.000E+00	0.000E+00
TC105	0.000E+00	8.924E+03	5.444E+01	3.008E-01	0.000E+00	0.000E+00
RU105	0.000E+00	5.754E+03	5.087E+03	4.352E+03	9.132E+02	1.402E+02

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RH105	0.000E+00	1.053E+03	1.053E+03	1.051E+03	9.383E+02	7.579E+02
RH105M	0.000E+00	1.754E+02	1.555E+02	1.331E+02	2.792E+01	4.286E+00
ZR106	0.000E+00	1.725E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB106	0.000E+00	1.112E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO106	0.000E+00	3.433E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC106	0.000E+00	1.185E+04	7.319E-26	0.000E+00	0.000E+00	0.000E+00
RU106	0.000E+00	1.590E+01	1.590E+01	1.590E+01	1.588E+01	1.587E+01
RH106	0.000E+00	2.904E+03	2.565E+03	2.564E+03	2.562E+03	2.560E+03
RH106M	0.000E+00	3.085E+02	2.251E+02	1.643E+02	7.035E+00	1.604E-01
Y107	0.000E+00	4.206E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR107	0.000E+00	1.230E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB107	0.000E+00	1.378E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO107	0.000E+00	2.407E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC107	0.000E+00	4.363E+03	2.083E-34	0.000E+00	0.000E+00	0.000E+00
RU107	0.000E+00	3.538E+03	1.933E-01	9.677E-06	0.000E+00	0.000E+00
RH107	0.000E+00	1.977E+03	3.666E+02	5.393E+01	2.561E-07	2.632E-17
PD107M	0.000E+00	1.972E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR108	0.000E+00	2.302E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB108	0.000E+00	4.423E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO108	0.000E+00	5.543E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC108	0.000E+00	4.215E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU108	0.000E+00	8.441E+02	8.273E-02	8.015E-06	0.000E+00	0.000E+00
RH108	0.000E+00	3.852E+03	3.987E-01	3.863E-05	0.000E+00	0.000E+00
RH108M	0.000E+00	5.041E+01	4.377E-02	3.801E-05	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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
AG108	0.000E+00	1.746E-03	3.019E-09	2.976E-09	2.976E-09	2.976E-09
ZR109	0.000E+00	2.316E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB109	0.000E+00	6.911E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO109	0.000E+00	3.131E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC109	0.000E+00	1.646E+03	9.305E-19	0.000E+00	0.000E+00	0.000E+00
RU109	0.000E+00	2.421E+03	1.898E-18	0.000E+00	0.000E+00	0.000E+00
RH109	0.000E+00	1.345E+03	4.996E-09	4.544E-21	0.000E+00	0.000E+00

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RH109M	0.000E+00	1.319E+02	3.173E-18	0.000E+00	0.000E+00	0.000E+00
PD109	0.000E+00	5.167E+02	4.942E+02	4.694E+02	2.805E+02	1.512E+02
PD109M	0.000E+00	9.949E+01	2.834E-02	3.993E-06	0.000E+00	0.000E+00
AG109M	0.000E+00	1.001E+02	9.583E+01	9.102E+01	5.439E+01	2.932E+01
NB110	0.000E+00	1.049E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO110	0.000E+00	5.104E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC110	0.000E+00	6.598E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU110	0.000E+00	6.967E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH110	0.000E+00	1.754E+03	1.635E-34	0.000E+00	0.000E+00	0.000E+00
RH110M	0.000E+00	8.350E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG110	0.000E+00	3.522E+02	8.477E-02	8.476E-02	8.466E-02	8.455E-02
AG110M	0.000E+00	1.482E+01	1.481E+01	1.481E+01	1.480E+01	1.478E+01
NB111	0.000E+00	7.692E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO111	0.000E+00	1.656E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC111	0.000E+00	1.870E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU111	0.000E+00	6.867E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH111	0.000E+00	6.395E+02	5.018E-15	3.154E-32	0.000E+00	0.000E+00
PD111	0.000E+00	2.570E+02	4.293E+01	8.128E+00	5.628E-01	1.240E-01
PD111M	0.000E+00	2.295E+00	2.026E+00	1.786E+00	5.064E-01	1.116E-01
AG111	0.000E+00	1.088E+02	1.086E+02	1.082E+02	1.042E+02	9.944E+01
AG111M	0.000E+00	1.857E+01	3.313E+00	6.718E-01	5.843E-02	1.288E-02
CD111M	0.000E+00	8.359E-03	3.559E-03	1.515E-03	2.962E-07	1.050E-11
MO112	0.000E+00	2.400E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC112	0.000E+00	9.372E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU112	0.000E+00	2.182E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH112	0.000E+00	6.181E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD112	0.000E+00	2.502E+01	2.417E+01	2.335E+01	1.654E+01	1.094E+01
AG112	0.000E+00	3.390E+02	3.376E+02	3.342E+02	2.603E+02	1.746E+02
MO113	0.000E+00	2.524E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC113	0.000E+00	2.074E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU113	0.000E+00	2.255E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH113	0.000E+00	3.380E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD113	0.000E+00	2.640E+02	2.454E-10	2.232E-22	0.000E+00	0.000E+00
AG113	0.000E+00	1.261E+02	1.112E+02	9.758E+01	2.639E+01	5.493E+00
AG113M	0.000E+00	1.590E+01	5.472E-11	4.977E-23	0.000E+00	0.000E+00
CD113M	0.000E+00	3.776E-02	3.776E-02	3.776E-02	3.777E-02	3.777E-02
MO114	0.000E+00	2.092E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC114	0.000E+00	6.459E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU114	0.000E+00	7.661E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH114	0.000E+00	3.343E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD114	0.000E+00	1.141E+02	3.462E-06	1.032E-13	0.000E+00	0.000E+00
AG114	0.000E+00	2.019E+02	6.247E-06	1.862E-13	0.000E+00	0.000E+00
IN114	0.000E+00	6.082E-03	1.973E-03	1.972E-03	1.960E-03	1.946E-03
IN114M	0.000E+00	6.145E-04	6.142E-04	6.138E-04	6.102E-04	6.060E-04

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
MO115	0.000E+00	1.945E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC115	0.000E+00	1.148E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU115	0.000E+00	5.961E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH115	0.000E+00	2.001E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD115	0.000E+00	2.458E+02	8.245E-27	0.000E+00	0.000E+00	0.000E+00
AG115	0.000E+00	1.231E+02	1.593E+01	1.991E+00	1.854E-09	2.698E-20
AG115M	0.000E+00	5.230E+01	2.980E-27	0.000E+00	0.000E+00	0.000E+00
CD115	0.000E+00	4.914E+01	4.872E+01	4.812E+01	4.227E+01	3.618E+01
CD115M	0.000E+00	5.518E+00	5.515E+00	5.512E+00	5.476E+00	5.434E+00
IN115M	0.000E+00	3.093E+01	3.091E+01	3.083E+01	2.847E+01	2.466E+01
TC116	0.000E+00	9.305E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU116	0.000E+00	1.016E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH116	0.000E+00	1.462E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD116	0.000E+00	1.174E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG116	0.000E+00	1.425E+02	2.825E-05	5.147E-12	0.000E+00	0.000E+00
AG116M	0.000E+00	1.669E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116	0.000E+00	6.419E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	9.395E+01	4.359E+01	2.022E+01	9.338E-03	9.282E-07
TC117	0.000E+00	3.400E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU117	0.000E+00	2.497E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH117	0.000E+00	7.897E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD117	0.000E+00	2.333E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG117	0.000E+00	1.023E+02	1.707E-13	2.676E-28	0.000E+00	0.000E+00
AG117M	0.000E+00	1.072E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD117	0.000E+00	6.609E+01	5.090E+01	3.899E+01	2.711E+00	1.106E-01
CD117M	0.000E+00	4.048E+01	3.309E+01	2.699E+01	3.514E+00	3.043E-01
IN117	0.000E+00	3.817E+01	3.689E+01	3.385E+01	4.937E+00	3.417E-01
IN117M	0.000E+00	4.050E+01	3.905E+01	3.564E+01	5.417E+00	3.372E-01
SN117M	0.000E+00	4.873E-02	4.863E-02	4.853E-02	4.754E-02	4.638E-02
RU118	0.000E+00	1.172E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH118	0.000E+00	1.386E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD118	0.000E+00	1.218E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG118	0.000E+00	1.783E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG118M	0.000E+00	7.922E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD118	0.000E+00	3.676E+01	1.611E+01	7.047E+00	1.808E-03	8.876E-08

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IN118	0.000E+00	1.706E+02	7.488E+01	3.275E+01	8.403E-03	4.125E-07
IN118M	0.000E+00	1.009E-01	8.809E-06	7.693E-10	0.000E+00	0.000E+00
RH119	0.000E+00	8.435E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD119	0.000E+00	1.606E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG119	0.000E+00	2.353E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD119	0.000E+00	7.655E+01	9.273E-01	1.111E-02	6.777E-22	0.000E+00
CD119M	0.000E+00	8.540E+01	2.003E-04	4.543E-10	0.000E+00	0.000E+00
IN119	0.000E+00	3.217E+01	8.207E-01	8.567E-02	8.012E-12	7.287E-24
IN119M	0.000E+00	8.852E+01	1.512E+01	1.568E+00	1.458E-10	1.326E-22
SN119M	0.000E+00	8.104E-02	8.104E-02	8.103E-02	8.093E-02	8.082E-02
RU120	0.000E+00	2.942E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH120	0.000E+00	1.863E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD120	0.000E+00	4.319E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG120	0.000E+00	1.339E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD120	0.000E+00	7.787E+01	3.733E-20	0.000E+00	0.000E+00	0.000E+00
IN120	0.000E+00	1.636E+02	6.100E-19	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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
IN120M	0.000E+00	1.132E+02	5.666E-20	0.000E+00	0.000E+00	0.000E+00
RH121	0.000E+00	2.476E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD121	0.000E+00	2.807E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG121	0.000E+00	1.390E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD121	0.000E+00	2.276E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121	0.000E+00	1.407E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121M	0.000E+00	3.784E+01	1.354E-04	4.552E-10	0.000E+00	0.000E+00
SN121	0.000E+00	1.770E+01	1.726E+01	1.682E+01	1.299E+01	9.521E+00
SN121M	0.000E+00	1.834E-04	1.834E-04	1.834E-04	1.834E-04	1.834E-04
RH122	0.000E+00	3.834E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD122	0.000E+00	6.519E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG122	0.000E+00	1.303E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD122	0.000E+00	1.138E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN122	0.000E+00	3.924E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN122M	0.000E+00	1.953E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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SB122	0.000E+00	5.682E+00	5.622E+00	5.562E+00	4.998E+00	4.396E+00
SB122M	0.000E+00	7.239E-03	3.625E-07	1.815E-11	0.000E+00	0.000E+00
RH123	0.000E+00	2.851E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD123	0.000E+00	2.241E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG123	0.000E+00	5.461E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD123	0.000E+00	2.517E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN123	0.000E+00	1.628E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN123M	0.000E+00	7.917E+01	2.363E-21	0.000E+00	0.000E+00	0.000E+00
SN123	0.000E+00	1.000E+01	1.000E+01	9.998E+00	9.976E+00	9.949E+00
SN123M	0.000E+00	5.036E+01	1.799E+01	6.376E+00	1.988E-04	7.784E-10
TE123M	0.000E+00	3.310E-03	3.309E-03	3.308E-03	3.300E-03	3.290E-03
PD124	0.000E+00	3.280E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG124	0.000E+00	3.476E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD124	0.000E+00	1.572E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN124	0.000E+00	5.088E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB124	0.000E+00	6.924E+00	6.921E+00	6.918E+00	6.885E+00	6.845E+00
SB124M	0.000E+00	1.883E-02	4.190E-14	9.320E-26	0.000E+00	0.000E+00
AG125	0.000E+00	8.603E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD125	0.000E+00	1.895E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN125	0.000E+00	2.230E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN125M	0.000E+00	1.694E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN125	0.000E+00	7.850E+01	7.826E+01	7.803E+01	7.572E+01	7.305E+01
SN125M	0.000E+00	1.277E+02	1.636E+00	2.073E-02	2.209E-21	0.000E+00
SB125	0.000E+00	2.473E+01	2.473E+01	2.473E+01	2.473E+01	2.474E+01
TE125M	0.000E+00	1.277E+00	1.277E+00	1.277E+00	1.278E+00	1.280E+00
PD126	0.000E+00	5.506E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG126	0.000E+00	3.510E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD126	0.000E+00	1.064E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN126	0.000E+00	8.428E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN126	0.000E+00	4.753E-04	4.753E-04	4.753E-04	4.753E-04	4.753E-04
SB126	0.000E+00	1.553E+01	1.550E+01	1.546E+01	1.510E+01	1.469E+01
SB126M	0.000E+00	5.064E+00	5.716E-01	6.836E-02	4.852E-03	4.852E-03
CD127	0.000E+00	8.668E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN127	0.000E+00	3.770E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN127M	0.000E+00	3.944E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN127	0.000E+00	8.669E+02	6.233E+02	4.481E+02	1.651E+01	3.146E-01

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

ML041000029.txt

9 SUMMARY TABLE: THERMAL POWER, WATTS

1 MTIHM 4.236% UO2, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
SN127M	0.000E+00	2.788E+02	1.190E-02	5.077E-07	0.000E+00	0.000E+00
SB127	0.000E+00	5.607E+02	5.589E+02	5.563E+02	5.199E+02	4.753E+02
TE127	0.000E+00	1.255E+02	1.255E+02	1.255E+02	1.230E+02	1.167E+02
TE127M	0.000E+00	6.357E+00	6.357E+00	6.357E+00	6.358E+00	6.358E+00
AG128	0.000E+00	1.451E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD128	0.000E+00	2.654E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN128	0.000E+00	9.581E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN128	0.000E+00	7.506E+02	3.710E+02	1.833E+02	1.592E-01	3.375E-05
SB128	0.000E+00	2.535E+02	2.347E+02	2.173E+02	1.007E+02	4.001E+01
SB128M	0.000E+00	2.931E+03	1.631E+03	8.092E+02	7.027E-01	1.490E-04
I128	0.000E+00	2.429E+01	4.598E+00	8.701E-01	5.129E-08	1.083E-16
CD129	0.000E+00	1.525E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN129	0.000E+00	5.884E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN129	0.000E+00	1.506E+03	5.885E+00	2.299E-02	0.000E+00	0.000E+00
SN129M	0.000E+00	1.987E+03	1.185E-04	7.063E-12	0.000E+00	0.000E+00
SB129	0.000E+00	3.341E+03	2.886E+03	2.458E+03	4.939E+02	7.200E+01
TE129	0.000E+00	1.052E+03	1.012E+03	9.338E+02	2.894E+02	1.286E+02
TE129M	0.000E+00	7.738E+01	7.737E+01	7.735E+01	7.690E+01	7.616E+01
XE129M	0.000E+00	1.484E-03	1.479E-03	1.474E-03	1.422E-03	1.361E-03
CD130	0.000E+00	1.367E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN130	0.000E+00	8.617E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN130	0.000E+00	2.685E+03	3.746E-02	5.226E-07	0.000E+00	0.000E+00
SB130	0.000E+00	2.250E+03	7.955E+02	2.812E+02	8.583E-03	3.274E-08
SB130M	0.000E+00	1.006E+04	2.838E+01	3.876E-02	0.000E+00	0.000E+00
I130	0.000E+00	2.154E+02	2.045E+02	1.934E+02	1.104E+02	5.631E+01
I130M	0.000E+00	1.070E+01	1.053E-01	1.036E-03	8.849E-24	0.000E+00
CD131	0.000E+00	3.344E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN131	0.000E+00	3.098E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN131	0.000E+00	5.643E+03	3.547E-14	2.229E-31	0.000E+00	0.000E+00
SB131	0.000E+00	1.218E+04	2.033E+03	3.334E+02	4.677E-06	1.764E-15
TE131	0.000E+00	5.951E+03	2.877E+03	9.677E+02	1.609E+02	1.219E+02
TE131M	0.000E+00	1.336E+03	1.311E+03	1.282E+03	1.018E+03	7.713E+02
I131	0.000E+00	3.367E+03	3.364E+03	3.357E+03	3.254E+03	3.130E+03
XE131M	0.000E+00	1.059E+01	1.059E+01	1.059E+01	1.059E+01	1.057E+01
CD132	0.000E+00	2.746E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN132	0.000E+00	1.284E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN132	0.000E+00	2.173E+03	1.755E-24	0.000E+00	0.000E+00	0.000E+00
SB132	0.000E+00	1.198E+04	4.704E-03	1.667E-09	0.000E+00	0.000E+00
SB132M	0.000E+00	7.780E+03	3.895E-01	1.950E-05	0.000E+00	0.000E+00
TE132	0.000E+00	2.820E+03	2.796E+03	2.771E+03	2.536E+03	2.280E+03
I132	0.000E+00	2.370E+04	2.359E+04	2.346E+04	2.167E+04	1.949E+04
CS132	0.000E+00	5.068E-01	5.046E-01	5.023E-01	4.804E-01	4.554E-01
IN133	0.000E+00	1.187E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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SN133	0.000E+00	1.542E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB133	0.000E+00	1.376E+04	4.105E-04	1.223E-11	0.000E+00	0.000E+00
TE133	0.000E+00	1.263E+04	1.118E+03	3.307E+02	1.729E-01	2.115E-05
TE133M	0.000E+00	1.438E+04	6.791E+03	3.206E+03	1.761E+00	2.155E-04
I133	0.000E+00	1.259E+04	1.237E+04	1.202E+04	8.651E+03	5.800E+03
I133M	0.000E+00	5.490E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE133	0.000E+00	2.245E+03	2.245E+03	2.245E+03	2.223E+03	2.164E+03
XE133M	0.000E+00	8.830E+01	8.822E+01	8.812E+01	8.556E+01	7.988E+01

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
IN134	0.000E+00	7.196E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN134	0.000E+00	1.547E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134	0.000E+00	2.723E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134M	0.000E+00	2.599E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE134	0.000E+00	1.286E+04	4.757E+03	1.759E+03	8.399E-02	5.483E-07
I134	0.000E+00	4.460E+04	3.182E+04	1.867E+04	1.287E+01	1.037E-03
I134M	0.000E+00	4.055E+02	5.325E-03	6.995E-08	0.000E+00	0.000E+00
XE134M	0.000E+00	1.480E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS134	0.000E+00	5.484E+02	5.484E+02	5.484E+02	5.482E+02	5.479E+02
CS134M	0.000E+00	1.995E+01	1.571E+01	1.237E+01	1.133E+00	6.438E-02
SN135	0.000E+00	2.408E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB135	0.000E+00	1.675E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE135	0.000E+00	1.722E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	0.000E+00	2.241E+04	2.019E+04	1.818E+04	6.371E+03	1.810E+03
XE135	0.000E+00	2.098E+03	2.409E+03	2.645E+03	2.879E+03	1.731E+03
XE135M	0.000E+00	1.231E+03	8.964E+02	7.932E+02	2.776E+02	7.889E+01
CS135	0.000E+00	9.008E-05	9.009E-05	9.010E-05	9.020E-05	9.030E-05
CS135M	0.000E+00	7.209E+01	3.289E+01	1.501E+01	5.867E-03	4.775E-07
BA135M	0.000E+00	1.968E-02	1.921E-02	1.875E-02	1.473E-02	1.102E-02
SN136	0.000E+00	1.703E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB136	0.000E+00	4.148E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE136	0.000E+00	8.605E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I136	0.000E+00	2.345E+04	2.439E-09	2.141E-22	0.000E+00	0.000E+00

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I136M	0.000E+00	1.283E+04	3.542E-20	0.000E+00	0.000E+00	0.000E+00
CS136	0.000E+00	4.359E+02	4.350E+02	4.340E+02	4.245E+02	4.135E+02
BA136M	0.000E+00	6.372E+01	6.358E+01	6.344E+01	6.206E+01	6.044E+01
SB137	0.000E+00	4.795E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE137	0.000E+00	3.399E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I137	0.000E+00	1.970E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE137	0.000E+00	2.135E+04	4.347E-01	8.362E-06	0.000E+00	0.000E+00
CS137	0.000E+00	6.767E+01	6.768E+01	6.767E+01	6.767E+01	6.767E+01
BA137M	0.000E+00	2.280E+02	2.273E+02	2.273E+02	2.273E+02	2.272E+02
SB138	0.000E+00	7.166E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE138	0.000E+00	6.837E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I138	0.000E+00	1.119E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	0.000E+00	1.912E+04	1.018E+03	5.408E+01	9.695E-12	4.906E-27
CS138	0.000E+00	4.152E+04	1.804E+04	5.310E+03	1.326E-02	2.463E-09
CS138M	0.000E+00	4.793E+02	2.834E-04	1.676E-10	0.000E+00	0.000E+00
SB139	0.000E+00	4.498E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE139	0.000E+00	1.854E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I139	0.000E+00	5.305E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE139	0.000E+00	2.245E+04	8.309E-24	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	2.208E+04	2.799E+02	3.353E+00	2.046E-19	0.000E+00
BA139	0.000E+00	1.065E+04	7.275E+03	4.410E+03	2.887E+01	6.913E-02
TE140	0.000E+00	1.770E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I140	0.000E+00	1.822E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE140	0.000E+00	1.265E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS140	0.000E+00	4.050E+04	4.825E-13	4.983E-30	0.000E+00	0.000E+00
BA140	0.000E+00	5.141E+03	5.130E+03	5.118E+03	5.004E+03	4.870E+03
LA140	0.000E+00	3.131E+04	3.131E+04	3.130E+04	3.115E+04	3.087E+04
PR140	0.000E+00	3.835E-02	1.803E-07	8.472E-13	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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
TE141	0.000E+00	1.097E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I141	0.000E+00	2.790E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE141	0.000E+00	7.408E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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CS141	0.000E+00	2.403E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA141	0.000E+00	1.787E+04	1.866E+03	1.915E+02	2.479E-08	3.379E-20
LA141	0.000E+00	1.029E+04	9.267E+03	7.835E+03	1.345E+03	1.620E+02
CE141	0.000E+00	2.608E+03	2.608E+03	2.608E+03	2.593E+03	2.567E+03
TE142	0.000E+00	8.112E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I142	0.000E+00	4.861E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE142	0.000E+00	1.889E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS142	0.000E+00	2.129E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA142	0.000E+00	1.457E+04	2.993E+02	6.139E+00	8.090E-17	4.290E-37
LA142	0.000E+00	3.621E+04	2.598E+04	1.665E+04	1.875E+02	8.610E-01
PR142	0.000E+00	1.756E+02	1.698E+02	1.638E+02	1.140E+02	7.380E+01
PR142M	0.000E+00	9.921E+00	5.747E-01	3.329E-02	1.417E-14	2.023E-29
I143	0.000E+00	2.393E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE143	0.000E+00	4.628E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS143	0.000E+00	8.811E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA143	0.000E+00	2.345E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA143	0.000E+00	1.940E+04	1.010E+03	5.176E+01	6.497E-12	2.144E-27
CE143	0.000E+00	7.024E+03	6.925E+03	6.784E+03	5.499E+03	4.274E+03
PR143	0.000E+00	3.092E+03	3.092E+03	3.092E+03	3.083E+03	3.060E+03
I144	0.000E+00	2.423E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE144	0.000E+00	5.434E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS144	0.000E+00	3.245E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA144	0.000E+00	1.153E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA144	0.000E+00	3.023E+04	3.167E-23	0.000E+00	0.000E+00	0.000E+00
CE144	0.000E+00	7.470E+02	7.470E+02	7.469E+02	7.461E+02	7.452E+02
PR144	0.000E+00	8.343E+03	8.284E+03	8.277E+03	8.269E+03	8.258E+03
PR144M	0.000E+00	4.629E+00	4.624E+00	4.623E+00	4.619E+00	4.613E+00
XE145	0.000E+00	7.728E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS145	0.000E+00	5.974E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA145	0.000E+00	1.084E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA145	0.000E+00	1.605E+04	7.834E-34	0.000E+00	0.000E+00	0.000E+00
CE145	0.000E+00	9.904E+03	1.134E-02	1.082E-08	0.000E+00	0.000E+00
PR145	0.000E+00	4.613E+03	4.149E+03	3.695E+03	1.159E+03	2.886E+02
XE146	0.000E+00	4.080E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS146	0.000E+00	1.189E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA146	0.000E+00	2.359E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA146	0.000E+00	1.647E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE146	0.000E+00	2.295E+03	1.237E+02	6.611E+00	1.261E-12	6.874E-28
PR146	0.000E+00	1.344E+04	4.824E+03	9.940E+02	3.607E-05	3.989E-14
PM146	0.000E+00	5.336E-03	5.336E-03	5.336E-03	5.335E-03	5.334E-03
XE147	0.000E+00	4.971E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS147	0.000E+00	1.503E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA147	0.000E+00	9.817E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA147	0.000E+00	5.503E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE147	0.000E+00	8.467E+03	3.025E-12	9.980E-28	0.000E+00	0.000E+00
PR147	0.000E+00	6.420E+03	2.232E+02	6.975E+00	6.195E-15	5.373E-33
ND147	0.000E+00	1.660E+03	1.657E+03	1.653E+03	1.610E+03	1.561E+03
PM147	0.000E+00	4.694E+01	4.695E+01	4.695E+01	4.701E+01	4.708E+01

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
CS148	0.000E+00	1.238E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA148	0.000E+00	1.139E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA148	0.000E+00	3.193E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE148	0.000E+00	2.807E+03	1.779E-22	0.000E+00	0.000E+00	0.000E+00
PR148	0.000E+00	8.925E+03	1.767E-04	2.479E-12	0.000E+00	0.000E+00
PM148	0.000E+00	1.787E+03	1.778E+03	1.768E+03	1.676E+03	1.572E+03
PM148M	0.000E+00	3.901E+02	3.898E+02	3.896E+02	3.868E+02	3.836E+02
BA149	0.000E+00	1.952E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA149	0.000E+00	5.822E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE149	0.000E+00	3.854E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR149	0.000E+00	3.012E+03	4.255E-05	5.969E-13	0.000E+00	0.000E+00
ND149	0.000E+00	1.969E+03	1.348E+03	9.031E+02	1.643E+01	1.341E-01
PM149	0.000E+00	1.189E+03	1.182E+03	1.173E+03	1.041E+03	8.900E+02
CS150	0.000E+00	1.243E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA150	0.000E+00	1.117E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA150	0.000E+00	1.542E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE150	0.000E+00	1.012E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR150	0.000E+00	4.321E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM150	0.000E+00	6.448E+01	4.979E+01	3.844E+01	2.894E+00	1.299E-01
LA151	0.000E+00	1.555E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE151	0.000E+00	5.931E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR151	0.000E+00	1.723E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND151	0.000E+00	1.561E+03	5.476E+01	1.914E+00	5.199E-15	1.725E-32
PM151	0.000E+00	6.548E+02	6.435E+02	6.281E+02	4.921E+02	3.671E+02
SM151	0.000E+00	4.460E-02	4.461E-02	4.463E-02	4.479E-02	4.493E-02
BA152	0.000E+00	3.492E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA152	0.000E+00	2.303E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE152	0.000E+00	9.074E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR152	0.000E+00	1.243E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND152	0.000E+00	4.013E+02	1.086E+01	2.918E-01	5.743E-17	8.170E-36
PM152	0.000E+00	1.262E+03	5.181E+01	1.395E+00	2.743E-16	3.883E-35

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PM152M	0.000E+00	2.202E+01	8.602E-02	3.360E-04	0.000E+00	0.000E+00
EU152	0.000E+00	4.840E-02	4.840E-02	4.840E-02	4.840E-02	4.840E-02
EU152M	0.000E+00	4.834E-01	4.488E-01	4.166E-01	1.980E-01	8.112E-02
LA153	0.000E+00	1.989E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE153	0.000E+00	2.557E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR153	0.000E+00	3.001E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND153	0.000E+00	8.630E+02	8.009E-14	7.214E-30	0.000E+00	0.000E+00
PM153	0.000E+00	3.509E+02	1.966E-01	8.886E-05	0.000E+00	0.000E+00
SM153	0.000E+00	5.044E+02	4.974E+02	4.900E+02	4.224E+02	3.535E+02
GD153	0.000E+00	2.386E-03	2.385E-03	2.385E-03	2.382E-03	2.379E-03
LA154	0.000E+00	1.201E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE154	0.000E+00	2.214E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR154	0.000E+00	1.015E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND154	0.000E+00	2.148E+02	1.742E-25	0.000E+00	0.000E+00	0.000E+00
PM154	0.000E+00	6.451E+02	2.939E-04	1.041E-10	0.000E+00	0.000E+00
PM154M	0.000E+00	1.042E+02	9.624E-09	8.892E-19	0.000E+00	0.000E+00
EU154	0.000E+00	2.158E+01	2.158E+01	2.158E+01	2.158E+01	2.158E+01
CE155	0.000E+00	3.890E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR155	0.000E+00	1.600E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND155	0.000E+00	1.893E+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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
PM155	0.000E+00	2.911E+02	1.491E-27	0.000E+00	0.000E+00	0.000E+00
SM155	0.000E+00	1.674E+02	2.658E+01	4.082E+00	2.985E-08	5.150E-18
EU155	0.000E+00	1.614E+00	1.614E+00	1.614E+00	1.613E+00	1.613E+00
CE156	0.000E+00	3.060E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR156	0.000E+00	4.038E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND156	0.000E+00	4.231E+01	1.255E-17	2.765E-36	0.000E+00	0.000E+00
PM156	0.000E+00	2.472E+02	3.013E-17	0.000E+00	0.000E+00	0.000E+00
SM156	0.000E+00	4.405E+01	4.094E+01	3.803E+01	1.819E+01	7.510E+00
EU156	0.000E+00	6.055E+02	6.047E+02	6.039E+02	5.945E+02	5.822E+02
CE157	0.000E+00	3.358E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR157	0.000E+00	5.433E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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ND157	0.000E+00	2.160E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM157	0.000E+00	9.368E+01	1.108E-14	1.296E-30	0.000E+00	0.000E+00	0.000E+00
SM157	0.000E+00	9.977E+01	6.012E-01	3.322E-03	0.000E+00	0.000E+00	0.000E+00
EU157	0.000E+00	5.976E+01	5.755E+01	5.499E+01	3.485E+01	2.016E+01	0.000E+00
PR158	0.000E+00	5.366E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND158	0.000E+00	2.536E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM158	0.000E+00	4.655E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM158	0.000E+00	2.450E+01	9.524E+00	3.700E+00	2.895E-04	3.419E-09	0.000E+00
EU158	0.000E+00	7.919E+01	5.852E+01	3.395E+01	1.363E-02	4.018E-07	0.000E+00
PR159	0.000E+00	1.923E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND159	0.000E+00	3.934E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM159	0.000E+00	8.556E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM159	0.000E+00	3.104E+01	6.492E-06	1.352E-12	0.000E+00	0.000E+00	0.000E+00
EU159	0.000E+00	3.030E+01	3.485E+00	3.501E-01	3.676E-11	3.897E-23	0.000E+00
GD159	0.000E+00	1.177E+01	1.151E+01	1.111E+01	7.652E+00	4.893E+00	0.000E+00
ND160	0.000E+00	2.869E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM160	0.000E+00	2.169E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM160	0.000E+00	1.044E+01	8.212E-03	6.459E-06	0.000E+00	0.000E+00	0.000E+00
EU160	0.000E+00	2.008E+01	1.218E-02	9.583E-06	0.000E+00	0.000E+00	0.000E+00
TB160	0.000E+00	2.098E+00	2.097E+00	2.096E+00	2.088E+00	2.078E+00	0.000E+00
ND161	0.000E+00	2.893E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM161	0.000E+00	2.188E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM161	0.000E+00	4.298E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU161	0.000E+00	7.898E+00	1.601E-25	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD161	0.000E+00	5.390E+00	8.706E-05	1.144E-09	0.000E+00	0.000E+00	0.000E+00
TB161	0.000E+00	1.572E+00	1.566E+00	1.559E+00	1.495E+00	1.422E+00	0.000E+00
PM162	0.000E+00	1.355E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM162	0.000E+00	4.627E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU162	0.000E+00	3.904E+00	3.810E-04	3.667E-08	0.000E+00	0.000E+00	0.000E+00
GD162	0.000E+00	1.313E+00	2.971E-02	4.651E-04	4.034E-22	0.000E+00	0.000E+00
TB162	0.000E+00	3.568E+00	2.437E-01	4.666E-03	4.288E-21	0.000E+00	0.000E+00
TB162M	0.000E+00	1.200E-01	9.361E-02	6.870E-02	3.070E-03	7.366E-05	0.000E+00
SM163	0.000E+00	8.828E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU163	0.000E+00	8.300E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD163	0.000E+00	1.441E+00	3.184E-12	6.627E-24	0.000E+00	0.000E+00	0.000E+00
TB163	0.000E+00	9.511E-01	1.222E-01	1.448E-02	7.911E-12	6.071E-23	0.000E+00
SM164	0.000E+00	6.613E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU164	0.000E+00	2.536E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD164	0.000E+00	3.758E-01	5.522E-02	8.111E-03	3.796E-11	3.833E-21	0.000E+00
TB164	0.000E+00	1.024E+00	1.412E-01	2.069E-02	9.683E-11	9.778E-21	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 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

Table with 7 columns: FUEL CHG, FUEL DIS, 1.0HR, 2.0HR, 12.0HR, 24.0HR. Rows include SM165, EU165, GD165, TB165, DY165, DY165M, DY166, HO166, ER167M, ER169, SUMTOT, and TOTAL.

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OUTPUT UNIT =

6 PAGE 93
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM BURNUP

, 1 CYCLE

Table with 7 columns: FUEL CHG, FUEL DIS, 1.0HR, 2.0HR, 12.0HR, 24.0HR. Rows include H, CO, NI, CU, ZN, GA, GE, AS, SE.

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BR	0.000E+00	6.490E+04	1.644E+03	5.840E+02	4.608E+01	2.943E+01
KR	0.000E+00	8.469E+04	1.458E+04	1.055E+04	7.829E+02	6.282E+01
RB	0.000E+00	1.653E+05	1.363E+04	9.561E+03	8.279E+02	4.853E+01
SR	0.000E+00	1.361E+05	2.568E+04	2.242E+04	9.608E+03	6.174E+03
Y	0.000E+00	2.074E+05	3.934E+04	3.411E+04	1.654E+04	9.176E+03
ZR	0.000E+00	9.784E+04	1.827E+04	1.791E+04	1.502E+04	1.279E+04
NB	0.000E+00	1.964E+05	2.791E+04	2.726E+04	2.128E+04	1.624E+04
MO	0.000E+00	7.206E+04	7.227E+03	6.028E+03	5.367E+03	4.731E+03
TC	0.000E+00	9.262E+04	6.188E+03	1.840E+03	1.322E+03	1.187E+03
RU	0.000E+00	1.919E+04	9.732E+03	8.993E+03	5.520E+03	4.707E+03
RH	0.000E+00	1.910E+04	4.652E+03	4.253E+03	3.820E+03	3.605E+03
PD	0.000E+00	2.238E+03	5.634E+02	5.027E+02	2.981E+02	1.624E+02
AG	0.000E+00	2.969E+03	6.874E+02	6.486E+02	4.602E+02	3.237E+02
CD	0.000E+00	1.630E+03	1.553E+02	1.267E+02	5.401E+01	4.207E+01
IN	0.000E+00	7.025E+03	2.413E+02	1.550E+02	3.885E+01	2.534E+01
SN	0.000E+00	1.790E+04	1.126E+03	7.428E+02	1.155E+02	9.296E+01
SB	0.000E+00	7.263E+04	8.221E+03	4.708E+03	1.167E+03	6.380E+02
TE	0.000E+00	8.135E+04	2.087E+04	1.146E+04	4.214E+03	3.503E+03
I	0.000E+00	1.825E+05	9.155E+04	7.588E+04	4.007E+04	3.029E+04
XE	0.000E+00	9.121E+04	6.667E+03	5.835E+03	5.476E+03	4.065E+03
CS	0.000E+00	1.638E+05	1.942E+04	6.391E+03	1.042E+03	1.030E+03
BA	0.000E+00	9.782E+04	1.486E+04	1.002E+04	5.322E+03	5.158E+03
LA	0.000E+00	1.694E+05	6.756E+04	5.583E+04	3.269E+04	3.104E+04
CE	0.000E+00	3.943E+04	1.040E+04	1.014E+04	8.838E+03	7.586E+03
PR	0.000E+00	5.575E+04	2.075E+04	1.623E+04	1.263E+04	1.169E+04
ND	0.000E+00	6.925E+03	3.071E+03	2.558E+03	1.627E+03	1.561E+03
PM	0.000E+00	7.206E+03	4.142E+03	4.046E+03	3.646E+03	3.260E+03
SM	0.000E+00	8.865E+02	5.751E+02	5.359E+02	4.407E+02	3.611E+02
EU	0.000E+00	8.315E+02	7.480E+02	7.168E+02	6.529E+02	6.257E+02
GD	0.000E+00	2.057E+01	1.160E+01	1.112E+01	7.654E+00	4.895E+00
TB	0.000E+00	9.664E+00	4.264E+00	3.764E+00	3.587E+00	3.501E+00
DY	0.000E+00	7.154E-01	4.968E-01	3.760E-01	4.069E-02	2.065E-02
HO	0.000E+00	1.544E-01	1.528E-01	1.512E-01	1.361E-01	1.205E-01
ER	0.000E+00	6.470E-04	7.137E-05	7.115E-05	6.900E-05	6.650E-05
SUMTOT	0.000E+00	2.193E+06	4.408E+05	3.502E+05	1.989E+05	1.602E+05
TOTAL	0.000E+00	2.193E+06	4.408E+05	3.502E+05	1.989E+05	1.602E+05

CUMULATIVE TABLE TOTALS

AP+FP	1.849E-14	2.193E+06	4.408E+05	3.502E+05	1.989E+05	1.602E+05
ACT+FP	7.967E-02	2.282E+06	4.914E+05	3.938E+05	2.364E+05	1.927E+05
AP+ACT+FP	7.967E-02	2.282E+06	4.914E+05	3.938E+05	2.364E+05	1.927E+05

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

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

1 MTIHM 4.236% UO2, 19157 MWD/MTIHM BURNUP, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 83	0.000E+00	3.761E+00	3.761E+00	3.761E+00	3.763E+00	3.763E+00
ZR 93	0.000E+00	3.013E+00	3.013E+00	3.014E+00	3.015E+00	3.016E+00
MO 95	0.000E+00	8.717E+00	8.718E+00	8.719E+00	8.729E+00	8.741E+00
MO 97	0.000E+00	1.970E+00	1.970E+00	1.970E+00	1.972E+00	1.973E+00
MO 98	0.000E+00	3.754E+00	3.754E+00	3.754E+00	3.754E+00	3.754E+00
TC 99	0.000E+00	2.604E+01	2.604E+01	2.604E+01	2.607E+01	2.609E+01
RU101	0.000E+00	7.877E+00	7.878E+00	7.878E+00	7.878E+00	7.878E+00
RH103	0.000E+00	5.434E+01	5.434E+01	5.435E+01	5.442E+01	5.450E+01
RH105	0.000E+00	6.233E+00	6.235E+00	6.219E+00	5.554E+00	4.486E+00
PD105	0.000E+00	3.351E+00	3.352E+00	3.352E+00	3.356E+00	3.359E+00
PD107	0.000E+00	1.131E+00	1.131E+00	1.131E+00	1.131E+00	1.131E+00
PD108	0.000E+00	1.965E+00	1.965E+00	1.965E+00	1.965E+00	1.965E+00
AG109	0.000E+00	6.224E+00	6.225E+00	6.226E+00	6.233E+00	6.238E+00
CD113	0.000E+00	2.699E+00	2.707E+00	2.714E+00	2.748E+00	2.758E+00
IN115	0.000E+00	1.640E+00	1.640E+00	1.641E+00	1.644E+00	1.648E+00
I129	0.000E+00	1.867E+00	1.867E+00	1.867E+00	1.868E+00	1.869E+00
XE131	0.000E+00	3.717E+01	3.717E+01	3.718E+01	3.722E+01	3.726E+01
XE133	0.000E+00	1.023E+00	1.023E+00	1.023E+00	1.014E+00	9.865E-01
CS133	0.000E+00	3.495E+01	3.495E+01	3.495E+01	3.498E+01	3.502E+01
CS134	0.000E+00	2.495E+00	2.495E+00	2.495E+00	2.494E+00	2.493E+00
XE135	0.000E+00	1.795E+02	2.061E+02	2.263E+02	2.464E+02	1.482E+02
CS135	0.000E+00	2.425E+00	2.426E+00	2.426E+00	2.429E+00	2.431E+00
LA139	0.000E+00	2.707E+00	2.707E+00	2.707E+00	2.707E+00	2.707E+00
PR141	0.000E+00	4.139E+00	4.140E+00	4.140E+00	4.144E+00	4.148E+00
PR143	0.000E+00	1.061E+00	1.061E+00	1.061E+00	1.058E+00	1.050E+00
ND143	0.000E+00	5.110E+01	5.111E+01	5.111E+01	5.116E+01	5.122E+01
ND145	0.000E+00	1.531E+01	1.531E+01	1.531E+01	1.532E+01	1.532E+01
PM147	0.000E+00	5.071E+01	5.072E+01	5.073E+01	5.079E+01	5.086E+01
SM147	0.000E+00	2.729E+00	2.729E+00	2.729E+00	2.733E+00	2.738E+00
ND148	0.000E+00	7.381E-01	7.381E-01	7.381E-01	7.381E-01	7.381E-01
PM148	0.000E+00	6.902E+00	6.866E+00	6.829E+00	6.474E+00	6.072E+00
PM148M	0.000E+00	1.288E+01	1.287E+01	1.286E+01	1.277E+01	1.267E+01
SM149	0.000E+00	6.473E+01	6.508E+01	6.544E+01	6.874E+01	7.219E+01
SM150	0.000E+00	8.895E+00	8.895E+00	8.895E+00	8.895E+00	8.895E+00
SM151	0.000E+00	2.882E+01	2.883E+01	2.884E+01	2.894E+01	2.903E+01

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SM152	0.000E+00	2.168E+01	2.168E+01	2.168E+01	2.168E+01	2.168E+01
EU153	0.000E+00	9.769E+00	9.771E+00	9.773E+00	9.789E+00	9.805E+00
EU154	0.000E+00	3.785E+00	3.785E+00	3.785E+00	3.784E+00	3.784E+00
EU155	0.000E+00	5.073E+00	5.073E+00	5.073E+00	5.072E+00	5.071E+00
GD157	0.000E+00	1.814E+00	1.827E+00	1.840E+00	1.939E+00	2.012E+00
SUMTOT	0.000E+00	6.850E+02	7.120E+02	7.326E+02	7.554E+02	6.595E+02

TOTAL	0.000E+00	6.981E+02	7.250E+02	7.456E+02	7.683E+02	6.723E+02
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OUTPUT UNIT =

6 PAGE 95
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

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

1 MTIHM 4.236% UO2, 19157 MWD/MTIHM BURNUP, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR	0.000E+00	3.902E+00	3.900E+00	3.899E+00	3.898E+00	3.898E+00
ZR	0.000E+00	4.630E+00	4.630E+00	4.631E+00	4.632E+00	4.633E+00
MO	0.000E+00	1.499E+01	1.499E+01	1.499E+01	1.500E+01	1.501E+01
TC	0.000E+00	2.604E+01	2.604E+01	2.604E+01	2.607E+01	2.609E+01
RU	0.000E+00	9.642E+00	9.642E+00	9.641E+00	9.636E+00	9.631E+00
RH	0.000E+00	6.057E+01	6.058E+01	6.057E+01	5.997E+01	5.899E+01
PD	0.000E+00	6.767E+00	6.767E+00	6.767E+00	6.771E+00	6.775E+00
AG	0.000E+00	6.241E+00	6.242E+00	6.243E+00	6.250E+00	6.255E+00
CD	0.000E+00	3.001E+00	3.009E+00	3.015E+00	3.050E+00	3.060E+00
IN	0.000E+00	1.640E+00	1.640E+00	1.641E+00	1.644E+00	1.648E+00
I	0.000E+00	2.471E+00	2.471E+00	2.471E+00	2.472E+00	2.473E+00
XE	0.000E+00	2.182E+02	2.448E+02	2.650E+02	2.851E+02	1.869E+02
CS	0.000E+00	3.995E+01	3.995E+01	3.995E+01	3.998E+01	4.002E+01
LA	0.000E+00	2.740E+00	2.740E+00	2.740E+00	2.740E+00	2.740E+00
CE	0.000E+00	1.230E+00	1.230E+00	1.230E+00	1.223E+00	1.213E+00
PR	0.000E+00	5.201E+00	5.201E+00	5.202E+00	5.202E+00	5.199E+00
ND	0.000E+00	6.902E+01	6.902E+01	6.903E+01	6.906E+01	6.910E+01
PM	0.000E+00	7.113E+01	7.109E+01	7.104E+01	7.058E+01	7.006E+01
SM	0.000E+00	1.274E+02	1.278E+02	1.282E+02	1.315E+02	1.351E+02
EU	0.000E+00	1.896E+01	1.896E+01	1.896E+01	1.897E+01	1.898E+01
GD	0.000E+00	2.348E+00	2.362E+00	2.375E+00	2.481E+00	2.560E+00
SUMTOT	0.000E+00	6.961E+02	7.231E+02	7.436E+02	7.663E+02	6.703E+02

TOTAL 0.000E+00 6.981E+02 7.250E+02 7.456E+02 7.683E+02 6.723E+02

CUMULATIVE TABLE TOTALS

AP+FP 8.258E+01 7.133E+02 7.402E+02 7.608E+02 7.835E+02 6.875E+02
 ACT+FP 7.403E+03 8.547E+03 8.574E+03 8.595E+03 8.621E+03 8.528E+03
 AP+ACT+FP 7.485E+03 8.562E+03 8.590E+03 8.611E+03 8.636E+03 8.543E+03

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

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

1 MTIHM 4.236% UO2, 19157 MWD/MTIHM BURNUP, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 83	0.000E+00	5.387E-03	5.187E-03	5.045E-03	4.897E-03	5.597E-03
ZR 93	0.000E+00	4.316E-03	4.156E-03	4.042E-03	3.924E-03	4.486E-03
MO 95	0.000E+00	1.249E-02	1.202E-02	1.169E-02	1.136E-02	1.300E-02
MO 97	0.000E+00	2.822E-03	2.717E-03	2.643E-03	2.566E-03	2.934E-03
MO 98	0.000E+00	5.378E-03	5.178E-03	5.035E-03	4.886E-03	5.584E-03
TC 99	0.000E+00	3.730E-02	3.592E-02	3.493E-02	3.393E-02	3.881E-02
RU101	0.000E+00	1.128E-02	1.087E-02	1.057E-02	1.025E-02	1.172E-02
RH103	0.000E+00	7.784E-02	7.495E-02	7.290E-02	7.083E-02	8.107E-02
RH105	0.000E+00	8.929E-03	8.599E-03	8.341E-03	7.229E-03	6.673E-03
PD105	0.000E+00	4.801E-03	4.623E-03	4.496E-03	4.368E-03	4.997E-03
PD107	0.000E+00	1.620E-03	1.559E-03	1.516E-03	1.472E-03	1.682E-03
PD108	0.000E+00	2.815E-03	2.711E-03	2.636E-03	2.558E-03	2.923E-03
AG109	0.000E+00	8.916E-03	8.585E-03	8.350E-03	8.113E-03	9.279E-03
CD113	0.000E+00	3.867E-03	3.733E-03	3.639E-03	3.577E-03	4.103E-03
IN115	0.000E+00	2.349E-03	2.262E-03	2.200E-03	2.140E-03	2.451E-03
I129	0.000E+00	2.674E-03	2.575E-03	2.504E-03	2.431E-03	2.779E-03
XE131	0.000E+00	5.325E-02	5.127E-02	4.986E-02	4.844E-02	5.542E-02
XE133	0.000E+00	1.466E-03	1.412E-03	1.372E-03	1.319E-03	1.467E-03
CS133	0.000E+00	5.006E-02	4.820E-02	4.688E-02	4.554E-02	5.209E-02
CS134	0.000E+00	3.574E-03	3.441E-03	3.346E-03	3.246E-03	3.708E-03
XE135	0.000E+00	2.572E-01	2.843E-01	3.036E-01	3.207E-01	2.204E-01

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CS135	0.000E+00	3.475E-03	3.346E-03	3.254E-03	3.161E-03	3.617E-03
LA139	0.000E+00	3.877E-03	3.733E-03	3.631E-03	3.524E-03	4.027E-03
PR141	0.000E+00	5.930E-03	5.710E-03	5.553E-03	5.394E-03	6.171E-03
PR143	0.000E+00	1.520E-03	1.463E-03	1.423E-03	1.377E-03	1.562E-03
ND143	0.000E+00	7.321E-02	7.049E-02	6.855E-02	6.659E-02	7.618E-02
ND145	0.000E+00	2.193E-02	2.112E-02	2.054E-02	1.994E-02	2.279E-02
PM147	0.000E+00	7.265E-02	6.996E-02	6.804E-02	6.611E-02	7.566E-02
SM147	0.000E+00	3.909E-03	3.764E-03	3.661E-03	3.558E-03	4.073E-03
ND148	0.000E+00	1.057E-03	1.018E-03	9.900E-04	9.608E-04	1.098E-03
PM148	0.000E+00	9.888E-03	9.469E-03	9.159E-03	8.426E-03	9.032E-03
PM148M	0.000E+00	1.845E-02	1.776E-02	1.725E-02	1.663E-02	1.884E-02
SM149	0.000E+00	9.273E-02	8.977E-02	8.776E-02	8.947E-02	1.074E-01
SM150	0.000E+00	1.274E-02	1.227E-02	1.193E-02	1.158E-02	1.323E-02
SM151	0.000E+00	4.128E-02	3.976E-02	3.868E-02	3.767E-02	4.319E-02
SM152	0.000E+00	3.106E-02	2.990E-02	2.908E-02	2.822E-02	3.225E-02
EU153	0.000E+00	1.399E-02	1.348E-02	1.311E-02	1.274E-02	1.458E-02
EU154	0.000E+00	5.422E-03	5.220E-03	5.076E-03	4.926E-03	5.629E-03
EU155	0.000E+00	7.267E-03	6.997E-03	6.804E-03	6.602E-03	7.544E-03
GD157	0.000E+00	2.598E-03	2.520E-03	2.467E-03	2.524E-03	2.993E-03
SUMTOT	0.000E+00	9.813E-01	9.820E-01	9.825E-01	9.832E-01	9.810E-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 14:14:12

* 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

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

1 MTIHM 4.236% UO2, 19157 MWD/MTIHM BURNUP, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR	0.000E+00	5.590E-03	5.379E-03	5.229E-03	5.073E-03	5.798E-03
ZR	0.000E+00	6.633E-03	6.386E-03	6.211E-03	6.029E-03	6.891E-03
MO	0.000E+00	2.147E-02	2.067E-02	2.011E-02	1.952E-02	2.233E-02
TC	0.000E+00	3.730E-02	3.592E-02	3.493E-02	3.393E-02	3.881E-02
RU	0.000E+00	1.381E-02	1.330E-02	1.293E-02	1.254E-02	1.433E-02
RH	0.000E+00	8.677E-02	8.355E-02	8.124E-02	7.806E-02	8.775E-02
PD	0.000E+00	9.693E-03	9.333E-03	9.077E-03	8.813E-03	1.008E-02

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AG	0.000E+00	8.940E-03	8.609E-03	8.373E-03	8.135E-03	9.304E-03
CD	0.000E+00	4.299E-03	4.150E-03	4.044E-03	3.970E-03	4.552E-03
IN	0.000E+00	2.350E-03	2.263E-03	2.201E-03	2.140E-03	2.451E-03
I	0.000E+00	3.539E-03	3.408E-03	3.314E-03	3.218E-03	3.678E-03
XE	0.000E+00	3.126E-01	3.377E-01	3.555E-01	3.711E-01	2.780E-01
CS	0.000E+00	5.722E-02	5.510E-02	5.358E-02	5.204E-02	5.953E-02
LA	0.000E+00	3.925E-03	3.779E-03	3.675E-03	3.566E-03	4.075E-03
CE	0.000E+00	1.763E-03	1.697E-03	1.649E-03	1.592E-03	1.805E-03
PR	0.000E+00	7.450E-03	7.174E-03	6.976E-03	6.771E-03	7.733E-03
ND	0.000E+00	9.887E-02	9.520E-02	9.258E-02	8.989E-02	1.028E-01
PM	0.000E+00	1.019E-01	9.805E-02	9.528E-02	9.187E-02	1.042E-01
SM	0.000E+00	1.825E-01	1.763E-01	1.719E-01	1.712E-01	2.009E-01
EU	0.000E+00	2.715E-02	2.615E-02	2.543E-02	2.469E-02	2.823E-02
GD	0.000E+00	3.364E-03	3.258E-03	3.186E-03	3.229E-03	3.808E-03
SUMTOT	0.000E+00	9.972E-01	9.973E-01	9.974E-01	9.974E-01	9.971E-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 14:14:12
 ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BU

RNUP (PWRUE)

(ALPHA,N) NEUTRON SOURCE, NEUTRONS/SEC

BASIS=1 MTIHM 4.236% UO2, 19157 MWD/MTIHM BURNUP, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	1.333E+03	1.048E+03	1.048E+03	1.048E+03	1.048E+03	1.048E+03
U235	3.349E+01	1.882E+01	1.882E+01	1.882E+01	1.882E+01	1.882E+01
U238	1.013E+02	1.001E+02	1.001E+02	1.001E+02	1.001E+02	1.001E+02
PU238	0.000E+00	4.822E+05	4.824E+05	4.825E+05	4.836E+05	4.847E+05
PU239	0.000E+00	2.099E+05	2.099E+05	2.100E+05	2.103E+05	2.107E+05
PU240	0.000E+00	1.789E+05	1.789E+05	1.789E+05	1.789E+05	1.789E+05
AM241	0.000E+00	3.341E+04	3.342E+04	3.343E+04	3.354E+04	3.367E+04
CM242	0.000E+00	6.621E+06	6.623E+06	6.625E+06	6.636E+06	6.640E+06
CM244	0.000E+00	7.964E+04	7.966E+04	7.966E+04	7.967E+04	7.967E+04

TOTALS

TABLE	1.467E+03	7.609E+06	7.611E+06	7.613E+06	7.627E+06	7.632E+06
ACTUAL	1.467E+03	7.609E+06	7.611E+06	7.613E+06	7.627E+06	7.632E+06

□

OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

ML041000029.txt

ORIGEN2 V2.2 - FUEL ONLY - EXTENDED BU

RNUP (PWRUE)

SPONTANEOUS FISSION NEUTRON SOURCE, NEUTRO

NS/SEC

BASIS=1 MTIHM 4.236% UO2, 19157 MWD/MTIHM BU

RNUP, 1 CYCLE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U235	1.493E+01	8.391E+00	8.391E+00	8.391E+00	8.391E+00	8.391E+00
U238	1.215E+04	1.200E+04	1.200E+04	1.200E+04	1.200E+04	1.200E+04
PU238	0.000E+00	7.865E+04	7.866E+04	7.868E+04	7.886E+04	7.904E+04
PU240	0.000E+00	9.428E+05	9.428E+05	9.428E+05	9.428E+05	9.428E+05
PU242	0.000E+00	1.312E+05	1.312E+05	1.312E+05	1.312E+05	1.312E+05
CM242	0.000E+00	3.213E+07	3.214E+07	3.214E+07	3.220E+07	3.222E+07
CM244	0.000E+00	9.589E+06	9.591E+06	9.591E+06	9.592E+06	9.593E+06

TOTALS

TABLE	1.216E+04	4.289E+07	4.290E+07	4.291E+07	4.296E+07	4.298E+07
ACTUAL	1.216E+04	4.289E+07	4.290E+07	4.291E+07	4.296E+07	4.298E+07

OVERALL

TOTALS

TABLE	1.363E+04	5.050E+07	5.051E+07	5.052E+07	5.059E+07	5.061E+07
ACTUAL	1.363E+04	5.050E+07	5.051E+07	5.052E+07	5.059E+07	5.061E+07

□

OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

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

BASIS=1 MTIHM 4.236% UO2, 19157 MWD/M

TIHM BURNUP, 1 CYCLE

EMEAN

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
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ML041000029.txt

1.000E-02	3.854E-02	7.396E+13	1.756E+13	1.509E+13	9.695E+12	7.887E+12
2.500E-02	7.143E-03	1.678E+13	4.664E+12	4.110E+12	2.908E+12	2.498E+12
3.750E-02	4.312E-03	1.025E+13	2.205E+12	1.887E+12	1.176E+12	9.458E+11
5.750E-02	5.379E-03	1.700E+13	4.814E+12	4.305E+12	2.835E+12	2.130E+12
8.500E-02	2.562E-03	1.008E+13	2.373E+12	2.095E+12	1.345E+12	1.028E+12
1.250E-01	1.270E-03	8.416E+12	2.520E+12	2.071E+12	1.275E+12	9.911E+11
2.250E-01	8.334E-04	1.098E+13	2.888E+12	2.635E+12	2.000E+12	1.744E+12
3.750E-01	4.850E-05	1.494E+13	5.347E+12	2.827E+12	4.750E+11	3.641E+11
5.750E-01	1.878E-09	1.297E+13	9.684E+12	9.364E+12	7.521E+12	5.967E+12
8.500E-01	1.302E-11	1.377E+13	9.009E+12	6.895E+12	2.266E+12	1.841E+12
1.250E+00	7.409E-12	6.148E+13	3.432E+13	2.410E+13	1.255E+13	1.035E+13
1.750E+00	3.712E-12	7.640E+12	2.994E+12	1.839E+12	9.197E+10	1.709E+10
2.250E+00	1.860E-12	5.352E+12	2.696E+12	1.461E+12	3.950E+10	3.552E+09
2.750E+00	9.320E-13	8.420E+12	7.920E+12	7.543E+12	4.709E+12	2.702E+12
3.500E+00	6.863E-13	9.539E+10	1.394E+10	1.165E+10	3.665E+09	1.868E+09
5.000E+00	2.043E-13	2.925E+10	5.574E+07	5.319E+07	3.349E+07	1.924E+07
7.000E+00	1.326E-14	4.362E+12	3.730E-03	3.730E-03	3.731E-03	3.732E-03
9.500E+00	8.384E-16	4.546E+09	2.359E-04	2.359E-04	2.359E-04	2.360E-04

TOTAL 6.009E-02 2.765E+14 1.090E+14 8.622E+13 4.889E+13 3.847E+13

MEV/SEC 1.617E-03 1.881E+14 9.309E+13 7.132E+13 3.643E+13 2.645E+13

18 GROUP SPECIFIC ENERGY RELEASE RATE

S, MEV/WATT-SEC

BASIS=1 MTIHM 4.236% UO2, 19157 MWD/M

TIHM BURNUP, 1 CYCLE
EMEAN

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
1.000E-02	3.854E-10	7.396E+05	1.756E+05	1.509E+05	9.695E+04	7.887E+04
2.500E-02	1.786E-10	4.196E+05	1.166E+05	1.027E+05	7.270E+04	6.246E+04
3.750E-02	1.617E-10	3.844E+05	8.268E+04	7.078E+04	4.410E+04	3.547E+04
5.750E-02	3.093E-10	9.777E+05	2.768E+05	2.475E+05	1.630E+05	1.224E+05
8.500E-02	2.178E-10	8.565E+05	2.017E+05	1.781E+05	1.143E+05	8.738E+04
1.250E-01	1.587E-10	1.052E+06	3.151E+05	2.588E+05	1.593E+05	1.239E+05
2.250E-01	1.875E-10	2.470E+06	6.497E+05	5.928E+05	4.499E+05	3.924E+05
3.750E-01	1.819E-11	5.601E+06	2.005E+06	1.060E+06	1.781E+05	1.366E+05
5.750E-01	1.080E-15	7.457E+06	5.568E+06	5.384E+06	4.324E+06	3.431E+06
8.500E-01	1.107E-17	1.170E+07	7.657E+06	5.861E+06	1.926E+06	1.565E+06
1.250E+00	9.261E-18	7.685E+07	4.290E+07	3.012E+07	1.569E+07	1.294E+07
1.750E+00	6.497E-18	1.337E+07	5.240E+06	3.218E+06	1.609E+05	2.990E+04
2.250E+00	4.185E-18	1.204E+07	6.066E+06	3.286E+06	8.888E+04	7.992E+03
2.750E+00	2.563E-18	2.315E+07	2.178E+07	2.074E+07	1.295E+07	7.430E+06
3.500E+00	2.402E-18	3.339E+05	4.878E+04	4.077E+04	1.283E+04	6.539E+03
5.000E+00	1.022E-18	1.463E+05	2.787E+02	2.659E+02	1.675E+02	9.618E+01
7.000E+00	9.281E-20	3.054E+07	2.611E-08	2.611E-08	2.612E-08	2.612E-08

9.500E+00 7.965E-21 4.318E+04 2.241E-09 2.241E-09 2.241E-09 2.242E-09
 TOTAL 1.617E-09 1.881E+08 9.309E+07 7.132E+07 3.643E+07 2.645E+07
 GAM POW 2.592E-16 3.016E+01 1.492E+01 1.143E+01 5.839E+00 4.240E+00

□

OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

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	1.741E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	1.017E+13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	2.654E+12	2.534E+12	2.419E+12	1.524E+12	8.754E+11
AL 28	0.000E+00	1.514E+12	1.313E+04	3.895E+01	2.796E+01	1.879E+01
SI 31	0.000E+00	5.134E+11	3.941E+11	3.026E+11	2.151E+10	9.009E+08
P 32	0.000E+00	1.040E+12	1.038E+12	1.036E+12	1.016E+12	9.913E+11
V 52	0.000E+00	2.321E+12	3.540E+07	5.402E+02	0.000E+00	0.000E+00
MN 56	0.000E+00	3.380E+12	2.583E+12	1.974E+12	1.343E+11	5.335E+09
CO 58	0.000E+00	1.488E+11	1.488E+11	1.487E+11	1.481E+11	1.474E+11
CO 60	0.000E+00	1.566E+11	1.566E+11	1.566E+11	1.566E+11	1.566E+11
CO 60M	0.000E+00	1.325E+12	2.496E+10	4.700E+08	2.637E-09	0.000E+00
ZN 65	0.000E+00	9.805E+11	9.804E+11	9.803E+11	9.791E+11	9.777E+11
ZN 69	0.000E+00	5.443E+11	2.808E+11	1.529E+11	2.156E+10	1.173E+10
MO 99	0.000E+00	1.680E+12	1.662E+12	1.645E+12	1.481E+12	1.305E+12
AG110	0.000E+00	1.335E+12	7.144E+08	7.143E+08	7.135E+08	7.125E+08
CD115	0.000E+00	1.997E+12	1.971E+12	1.946E+12	1.709E+12	1.463E+12
CD115M	0.000E+00	2.985E+11	2.983E+11	2.982E+11	2.962E+11	2.939E+11
IN114	0.000E+00	6.189E+11	2.458E+11	2.456E+11	2.442E+11	2.425E+11
IN115	3.854E-02	5.406E-03	5.406E-03	5.406E-03	5.406E-03	5.406E-03
IN116	0.000E+00	3.202E+13	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	5.160E+12	2.394E+12	1.111E+12	5.129E+08	5.099E+04
GD159	0.000E+00	3.793E+11	3.654E+11	3.521E+11	2.425E+11	1.551E+11
W187	0.000E+00	1.498E+12	1.455E+12	1.414E+12	1.058E+12	7.469E+11
RE188	0.000E+00	4.434E+11	4.328E+11	4.165E+11	2.796E+11	1.743E+11

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
C 15	0.000E+00	3.928E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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N 16	0.000E+00	2.301E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	5.512E+11	5.263E+11	5.025E+11	3.166E+11	1.818E+11	
AL 28	0.000E+00	3.296E+11	2.858E+03	8.480E+00	6.087E+00	4.090E+00	
SI 31	0.000E+00	1.071E+11	8.220E+10	6.310E+10	4.486E+09	1.879E+08	
P 32	0.000E+00	2.195E+11	2.191E+11	2.187E+11	2.143E+11	2.092E+11	
V 52	0.000E+00	5.023E+11	7.662E+06	1.169E+02	0.000E+00	0.000E+00	
MN 56	0.000E+00	7.228E+11	5.525E+11	4.222E+11	2.872E+10	1.141E+09	
CO 60	0.000E+00	2.707E+10	2.707E+10	2.707E+10	2.706E+10	2.706E+10	
ZN 69	0.000E+00	1.091E+11	5.631E+10	3.066E+10	4.324E+09	2.352E+09	
MO 99	0.000E+00	3.018E+11	2.986E+11	2.955E+11	2.660E+11	2.345E+11	
AG110	0.000E+00	2.937E+11	1.572E+08	1.572E+08	1.570E+08	1.568E+08	
CD109	0.000E+00	3.349E+10	3.349E+10	3.349E+10	3.347E+10	3.344E+10	
CD115	0.000E+00	7.933E+11	7.831E+11	7.730E+11	6.790E+11	5.812E+11	
CD115M	0.000E+00	6.252E+10	6.248E+10	6.244E+10	6.204E+10	6.156E+10	
IN114	0.000E+00	1.408E+11	5.593E+10	5.590E+10	5.558E+10	5.519E+10	

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OUTPUT UNIT =

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IN114M	0.000E+00	2.036E+11	2.034E+11	2.033E+11	2.021E+11	2.007E+11	
IN115	7.143E-03	1.002E-03	1.002E-03	1.002E-03	1.002E-03	1.002E-03	
IN116	0.000E+00	7.005E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
IN116M	0.000E+00	1.248E+12	5.791E+11	2.687E+11	1.241E+08	1.233E+04	
SN117M	0.000E+00	5.981E+11	5.969E+11	5.956E+11	5.835E+11	5.692E+11	
SN119M	0.000E+00	7.623E+10	7.622E+10	7.621E+10	7.612E+10	7.601E+10	
GD159	0.000E+00	7.543E+10	7.267E+10	7.001E+10	4.823E+10	3.084E+10	
W187	0.000E+00	2.013E+11	1.955E+11	1.899E+11	1.421E+11	1.003E+11	
RE188	0.000E+00	8.896E+10	8.682E+10	8.356E+10	5.609E+10	3.498E+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	2.686E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	1.569E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	3.579E+11	3.418E+11	3.263E+11	2.056E+11	1.181E+11
AL 28	0.000E+00	2.204E+11	1.911E+03	5.671E+00	4.071E+00	2.735E+00
SI 31	0.000E+00	6.982E+10	5.360E+10	4.115E+10	2.925E+09	1.225E+08
P 32	0.000E+00	1.440E+11	1.437E+11	1.434E+11	1.405E+11	1.372E+11
V 52	0.000E+00	3.340E+11	5.095E+06	7.774E+01	0.000E+00	0.000E+00
MN 56	0.000E+00	4.805E+11	3.672E+11	2.807E+11	1.909E+10	7.584E+08
CO 60	0.000E+00	1.545E+10	1.545E+10	1.545E+10	1.545E+10	1.545E+10
ZN 69	0.000E+00	6.919E+10	3.570E+10	1.943E+10	2.741E+09	1.491E+09
MO 99	0.000E+00	2.456E+11	2.430E+11	2.405E+11	2.165E+11	1.909E+11
AG110	0.000E+00	1.945E+11	1.041E+08	1.041E+08	1.040E+08	1.038E+08
CD115	0.000E+00	3.001E+11	2.963E+11	2.924E+11	2.569E+11	2.199E+11

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CD115M	0.000E+00	4.085E+10	4.083E+10	4.080E+10	4.054E+10	4.022E+10
IN114	0.000E+00	8.653E+10	3.437E+10	3.435E+10	3.415E+10	3.391E+10
IN115	4.312E-03	6.049E-04	6.049E-04	6.049E-04	6.050E-04	6.050E-04
IN116	0.000E+00	4.710E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	6.515E+11	3.023E+11	1.402E+11	6.476E+07	6.437E+03
GD153	0.000E+00	4.936E+10	4.936E+10	4.935E+10	4.929E+10	4.922E+10
GD159	0.000E+00	4.768E+10	4.594E+10	4.426E+10	3.049E+10	1.950E+10
W187	0.000E+00	1.270E+11	1.234E+11	1.199E+11	8.968E+10	6.332E+10
RE188	0.000E+00	5.857E+10	5.716E+10	5.502E+10	3.693E+10	2.303E+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	4.140E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	2.414E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	5.086E+11	4.856E+11	4.637E+11	2.921E+11	1.678E+11
AL 28	0.000E+00	3.275E+11	2.840E+03	8.427E+00	6.049E+00	4.064E+00
SI 31	0.000E+00	9.974E+10	7.657E+10	5.878E+10	4.178E+09	1.750E+08
P 32	0.000E+00	2.076E+11	2.072E+11	2.068E+11	2.026E+11	1.978E+11
V 52	0.000E+00	4.913E+11	7.494E+06	1.144E+02	0.000E+00	0.000E+00
MN 56	0.000E+00	7.022E+11	5.367E+11	4.102E+11	2.790E+10	1.108E+09
ZN 69	0.000E+00	9.438E+10	4.869E+10	2.651E+10	3.739E+09	2.034E+09

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OUTPUT UNIT =

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
6						
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03						
at 14:14:12						
MO 99	0.000E+00	2.421E+11	2.396E+11	2.371E+11	2.134E+11	1.882E+11
AG110	0.000E+00	2.880E+11	1.541E+08	1.541E+08	1.539E+08	1.537E+08
CD115	0.000E+00	3.436E+11	3.392E+11	3.348E+11	2.941E+11	2.518E+11
CD115M	0.000E+00	5.847E+10	5.843E+10	5.839E+10	5.801E+10	5.757E+10
IN114	0.000E+00	1.257E+11	4.991E+10	4.988E+10	4.959E+10	4.924E+10
IN115	5.379E-03	7.546E-04	7.546E-04	7.546E-04	7.546E-04	7.547E-04
IN116	0.000E+00	7.005E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	8.879E+11	4.119E+11	1.911E+11	8.826E+07	8.773E+03
GD159	0.000E+00	6.481E+10	6.244E+10	6.015E+10	4.144E+10	2.650E+10
TB160	0.000E+00	4.644E+10	4.642E+10	4.640E+10	4.622E+10	4.600E+10
W187	0.000E+00	2.058E+12	1.999E+12	1.942E+12	1.453E+12	1.026E+12
RE188	0.000E+00	1.221E+11	1.192E+11	1.147E+11	7.699E+10	4.801E+10

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
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C 15	0.000E+00	2.750E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	1.602E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	3.022E+11	2.886E+11	2.755E+11	1.736E+11	9.970E+10	
AL 28	0.000E+00	2.081E+11	1.804E+03	5.353E+00	3.843E+00	2.582E+00	
SI 31	0.000E+00	5.955E+10	4.572E+10	3.510E+10	2.495E+09	1.045E+08	
P 32	0.000E+00	1.259E+11	1.257E+11	1.254E+11	1.229E+11	1.200E+11	
V 52	0.000E+00	3.094E+11	4.720E+06	7.203E+01	0.000E+00	0.000E+00	
MN 56	0.000E+00	4.392E+11	3.357E+11	2.566E+11	1.745E+10	6.932E+08	
ZN 69	0.000E+00	5.240E+10	2.703E+10	1.472E+10	2.076E+09	1.129E+09	
MO 99	0.000E+00	1.396E+11	1.381E+11	1.367E+11	1.231E+11	1.085E+11	
AG110	0.000E+00	1.819E+11	9.737E+07	9.735E+07	9.724E+07	9.711E+07	
CD115	0.000E+00	1.908E+11	1.883E+11	1.859E+11	1.633E+11	1.398E+11	
CD115M	0.000E+00	3.515E+10	3.512E+10	3.510E+10	3.487E+10	3.460E+10	
IN114	0.000E+00	7.705E+10	3.060E+10	3.058E+10	3.041E+10	3.019E+10	
IN115	2.562E-03	3.594E-04	3.594E-04	3.594E-04	3.594E-04	3.594E-04	
IN116	0.000E+00	4.472E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00	
IN116M	0.000E+00	4.987E+11	2.314E+11	1.073E+11	4.957E+07	4.928E+03	
GD153	0.000E+00	1.578E+10	1.578E+10	1.577E+10	1.575E+10	1.573E+10	
GD159	0.000E+00	3.576E+10	3.445E+10	3.319E+10	2.287E+10	1.462E+10	
TB160	0.000E+00	3.544E+10	3.543E+10	3.541E+10	3.527E+10	3.510E+10	
W187	0.000E+00	7.556E+11	7.340E+11	7.130E+11	5.335E+11	3.767E+11	
RE188	0.000E+00	5.995E+10	5.851E+10	5.631E+10	3.780E+10	2.357E+10	

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	1.964E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	1.144E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	1.925E+11	1.838E+11	1.755E+11	1.105E+11	6.349E+10
AL 28	0.000E+00	1.417E+11	1.229E+03	3.646E+00	2.618E+00	1.759E+00
SI 31	0.000E+00	3.828E+10	2.939E+10	2.256E+10	1.604E+09	6.718E+07
P 32	0.000E+00	8.192E+10	8.175E+10	8.159E+10	7.996E+10	7.804E+10

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V 52	0.000E+00	2.090E+11	3.188E+06	4.864E+01	0.000E+00	0.000E+00
MN 56	0.000E+00	2.946E+11	2.252E+11	1.721E+11	1.171E+10	4.651E+08
MO 99	0.000E+00	4.078E+11	4.035E+11	3.993E+11	3.595E+11	3.169E+11
AG110	0.000E+00	1.240E+11	6.634E+07	6.633E+07	6.625E+07	6.616E+07
CD115	0.000E+00	1.138E+11	1.123E+11	1.109E+11	9.741E+10	8.338E+10
CD115M	0.000E+00	2.266E+10	2.264E+10	2.263E+10	2.248E+10	2.231E+10
IN114	0.000E+00	5.092E+10	2.022E+10	2.021E+10	2.009E+10	1.995E+10
IN115	1.270E-03	1.781E-04	1.781E-04	1.781E-04	1.781E-04	1.782E-04
IN116	0.000E+00	3.083E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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IN116M	0.000E+00	1.361E+12	6.313E+11	2.929E+11	1.353E+08	1.344E+04
GD159	0.000E+00	2.113E+10	2.036E+10	1.961E+10	1.351E+10	8.640E+09
W187	0.000E+00	7.230E+11	7.023E+11	6.823E+11	5.105E+11	3.605E+11
RE188	0.000E+00	3.443E+10	3.360E+10	3.234E+10	2.171E+10	1.354E+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	3.174E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	1.842E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	2.408E+11	2.299E+11	2.195E+11	1.383E+11	7.943E+10
AL 28	0.000E+00	2.060E+11	1.786E+03	5.300E+00	3.805E+00	2.556E+00
SI 31	0.000E+00	4.885E+10	3.750E+10	2.879E+10	2.046E+09	8.571E+07
P 32	0.000E+00	1.084E+11	1.082E+11	1.079E+11	1.058E+11	1.032E+11
V 52	0.000E+00	2.992E+11	4.564E+06	6.964E+01	0.000E+00	0.000E+00
MN 56	0.000E+00	4.172E+11	3.188E+11	2.437E+11	1.657E+10	6.585E+08
MO 99	0.000E+00	3.846E+11	3.806E+11	3.766E+11	3.390E+11	2.989E+11
AG110	0.000E+00	1.806E+11	9.665E+07	9.664E+07	9.653E+07	9.639E+07
CD115	0.000E+00	5.155E+11	5.088E+11	5.023E+11	4.412E+11	3.776E+11
CD115M	0.000E+00	2.944E+10	2.942E+10	2.940E+10	2.921E+10	2.899E+10
IN114	0.000E+00	6.906E+10	2.743E+10	2.741E+10	2.725E+10	2.706E+10
IN114M	0.000E+00	7.310E+10	7.306E+10	7.301E+10	7.259E+10	7.208E+10
IN115	8.334E-04	1.169E-04	1.169E-04	1.169E-04	1.169E-04	1.169E-04
IN116	0.000E+00	4.591E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	4.699E+11	2.180E+11	1.011E+11	4.671E+07	4.643E+03
SN117M	0.000E+00	5.496E+11	5.484E+11	5.473E+11	5.361E+11	5.230E+11
TB160	0.000E+00	1.090E+11	1.090E+11	1.089E+11	1.085E+11	1.080E+11
W187	0.000E+00	8.272E+10	8.036E+10	7.806E+10	5.841E+10	4.124E+10
RE188	0.000E+00	1.414E+11	1.380E+11	1.328E+11	8.915E+10	5.559E+10

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
C 15	0.000E+00	1.858E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	1.070E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	8.682E+10	8.290E+10	7.915E+10	4.986E+10	2.864E+10
P 32	0.000E+00	4.401E+10	4.392E+10	4.383E+10	4.296E+10	4.193E+10
CR 51	0.000E+00	5.502E+10	5.496E+10	5.491E+10	5.434E+10	5.366E+10
MN 56	0.000E+00	1.962E+11	1.500E+11	1.146E+11	7.795E+09	3.097E+08

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ZN 69M	0.000E+00	2.160E+11	2.053E+11	1.953E+11	1.180E+11	6.447E+10
MO 99	0.000E+00	1.014E+11	1.003E+11	9.925E+10	8.936E+10	7.878E+10
TC101	0.000E+00	2.033E+11	4.408E+10	4.288E+09	6.842E-03	1.380E-17
CD115	0.000E+00	3.347E+10	3.304E+10	3.261E+10	2.865E+10	2.452E+10
CD115M	0.000E+00	1.150E+10	1.149E+10	1.148E+10	1.141E+10	1.132E+10
IN114	0.000E+00	2.966E+10	1.178E+10	1.177E+10	1.170E+10	1.162E+10
IN115	4.850E-05	6.804E-06	6.804E-06	6.804E-06	6.804E-06	6.804E-06
IN116	0.000E+00	2.379E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	9.715E+12	4.507E+12	2.091E+12	9.657E+08	9.599E+04
SB125	0.000E+00	1.301E+10	1.301E+10	1.301E+10	1.302E+10	1.302E+10
TB160	0.000E+00	6.184E+09	6.181E+09	6.179E+09	6.154E+09	6.125E+09
W187	0.000E+00	1.596E+10	1.550E+10	1.506E+10	1.127E+10	7.956E+09
RE188	0.000E+00	2.047E+10	1.998E+10	1.923E+10	1.291E+10	8.049E+09

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	1.380E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	7.912E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CO 58	0.000E+00	1.758E+11	1.757E+11	1.757E+11	1.750E+11	1.741E+11
CU 64	0.000E+00	2.341E+11	2.217E+11	2.099E+11	1.216E+11	6.318E+10
ZN 65	0.000E+00	7.942E+10	7.941E+10	7.940E+10	7.930E+10	7.919E+10
AG110	0.000E+00	1.497E+11	8.012E+07	8.011E+07	8.002E+07	7.990E+07
AG110M	0.000E+00	1.013E+11	1.013E+11	1.013E+11	1.012E+11	1.010E+11
CD115	0.000E+00	4.351E+12	4.295E+12	4.240E+12	3.724E+12	3.188E+12
IN115	1.878E-09	2.635E-10	2.635E-10	2.635E-10	2.635E-10	2.635E-10
IN116	0.000E+00	1.425E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	3.604E+11	1.672E+11	7.756E+10	3.582E+07	3.561E+03
W187	0.000E+00	4.501E+12	4.372E+12	4.247E+12	3.178E+12	2.244E+12

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	4.043E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MN 54	0.000E+00	3.196E+10	3.196E+10	3.195E+10	3.192E+10	3.189E+10
MN 56	0.000E+00	6.822E+12	5.214E+12	3.985E+12	2.710E+11	1.077E+10
CO 58	0.000E+00	6.289E+11	6.286E+11	6.283E+11	6.258E+11	6.227E+11
MO 99	0.000E+00	8.572E+11	8.483E+11	8.394E+11	7.557E+11	6.662E+11
AG110M	0.000E+00	1.220E+11	1.220E+11	1.220E+11	1.219E+11	1.217E+11
IN114M	0.000E+00	2.075E+10	2.074E+10	2.072E+10	2.060E+10	2.046E+10
IN116	0.000E+00	5.976E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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IN116M	0.000E+00	3.459E+12	1.605E+12	7.446E+11	3.439E+08	3.418E+04
GD152	1.300E-11	1.123E-11	1.123E-11	1.123E-11	1.123E-11	1.123E-11
TB160	0.000E+00	1.762E+11	1.762E+11	1.761E+11	1.754E+11	1.745E+11
W187	0.000E+00	3.166E+11	3.075E+11	2.987E+11	2.235E+11	1.578E+11

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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
NA 24	0.000E+00	8.927E+12	8.524E+12	8.139E+12	5.127E+12	2.945E+12
V 52	0.000E+00	4.253E+12	6.488E+07	9.899E+02	0.000E+00	0.000E+00
CO 60	0.000E+00	5.910E+12	5.910E+12	5.910E+12	5.909E+12	5.908E+12
ZN 65	0.000E+00	1.384E+12	1.384E+12	1.383E+12	1.382E+12	1.380E+12
IN116	0.000E+00	7.797E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	3.950E+13	1.832E+13	8.501E+12	3.926E+09	3.902E+05
GD152	7.397E-12	6.389E-12	6.389E-12	6.389E-12	6.389E-12	6.389E-12

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	1.862E+11	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AL 28	0.000E+00	2.101E+12	1.822E+04	5.406E+01	3.881E+01	2.607E+01
MN 56	0.000E+00	1.941E+12	1.484E+12	1.134E+12	7.713E+10	3.064E+09
CO 58	0.000E+00	3.259E+09	3.258E+09	3.257E+09	3.244E+09	3.228E+09
AG110M	0.000E+00	9.516E+09	9.515E+09	9.514E+09	9.503E+09	9.490E+09
IN116	0.000E+00	7.678E+10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	0.000E+00	3.171E+12	1.471E+12	6.825E+11	3.152E+08	3.133E+04
SN125	0.000E+00	2.059E+08	2.053E+08	2.047E+08	1.987E+08	1.916E+08
EU156	0.000E+00	2.914E+08	2.908E+08	2.903E+08	2.848E+08	2.784E+08
GD152	3.706E-12	3.201E-12	3.201E-12	3.201E-12	3.201E-12	3.201E-12
RE188	0.000E+00	1.781E+09	1.738E+09	1.673E+09	1.123E+09	7.003E+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
N 16	0.000E+00	6.376E+10	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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CL 38	0.000E+00	8.934E+10	2.922E+10	9.560E+09	1.341E+05	2.011E-01
MN 56	0.000E+00	9.293E+11	7.103E+11	5.429E+11	3.692E+10	1.467E+09
IN116M	0.000E+00	4.209E+12	1.953E+12	9.059E+11	4.184E+08	4.159E+04
SN125	0.000E+00	1.687E+09	1.682E+09	1.677E+09	1.627E+09	1.570E+09
EU156	0.000E+00	4.811E+08	4.802E+08	4.793E+08	4.702E+08	4.596E+08
GD152	1.857E-12	1.604E-12	1.604E-12	1.604E-12	1.604E-12	1.604E-12

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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	8.910E+10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	8.190E+12	7.820E+12	7.467E+12	4.704E+12	2.702E+12
MN 56	0.000E+00	1.301E+11	9.944E+10	7.600E+10	5.169E+09	2.054E+08
GD152	9.305E-13	8.037E-13	8.037E-13	8.037E-13	8.037E-13	8.037E-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	4.393E+09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C 15	0.000E+00	1.000E+10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	6.403E+10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	5.610E+09	5.357E+09	5.115E+09	3.222E+09	1.851E+09
MN 56	0.000E+00	1.115E+10	8.524E+09	6.514E+09	4.431E+08	1.760E+07
GD152	6.852E-13	5.918E-13	5.918E-13	5.918E-13	5.918E-13	5.918E-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	2.064E+09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C 15	0.000E+00	3.195E+09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	2.394E+10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 24	0.000E+00	5.831E+07	5.568E+07	5.317E+07	3.349E+07	1.924E+07
GD152	2.040E-13	1.762E-13	1.762E-13	1.762E-13	1.762E-13	1.762E-13

PRINCIPAL PHOTON SOURCES IN GROUP 17, PHOTONS/SEC

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 MEAN ENERGY= 7.000MEV

NUCLIDE	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
N 16	0.000E+00	4.362E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD152	1.324E-14	1.143E-14	1.143E-14	1.143E-14	1.143E-14	1.143E-14
PO210	0.000E+00	3.730E-03	3.730E-03	3.730E-03	3.731E-03	3.732E-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	7.356E+07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	0.000E+00	4.468E+09	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD152	8.370E-16	7.230E-16	7.230E-16	7.230E-16	7.230E-16	7.230E-16
PO210	0.000E+00	2.359E-04	2.359E-04	2.359E-04	2.359E-04	2.360E-04

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12
 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

S/SECOND

BASIS=1 MTIHM 4.236% UO2, 19157 MWD/M

TIHM BURNUP, 1 CYCLE
 EMEAN

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
1.000E-02	1.545E+10	8.858E+17	6.480E+17	6.013E+17	5.256E+17	4.553E+17
2.500E-02	0.000E+00	3.892E+16	1.365E+16	9.248E+15	7.431E+15	6.471E+15
3.750E-02	3.094E+06	5.721E+16	1.419E+16	6.785E+15	4.650E+15	4.017E+15
5.750E-02	1.045E+08	5.107E+16	2.841E+16	2.436E+16	2.156E+16	1.942E+16
8.500E-02	2.643E+08	3.988E+17	1.571E+17	1.147E+17	9.405E+16	8.150E+16
1.250E-01	5.562E+08	3.160E+17	3.052E+17	3.003E+17	2.660E+17	2.302E+17
2.250E-01	1.847E+09	2.238E+17	2.128E+17	2.088E+17	1.848E+17	1.600E+17
3.750E-01	4.608E+06	2.430E+16	2.085E+16	2.004E+16	1.761E+16	1.523E+16
5.750E-01	2.671E+05	4.183E+15	9.166E+14	3.061E+14	8.980E+13	7.712E+13
8.500E-01	5.853E+04	7.550E+15	2.789E+15	1.887E+15	1.405E+15	1.192E+15

ML041000029.txt

1.250E+00	1.183E+04	1.151E+15	1.059E+15	1.025E+15	8.815E+14	7.484E+14
1.750E+00	5.789E+03	1.257E+12	1.049E+10	5.685E+09	3.477E+09	1.940E+09
2.250E+00	3.348E+03	9.023E+06	9.026E+06	9.028E+06	9.040E+06	9.043E+06
2.750E+00	1.942E+03	9.225E+06	9.227E+06	9.337E+06	9.234E+06	9.428E+06
3.500E+00	1.734E+03	4.684E+06	4.686E+06	4.687E+06	4.693E+06	4.695E+06
5.000E+00	7.432E+02	2.003E+06	2.004E+06	2.004E+06	2.007E+06	2.008E+06
7.000E+00	8.536E+01	2.302E+05	2.302E+05	2.303E+05	2.306E+05	2.307E+05
9.500E+00	9.801E+00	2.653E+04	2.654E+04	2.654E+04	2.658E+04	2.659E+04

TOTAL 1.823E+10 2.009E+18 1.405E+18 1.289E+18 1.124E+18 9.742E+17

MEV/SEC 6.702E+08 1.581E+17 1.204E+17 1.127E+17 9.863E+16 8.540E+16

18 GROUP SPECIFIC ENERGY RELEASE RATE

S, MEV/WATT-SEC

BASIS=1 MTIHM 4.236% UO2, 19157 MWD/M

TIHM BURNUP, 1 CYCLE

EMEAN

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
1.000E-02	1.545E+02	8.858E+09	6.480E+09	6.013E+09	5.256E+09	4.553E+09
2.500E-02	0.000E+00	9.730E+08	3.412E+08	2.312E+08	1.858E+08	1.618E+08
3.750E-02	1.160E-01	2.145E+09	5.321E+08	2.544E+08	1.744E+08	1.506E+08
5.750E-02	6.010E+00	2.936E+09	1.634E+09	1.401E+09	1.239E+09	1.116E+09
8.500E-02	2.247E+01	3.390E+10	1.335E+10	9.747E+09	7.994E+09	6.927E+09
1.250E-01	6.952E+01	3.949E+10	3.815E+10	3.754E+10	3.324E+10	2.878E+10
2.250E-01	4.155E+02	5.036E+10	4.788E+10	4.698E+10	4.159E+10	3.601E+10
3.750E-01	1.728E+00	9.113E+09	7.819E+09	7.514E+09	6.604E+09	5.711E+09
5.750E-01	1.536E-01	2.405E+09	5.271E+08	1.760E+08	5.164E+07	4.435E+07
8.500E-01	4.975E-02	6.417E+09	2.371E+09	1.604E+09	1.194E+09	1.014E+09
1.250E+00	1.479E-02	1.438E+09	1.324E+09	1.281E+09	1.102E+09	9.355E+08
1.750E+00	1.013E-02	2.201E+06	1.835E+04	9.949E+03	6.085E+03	3.394E+03
2.250E+00	7.533E-03	2.030E+01	2.031E+01	2.031E+01	2.034E+01	2.035E+01
2.750E+00	5.342E-03	2.537E+01	2.538E+01	2.568E+01	2.539E+01	2.593E+01
3.500E+00	6.068E-03	1.639E+01	1.640E+01	1.640E+01	1.643E+01	1.643E+01
5.000E+00	3.716E-03	1.002E+01	1.002E+01	1.002E+01	1.004E+01	1.004E+01
7.000E+00	5.975E-04	1.611E+00	1.612E+00	1.612E+00	1.614E+00	1.615E+00
9.500E+00	9.311E-05	2.520E-01	2.521E-01	2.522E-01	2.525E-01	2.526E-01

TOTAL 6.702E+02 1.581E+11 1.204E+11 1.127E+11 9.863E+10 8.540E+10

GAM POW 1.074E-04 2.534E+04 1.930E+04 1.807E+04 1.581E+04 1.369E+04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

PRINCIPAL PHOTON SOURCES IN GROUP 1, PHOTONS/SEC

ML041000029.txt
 MEAN ENERGY= 0.010MEV

NUCLIDE

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	1.207E+10	9.496E+09	9.496E+09	9.496E+09	9.496E+09	9.496E+09
U235	2.026E+09	1.139E+09	1.139E+09	1.139E+09	1.139E+09	1.139E+09
U237	0.000E+00	2.109E+16	2.100E+16	2.091E+16	2.003E+16	1.903E+16
U238	1.358E+09	1.342E+09	1.342E+09	1.342E+09	1.342E+09	1.342E+09
U239	0.000E+00	2.812E+17	4.803E+16	8.204E+15	1.734E+08	1.069E-01
NP239	0.000E+00	5.780E+17	5.743E+17	5.679E+17	5.024E+17	4.337E+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	7.830E+14	7.796E+14	7.763E+14	7.438E+14	7.066E+14
U239	0.000E+00	3.037E+16	5.188E+15	8.861E+14	1.873E+07	1.155E-02
NP238	0.000E+00	1.297E+14	1.279E+14	1.262E+14	1.101E+14	9.345E+13
NP239	0.000E+00	7.553E+15	7.504E+15	7.420E+15	6.565E+15	5.667E+15

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
U235	3.094E+06	1.739E+06	1.739E+06	1.739E+06	1.739E+06	1.739E+06
U237	0.000E+00	1.111E+14	1.107E+14	1.102E+14	1.056E+14	1.003E+14
U239	0.000E+00	5.181E+16	8.849E+15	1.511E+15	3.194E+07	1.970E-02
NP238	0.000E+00	8.743E+13	8.625E+13	8.508E+13	7.423E+13	6.302E+13
NP239	0.000E+00	5.131E+15	5.098E+15	5.041E+15	4.460E+15	3.850E+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
U234	9.673E+07	7.610E+07	7.610E+07	7.610E+07	7.610E+07	7.610E+07
U237	0.000E+00	9.901E+15	9.859E+15	9.817E+15	9.406E+15	8.935E+15
U238	7.181E+06	7.096E+06	7.096E+06	7.096E+06	7.096E+06	7.096E+06
U239	0.000E+00	2.712E+16	4.633E+15	7.913E+14	1.672E+07	1.031E-02
NP239	0.000E+00	1.386E+16	1.377E+16	1.361E+16	1.205E+16	1.040E+16

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OUTPUT UNIT =

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	1.485E+08	1.485E+08	1.485E+08	1.485E+08	1.485E+08
U237	0.000E+00	4.597E+15	4.577E+15	4.558E+15	4.367E+15	4.148E+15
U239	0.000E+00	2.906E+17	4.963E+16	8.478E+15	1.792E+08	1.105E-01
NP239	0.000E+00	1.030E+17	1.023E+17	1.012E+17	8.953E+16	7.728E+16

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	2.702E+07	2.702E+07	2.702E+07	2.702E+07	2.702E+07
U235	5.218E+08	2.933E+08	2.933E+08	2.933E+08	2.933E+08	2.933E+08
U237	0.000E+00	8.007E+15	7.973E+15	7.938E+15	7.606E+15	7.225E+15
U239	0.000E+00	1.056E+16	1.804E+15	3.081E+14	6.512E+06	4.016E-03
NP239	0.000E+00	2.971E+17	2.952E+17	2.919E+17	2.583E+17	2.229E+17

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	1.038E+09	1.038E+09	1.038E+09	1.038E+09	1.038E+09
U237	0.000E+00	6.037E+15	6.011E+15	5.985E+15	5.734E+15	5.447E+15
U239	0.000E+00	1.156E+16	1.975E+15	3.373E+14	7.129E+06	4.396E-03
NP239	0.000E+00	2.060E+17	2.047E+17	2.024E+17	1.791E+17	1.546E+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	2.590E+06	2.590E+06	2.590E+06	2.590E+06	2.590E+06
U237	0.000E+00	3.561E+14	3.546E+14	3.531E+14	3.383E+14	3.214E+14
U239	0.000E+00	3.918E+15	6.693E+14	1.143E+14	2.416E+06	1.490E-03
NP239	0.000E+00	1.985E+16	1.972E+16	1.950E+16	1.725E+16	1.489E+16

ML041000029.txt
 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	3.177E+04	3.177E+04	3.177E+04	3.177E+04	3.177E+04
U235	2.267E+05	1.274E+05	1.274E+05	1.274E+05	1.274E+05	1.274E+05
U239	0.000E+00	3.687E+15	6.298E+14	1.076E+14	2.274E+06	1.402E-03
NP238	0.000E+00	1.788E+13	1.764E+13	1.740E+13	1.518E+13	1.289E+13
NP239	0.000E+00	8.552E+13	8.497E+13	8.401E+13	7.433E+13	6.416E+13
NP240M	0.000E+00	4.325E+13	3.596E+11	1.945E+11	1.186E+11	6.575E+10
NP240	0.000E+00	3.483E+14	1.837E+14	9.688E+13	1.613E+11	7.469E+07

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

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	2.060E+03	2.060E+03	2.060E+03	2.060E+03	2.060E+03
U235	3.090E+04	1.737E+04	1.737E+04	1.737E+04	1.737E+04	1.737E+04
U238	2.501E+04	2.471E+04	2.471E+04	2.471E+04	2.471E+04	2.471E+04
U239	0.000E+00	5.462E+15	9.329E+14	1.593E+14	3.368E+06	2.077E-03
NP238	0.000E+00	1.654E+15	1.632E+15	1.610E+15	1.404E+15	1.192E+15
NP240	0.000E+00	4.254E+14	2.243E+14	1.183E+14	1.970E+11	9.122E+07

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	1.341E+02	1.341E+02	1.341E+02	1.341E+02	1.341E+02
U238	1.163E+04	1.150E+04	1.150E+04	1.150E+04	1.150E+04	1.150E+04
U239	0.000E+00	6.437E+13	1.099E+13	1.878E+12	3.969E+04	2.447E-05
NP238	0.000E+00	1.038E+15	1.024E+15	1.010E+15	8.815E+14	7.484E+14
NP240	0.000E+00	4.482E+13	2.364E+13	1.247E+13	2.076E+10	9.611E+06

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
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U234	8.528E+01	6.710E+01	6.710E+01	6.710E+01	6.710E+01	6.710E+01
U238	5.692E+03	5.625E+03	5.625E+03	5.625E+03	5.625E+03	5.625E+03
NP240M	0.000E+00	1.257E+12	1.046E+10	5.655E+09	3.449E+09	1.912E+09

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	3.372E+01	3.372E+01	3.372E+01	3.372E+01	3.372E+01
U238	3.299E+03	3.260E+03	3.260E+03	3.260E+03	3.260E+03	3.260E+03
PU240	0.000E+00	2.410E+05	2.410E+05	2.410E+05	2.410E+05	2.410E+05
CM242	0.000E+00	6.823E+06	6.825E+06	6.827E+06	6.839E+06	6.842E+06
CM244	0.000E+00	1.884E+06	1.885E+06	1.885E+06	1.885E+06	1.885E+06

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
TL208	0.000E+00	4.010E+06	4.012E+06	4.120E+06	4.010E+06	4.202E+06
U234	2.156E+01	1.697E+01	1.697E+01	1.697E+01	1.697E+01	1.697E+01
U238	1.917E+03	1.895E+03	1.895E+03	1.895E+03	1.895E+03	1.895E+03
PU240	0.000E+00	1.397E+05	1.397E+05	1.397E+05	1.397E+05	1.397E+05
CM242	0.000E+00	3.941E+06	3.942E+06	3.943E+06	3.950E+06	3.952E+06
CM244	0.000E+00	1.092E+06	1.092E+06	1.092E+06	1.092E+06	1.092E+06

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

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	1.695E+03	1.695E+03	1.695E+03	1.695E+03	1.695E+03
PU240	0.000E+00	1.249E+05	1.249E+05	1.249E+05	1.249E+05	1.249E+05
CM242	0.000E+00	3.539E+06	3.540E+06	3.541E+06	3.547E+06	3.549E+06
CM244	0.000E+00	9.835E+05	9.838E+05	9.838E+05	9.839E+05	9.839E+05

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	7.285E+02	7.285E+02	7.285E+02	7.285E+02	7.285E+02
PU240	0.000E+00	5.343E+04	5.343E+04	5.343E+04	5.343E+04	5.343E+04
CM242	0.000E+00	1.514E+06	1.515E+06	1.515E+06	1.518E+06	1.519E+06
CM244	0.000E+00	4.208E+05	4.209E+05	4.209E+05	4.209E+05	4.210E+05

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	8.391E+01	8.391E+01	8.391E+01	8.391E+01	8.391E+01
PU240	0.000E+00	6.129E+03	6.129E+03	6.129E+03	6.129E+03	6.129E+03
CM242	0.000E+00	1.739E+05	1.739E+05	1.740E+05	1.743E+05	1.744E+05
CM244	0.000E+00	4.853E+04	4.854E+04	4.855E+04	4.855E+04	4.855E+04

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	9.650E+00	9.650E+00	9.650E+00	9.650E+00	9.650E+00
PU240	0.000E+00	7.037E+02	7.037E+02	7.037E+02	7.037E+02	7.037E+02
CM242	0.000E+00	2.007E+04	2.007E+04	2.008E+04	2.011E+04	2.012E+04
CM244	0.000E+00	5.576E+03	5.577E+03	5.578E+03	5.578E+03	5.578E+03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

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 MTHM 4.236% UO2, 19157 MWD/M

TIHM BURNUP, 1 CYCLE

EMEAN

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
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ML041000029.txt

1.000E-02	0.000E+00	2.319E+18	7.115E+17	5.866E+17	3.402E+17	2.665E+17
2.500E-02	0.000E+00	5.954E+17	2.176E+17	1.844E+17	1.201E+17	9.914E+16
3.750E-02	0.000E+00	4.892E+17	2.123E+17	1.908E+17	1.439E+17	1.242E+17
5.750E-02	0.000E+00	4.987E+17	1.486E+17	1.238E+17	7.237E+16	5.625E+16
8.500E-02	0.000E+00	3.675E+17	1.262E+17	1.066E+17	7.238E+16	6.260E+16
1.250E-01	0.000E+00	3.911E+17	1.872E+17	1.648E+17	1.314E+17	1.179E+17
2.250E-01	0.000E+00	8.599E+17	2.742E+17	2.280E+17	1.531E+17	1.163E+17
3.750E-01	0.000E+00	5.915E+17	1.694E+17	1.226E+17	7.592E+16	6.610E+16
5.750E-01	0.000E+00	9.843E+17	5.296E+17	4.624E+17	3.169E+17	2.514E+17
8.500E-01	0.000E+00	1.070E+18	5.519E+17	4.468E+17	2.819E+17	2.464E+17
1.250E+00	0.000E+00	6.159E+17	2.269E+17	1.597E+17	5.000E+16	2.731E+16
1.750E+00	0.000E+00	2.256E+17	1.189E+17	1.016E+17	6.891E+16	6.298E+16
2.250E+00	0.000E+00	1.190E+17	4.637E+16	2.982E+16	4.115E+15	2.387E+15
2.750E+00	0.000E+00	5.118E+16	1.819E+16	1.116E+16	2.443E+15	2.287E+15
3.500E+00	0.000E+00	2.832E+16	4.581E+15	2.639E+15	5.838E+13	1.979E+13
5.000E+00	0.000E+00	1.393E+16	5.650E+13	3.750E+13	2.986E+12	1.594E+11
7.000E+00	0.000E+00	1.175E+14	1.698E-05	2.135E-06	2.135E-06	2.135E-06
9.500E+00	0.000E+00	2.389E+10	1.350E-07	1.350E-07	1.350E-07	1.350E-07
TOTAL	0.000E+00	9.220E+18	3.543E+18	2.922E+18	1.834E+18	1.502E+18
MEV/SEC	0.000E+00	3.799E+18	1.624E+18	1.282E+18	7.226E+17	5.941E+17

18 GROUP SPECIFIC ENERGY RELEASE RATE

S, MEV/WATT-SEC

BASIS=1 MTIHM 4.236% UO2, 19157 MWD/M

TIHM BURNUP, 1 CYCLE

EMEAN

	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
1.000E-02	0.000E+00	2.319E+10	7.115E+09	5.866E+09	3.402E+09	2.665E+09
2.500E-02	0.000E+00	1.488E+10	5.439E+09	4.610E+09	3.003E+09	2.478E+09
3.750E-02	0.000E+00	1.834E+10	7.961E+09	7.156E+09	5.396E+09	4.659E+09
5.750E-02	0.000E+00	2.868E+10	8.547E+09	7.121E+09	4.161E+09	3.234E+09
8.500E-02	0.000E+00	3.124E+10	1.072E+10	9.058E+09	6.152E+09	5.321E+09
1.250E-01	0.000E+00	4.888E+10	2.340E+10	2.060E+10	1.642E+10	1.473E+10
2.250E-01	0.000E+00	1.935E+11	6.170E+10	5.131E+10	3.444E+10	2.616E+10
3.750E-01	0.000E+00	2.218E+11	6.353E+10	4.599E+10	2.847E+10	2.479E+10
5.750E-01	0.000E+00	5.660E+11	3.045E+11	2.659E+11	1.822E+11	1.445E+11
8.500E-01	0.000E+00	9.093E+11	4.691E+11	3.798E+11	2.396E+11	2.095E+11
1.250E+00	0.000E+00	7.699E+11	2.836E+11	1.997E+11	6.251E+10	3.413E+10
1.750E+00	0.000E+00	3.949E+11	2.081E+11	1.777E+11	1.206E+11	1.102E+11
2.250E+00	0.000E+00	2.678E+11	1.043E+11	6.710E+10	9.260E+09	5.370E+09
2.750E+00	0.000E+00	1.407E+11	5.002E+10	3.068E+10	6.718E+09	6.288E+09
3.500E+00	0.000E+00	9.913E+10	1.603E+10	9.237E+09	2.043E+08	6.927E+07
5.000E+00	0.000E+00	6.965E+10	2.825E+08	1.875E+08	1.493E+07	7.972E+05
7.000E+00	0.000E+00	8.222E+08	1.188E-10	1.495E-11	1.495E-11	1.495E-11
9.500E+00	0.000E+00	2.270E+05	1.283E-12	1.283E-12	1.283E-12	1.283E-12

TOTAL 0.000E+00 3.799E+12 1.624E+12 1.282E+12 7.226E+11 5.941E+11

GAM POW 0.000E+00 6.089E+05 2.604E+05 2.055E+05 1.158E+05 9.524E+04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

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	1.789E+16	1.048E+16	6.077E+15	2.610E+13	3.763E+10
BR 88	0.000E+00	2.943E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 88	0.000E+00	1.036E+16	8.121E+15	6.362E+15	5.536E+14	2.956E+13
RB 88	0.000E+00	3.897E+16	3.330E+16	2.636E+16	2.297E+15	1.226E+14
KR 89	0.000E+00	3.249E+16	6.617E+10	1.327E+05	0.000E+00	0.000E+00
RB 89	0.000E+00	2.547E+16	2.067E+15	1.340E+14	1.755E+02	9.660E-13
SR 89	0.000E+00	1.561E+16	1.561E+16	1.560E+16	1.551E+16	1.540E+16
KR 90	0.000E+00	3.329E+16	9.928E-18	0.000E+00	0.000E+00	0.000E+00
RB 90	0.000E+00	4.436E+16	7.797E+10	4.470E+06	0.000E+00	0.000E+00
SR 91	0.000E+00	2.066E+16	1.924E+16	1.789E+16	8.624E+15	3.593E+15
Y 91	0.000E+00	2.027E+16	2.027E+16	2.027E+16	2.023E+16	2.015E+16
RB 92	0.000E+00	8.433E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 92	0.000E+00	4.853E+16	4.746E+16	4.487E+16	1.236E+16	1.537E+15
Y 93	0.000E+00	4.458E+16	4.214E+16	3.935E+16	1.981E+16	8.693E+15
RB 94	0.000E+00	3.600E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	6.259E+16	7.561E+15	8.569E+14	2.996E+05	1.345E-06
ZR 95	0.000E+00	4.507E+15	4.506E+15	4.504E+15	4.484E+15	4.459E+15
Y 96	0.000E+00	9.978E+16	1.425E+09	1.999E+01	0.000E+00	0.000E+00
ZR 97	0.000E+00	2.702E+16	2.594E+16	2.489E+16	1.652E+16	1.010E+16
NB 97	0.000E+00	1.830E+16	1.803E+16	1.756E+16	1.193E+16	6.835E+15
NB 98	0.000E+00	7.663E+16	9.227E-19	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	6.126E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 99	0.000E+00	2.033E+16	2.012E+16	1.991E+16	1.792E+16	1.580E+16
TC 99M	0.000E+00	7.058E+15	7.054E+15	7.043E+15	6.670E+15	5.992E+15
ZR101	0.000E+00	6.110E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	0.000E+00	1.108E+17	6.507E+15	3.784E+14	1.674E+02	2.505E-13
TC102	0.000E+00	5.288E+16	1.282E+15	3.025E+13	1.617E-03	0.000E+00
TC104	0.000E+00	3.988E+16	4.427E+15	4.505E+14	5.366E+04	6.619E-08
RH106	0.000E+00	9.376E+15	8.278E+15	8.278E+15	8.271E+15	8.264E+15
I131	0.000E+00	3.960E+15	3.957E+15	3.948E+15	3.827E+15	3.681E+15
I132	0.000E+00	1.541E+16	1.534E+16	1.526E+16	1.409E+16	1.268E+16
I133	0.000E+00	1.870E+16	1.836E+16	1.784E+16	1.284E+16	8.610E+15
XE133	0.000E+00	6.358E+15	6.357E+15	6.356E+15	6.296E+15	6.128E+15

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I134	0.000E+00	3.171E+16	2.262E+16	1.327E+16	9.151E+12	7.373E+08
TE135	0.000E+00	4.878E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	0.000E+00	1.538E+16	1.386E+16	1.248E+16	4.374E+15	1.243E+15
XE135	0.000E+00	4.197E+15	4.819E+15	5.292E+15	5.761E+15	3.464E+15
I136	0.000E+00	4.195E+16	4.363E+03	3.829E-10	0.000E+00	0.000E+00
I136M	0.000E+00	2.700E+16	7.456E-08	0.000E+00	0.000E+00	0.000E+00
XE137	0.000E+00	7.125E+16	1.451E+12	2.791E+07	0.000E+00	0.000E+00
I138	0.000E+00	3.194E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	0.000E+00	2.815E+16	1.499E+15	7.964E+13	1.428E+01	7.224E-15
CS138	0.000E+00	5.185E+16	2.253E+16	6.630E+15	1.656E+10	3.076E+03
XE139	0.000E+00	5.401E+16	1.999E-11	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	6.887E+16	8.728E+14	1.046E+13	6.379E-07	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 14:14:12

BA139	0.000E+00	3.770E+16	2.576E+16	1.561E+16	1.022E+14	2.447E+11
BA140	0.000E+00	1.752E+16	1.748E+16	1.744E+16	1.705E+16	1.659E+16
LA140	0.000E+00	2.253E+16	2.252E+16	2.251E+16	2.241E+16	2.221E+16
BA141	0.000E+00	3.393E+16	3.542E+15	3.635E+14	4.706E+04	6.415E-08
LA141	0.000E+00	3.661E+16	3.298E+16	2.788E+16	4.786E+15	5.767E+14
CE141	0.000E+00	6.366E+15	6.365E+15	6.364E+15	6.328E+15	6.264E+15
LA142	0.000E+00	3.188E+16	2.287E+16	1.466E+16	1.651E+14	7.581E+11
CE143	0.000E+00	1.764E+16	1.740E+16	1.704E+16	1.381E+16	1.073E+16
PR143	0.000E+00	1.142E+16	1.142E+16	1.142E+16	1.139E+16	1.130E+16
PR144	0.000E+00	3.015E+16	2.993E+16	2.991E+16	2.988E+16	2.984E+16
PR145	0.000E+00	1.686E+16	1.516E+16	1.350E+16	4.237E+15	1.055E+15
ND147	0.000E+00	4.556E+15	4.548E+15	4.536E+15	4.419E+15	4.283E+15
PM148	0.000E+00	3.700E+15	3.681E+15	3.661E+15	3.471E+15	3.255E+15
PM149	0.000E+00	4.271E+15	4.248E+15	4.215E+15	3.739E+15	3.197E+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
KR 87	0.000E+00	3.909E+15	2.291E+15	1.328E+15	5.704E+12	8.224E+09
BR 88	0.000E+00	6.627E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 88	0.000E+00	8.736E+15	7.465E+15	5.908E+15	5.149E+14	2.749E+13
KR 89	0.000E+00	7.078E+15	1.442E+10	2.891E+04	0.000E+00	0.000E+00
SR 89	0.000E+00	3.260E+15	3.259E+15	3.257E+15	3.238E+15	3.216E+15
KR 90	0.000E+00	6.578E+15	1.962E-18	0.000E+00	0.000E+00	0.000E+00
RB 90	0.000E+00	9.898E+15	1.740E+10	9.975E+05	0.000E+00	0.000E+00
SR 91	0.000E+00	4.371E+15	4.070E+15	3.784E+15	1.824E+15	7.600E+14
Y 91	0.000E+00	4.250E+15	4.250E+15	4.250E+15	4.242E+15	4.224E+15
RB 92	0.000E+00	1.919E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 92	0.000E+00	1.070E+16	1.046E+16	9.891E+15	2.724E+15	3.388E+14

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Y 93	0.000E+00	9.676E+15	9.145E+15	8.539E+15	4.299E+15	1.887E+15
RB 94	0.000E+00	8.246E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	1.390E+16	1.679E+15	1.902E+14	6.650E+04	2.986E-07
Y 96	0.000E+00	2.245E+16	3.206E+08	4.497E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	5.697E+15	5.468E+15	5.249E+15	3.483E+15	2.129E+15
NB 97	0.000E+00	3.739E+15	3.683E+15	3.588E+15	2.438E+15	1.396E+15
NB 98	0.000E+00	1.698E+16	2.044E-19	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	1.350E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 99	0.000E+00	3.652E+15	3.615E+15	3.577E+15	3.220E+15	2.839E+15
ZR101	0.000E+00	1.379E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC102	0.000E+00	1.168E+16	2.832E+14	6.682E+12	3.573E-04	0.000E+00
RH103M	0.000E+00	2.915E+15	2.914E+15	2.913E+15	2.894E+15	2.867E+15
TC104	0.000E+00	8.725E+15	9.687E+14	9.858E+13	1.174E+04	1.448E-08
RH105M	0.000E+00	2.887E+15	2.560E+15	2.190E+15	4.595E+14	7.055E+13
RH106	0.000E+00	2.061E+15	1.820E+15	1.820E+15	1.818E+15	1.817E+15
PD109	0.000E+00	2.566E+15	2.454E+15	2.331E+15	1.393E+15	7.509E+14
AG109M	0.000E+00	2.248E+15	2.152E+15	2.044E+15	1.222E+15	6.585E+14
TE129	0.000E+00	2.592E+15	2.495E+15	2.301E+15	7.131E+14	3.169E+14
SN130	0.000E+00	6.932E+15	9.669E+10	1.349E+06	0.000E+00	0.000E+00
TE131	0.000E+00	6.781E+15	3.278E+15	1.103E+15	1.833E+14	1.389E+14

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

I131	0.000E+00	2.438E+15	2.436E+15	2.431E+15	2.356E+15	2.266E+15
SB132M	0.000E+00	6.064E+15	3.036E+11	1.520E+07	0.000E+00	0.000E+00
TE132	0.000E+00	3.449E+16	3.420E+16	3.389E+16	3.102E+16	2.789E+16
I132	0.000E+00	3.674E+15	3.658E+15	3.638E+15	3.360E+15	3.023E+15
I133	0.000E+00	3.817E+15	3.748E+15	3.643E+15	2.622E+15	1.758E+15
XE133M	0.000E+00	1.298E+15	1.297E+15	1.296E+15	1.258E+15	1.175E+15
TE134	0.000E+00	2.105E+16	7.785E+15	2.879E+15	1.375E+11	8.974E+05
I134	0.000E+00	7.584E+15	5.411E+15	3.175E+15	2.189E+12	1.763E+08
TE135	0.000E+00	1.093E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	0.000E+00	3.120E+15	2.811E+15	2.531E+15	8.871E+14	2.521E+14
I136	0.000E+00	9.352E+15	9.728E+02	8.537E-11	0.000E+00	0.000E+00
I136M	0.000E+00	7.744E+15	2.139E-08	0.000E+00	0.000E+00	0.000E+00
XE137	0.000E+00	1.574E+16	3.206E+11	6.167E+06	0.000E+00	0.000E+00
I138	0.000E+00	7.277E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS138	0.000E+00	1.129E+16	4.905E+15	1.443E+15	3.605E+09	6.696E+02
XE139	0.000E+00	1.196E+16	4.424E-12	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	1.525E+16	1.933E+14	2.316E+12	1.413E-07	0.000E+00
BA139	0.000E+00	7.992E+15	5.461E+15	3.310E+15	2.167E+13	5.189E+10
BA140	0.000E+00	1.397E+16	1.394E+16	1.391E+16	1.360E+16	1.324E+16
LA140	0.000E+00	4.671E+15	4.670E+15	4.668E+15	4.647E+15	4.605E+15
BA141	0.000E+00	7.225E+15	7.542E+14	7.739E+13	1.002E+04	1.366E-08
LA141	0.000E+00	7.840E+15	7.063E+15	5.971E+15	1.025E+15	1.235E+14
CE141	0.000E+00	1.015E+15	1.015E+15	1.015E+15	1.009E+15	9.987E+14
LA142	0.000E+00	6.831E+15	4.902E+15	3.141E+15	3.537E+13	1.625E+11

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CE143	0.000E+00	2.998E+15	2.956E+15	2.896E+15	2.347E+15	1.824E+15
PR143	0.000E+00	2.283E+15	2.283E+15	2.283E+15	2.277E+15	2.260E+15
PR144	0.000E+00	6.550E+15	6.503E+15	6.498E+15	6.491E+15	6.483E+15
PR145	0.000E+00	3.547E+15	3.190E+15	2.841E+15	8.914E+14	2.219E+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	5.943E+15	5.079E+15	4.019E+15	3.503E+14	1.870E+13
SR 89	0.000E+00	2.125E+15	2.124E+15	2.123E+15	2.110E+15	2.096E+15
RB 90	0.000E+00	6.736E+15	1.184E+10	6.788E+05	0.000E+00	0.000E+00
SR 91	0.000E+00	2.872E+15	2.674E+15	2.486E+15	1.198E+15	4.993E+14
Y 91	0.000E+00	2.776E+15	2.776E+15	2.775E+15	2.770E+15	2.758E+15
RB 92	0.000E+00	1.317E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 92	0.000E+00	7.150E+15	6.992E+15	6.611E+15	1.821E+15	2.265E+14
Y 93	0.000E+00	6.450E+15	6.097E+15	5.693E+15	2.866E+15	1.258E+15
RB 94	0.000E+00	5.675E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	9.389E+15	1.134E+15	1.285E+14	4.493E+04	2.018E-07
Y 96	0.000E+00	1.534E+16	2.191E+08	3.073E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	3.737E+15	3.587E+15	3.443E+15	2.285E+15	1.397E+15
NB 97	0.000E+00	2.414E+15	2.378E+15	2.317E+15	1.574E+15	9.015E+14
NB 98	0.000E+00	1.149E+16	1.384E-19	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	9.112E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 99	0.000E+00	2.972E+15	2.942E+15	2.911E+15	2.621E+15	2.310E+15
ZR101	0.000E+00	9.433E+15	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 14:14:12

TC102	0.000E+00	7.864E+15	1.906E+14	4.498E+12	2.405E-04	0.000E+00
TC104	0.000E+00	5.843E+15	6.488E+14	6.602E+13	7.863E+03	9.699E-09
TE132	0.000E+00	6.002E+15	5.952E+15	5.899E+15	5.399E+15	4.854E+15
I132	0.000E+00	2.154E+15	2.145E+15	2.133E+15	1.970E+15	1.772E+15
I133	0.000E+00	2.452E+15	2.408E+15	2.340E+15	1.684E+15	1.129E+15
XE133	0.000E+00	3.101E+16	3.101E+16	3.101E+16	3.071E+16	2.989E+16
I134	0.000E+00	4.508E+15	3.216E+15	1.887E+15	1.301E+12	1.048E+08
TE135	0.000E+00	7.438E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE135	0.000E+00	1.507E+15	1.731E+15	1.900E+15	2.069E+15	1.244E+15
I136	0.000E+00	6.361E+15	6.617E+02	5.807E-11	0.000E+00	0.000E+00
XE137	0.000E+00	1.086E+16	2.211E+11	4.253E+06	0.000E+00	0.000E+00
I138	0.000E+00	4.974E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	0.000E+00	5.618E+15	2.991E+14	1.589E+13	2.848E+00	1.441E-15
CS138	0.000E+00	7.574E+15	3.291E+15	9.685E+14	2.419E+09	4.493E+02
XE139	0.000E+00	8.076E+15	2.988E-12	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	1.028E+16	1.303E+14	1.561E+12	9.524E-08	0.000E+00

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BA139	0.000E+00	8.063E+15	5.509E+15	3.339E+15	2.186E+13	5.235E+10
BA140	0.000E+00	2.420E+15	2.414E+15	2.409E+15	2.355E+15	2.292E+15
LA140	0.000E+00	4.056E+15	4.055E+15	4.054E+15	4.035E+15	3.999E+15
BA141	0.000E+00	8.580E+15	8.956E+14	9.190E+13	1.190E+04	1.622E-08
LA141	0.000E+00	5.216E+15	4.699E+15	3.973E+15	6.819E+14	8.216E+13
CE141	0.000E+00	1.166E+16	1.166E+16	1.166E+16	1.159E+16	1.148E+16
BA142	0.000E+00	1.306E+16	2.683E+14	5.503E+12	7.251E-05	3.845E-25
LA142	0.000E+00	4.668E+15	3.349E+15	2.146E+15	2.417E+13	1.110E+11
CE143	0.000E+00	3.936E+16	3.880E+16	3.801E+16	3.081E+16	2.395E+16
PR143	0.000E+00	1.449E+15	1.449E+15	1.449E+15	1.445E+15	1.434E+15
CE144	0.000E+00	4.499E+15	4.499E+15	4.498E+15	4.494E+15	4.488E+15
PR144	0.000E+00	4.367E+15	4.335E+15	4.332E+15	4.327E+15	4.322E+15
CE145	0.000E+00	2.356E+16	2.698E+10	2.573E+04	0.000E+00	0.000E+00
PR145	0.000E+00	2.602E+15	2.340E+15	2.084E+15	6.539E+14	1.627E+14
ND147	0.000E+00	1.250E+16	1.248E+16	1.244E+16	1.212E+16	1.175E+16
ND149	0.000E+00	5.177E+15	3.545E+15	2.374E+15	4.320E+13	3.527E+11
SM153	0.000E+00	5.240E+15	5.166E+15	5.090E+15	4.388E+15	3.672E+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	3.932E+15	2.304E+15	1.336E+15	5.737E+12	8.272E+09
BR 88	0.000E+00	6.945E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 88	0.000E+00	9.028E+15	7.715E+15	6.106E+15	5.321E+14	2.841E+13
KR 89	0.000E+00	7.118E+15	1.450E+10	2.908E+04	0.000E+00	0.000E+00
RB 89	0.000E+00	5.455E+15	4.427E+14	2.869E+13	3.759E+01	2.069E-13
SR 89	0.000E+00	3.038E+15	3.037E+15	3.035E+15	3.018E+15	2.997E+15
KR 90	0.000E+00	6.578E+15	1.962E-18	0.000E+00	0.000E+00	0.000E+00
RB 90	0.000E+00	1.023E+16	1.798E+10	1.031E+06	0.000E+00	0.000E+00
SR 91	0.000E+00	4.159E+15	3.873E+15	3.601E+15	1.736E+15	7.232E+14
Y 91	0.000E+00	3.971E+15	3.971E+15	3.971E+15	3.963E+15	3.946E+15
RB 92	0.000E+00	2.035E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 92	0.000E+00	1.075E+16	1.052E+16	9.943E+15	2.738E+15	3.406E+14

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

Y 93	0.000E+00	9.612E+15	9.085E+15	8.483E+15	4.271E+15	1.874E+15
RB 94	0.000E+00	8.810E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	1.415E+16	1.709E+15	1.937E+14	6.770E+04	3.040E-07
Y 96	0.000E+00	2.351E+16	3.357E+08	4.710E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	5.404E+15	5.187E+15	4.979E+15	3.304E+15	2.020E+15
NB 97	0.000E+00	3.398E+15	3.347E+15	3.261E+15	2.215E+15	1.269E+15
NB 98	0.000E+00	1.744E+16	2.100E-19	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	1.363E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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MO 99	0.000E+00	2.930E+15	2.900E+15	2.870E+15	2.584E+15	2.278E+15
ZR101	0.000E+00	1.444E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC102	0.000E+00	1.180E+16	2.860E+14	6.747E+12	3.608E-04	0.000E+00
TC104	0.000E+00	8.804E+15	9.775E+14	9.948E+13	1.185E+04	1.461E-08
RH106	0.000E+00	2.061E+15	1.820E+15	1.820E+15	1.818E+15	1.817E+15
SN130	0.000E+00	6.027E+15	8.407E+10	1.173E+06	0.000E+00	0.000E+00
TE132	0.000E+00	6.687E+15	6.631E+15	6.572E+15	6.015E+15	5.408E+15
I132	0.000E+00	2.938E+15	2.925E+15	2.909E+15	2.687E+15	2.417E+15
I133	0.000E+00	3.429E+15	3.367E+15	3.273E+15	2.356E+15	1.579E+15
I134	0.000E+00	6.239E+15	4.451E+15	2.612E+15	1.801E+12	1.451E+08
TE135	0.000E+00	1.138E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	0.000E+00	2.774E+15	2.498E+15	2.250E+15	7.885E+14	2.241E+14
XE135	0.000E+00	7.096E+14	8.147E+14	8.946E+14	9.740E+14	5.857E+14
I136	0.000E+00	9.627E+15	1.001E+03	8.788E-11	0.000E+00	0.000E+00
I136M	0.000E+00	6.237E+15	1.722E-08	0.000E+00	0.000E+00	0.000E+00
XE137	0.000E+00	1.608E+16	3.275E+11	6.300E+06	0.000E+00	0.000E+00
I138	0.000E+00	7.679E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	0.000E+00	5.273E+15	2.807E+14	1.492E+13	2.674E+00	1.353E-15
CS138	0.000E+00	1.122E+16	4.874E+15	1.434E+15	3.582E+09	6.653E+02
XE139	0.000E+00	1.222E+16	4.522E-12	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	1.553E+16	1.968E+14	2.358E+12	1.438E-07	0.000E+00
BA139	0.000E+00	7.780E+15	5.316E+15	3.222E+15	2.109E+13	5.051E+10
BA140	0.000E+00	1.997E+15	1.993E+15	1.988E+15	1.944E+15	1.892E+15
LA140	0.000E+00	4.381E+15	4.380E+15	4.378E+15	4.358E+15	4.319E+15
BA141	0.000E+00	6.967E+15	7.273E+14	7.463E+13	9.662E+03	1.317E-08
LA141	0.000E+00	7.645E+15	6.888E+15	5.823E+15	9.995E+14	1.204E+14
CE141	0.000E+00	7.578E+14	7.578E+14	7.576E+14	7.533E+14	7.457E+14
LA142	0.000E+00	6.641E+15	4.765E+15	3.053E+15	3.439E+13	1.579E+11
CE143	0.000E+00	9.871E+15	9.732E+15	9.533E+15	7.727E+15	6.005E+15
PR143	0.000E+00	1.977E+15	1.977E+15	1.976E+15	1.971E+15	1.956E+15
PR144	0.000E+00	6.508E+15	6.461E+15	6.457E+15	6.450E+15	6.442E+15
CE145	0.000E+00	9.156E+15	1.049E+10	1.000E+04	0.000E+00	0.000E+00
PR145	0.000E+00	3.368E+15	3.029E+15	2.697E+15	8.464E+14	2.107E+14
PM148	0.000E+00	7.538E+14	7.498E+14	7.458E+14	7.070E+14	6.631E+14
PM149	0.000E+00	7.696E+14	7.655E+14	7.595E+14	6.737E+14	5.761E+14
SM153	0.000E+00	1.759E+15	1.735E+15	1.709E+15	1.473E+15	1.233E+15

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

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

KR 87 0.000E+00 2.523E+15 1.478E+15 8.572E+14 3.681E+12 5.308E+09

ML041000029.txt

BR 88	0.000E+00	4.595E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 88	0.000E+00	5.910E+15	5.051E+15	3.997E+15	3.483E+14	1.860E+13
KR 89	0.000E+00	4.573E+15	9.313E+09	1.868E+04	0.000E+00	0.000E+00
SR 89	0.000E+00	1.818E+15	1.818E+15	1.817E+15	1.806E+15	1.794E+15
KR 90	0.000E+00	4.175E+15	1.245E-18	0.000E+00	0.000E+00	0.000E+00
RB 90	0.000E+00	6.695E+15	1.177E+10	6.746E+05	0.000E+00	0.000E+00
SR 91	0.000E+00	2.538E+15	2.363E+15	2.197E+15	1.059E+15	4.413E+14
Y 91	0.000E+00	2.385E+15	2.385E+15	2.385E+15	2.380E+15	2.370E+15
RB 92	0.000E+00	1.364E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 92	0.000E+00	6.925E+15	6.772E+15	6.403E+15	1.763E+15	2.194E+14
Y 93	0.000E+00	6.077E+15	5.744E+15	5.363E+15	2.700E+15	1.185E+15
RB 94	0.000E+00	5.940E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	9.138E+15	1.104E+15	1.251E+14	4.374E+04	1.964E-07
Y 96	0.000E+00	1.559E+16	2.226E+08	3.123E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	3.295E+15	3.162E+15	3.035E+15	2.014E+15	1.231E+15
NB 97	0.000E+00	1.981E+15	1.951E+15	1.901E+15	1.292E+15	7.398E+14
NB 98	0.000E+00	1.136E+16	1.368E-19	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	8.779E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 99	0.000E+00	1.690E+15	1.672E+15	1.655E+15	1.490E+15	1.313E+15
ZR101	0.000E+00	9.585E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	0.000E+00	4.550E+15	2.673E+14	1.554E+13	6.876E+00	1.029E-14
TC102	0.000E+00	7.579E+15	1.837E+14	4.335E+12	2.318E-04	0.000E+00
TC104	0.000E+00	5.685E+15	6.312E+14	6.424E+13	7.651E+03	9.437E-09
RH106	0.000E+00	1.322E+15	1.167E+15	1.167E+15	1.166E+15	1.165E+15
I131	0.000E+00	1.199E+15	1.198E+15	1.195E+15	1.159E+15	1.114E+15
I132	0.000E+00	1.738E+15	1.731E+15	1.721E+15	1.590E+15	1.430E+15
TE133M	0.000E+00	4.212E+15	1.990E+15	9.392E+14	5.158E+11	6.312E+07
I133	0.000E+00	1.978E+15	1.943E+15	1.888E+15	1.359E+15	9.110E+14
XE133	0.000E+00	2.776E+16	2.776E+16	2.775E+16	2.749E+16	2.675E+16
TE134	0.000E+00	1.433E+16	5.299E+15	1.959E+15	9.356E+10	6.108E+05
I134	0.000E+00	3.762E+15	2.684E+15	1.575E+15	1.086E+12	8.748E+07
TE135	0.000E+00	7.507E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	0.000E+00	1.589E+15	1.431E+15	1.289E+15	4.517E+14	1.284E+14
I136	0.000E+00	6.327E+15	6.581E+02	5.775E-11	0.000E+00	0.000E+00
I136M	0.000E+00	4.081E+15	1.127E-08	0.000E+00	0.000E+00	0.000E+00
XE137	0.000E+00	1.045E+16	2.128E+11	4.093E+06	0.000E+00	0.000E+00
I138	0.000E+00	5.131E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS138	0.000E+00	7.101E+15	3.086E+15	9.079E+14	2.268E+09	4.212E+02
XE139	0.000E+00	8.023E+15	2.969E-12	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	1.007E+16	1.277E+14	1.530E+12	9.332E-08	0.000E+00
BA139	0.000E+00	4.817E+15	3.291E+15	1.995E+15	1.306E+13	3.127E+10
BA140	0.000E+00	1.104E+15	1.102E+15	1.099E+15	1.075E+15	1.046E+15
LA140	0.000E+00	2.577E+15	2.577E+15	2.576E+15	2.564E+15	2.541E+15
BA141	0.000E+00	4.329E+15	4.518E+14	4.637E+13	6.003E+03	8.184E-09

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03

at 14:14:12

ML041000029.txt

LA141	0.000E+00	4.775E+15	4.302E+15	3.637E+15	6.243E+14	7.522E+13
BA142	0.000E+00	8.481E+15	1.742E+14	3.573E+12	4.708E-05	2.497E-25
LA142	0.000E+00	4.137E+15	2.968E+15	1.902E+15	2.142E+13	9.837E+10
CE143	0.000E+00	1.548E+15	1.527E+15	1.495E+15	1.212E+15	9.421E+14
PR143	0.000E+00	1.099E+15	1.099E+15	1.099E+15	1.096E+15	1.087E+15
CE144	0.000E+00	1.033E+15	1.033E+15	1.033E+15	1.032E+15	1.031E+15
PR144	0.000E+00	4.127E+15	4.098E+15	4.095E+15	4.090E+15	4.085E+15
PR145	0.000E+00	2.106E+15	1.894E+15	1.687E+15	5.294E+14	1.318E+14
ND147	0.000E+00	7.916E+15	7.902E+15	7.882E+15	7.679E+15	7.442E+15

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	4.189E+15	3.580E+15	2.833E+15	2.469E+14	1.318E+13
KR 90	0.000E+00	1.670E+16	4.981E-18	0.000E+00	0.000E+00	0.000E+00
RB 90	0.000E+00	4.723E+15	8.303E+09	4.760E+05	0.000E+00	0.000E+00
Y 91	0.000E+00	1.536E+15	1.536E+15	1.536E+15	1.533E+15	1.526E+15
KR 92	0.000E+00	7.321E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 92	0.000E+00	9.810E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 92	0.000E+00	4.780E+15	4.674E+15	4.420E+15	1.217E+15	1.514E+14
Y 93	0.000E+00	4.142E+15	3.915E+15	3.656E+15	1.840E+15	8.077E+14
RB 94	0.000E+00	4.297E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	6.384E+15	7.712E+14	8.740E+13	3.056E+04	1.372E-07
Y 96	0.000E+00	1.110E+16	1.585E+08	2.224E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	2.188E+15	2.100E+15	2.015E+15	1.337E+15	8.175E+14
NB 98	0.000E+00	7.993E+15	9.625E-20	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	6.079E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 99	0.000E+00	4.935E+15	4.884E+15	4.833E+15	4.351E+15	3.836E+15
TC 99M	0.000E+00	6.138E+16	6.134E+16	6.124E+16	5.800E+16	5.211E+16
ZR101	0.000E+00	6.836E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC102	0.000E+00	5.266E+15	1.276E+14	3.012E+12	1.610E-04	0.000E+00
TC104	0.000E+00	4.027E+15	4.471E+14	4.550E+13	5.419E+03	6.684E-09
TE131	0.000E+00	2.800E+16	1.354E+16	4.554E+15	7.571E+14	5.738E+14
SB132M	0.000E+00	4.483E+15	2.244E+11	1.124E+07	0.000E+00	0.000E+00
TE132	0.000E+00	1.832E+15	1.817E+15	1.801E+15	1.648E+15	1.482E+15
I134	0.000E+00	6.581E+15	4.696E+15	2.755E+15	1.900E+12	1.530E+08
TE135	0.000E+00	5.293E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I136	0.000E+00	4.436E+15	4.614E+02	4.049E-11	0.000E+00	0.000E+00
XE137	0.000E+00	7.260E+15	1.479E+11	2.844E+06	0.000E+00	0.000E+00
CS138	0.000E+00	6.125E+15	2.661E+15	7.831E+14	1.956E+09	3.633E+02
XE139	0.000E+00	5.873E+15	2.173E-12	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	6.969E+15	8.833E+13	1.058E+12	6.456E-08	0.000E+00
BA139	0.000E+00	3.218E+15	2.199E+15	1.333E+15	8.725E+12	2.089E+10
LA140	0.000E+00	2.114E+15	2.114E+15	2.113E+15	2.104E+15	2.085E+15
LA141	0.000E+00	3.201E+15	2.883E+15	2.438E+15	4.184E+14	5.042E+13

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CE141	0.000E+00	3.697E+16	3.697E+16	3.696E+16	3.675E+16	3.638E+16
LA142	0.000E+00	2.859E+15	2.051E+15	1.314E+15	1.480E+13	6.799E+10
CE144	0.000E+00	4.833E+15	4.832E+15	4.832E+15	4.827E+15	4.821E+15
PR144	0.000E+00	2.817E+15	2.797E+15	2.795E+15	2.792E+15	2.789E+15

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ORIGEN2	V2.2	(5-4-2002)	Run on	04/29/03	at	14:14:12
ND149	0.000E+00	2.789E+15	1.909E+15	1.279E+15	2.327E+13	1.900E+11
SM153	0.000E+00	2.282E+15	2.250E+15	2.217E+15	1.911E+15	1.599E+15

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	5.952E+15	5.161E+15	4.421E+15	9.413E+14	1.471E+14
KR 88	0.000E+00	8.721E+15	6.839E+15	5.357E+15	4.662E+14	2.490E+13
RB 88	0.000E+00	6.560E+15	5.606E+15	4.437E+15	3.866E+14	2.065E+13
KR 89	0.000E+00	1.364E+16	2.778E+10	5.572E+04	0.000E+00	0.000E+00
SR 89	0.000E+00	1.499E+15	1.499E+15	1.498E+15	1.489E+15	1.479E+15
KR 90	0.000E+00	1.012E+16	3.019E-18	0.000E+00	0.000E+00	0.000E+00
SR 91	0.000E+00	3.370E+15	3.138E+15	2.917E+15	1.406E+15	5.859E+14
Y 91	0.000E+00	1.988E+15	1.988E+15	1.988E+15	1.984E+15	1.976E+15
RB 92	0.000E+00	1.596E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 92	0.000E+00	7.206E+15	7.047E+15	6.663E+15	1.835E+15	2.283E+14
Y 93	0.000E+00	1.113E+16	1.052E+16	9.822E+15	4.945E+15	2.170E+15
Y 94	0.000E+00	9.764E+15	1.179E+15	1.337E+14	4.673E+04	2.098E-07
Y 96	0.000E+00	1.777E+16	2.538E+08	3.560E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	4.245E+15	4.075E+15	3.911E+15	2.595E+15	1.586E+15
NB 98	0.000E+00	1.235E+16	1.487E-19	0.000E+00	0.000E+00	0.000E+00
NB 99	0.000E+00	9.179E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 99	0.000E+00	4.655E+15	4.607E+15	4.559E+15	4.104E+15	3.618E+15
ZR101	0.000E+00	6.072E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	0.000E+00	1.377E+16	8.087E+14	4.703E+13	2.081E+01	3.113E-14
RU105	0.000E+00	3.214E+15	2.842E+15	2.432E+15	5.102E+14	7.833E+13
RH106	0.000E+00	1.355E+15	1.197E+15	1.197E+15	1.196E+15	1.195E+15
SN130	0.000E+00	1.098E+16	1.532E+11	2.138E+06	0.000E+00	0.000E+00
I131	0.000E+00	3.032E+15	3.030E+15	3.023E+15	2.930E+15	2.819E+15
TE132	0.000E+00	4.707E+16	4.667E+16	4.626E+16	4.234E+16	3.807E+16
I132	0.000E+00	3.029E+15	3.016E+15	2.999E+15	2.770E+15	2.492E+15
TE133M	0.000E+00	1.101E+16	5.202E+15	2.455E+15	1.348E+12	1.650E+08
TE134	0.000E+00	4.922E+16	1.821E+16	6.732E+15	3.215E+11	2.099E+06
I134	0.000E+00	6.033E+15	4.304E+15	2.526E+15	1.741E+12	1.403E+08
TE135	0.000E+00	1.339E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	0.000E+00	5.930E+15	5.342E+15	4.810E+15	1.686E+15	4.791E+14
XE135	0.000E+00	2.342E+16	2.689E+16	2.953E+16	3.215E+16	1.933E+16

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I136M	0.000E+00	1.760E+16	4.861E-08	0.000E+00	0.000E+00	0.000E+00
XE137	0.000E+00	1.126E+16	2.294E+11	4.412E+06	0.000E+00	0.000E+00
XE138	0.000E+00	3.246E+16	1.728E+15	9.182E+13	1.646E+01	8.329E-15
CS138	0.000E+00	8.812E+15	3.829E+15	1.127E+15	2.814E+09	5.227E+02
XE139	0.000E+00	6.607E+16	2.445E-11	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	1.076E+16	1.364E+14	1.635E+12	9.971E-08	0.000E+00
BA139	0.000E+00	1.598E+16	1.092E+16	6.620E+15	4.334E+13	1.038E+11
BA140	0.000E+00	3.469E+15	3.461E+15	3.454E+15	3.377E+15	3.286E+15
LA140	0.000E+00	2.826E+15	2.825E+15	2.825E+15	2.812E+15	2.786E+15
BA141	0.000E+00	4.825E+16	5.037E+15	5.169E+14	6.692E+04	9.123E-08
LA141	0.000E+00	4.516E+15	4.068E+15	3.440E+15	5.904E+14	7.114E+13
BA142	0.000E+00	2.637E+16	5.416E+14	1.111E+13	1.464E-04	7.764E-25

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LA142	0.000E+00	3.966E+15	2.846E+15	1.823E+15	2.054E+13	9.431E+10
CE143	0.000E+00	3.732E+16	3.680E+16	3.605E+16	2.922E+16	2.271E+16
PR144	0.000E+00	4.115E+15	4.085E+15	4.082E+15	4.078E+15	4.073E+15
ND149	0.000E+00	9.512E+15	6.512E+15	4.363E+15	7.938E+13	6.480E+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	1.341E+16	7.858E+15	4.556E+15	1.956E+13	2.821E+10
RB 88	0.000E+00	3.670E+15	3.136E+15	2.482E+15	2.163E+14	1.155E+13
KR 89	0.000E+00	7.198E+15	1.466E+10	2.940E+04	0.000E+00	0.000E+00
Y 91	0.000E+00	7.763E+14	7.763E+14	7.762E+14	7.748E+14	7.715E+14
RB 92	0.000E+00	9.595E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 92	0.000E+00	2.199E+15	1.704E+15	1.319E+15	1.022E+14	4.748E+12
Y 92	0.000E+00	5.304E+15	5.187E+15	4.904E+15	1.351E+15	1.680E+14
Y 93	0.000E+00	2.979E+15	2.815E+15	2.629E+15	1.323E+15	5.808E+14
Y 94	0.000E+00	6.635E+15	8.015E+14	9.083E+13	3.175E+04	1.426E-07
Y 96	0.000E+00	1.023E+16	1.460E+08	2.049E+00	0.000E+00	0.000E+00
ZR 97	0.000E+00	2.904E+15	2.787E+15	2.675E+15	1.775E+15	1.085E+15
NB 98	0.000E+00	6.804E+15	8.193E-20	0.000E+00	0.000E+00	0.000E+00
MO 99	0.000E+00	1.227E+15	1.214E+15	1.201E+15	1.082E+15	9.536E+14
ZR101	0.000E+00	1.241E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC101	0.000E+00	4.582E+16	1.001E+16	9.746E+14	1.557E+03	3.141E-12
TC104	0.000E+00	3.802E+16	4.221E+15	4.296E+14	5.116E+04	6.311E-08
RU105	0.000E+00	6.338E+15	5.603E+15	4.794E+15	1.006E+15	1.544E+14
RH105	0.000E+00	5.862E+15	5.864E+15	5.849E+15	5.224E+15	4.220E+15
RH107	0.000E+00	1.258E+16	2.333E+15	3.433E+14	1.630E+06	1.675E-04
RH108	0.000E+00	6.050E+15	6.262E+11	6.067E+07	0.000E+00	0.000E+00
SB128M	0.000E+00	5.111E+15	2.843E+15	1.411E+15	1.225E+12	2.598E+08

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I131	0.000E+00	2.911E+16	2.909E+16	2.903E+16	2.813E+16	2.706E+16
I132	0.000E+00	2.144E+15	2.134E+15	2.123E+15	1.960E+15	1.764E+15
TE133	0.000E+00	4.289E+16	3.796E+15	1.123E+15	5.869E+11	7.183E+07
TE133M	0.000E+00	6.107E+15	2.885E+15	1.362E+15	7.479E+11	9.153E+07
I133	0.000E+00	1.148E+15	1.128E+15	1.096E+15	7.887E+14	5.288E+14
TE134	0.000E+00	1.507E+16	5.575E+15	2.061E+15	9.844E+10	6.426E+05
I134	0.000E+00	1.354E+16	9.661E+15	5.669E+15	3.908E+12	3.148E+08
I135	0.000E+00	4.572E+15	4.119E+15	3.709E+15	1.300E+15	3.694E+14
I136M	0.000E+00	2.721E+16	7.514E-08	0.000E+00	0.000E+00	0.000E+00
XE137	0.000E+00	6.093E+15	1.241E+11	2.387E+06	0.000E+00	0.000E+00
XE138	0.000E+00	2.325E+16	1.238E+15	6.577E+13	1.179E+01	5.966E-15
CS138	0.000E+00	8.084E+15	3.513E+15	1.034E+15	2.582E+09	4.795E+02
XE139	0.000E+00	8.915E+15	3.299E-12	0.000E+00	0.000E+00	0.000E+00
BA140	0.000E+00	5.262E+15	5.250E+15	5.238E+15	5.121E+15	4.984E+15
LA140	0.000E+00	1.430E+16	1.430E+16	1.430E+16	1.423E+16	1.410E+16
BA141	0.000E+00	2.497E+16	2.606E+15	2.674E+14	3.462E+04	4.720E-08
LA141	0.000E+00	2.093E+15	1.885E+15	1.594E+15	2.736E+14	3.297E+13
BA142	0.000E+00	1.139E+16	2.340E+14	4.799E+12	6.323E-05	3.353E-25
LA142	0.000E+00	2.460E+15	1.765E+15	1.131E+15	1.274E+13	5.851E+10
CE143	0.000E+00	2.480E+15	2.445E+15	2.395E+15	1.941E+15	1.509E+15

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PR144	0.000E+00	2.032E+15	2.018E+15	2.016E+15	2.014E+15	2.011E+15
CE145	0.000E+00	9.072E+15	1.039E+10	9.909E+03	0.000E+00	0.000E+00
CE146	0.000E+00	8.739E+15	4.710E+14	2.518E+13	4.803E+00	2.618E-15
ND147	0.000E+00	1.089E+15	1.087E+15	1.085E+15	1.057E+15	1.024E+15
PR148	0.000E+00	1.601E+16	3.170E+08	4.447E+00	0.000E+00	0.000E+00
ND149	0.000E+00	2.858E+15	1.957E+15	1.311E+15	2.385E+13	1.947E+11

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	1.527E+16	3.110E+10	6.238E+04	0.000E+00	0.000E+00
KR 90	0.000E+00	1.647E+16	4.911E-18	0.000E+00	0.000E+00	0.000E+00
SR 91	0.000E+00	8.583E+15	7.993E+15	7.430E+15	3.582E+15	1.492E+15
Y 91M	0.000E+00	2.835E+16	2.772E+16	2.636E+16	1.296E+16	5.398E+15
ZR 97	0.000E+00	5.027E+15	4.825E+15	4.631E+15	3.073E+15	1.878E+15
NB 97	0.000E+00	7.412E+16	7.302E+16	7.113E+16	4.833E+16	2.768E+16
MO101	0.000E+00	2.860E+16	1.680E+15	9.770E+13	4.322E+01	6.467E-14
TC102	0.000E+00	4.154E+16	1.007E+15	2.376E+13	1.271E-03	0.000E+00
RU103	0.000E+00	4.337E+16	4.334E+16	4.331E+16	4.299E+16	4.262E+16
TC104	0.000E+00	1.753E+16	1.946E+15	1.981E+14	2.359E+04	2.910E-08
RU105	0.000E+00	1.328E+16	1.174E+16	1.005E+16	2.108E+15	3.237E+14

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RH106	0.000E+00	3.764E+15	3.323E+15	3.323E+15	3.320E+15	3.317E+15
SB131	0.000E+00	1.333E+16	2.224E+15	3.646E+14	5.115E+06	1.929E-03
I131	0.000E+00	3.157E+15	3.155E+15	3.147E+15	3.051E+15	2.934E+15
SB132	0.000E+00	2.317E+16	9.099E+09	3.224E+03	0.000E+00	0.000E+00
SB132M	0.000E+00	1.680E+16	8.409E+11	4.210E+07	0.000E+00	0.000E+00
I132	0.000E+00	8.959E+16	8.920E+16	8.870E+16	8.193E+16	7.370E+16
TE133M	0.000E+00	1.384E+16	6.537E+15	3.086E+15	1.695E+12	2.074E+08
I133	0.000E+00	6.432E+16	6.316E+16	6.138E+16	4.418E+16	2.962E+16
TE134	0.000E+00	2.424E+16	8.966E+15	3.315E+15	1.583E+11	1.033E+06
I134	0.000E+00	4.242E+16	3.027E+16	1.776E+16	1.224E+13	9.863E+08
CS134	0.000E+00	2.531E+15	2.531E+15	2.531E+15	2.530E+15	2.529E+15
TE135	0.000E+00	3.290E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	0.000E+00	5.980E+15	5.387E+15	4.851E+15	1.700E+15	4.832E+14
XE135M	0.000E+00	1.085E+16	7.901E+15	6.992E+15	2.447E+15	6.954E+14
XE137	0.000E+00	2.022E+16	4.118E+11	7.921E+06	0.000E+00	0.000E+00
I138	0.000E+00	2.635E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS138	0.000E+00	2.797E+16	1.215E+16	3.576E+15	8.932E+09	1.659E+03
BA140	0.000E+00	1.275E+16	1.272E+16	1.269E+16	1.241E+16	1.207E+16
LA140	0.000E+00	2.550E+16	2.549E+16	2.548E+16	2.537E+16	2.514E+16
BA141	0.000E+00	1.793E+16	1.872E+15	1.921E+14	2.487E+04	3.391E-08
LA142	0.000E+00	3.922E+16	2.814E+16	1.803E+16	2.031E+14	9.326E+11
CE143	0.000E+00	5.577E+15	5.498E+15	5.386E+15	4.366E+15	3.393E+15
ND147	0.000E+00	3.462E+15	3.456E+15	3.447E+15	3.358E+15	3.254E+15

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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	2.039E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 89	0.000E+00	1.133E+16	2.308E+10	4.629E+04	0.000E+00	0.000E+00
RB 90	0.000E+00	1.516E+16	2.664E+10	1.527E+06	0.000E+00	0.000E+00
SR 91	0.000E+00	1.377E+16	1.283E+16	1.193E+16	5.749E+15	2.395E+15
Y 92	0.000E+00	1.070E+16	1.046E+16	9.891E+15	2.724E+15	3.388E+14
RB 94	0.000E+00	1.809E+16	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	5.276E+16	6.374E+15	7.224E+14	2.525E+05	1.134E-06
ZR 95	0.000E+00	6.008E+16	6.006E+16	6.003E+16	5.976E+16	5.944E+16
NB 95	0.000E+00	6.287E+16	6.287E+16	6.287E+16	6.286E+16	6.285E+16
NB 97M	0.000E+00	5.290E+16	5.073E+16	4.869E+16	3.231E+16	1.975E+16
MO 99	0.000E+00	1.038E+16	1.027E+16	1.016E+16	9.148E+15	8.065E+15
TC104	0.000E+00	1.141E+16	1.267E+15	1.289E+14	1.535E+04	1.894E-08
RU105	0.000E+00	1.507E+16	1.332E+16	1.140E+16	2.392E+15	3.673E+14
SB128M	0.000E+00	1.162E+16	6.463E+15	3.207E+15	2.785E+12	5.906E+08

ML041000029.txt

SB129	0.000E+00	9.257E+15	7.995E+15	6.810E+15	1.368E+15	1.995E+14
SB130M	0.000E+00	3.480E+16	9.816E+13	1.341E+11	0.000E+00	0.000E+00
SB131	0.000E+00	2.746E+16	4.583E+15	7.514E+14	1.054E+07	3.975E-03
TE131M	0.000E+00	4.763E+15	4.675E+15	4.572E+15	3.629E+15	2.751E+15
SB132	0.000E+00	2.849E+16	1.119E+10	3.963E+03	0.000E+00	0.000E+00
SB132M	0.000E+00	1.507E+16	7.543E+11	3.777E+07	0.000E+00	0.000E+00
I132	0.000E+00	5.813E+16	5.787E+16	5.755E+16	5.316E+16	4.782E+16
TE133M	0.000E+00	5.114E+16	2.416E+16	1.140E+16	6.264E+12	7.665E+08
I133	0.000E+00	6.199E+15	6.087E+15	5.916E+15	4.258E+15	2.855E+15
TE134	0.000E+00	3.232E+16	1.195E+16	4.420E+15	2.111E+11	1.378E+06
I134	0.000E+00	1.611E+17	1.149E+17	6.745E+16	4.650E+13	3.746E+09
I135	0.000E+00	7.439E+15	6.702E+15	6.035E+15	2.115E+15	6.010E+14
LA140	0.000E+00	2.874E+16	2.874E+16	2.873E+16	2.860E+16	2.834E+16
BA142	0.000E+00	1.851E+16	3.802E+14	7.798E+12	1.027E-04	5.449E-25
LA142	0.000E+00	8.476E+15	6.082E+15	3.897E+15	4.389E+13	2.016E+11
CE143	0.000E+00	3.628E+15	3.576E+15	3.503E+15	2.840E+15	2.207E+15
CE145	0.000E+00	2.668E+16	3.055E+10	2.914E+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	9.862E+15	2.008E+10	4.028E+04	0.000E+00	0.000E+00
RB 89	0.000E+00	3.864E+16	3.136E+15	2.033E+14	2.663E+02	1.466E-12
KR 90	0.000E+00	1.607E+16	4.793E-18	0.000E+00	0.000E+00	0.000E+00
SR 91	0.000E+00	1.595E+16	1.485E+16	1.381E+16	6.656E+15	2.773E+15
SR 92	0.000E+00	5.723E+16	4.433E+16	3.433E+16	2.660E+15	1.235E+14
Y 92	0.000E+00	3.693E+15	3.612E+15	3.415E+15	9.405E+14	1.170E+14
Y 94	0.000E+00	9.389E+15	1.134E+15	1.285E+14	4.493E+04	2.018E-07
ZR 97	0.000E+00	3.991E+15	3.831E+15	3.677E+15	2.440E+15	1.492E+15
MO101	0.000E+00	2.278E+16	1.338E+15	7.782E+13	3.443E+01	5.151E-14

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002),	Run on	04/29/03	at 14:14:12			
TC102	0.000E+00	6.554E+15	1.589E+14	3.748E+12	2.004E-04	0.000E+00
TC104	0.000E+00	7.975E+15	8.855E+14	9.011E+13	1.073E+04	1.324E-08
SB130M	0.000E+00	8.260E+15	2.330E+13	3.183E+10	0.000E+00	0.000E+00
SB131	0.000E+00	8.188E+15	1.367E+15	2.241E+14	3.143E+06	1.185E-03
TE131M	0.000E+00	1.377E+15	1.352E+15	1.322E+15	1.049E+15	7.952E+14
I132	0.000E+00	1.248E+16	1.242E+16	1.236E+16	1.141E+16	1.027E+16
TE133	0.000E+00	1.034E+16	9.150E+14	2.707E+14	1.415E+11	1.731E+07
I133	0.000E+00	3.623E+15	3.558E+15	3.458E+15	2.489E+15	1.668E+15
I134	0.000E+00	2.734E+16	1.950E+16	1.144E+16	7.890E+12	6.356E+08
I135	0.000E+00	5.338E+16	4.808E+16	4.330E+16	1.517E+16	4.312E+15
I136	0.000E+00	3.473E+16	3.612E+03	3.170E-10	0.000E+00	0.000E+00

ML041000029.txt

I136M	0.000E+00	2.261E+16	6.242E-08	0.000E+00	0.000E+00	0.000E+00
CS136	0.000E+00	1.022E+15	1.020E+15	1.017E+15	9.952E+14	9.692E+14
CS138	0.000E+00	8.521E+16	3.703E+16	1.090E+16	2.721E+10	5.055E+03
XE139	0.000E+00	6.398E+15	2.367E-12	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	7.797E+15	9.882E+13	1.184E+12	7.223E-08	0.000E+00
BA141	0.000E+00	9.032E+15	9.427E+14	9.674E+13	1.252E+04	1.707E-08
BA142	0.000E+00	2.922E+16	6.001E+14	1.231E+13	1.622E-04	8.602E-25
LA142	0.000E+00	1.145E+16	8.215E+15	5.264E+15	5.928E+13	2.723E+11
PR144	0.000E+00	3.535E+14	3.510E+14	3.507E+14	3.504E+14	3.499E+14
PM148	0.000E+00	2.241E+15	2.229E+15	2.217E+15	2.102E+15	1.971E+15
EU156	0.000E+00	9.267E+14	9.255E+14	9.242E+14	9.099E+14	8.911E+14

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
BR 88	0.000E+00	2.435E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 88	0.000E+00	4.168E+15	3.269E+15	2.560E+15	2.228E+14	1.190E+13
RB 88	0.000E+00	7.794E+15	6.660E+15	5.271E+15	4.594E+14	2.453E+13
KR 89	0.000E+00	8.152E+15	1.660E+10	3.330E+04	0.000E+00	0.000E+00
KR 90	0.000E+00	7.642E+15	2.279E-18	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	4.294E+15	5.187E+14	5.878E+13	2.055E+04	9.228E-08
ZR 97	0.000E+00	1.120E+15	1.075E+15	1.032E+15	6.846E+14	4.185E+14
MO101	0.000E+00	8.199E+15	4.816E+14	2.801E+13	1.239E+01	1.854E-14
TC104	0.000E+00	1.109E+16	1.232E+15	1.253E+14	1.493E+04	1.842E-08
SB129	0.000E+00	1.703E+15	1.471E+15	1.253E+15	2.518E+14	3.671E+13
SB131	0.000E+00	5.417E+15	9.041E+14	1.482E+14	2.080E+06	7.842E-04
SB132	0.000E+00	2.355E+15	9.248E+08	3.276E+02	0.000E+00	0.000E+00
I132	0.000E+00	1.157E+15	1.152E+15	1.146E+15	1.058E+15	9.520E+14
TE133	0.000E+00	2.777E+15	2.457E+14	7.269E+13	3.800E+10	4.650E+06
TE133M	0.000E+00	3.339E+15	1.578E+15	7.446E+14	4.090E+11	5.005E+07
I134	0.000E+00	1.234E+16	8.805E+15	5.166E+15	3.562E+12	2.869E+08
I135	0.000E+00	1.741E+16	1.568E+16	1.412E+16	4.949E+15	1.406E+15
XE138	0.000E+00	1.325E+16	7.054E+14	3.748E+13	6.718E+00	3.400E-15
XE139	0.000E+00	4.158E+15	1.539E-12	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	2.291E+15	2.903E+13	3.479E+11	2.122E-08	0.000E+00
LA140	0.000E+00	6.025E+16	6.024E+16	6.022E+16	5.994E+16	5.940E+16
BA141	0.000E+00	3.148E+15	3.286E+14	3.372E+13	4.366E+03	5.952E-09
LA142	0.000E+00	1.392E+16	9.985E+15	6.398E+15	7.206E+13	3.309E+11

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

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

ML041000029.txt

NUCLIDE	FUEL CHG	FUEL DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 88	0.000E+00	1.978E+16	1.551E+16	1.215E+16	1.058E+15	5.647E+13
KR 89	0.000E+00	2.342E+15	4.770E+09	9.567E+03	0.000E+00	0.000E+00
RB 89	0.000E+00	6.588E+15	5.346E+14	3.465E+13	4.539E+01	2.498E-13
RB 90	0.000E+00	1.417E+15	2.491E+09	1.428E+05	0.000E+00	0.000E+00
Y 93	0.000E+00	2.169E+14	2.050E+14	1.914E+14	9.637E+13	4.230E+13
Y 94	0.000E+00	1.559E+15	1.883E+14	2.134E+13	7.459E+03	3.349E-08
MO101	0.000E+00	5.533E+15	3.250E+14	1.890E+13	8.361E+00	1.251E-14
TC104	0.000E+00	2.945E+15	3.270E+14	3.328E+13	3.964E+03	4.889E-09
SB131	0.000E+00	2.609E+15	4.354E+14	7.139E+13	1.002E+06	3.777E-04
TE131M	0.000E+00	1.290E+14	1.266E+14	1.238E+14	9.827E+13	7.448E+13
I132	0.000E+00	9.226E+14	9.185E+14	9.134E+14	8.437E+14	7.589E+14
TE133M	0.000E+00	1.995E+15	9.422E+14	4.448E+14	2.443E+11	2.989E+07
I134	0.000E+00	9.169E+14	6.542E+14	3.839E+14	2.646E+11	2.132E+07
I135	0.000E+00	1.885E+15	1.698E+15	1.529E+15	5.359E+14	1.523E+14
I136	0.000E+00	6.533E+15	6.796E+02	5.964E-11	0.000E+00	0.000E+00
XE138	0.000E+00	1.371E+16	7.300E+14	3.879E+13	6.953E+00	3.519E-15
CS138	0.000E+00	1.143E+16	4.968E+15	1.462E+15	3.652E+09	6.783E+02
XE139	0.000E+00	2.743E+15	1.015E-12	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	1.711E+15	2.169E+13	2.599E+11	1.585E-08	0.000E+00
LA140	0.000E+00	6.329E+14	6.328E+14	6.326E+14	6.297E+14	6.240E+14
LA142	0.000E+00	2.245E+16	1.611E+16	1.032E+16	1.163E+14	5.340E+11
PR144	0.000E+00	3.195E+14	3.172E+14	3.170E+14	3.167E+14	3.163E+14
EU156	0.000E+00	3.429E+14	3.424E+14	3.420E+14	3.367E+14	3.297E+14

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
KR 87	0.000E+00	2.886E+15	1.691E+15	9.807E+14	4.211E+12	6.073E+09
BR 88	0.000E+00	1.622E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 88	0.000E+00	2.453E+14	1.923E+14	1.507E+14	1.311E+13	7.002E+11
RB 88	0.000E+00	7.632E+14	6.522E+14	5.161E+14	4.498E+13	2.402E+12
KR 89	0.000E+00	2.235E+15	4.551E+09	9.129E+03	0.000E+00	0.000E+00
RB 89	0.000E+00	4.741E+15	3.848E+14	2.494E+13	3.267E+01	1.798E-13
KR 90	0.000E+00	5.869E+14	1.751E-19	0.000E+00	0.000E+00	0.000E+00
RB 90M	0.000E+00	1.493E+15	1.013E+11	6.384E+06	0.000E+00	0.000E+00
RB 92	0.000E+00	7.702E+14	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 94	0.000E+00	8.450E+14	1.021E+14	1.157E+13	4.044E+03	1.816E-08
TC104	0.000E+00	2.622E+15	2.911E+14	2.962E+13	3.528E+03	4.351E-09
I136	0.000E+00	4.023E+15	4.185E+02	3.672E-11	0.000E+00	0.000E+00
CS138	0.000E+00	5.710E+15	2.481E+15	7.301E+14	1.824E+09	3.387E+02
XE139	0.000E+00	1.547E+15	5.725E-13	0.000E+00	0.000E+00	0.000E+00

ML041000029.txt

CS139 0.000E+00 8.418E+14 1.067E+13 1.278E+11 7.798E-09 0.000E+00
LA140 0.000E+00 2.294E+15 2.293E+15 2.293E+15 2.282E+15 2.262E+15
LA142 0.000E+00 1.354E+16 9.712E+15 6.223E+15 7.009E+13 3.219E+11

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

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	1.391E+15	4.190E+14	1.133E+14	2.368E+08	3.620E+01
KR 87	0.000E+00	1.139E+14	6.673E+13	3.869E+13	1.661E+11	2.396E+08
BR 88	0.000E+00	2.583E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 88	0.000E+00	2.205E+14	1.884E+14	1.491E+14	1.300E+13	6.940E+11
KR 89	0.000E+00	3.821E+15	7.783E+09	1.561E+04	0.000E+00	0.000E+00
RB 89	0.000E+00	5.916E+14	4.801E+13	3.112E+12	4.077E+00	2.244E-14
RB 90	0.000E+00	7.311E+15	1.285E+10	7.367E+05	0.000E+00	0.000E+00
RB 90M	0.000E+00	2.162E+15	1.466E+11	9.243E+06	0.000E+00	0.000E+00
RB 92	0.000E+00	5.852E+14	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 92	0.000E+00	3.310E+12	3.237E+12	3.061E+12	8.430E+11	1.049E+11
RB 94	0.000E+00	3.401E+14	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC104	0.000E+00	1.402E+15	1.556E+14	1.584E+13	1.886E+03	2.326E-09
RH106	0.000E+00	3.148E+11	2.779E+11	2.779E+11	2.777E+11	2.774E+11
I136	0.000E+00	7.049E+14	7.332E+01	6.434E-12	0.000E+00	0.000E+00
CS138	0.000E+00	3.787E+14	1.646E+14	4.842E+13	1.210E+08	2.246E+01
XE139	0.000E+00	3.351E+14	1.240E-13	0.000E+00	0.000E+00	0.000E+00
CS139	0.000E+00	4.596E+14	5.824E+12	6.979E+10	4.257E-09	0.000E+00
LA140	0.000E+00	1.886E+13	1.886E+13	1.885E+13	1.877E+13	1.860E+13
LA142	0.000E+00	4.889E+15	3.508E+15	2.248E+15	2.532E+13	1.163E+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	2.172E+13	6.540E+12	1.769E+12	3.697E+06	5.650E-01
BR 88	0.000E+00	3.176E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 88	0.000E+00	5.066E+13	4.329E+13	3.426E+13	2.986E+12	1.594E+11
KR 89	0.000E+00	2.819E+14	5.742E+08	1.152E+03	0.000E+00	0.000E+00
RB 89	0.000E+00	2.589E+13	2.101E+12	1.362E+11	1.784E-01	9.819E-16
RB 90	0.000E+00	8.461E+15	1.487E+10	8.526E+05	0.000E+00	0.000E+00
RB 90M	0.000E+00	3.436E+14	2.330E+10	1.469E+06	0.000E+00	0.000E+00
RB 92	0.000E+00	1.403E+15	0.000E+00	0.000E+00	0.000E+00	0.000E+00

CS138 0.000E+00 1.041E+13 4.525E+12 1.332E+12 3.326E+06 6.178E-01

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	1.106E+14	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 94	0.000E+00	6.620E+12	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I136	0.000E+00	1.427E+08	1.484E-05	1.303E-18	0.000E+00	0.000E+00
CE142	0.000E+00	2.052E-06	2.052E-06	2.052E-06	2.053E-06	2.053E-06
SM147	0.000E+00	8.263E-08	8.264E-08	8.265E-08	8.277E-08	8.292E-08

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

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	2.389E+10	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE142	0.000E+00	1.298E-07	1.298E-07	1.298E-07	1.298E-07	1.298E-07
SM147	0.000E+00	5.225E-09	5.226E-09	5.226E-09	5.234E-09	5.243E-09

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

REACTIVITY AND BURNUP DAT

A

BASIS=17X17 PWR ASSEMBLY, 4.236% UO2, 19157 MWD/MTIHM, 1 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

ML041000029.txt

K INFINITY	0.00000	1.13321	1.13062	1.12802	1.14061
NEUT PRODN	0.00E+00	4.64E+03	4.64E+03	4.64E+03	4.64E+03
NEUT DESTN	0.00E+00	4.09E+03	4.10E+03	4.11E+03	4.07E+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 #= 0
 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

□

OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 1	1.432E+00	1.432E+00	1.432E+00	1.432E+00	1.432E+00
H 2	1.173E-03	1.173E-03	1.173E-03	1.173E-03	1.173E-03
H 3	7.754E-03	7.754E-03	7.754E-03	7.754E-03	7.753E-03
HE 3	9.346E-05	9.351E-05	9.356E-05	9.406E-05	9.465E-05
HE 4	5.780E-01	5.780E-01	5.780E-01	5.780E-01	5.780E-01
LI 6	1.423E-02	1.423E-02	1.423E-02	1.423E-02	1.423E-02
LI 7	5.005E-01	5.005E-01	5.005E-01	5.005E-01	5.005E-01
BE 9	1.993E-04	1.993E-04	1.993E-04	1.993E-04	1.993E-04
B 10	4.468E-03	4.468E-03	4.468E-03	4.468E-03	4.468E-03

ML041000029.txt

B 11	4.627E-01	4.627E-01	4.627E-01	4.627E-01	4.627E-01
C 12	7.246E+01	7.246E+01	7.246E+01	7.246E+01	7.246E+01
C 13	2.548E+00	2.548E+00	2.548E+00	2.548E+00	2.548E+00
C 14	6.115E-02	6.115E-02	6.115E-02	6.115E-02	6.115E-02
N 14	5.246E+01	5.246E+01	5.246E+01	5.246E+01	5.246E+01
N 15	2.095E-01	2.095E-01	2.095E-01	2.095E-01	2.095E-01
O 16	6.197E+04	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	2.509E+01
O 18	1.426E+02	1.426E+02	1.426E+02	1.426E+02	1.426E+02
F 19	4.937E+00	4.937E+00	4.937E+00	4.937E+00	4.937E+00
NE 20	7.274E-05	7.274E-05	7.274E-05	7.274E-05	7.274E-05
NA 23	6.915E+00	6.915E+00	6.915E+00	6.915E+00	6.915E+00
MG 24	7.255E-01	7.255E-01	7.255E-01	7.255E-01	7.255E-01
MG 25	9.499E-02	9.499E-02	9.499E-02	9.499E-02	9.499E-02
MG 26	1.087E-01	1.087E-01	1.087E-01	1.087E-01	1.087E-01
AL 27	4.581E+01	4.581E+01	4.581E+01	4.581E+01	4.581E+01
SI 28	1.916E+02	1.916E+02	1.916E+02	1.916E+02	1.916E+02
SI 29	1.006E+01	1.006E+01	1.006E+01	1.006E+01	1.006E+01
SI 30	6.901E+00	6.901E+00	6.901E+00	6.901E+00	6.901E+00
P 31	1.486E+02	1.486E+02	1.486E+02	1.486E+02	1.486E+02
P 32	1.008E-03	1.006E-03	1.004E-03	9.837E-04	9.602E-04
S 32	9.536E+00	9.536E+00	9.536E+00	9.536E+00	9.536E+00
S 33	7.988E-02	7.988E-02	7.988E-02	7.988E-02	7.988E-02
S 34	4.483E-01	4.483E-01	4.483E-01	4.483E-01	4.483E-01
S 35	2.432E-04	2.431E-04	2.430E-04	2.422E-04	2.412E-04
S 36	1.915E-03	1.915E-03	1.915E-03	1.915E-03	1.915E-03
CL 35	1.764E+00	1.764E+00	1.764E+00	1.764E+00	1.764E+00
CL 36	6.489E-02	6.489E-02	6.489E-02	6.489E-02	6.489E-02
CL 37	6.179E-01	6.179E-01	6.179E-01	6.179E-01	6.179E-01
AR 38	2.478E-04	2.478E-04	2.478E-04	2.478E-04	2.478E-04
K 40	1.150E-04	1.150E-04	1.150E-04	1.150E-04	1.150E-04
CA 40	8.915E-01	8.915E-01	8.915E-01	8.915E-01	8.915E-01
CA 41	3.056E-04	3.056E-04	3.056E-04	3.056E-04	3.056E-04
CA 42	6.242E-03	6.242E-03	6.242E-03	6.242E-03	6.242E-03
CA 43	1.288E-03	1.288E-03	1.288E-03	1.288E-03	1.288E-03
CA 44	2.120E-02	2.120E-02	2.120E-02	2.120E-02	2.120E-02
CA 46	4.308E-05	4.308E-05	4.308E-05	4.308E-05	4.308E-05
CA 48	2.096E-03	2.096E-03	2.096E-03	2.096E-03	2.096E-03
SC 46	3.510E-05	3.509E-05	3.508E-05	3.495E-05	3.481E-05
TI 46	3.953E+00	3.953E+00	3.953E+00	3.953E+00	3.953E+00
TI 47	3.645E+00	3.645E+00	3.645E+00	3.645E+00	3.645E+00
TI 48	3.663E+01	3.663E+01	3.663E+01	3.663E+01	3.663E+01

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
TI 49	2.998E+00	2.998E+00	2.998E+00	2.998E+00	2.998E+00
TI 50	2.717E+00	2.717E+00	2.717E+00	2.717E+00	2.717E+00
V 50	1.478E-02	1.478E-02	1.478E-02	1.478E-02	1.478E-02
V 51	4.747E+00	4.747E+00	4.747E+00	4.748E+00	4.750E+00
CR 50	2.092E+02	2.092E+02	2.092E+02	2.092E+02	2.092E+02
CR 51	1.124E-01	1.123E-01	1.122E-01	1.110E-01	1.097E-01
CR 52	4.214E+03	4.214E+03	4.214E+03	4.214E+03	4.214E+03
CR 53	4.876E+02	4.876E+02	4.876E+02	4.876E+02	4.876E+02
CR 54	1.269E+02	1.269E+02	1.269E+02	1.269E+02	1.269E+02
MN 54	2.905E-02	2.904E-02	2.904E-02	2.901E-02	2.898E-02
MN 55	3.944E+02	3.944E+02	3.944E+02	3.944E+02	3.944E+02
MN 56	5.800E-04	4.433E-04	3.388E-04	2.304E-05	9.154E-07
FE 54	8.104E+02	8.104E+02	8.104E+02	8.104E+02	8.104E+02
FE 55	4.686E-01	4.686E-01	4.685E-01	4.684E-01	4.682E-01
FE 56	1.327E+04	1.327E+04	1.327E+04	1.327E+04	1.327E+04
FE 57	3.263E+02	3.263E+02	3.263E+02	3.263E+02	3.263E+02
FE 58	4.411E+01	4.411E+01	4.411E+01	4.411E+01	4.411E+01
FE 59	2.338E-03	2.337E-03	2.335E-03	2.320E-03	2.302E-03
CO 58	1.029E-01	1.029E-01	1.028E-01	1.024E-01	1.019E-01
CO 59	4.272E+01	4.272E+01	4.272E+01	4.272E+01	4.272E+01
CO 60	2.380E+00	2.380E+00	2.380E+00	2.379E+00	2.379E+00
NI 58	3.813E+03	3.813E+03	3.813E+03	3.813E+03	3.813E+03
NI 59	1.020E+01	1.020E+01	1.020E+01	1.020E+01	1.020E+01
NI 60	1.511E+03	1.511E+03	1.511E+03	1.511E+03	1.511E+03
NI 61	6.933E+01	6.933E+01	6.933E+01	6.933E+01	6.933E+01
NI 62	2.131E+02	2.131E+02	2.131E+02	2.131E+02	2.131E+02
NI 63	1.990E+00	1.990E+00	1.990E+00	1.990E+00	1.990E+00
NI 64	5.623E+01	5.623E+01	5.623E+01	5.623E+01	5.623E+01
CU 63	5.829E+00	5.829E+00	5.829E+00	5.829E+00	5.829E+00
CU 64	4.340E-05	4.110E-05	3.891E-05	2.255E-05	1.171E-05
CU 65	2.743E+00	2.743E+00	2.743E+00	2.743E+00	2.743E+00
ZN 64	8.836E+00	8.836E+00	8.836E+00	8.836E+00	8.836E+00
ZN 65	4.626E-03	4.626E-03	4.625E-03	4.620E-03	4.613E-03
ZN 66	5.232E+00	5.232E+00	5.232E+00	5.232E+00	5.232E+00
ZN 67	7.764E-01	7.764E-01	7.764E-01	7.764E-01	7.764E-01
ZN 68	3.629E+00	3.629E+00	3.629E+00	3.629E+00	3.629E+00
ZN 70	1.233E-01	1.233E-01	1.233E-01	1.233E-01	1.233E-01

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GA 69	6.194E-03	6.195E-03	6.195E-03	6.195E-03	6.196E-03
SR 87	4.871E-04	4.871E-04	4.871E-04	4.871E-04	4.871E-04
SR 88	4.553E-02	4.553E-02	4.553E-02	4.553E-02	4.553E-02
SR 89	5.335E-04	5.332E-04	5.328E-04	5.298E-04	5.262E-04
Y 89	2.934E-03	2.934E-03	2.934E-03	2.937E-03	2.941E-03
Y 90	1.052E-03	1.041E-03	1.029E-03	9.237E-04	8.111E-04
Y 91	1.606E-03	1.605E-03	1.604E-03	1.596E-03	1.587E-03
ZR 90	5.387E+04	5.387E+04	5.387E+04	5.387E+04	5.387E+04
ZR 91	1.183E+04	1.183E+04	1.183E+04	1.183E+04	1.183E+04
ZR 92	1.830E+04	1.830E+04	1.830E+04	1.830E+04	1.830E+04
ZR 93	2.273E+01	2.273E+01	2.273E+01	2.273E+01	2.273E+01
ZR 94	1.901E+04	1.901E+04	1.901E+04	1.901E+04	1.901E+04
ZR 95	8.339E-01	8.335E-01	8.332E-01	8.294E-01	8.249E-01
ZR 96	3.118E+03	3.118E+03	3.118E+03	3.118E+03	3.118E+03

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
ZR 97	1.494E-02	1.434E-02	1.377E-02	9.134E-03	5.583E-03
NB 92	5.582E-05	5.566E-05	5.551E-05	5.395E-05	5.214E-05
NB 93	3.256E+02	3.256E+02	3.256E+02	3.256E+02	3.256E+02
NB 94	1.602E+00	1.602E+00	1.602E+00	1.602E+00	1.602E+00
NB 95	4.581E-01	4.581E-01	4.581E-01	4.581E-01	4.581E-01
NB 95M	3.323E-04	3.323E-04	3.322E-04	3.319E-04	3.314E-04
NB 97	1.062E-03	1.050E-03	1.025E-03	6.978E-04	3.997E-04
MO 92	2.574E+01	2.574E+01	2.574E+01	2.574E+01	2.574E+01
MO 93	4.762E-03	4.762E-03	4.762E-03	4.762E-03	4.762E-03
MO 94	1.652E+01	1.652E+01	1.652E+01	1.652E+01	1.652E+01
MO 95	3.019E+01	3.019E+01	3.019E+01	3.019E+01	3.020E+01
MO 96	3.150E+01	3.150E+01	3.150E+01	3.150E+01	3.150E+01
MO 97	2.460E+01	2.460E+01	2.460E+01	2.461E+01	2.461E+01
MO 98	4.413E+01	4.413E+01	4.413E+01	4.413E+01	4.413E+01
MO 99	5.929E-03	5.867E-03	5.806E-03	5.227E-03	4.608E-03
MO100	1.812E+01	1.812E+01	1.812E+01	1.812E+01	1.812E+01
TC 99	8.251E-02	8.252E-02	8.253E-02	8.260E-02	8.268E-02

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RU100	4.737E-03	4.737E-03	4.737E-03	4.737E-03	4.737E-03
RU101	3.376E-02	3.377E-02	3.377E-02	3.377E-02	3.377E-02
RU102	6.300E-04	6.300E-04	6.300E-04	6.300E-04	6.300E-04
PD108	3.579E-05	3.579E-05	3.579E-05	3.579E-05	3.579E-05
PD110	2.515E-05	2.515E-05	2.515E-05	2.515E-05	2.515E-05
AG107	2.216E-02	2.216E-02	2.216E-02	2.216E-02	2.216E-02
AG108M	9.808E-05	9.808E-05	9.808E-05	9.808E-05	9.808E-05
AG109	1.379E-02	1.379E-02	1.379E-02	1.379E-02	1.379E-02
AG110M	2.014E-04	2.014E-04	2.014E-04	2.012E-04	2.009E-04
CD106	1.415E-01	1.415E-01	1.415E-01	1.415E-01	1.415E-01
CD108	1.000E-01	1.000E-01	1.000E-01	1.000E-01	1.000E-01
CD109	1.758E-04	1.758E-04	1.758E-04	1.757E-04	1.756E-04
CD110	1.386E+00	1.386E+00	1.386E+00	1.386E+00	1.386E+00
CD111	1.441E+00	1.441E+00	1.441E+00	1.441E+00	1.441E+00
CD112	2.799E+00	2.799E+00	2.799E+00	2.799E+00	2.799E+00
CD113	6.038E-04	6.038E-04	6.038E-04	6.038E-04	6.038E-04
CD114	4.771E+00	4.771E+00	4.771E+00	4.771E+00	4.771E+00
CD115	2.736E-04	2.701E-04	2.666E-04	2.342E-04	2.004E-04
CD115M	4.059E-04	4.056E-04	4.054E-04	4.028E-04	3.996E-04
CD116	8.929E-01	8.929E-01	8.929E-01	8.929E-01	8.929E-01
IN113	1.293E-01	1.293E-01	1.293E-01	1.294E-01	1.295E-01
IN114M	9.932E-04	9.926E-04	9.921E-04	9.863E-04	9.794E-04
IN115	1.240E-01	1.240E-01	1.240E-01	1.240E-01	1.240E-01
SN112	1.624E+01	1.624E+01	1.624E+01	1.624E+01	1.624E+01
SN113	2.990E-02	2.989E-02	2.988E-02	2.981E-02	2.972E-02
SN114	1.117E+01	1.117E+01	1.117E+01	1.117E+01	1.117E+01
SN115	6.141E+00	6.141E+00	6.141E+00	6.141E+00	6.141E+00
SN116	2.485E+02	2.485E+02	2.485E+02	2.485E+02	2.485E+02
SN117	1.332E+02	1.332E+02	1.332E+02	1.332E+02	1.332E+02
SN117M	3.172E-02	3.166E-02	3.159E-02	3.095E-02	3.019E-02
SN118	4.184E+02	4.184E+02	4.184E+02	4.184E+02	4.184E+02
SN119	1.507E+02	1.507E+02	1.507E+02	1.507E+02	1.507E+02
SN119M	4.337E-01	4.336E-01	4.336E-01	4.331E-01	4.325E-01
SN120	5.685E+02	5.685E+02	5.685E+02	5.685E+02	5.685E+02

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
SN121	1.348E-03	1.313E-03	1.280E-03	9.882E-04	7.245E-04
SN121M	2.000E-03	2.000E-03	2.000E-03	2.000E-03	2.000E-03
SN122	8.201E+01	8.201E+01	8.201E+01	8.201E+01	8.201E+01
SN123	1.382E-02	1.382E-02	1.382E-02	1.379E-02	1.375E-02
SN124	1.011E+02	1.011E+02	1.011E+02	1.011E+02	1.011E+02
SN125	8.157E-03	8.132E-03	8.108E-03	7.869E-03	7.591E-03
SB121	3.789E-01	3.789E-01	3.789E-01	3.792E-01	3.795E-01
SB122	2.157E-04	2.134E-04	2.111E-04	1.897E-04	1.668E-04
SB123	2.439E-02	2.439E-02	2.440E-02	2.443E-02	2.446E-02
SB124	1.397E-04	1.397E-04	1.396E-04	1.389E-04	1.381E-04
SB125	3.896E-01	3.896E-01	3.896E-01	3.897E-01	3.899E-01
SB126	1.317E-04	1.314E-04	1.311E-04	1.281E-04	1.246E-04
TE122	1.256E-02	1.256E-02	1.257E-02	1.259E-02	1.261E-02
TE123	9.718E-05	9.719E-05	9.719E-05	9.725E-05	9.732E-05
TE123M	2.331E-05	2.331E-05	2.330E-05	2.324E-05	2.318E-05
TE124	3.125E-04	3.126E-04	3.127E-04	3.133E-04	3.141E-04
TE125	6.378E-02	6.379E-02	6.380E-02	6.390E-02	6.403E-02
TE125M	4.347E-03	4.347E-03	4.347E-03	4.351E-03	4.356E-03
TE126	2.107E-03	2.108E-03	2.108E-03	2.111E-03	2.114E-03
EU153	1.133E-04	1.134E-04	1.134E-04	1.136E-04	1.138E-04
EU154	2.046E-05	2.046E-05	2.046E-05	2.046E-05	2.046E-05
GD152	1.925E-03	1.925E-03	1.925E-03	1.925E-03	1.925E-03
GD153	1.631E-04	1.631E-04	1.631E-04	1.629E-04	1.627E-04
GD154	2.050E-02	2.050E-02	2.050E-02	2.050E-02	2.050E-02
GD155	1.366E-04	1.366E-04	1.366E-04	1.366E-04	1.366E-04
GD156	3.895E-01	3.895E-01	3.895E-01	3.895E-01	3.895E-01
GD157	1.986E-04	1.986E-04	1.986E-04	1.986E-04	1.986E-04
GD158	4.777E-01	4.777E-01	4.777E-01	4.777E-01	4.777E-01
GD159	2.550E-05	2.457E-05	2.367E-05	1.631E-05	1.043E-05
GD160	2.546E-01	2.546E-01	2.546E-01	2.546E-01	2.546E-01
TB159	9.565E-03	9.566E-03	9.567E-03	9.575E-03	9.580E-03
TB160	2.700E-04	2.699E-04	2.698E-04	2.687E-04	2.674E-04
TB161	2.902E-05	2.890E-05	2.878E-05	2.761E-05	2.626E-05
DY160	4.508E-04	4.510E-04	4.511E-04	4.521E-04	4.534E-04
DY161	9.328E-04	9.329E-04	9.330E-04	9.342E-04	9.356E-04
DY162	2.913E-04	2.913E-04	2.913E-04	2.913E-04	2.913E-04
DY163	8.355E-05	8.355E-05	8.355E-05	8.355E-05	8.355E-05
LU175	3.057E-03	3.057E-03	3.058E-03	3.061E-03	3.065E-03
LU176	7.046E-05	7.046E-05	7.046E-05	7.046E-05	7.046E-05
HF174	8.990E-03	8.990E-03	8.990E-03	8.990E-03	8.990E-03
HF175	7.843E-04	7.840E-04	7.837E-04	7.805E-04	7.766E-04
HF176	3.512E-01	3.512E-01	3.512E-01	3.512E-01	3.512E-01
HF177	2.524E-01	2.524E-01	2.524E-01	2.524E-01	2.524E-01
HF178	2.240E+00	2.240E+00	2.240E+00	2.240E+00	2.240E+00
HF179	2.277E+00	2.277E+00	2.277E+00	2.277E+00	2.277E+00

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HF180	3.279E+00	3.279E+00	3.279E+00	3.279E+00	3.279E+00
HF181	8.414E-03	8.408E-03	8.403E-03	8.346E-03	8.278E-03
HF182	2.265E-04	2.265E-04	2.265E-04	2.265E-04	2.265E-04
TA181	4.953E-02	4.953E-02	4.954E-02	4.960E-02	4.966E-02
TA182	1.046E-03	1.046E-03	1.045E-03	1.043E-03	1.040E-03
TA183	1.008E-04	1.002E-04	9.962E-05	9.413E-05	8.795E-05

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
W180	3.861E-03	3.861E-03	3.861E-03	3.861E-03	3.861E-03
W181	7.638E-05	7.637E-05	7.635E-05	7.617E-05	7.595E-05
W182	7.033E-01	7.033E-01	7.033E-01	7.033E-01	7.034E-01
W183	5.434E-01	5.434E-01	5.434E-01	5.434E-01	5.434E-01
W184	1.031E+00	1.031E+00	1.031E+00	1.031E+00	1.031E+00
W185	1.165E-03	1.164E-03	1.164E-03	1.159E-03	1.154E-03
W186	7.907E-01	7.907E-01	7.907E-01	7.907E-01	7.907E-01
W187	3.899E-04	3.787E-04	3.679E-04	2.753E-04	1.944E-04
W188	6.816E-05	6.814E-05	6.811E-05	6.782E-05	6.749E-05
RE185	3.140E-03	3.141E-03	3.141E-03	3.146E-03	3.151E-03
RE186	2.072E-05	2.056E-05	2.041E-05	1.891E-05	1.725E-05
RE187	1.291E-01	1.291E-01	1.291E-01	1.292E-01	1.293E-01
RE188	3.918E-05	3.824E-05	3.680E-05	2.471E-05	1.541E-05
OS186	7.461E-04	7.462E-04	7.464E-04	7.478E-04	7.493E-04
OS188	9.438E-03	9.440E-03	9.441E-03	9.454E-03	9.463E-03
OS189	1.270E-04	1.270E-04	1.270E-04	1.270E-04	1.270E-04
PB204	6.353E-03	6.353E-03	6.353E-03	6.353E-03	6.353E-03
PB206	1.082E-01	1.082E-01	1.082E-01	1.082E-01	1.082E-01
PB207	1.042E-01	1.042E-01	1.042E-01	1.042E-01	1.042E-01
PB208	2.427E-01	2.427E-01	2.427E-01	2.427E-01	2.427E-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

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	1.441E+00	1.441E+00	1.441E+00	1.441E+00	1.441E+00
HE	5.781E-01	5.781E-01	5.781E-01	5.781E-01	5.781E-01
LI	5.147E-01	5.147E-01	5.147E-01	5.147E-01	5.147E-01
BE	2.090E-04	2.090E-04	2.090E-04	2.090E-04	2.090E-04
B	4.672E-01	4.672E-01	4.672E-01	4.672E-01	4.672E-01
C	7.507E+01	7.507E+01	7.507E+01	7.507E+01	7.507E+01
N	5.267E+01	5.267E+01	5.267E+01	5.267E+01	5.267E+01
O	6.214E+04	6.214E+04	6.214E+04	6.214E+04	6.214E+04
F	4.937E+00	4.937E+00	4.937E+00	4.937E+00	4.937E+00
NE	7.934E-05	7.934E-05	7.934E-05	7.934E-05	7.934E-05
NA	6.915E+00	6.915E+00	6.915E+00	6.915E+00	6.915E+00
MG	9.291E-01	9.291E-01	9.291E-01	9.291E-01	9.291E-01
AL	4.581E+01	4.581E+01	4.581E+01	4.581E+01	4.581E+01
SI	2.086E+02	2.086E+02	2.086E+02	2.086E+02	2.086E+02
P	1.486E+02	1.486E+02	1.486E+02	1.486E+02	1.486E+02
S	1.007E+01	1.007E+01	1.007E+01	1.007E+01	1.007E+01
CL	2.447E+00	2.447E+00	2.447E+00	2.447E+00	2.447E+00
AR	2.505E-04	2.505E-04	2.505E-04	2.505E-04	2.505E-04
K	1.165E-04	1.165E-04	1.165E-04	1.165E-04	1.165E-04
CA	9.227E-01	9.227E-01	9.227E-01	9.227E-01	9.227E-01
SC	4.880E-05	4.876E-05	4.873E-05	4.842E-05	4.807E-05
TI	4.995E+01	4.995E+01	4.995E+01	4.995E+01	4.995E+01
V	4.762E+00	4.762E+00	4.762E+00	4.763E+00	4.764E+00
CR	5.038E+03	5.038E+03	5.038E+03	5.038E+03	5.038E+03
MN	3.945E+02	3.945E+02	3.945E+02	3.945E+02	3.945E+02
FE	1.445E+04	1.445E+04	1.445E+04	1.445E+04	1.445E+04
CO	4.521E+01	4.521E+01	4.521E+01	4.520E+01	4.520E+01
NI	5.674E+03	5.674E+03	5.674E+03	5.674E+03	5.674E+03
CU	8.572E+00	8.572E+00	8.572E+00	8.572E+00	8.572E+00
ZN	1.860E+01	1.860E+01	1.860E+01	1.860E+01	1.860E+01
GA	6.204E-03	6.204E-03	6.204E-03	6.205E-03	6.205E-03
SR	4.655E-02	4.655E-02	4.655E-02	4.655E-02	4.654E-02

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Y	5.602E-03	5.588E-03	5.575E-03	5.458E-03	5.339E-03
ZR	1.062E+05	1.062E+05	1.062E+05	1.062E+05	1.062E+05
NB	3.277E+02	3.277E+02	3.277E+02	3.277E+02	3.277E+02
MO	1.908E+02	1.908E+02	1.908E+02	1.908E+02	1.908E+02
TC	8.251E-02	8.252E-02	8.253E-02	8.260E-02	8.268E-02
RU	3.913E-02	3.913E-02	3.913E-02	3.913E-02	3.913E-02
PD	6.105E-05	6.105E-05	6.105E-05	6.105E-05	6.105E-05
AG	3.625E-02	3.625E-02	3.625E-02	3.625E-02	3.625E-02
CD	1.153E+01	1.153E+01	1.153E+01	1.153E+01	1.153E+01
IN	2.543E-01	2.543E-01	2.543E-01	2.544E-01	2.544E-01
SN	1.737E+03	1.737E+03	1.737E+03	1.737E+03	1.737E+03
SB	7.933E-01	7.933E-01	7.934E-01	7.938E-01	7.942E-01
TE	8.323E-02	8.324E-02	8.325E-02	8.339E-02	8.355E-02
EU	1.389E-04	1.389E-04	1.389E-04	1.391E-04	1.393E-04
GD	1.145E+00	1.145E+00	1.145E+00	1.145E+00	1.145E+00
TB	9.864E-03	9.865E-03	9.866E-03	9.871E-03	9.874E-03
DY	1.767E-03	1.768E-03	1.768E-03	1.770E-03	1.773E-03
LU	3.131E-03	3.131E-03	3.131E-03	3.134E-03	3.138E-03
HF	8.419E+00	8.419E+00	8.419E+00	8.419E+00	8.419E+00
TA	5.067E-02	5.068E-02	5.068E-02	5.073E-02	5.079E-02
W	3.074E+00	3.074E+00	3.074E+00	3.074E+00	3.074E+00
RE	1.323E-01	1.323E-01	1.323E-01	1.324E-01	1.325E-01
OS	1.032E-02	1.032E-02	1.032E-02	1.034E-02	1.035E-02
PB	4.614E-01	4.614E-01	4.614E-01	4.614E-01	4.614E-01
BI	1.846E-01	1.846E-01	1.846E-01	1.846E-01	1.846E-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

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

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MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	7.486E+01	7.486E+01	7.486E+01	7.486E+01	7.485E+01
H 4	2.060E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HE 6	1.402E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LI 8	8.699E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE 8	8.752E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
B 12	7.299E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C 14	2.727E-01	2.727E-01	2.727E-01	2.727E-01	2.727E-01
C 15	1.326E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	8.306E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
O 19	1.539E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
F 20	1.458E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE 23	6.892E-01	5.466E-30	0.000E+00	0.000E+00	0.000E+00
NA 24	1.032E+02	9.852E+01	9.407E+01	5.926E+01	3.404E+01
NA 24M	4.217E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 25	8.464E-03	5.553E-21	0.000E+00	0.000E+00	0.000E+00
MG 27	5.924E+00	7.305E-02	9.010E-04	7.333E-23	0.000E+00
AL 28	1.593E+02	1.381E-06	3.744E-09	2.688E-09	1.806E-09
AL 29	3.311E-01	5.620E-04	9.549E-07	0.000E+00	0.000E+00
AL 30	3.206E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SI 31	1.619E+02	1.243E+02	9.539E+01	6.781E+00	2.840E-01
P 32	2.877E+02	2.871E+02	2.866E+02	2.808E+02	2.741E+02
P 33	9.183E-04	9.172E-04	9.162E-04	9.056E-04	8.932E-04
P 34	2.752E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S 35	1.031E+01	1.031E+01	1.031E+01	1.027E+01	1.023E+01
S 37	5.972E-03	1.609E-06	4.336E-10	0.000E+00	0.000E+00
CL 36	2.142E-03	2.142E-03	2.142E-03	2.142E-03	2.142E-03
CL 38	2.616E+00	8.557E-01	2.799E-01	3.925E-06	5.890E-12
CL 38M	3.127E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AR 37	1.853E-01	1.851E-01	1.850E-01	1.834E-01	1.816E-01
AR 39	1.287E-05	1.287E-05	1.287E-05	1.287E-05	1.287E-05
AR 41	2.078E-05	1.422E-05	9.732E-06	2.190E-07	2.308E-09
K 42	3.508E-03	3.317E-03	3.136E-03	1.790E-03	9.132E-04
K 43	1.137E-04	1.103E-04	1.069E-04	7.869E-05	5.446E-05
K 44	4.298E-05	6.491E-06	9.802E-07	6.045E-15	8.502E-25
CA 41	3.291E-05	3.291E-05	3.291E-05	3.291E-05	3.291E-05
CA 45	1.506E-01	1.505E-01	1.505E-01	1.502E-01	1.499E-01
CA 47	2.447E-04	2.431E-04	2.416E-04	2.267E-04	2.100E-04
CA 49	1.610E-02	1.427E-04	1.264E-06	3.776E-27	0.000E+00
SC 46	1.190E+00	1.189E+00	1.189E+00	1.185E+00	1.180E+00
SC 46M	8.002E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SC 47	1.904E+00	1.887E+00	1.871E+00	1.716E+00	1.548E+00
SC 48	1.788E-01	1.760E-01	1.733E-01	1.479E-01	1.223E-01
SC 49	1.730E-01	8.533E-02	4.141E-02	2.992E-05	5.088E-09
SC 50	3.026E-03	8.092E-14	2.164E-24	0.000E+00	0.000E+00
TI 51	3.550E+00	2.597E-03	1.900E-06	0.000E+00	0.000E+00

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V 52	2.433E+02	3.712E-03	5.665E-08	0.000E+00	0.000E+00
V 53	4.734E-01	2.862E-12	1.731E-23	0.000E+00	0.000E+00
V 54	5.027E-03	9.943E-23	0.000E+00	0.000E+00	0.000E+00
CR 51	1.039E+04	1.038E+04	1.037E+04	1.026E+04	1.014E+04
CR 55	1.416E+02	1.157E-03	9.453E-09	0.000E+00	0.000E+00
MN 54	2.248E+02	2.248E+02	2.248E+02	2.246E+02	2.243E+02

□

OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
MN 56	1.259E+04	9.624E+03	7.355E+03	5.003E+02	1.987E+01
MN 57	8.660E-01	5.236E-12	3.166E-23	0.000E+00	0.000E+00
MN 58	2.785E-03	7.062E-20	0.000E+00	0.000E+00	0.000E+00
FE 55	1.172E+03	1.172E+03	1.172E+03	1.171E+03	1.171E+03
FE 59	1.150E+02	1.150E+02	1.149E+02	1.142E+02	1.133E+02
CO 58	3.275E+03	3.273E+03	3.272E+03	3.259E+03	3.243E+03
CO 60	2.692E+03	2.692E+03	2.692E+03	2.691E+03	2.691E+03
CO 60M	5.451E+03	1.027E+02	1.933E+00	1.085E-17	0.000E+00
CO 61	4.324E+01	2.841E+01	1.867E+01	2.797E-01	1.809E-03
CO 62	3.040E-01	2.765E-13	2.514E-25	0.000E+00	0.000E+00
NI 59	7.732E-01	7.732E-01	7.732E-01	7.732E-01	7.732E-01
NI 63	1.228E+02	1.228E+02	1.228E+02	1.228E+02	1.228E+02
NI 65	3.732E+02	2.834E+02	2.153E+02	1.375E+01	5.070E-01
NI 66	2.435E-03	2.404E-03	2.374E-03	2.091E-03	1.795E-03
CU 64	1.674E+02	1.585E+02	1.501E+02	8.697E+01	4.518E+01
CU 66	3.699E+01	1.304E-02	2.381E-03	2.094E-03	1.798E-03
CU 67	4.534E-05	4.484E-05	4.434E-05	3.964E-05	3.465E-05
ZN 65	3.813E+01	3.812E+01	3.812E+01	3.807E+01	3.802E+01
ZN 69	3.611E+01	1.863E+01	1.014E+01	1.431E+00	7.782E-01
ZN 69M	2.427E+00	2.308E+00	2.194E+00	1.326E+00	7.245E-01
ZN 71	4.898E-02	2.175E-06	1.821E-06	3.108E-07	3.723E-08
ZN 71M	5.135E-03	4.302E-03	3.605E-03	6.152E-04	7.370E-05
GA 70	2.006E-01	2.795E-02	3.894E-03	1.072E-11	5.730E-22
GA 72	6.580E-04	6.264E-04	5.963E-04	3.648E-04	2.022E-04
GA 72M	2.033E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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GE 71	3.116E-04	3.108E-04	3.101E-04	3.026E-04	2.938E-04
GE 71M	2.543E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 89	1.551E+01	1.550E+01	1.549E+01	1.540E+01	1.529E+01
SR 90	2.388E-04	2.388E-04	2.388E-04	2.388E-04	2.388E-04
SR 91	3.005E+00	2.794E+00	2.597E+00	1.252E+00	5.216E-01
SR 93	1.036E-02	4.046E-05	1.581E-07	0.000E+00	0.000E+00
Y 89M	9.716E-03	9.631E-03	9.546E-03	8.739E-03	7.860E-03
Y 90	5.725E+02	5.664E+02	5.603E+02	5.028E+02	4.415E+02
Y 91	3.939E+01	3.938E+01	3.936E+01	3.917E+01	3.894E+01
Y 92	1.006E+02	8.273E+01	6.801E+01	9.593E+00	9.145E-01
Y 93	1.036E-02	9.792E-03	9.143E-03	4.603E-03	2.020E-03
Y 94	2.150E+00	2.436E-01	2.761E-02	9.653E-12	4.334E-23
Y 96	1.379E-02	1.934E-10	2.713E-18	0.000E+00	0.000E+00
ZR 89	9.731E-03	9.646E-03	9.561E-03	8.752E-03	7.872E-03
ZR 93	5.713E-02	5.713E-02	5.713E-02	5.713E-02	5.713E-02
ZR 95	1.792E+04	1.791E+04	1.791E+04	1.783E+04	1.773E+04
ZR 97	2.858E+04	2.743E+04	2.633E+04	1.747E+04	1.068E+04
NB 92	7.801E+00	7.779E+00	7.757E+00	7.540E+00	7.287E+00
NB 93M	1.797E-03	1.797E-03	1.797E-03	1.800E-03	1.804E-03
NB 94	3.004E-01	3.004E-01	3.004E-01	3.004E-01	3.004E-01
NB 95	1.792E+04	1.792E+04	1.792E+04	1.792E+04	1.792E+04
NB 95M	1.266E+02	1.266E+02	1.266E+02	1.265E+02	1.263E+02
NB 96	2.055E+01	1.995E+01	1.936E+01	1.439E+01	1.008E+01
NB 97	2.858E+04	2.824E+04	2.756E+04	1.877E+04	1.075E+04
NB 97M	2.704E+04	2.598E+04	2.494E+04	1.655E+04	1.011E+04
NB 98	4.018E-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 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
NB100	2.019E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 93M	5.626E-01	5.085E-01	4.595E-01	1.671E-01	4.960E-02
MO 93	5.235E-03	5.235E-03	5.235E-03	5.235E-03	5.235E-03
MO 99	2.845E+03	2.815E+03	2.786E+03	2.508E+03	2.211E+03
MO101	1.363E+02	7.929E+00	4.611E-01	2.040E-13	3.052E-28

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TC 99	1.399E-03	1.400E-03	1.400E-03	1.401E-03	1.402E-03
TC100	3.730E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC101	1.363E+02	2.956E+01	2.876E+00	4.588E-12	9.255E-27
RU103	5.816E-03	5.812E-03	5.808E-03	5.765E-03	5.715E-03
RH104	9.541E-05	3.960E-10	2.729E-14	0.000E+00	0.000E+00
PD109	1.159E-02	1.101E-02	1.045E-02	6.247E-03	3.367E-03
PD109M	1.719E-04	2.422E-08	3.412E-12	0.000E+00	0.000E+00
PD111	3.334E-04	7.241E-05	3.039E-05	6.657E-06	1.467E-06
PD111M	4.146E-05	3.655E-05	3.222E-05	9.137E-06	2.014E-06
AG106	3.475E-04	3.463E-04	3.451E-04	3.336E-04	3.203E-04
AG108	5.660E+00	2.278E-04	2.276E-04	2.276E-04	2.276E-04
AG108M	2.557E-03	2.557E-03	2.557E-03	2.557E-03	2.557E-03
AG109M	4.657E-01	4.651E-01	4.645E-01	4.600E-01	4.568E-01
AG110	2.379E+01	1.273E-02	1.273E-02	1.271E-02	1.270E-02
AG110M	9.573E-01	9.572E-01	9.571E-01	9.560E-01	9.547E-01
AG111	1.018E-01	1.014E-01	1.010E-01	9.718E-02	9.276E-02
AG111M	5.067E-02	8.648E-05	4.105E-05	9.537E-06	2.102E-06
AG112	1.022E-04	8.192E-05	6.565E-05	7.172E-06	5.032E-07
CD107	4.473E-01	4.020E-01	3.613E-01	1.241E-01	3.445E-02
CD109	4.541E-01	4.541E-01	4.541E-01	4.538E-01	4.535E-01
CD111M	8.754E-01	3.727E-01	1.587E-01	3.102E-05	1.099E-09
CD115	1.395E+02	1.377E+02	1.359E+02	1.194E+02	1.022E+02
CD115M	1.034E+01	1.033E+01	1.033E+01	1.026E+01	1.018E+01
CD117	4.152E+00	3.180E+00	2.436E+00	1.694E-01	6.911E-03
CD117M	1.229E-01	1.003E-01	8.176E-02	1.065E-02	9.220E-04
CD119	2.856E-04	3.422E-06	4.100E-08	2.501E-27	0.000E+00
CD121	8.654E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN113M	3.003E+02	3.003E+02	3.003E+02	2.996E+02	2.987E+02
IN114	6.071E+01	2.198E+01	2.197E+01	2.184E+01	2.169E+01
IN114M	2.299E+01	2.297E+01	2.296E+01	2.283E+01	2.267E+01
IN116	4.938E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	3.596E+02	1.668E+02	7.740E+01	3.575E-02	3.553E-06
IN117	2.309E+00	2.194E+00	2.027E+00	2.747E-01	1.453E-02
IN117M	3.916E+00	3.764E+00	3.419E+00	4.746E-01	2.411E-02
IN118	3.765E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN119	2.693E-02	3.173E-06	3.364E-07	3.157E-17	2.871E-29
IN119M	2.856E-04	5.556E-05	5.839E-06	5.436E-16	4.944E-28
IN121	7.096E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN113	3.003E+02	3.002E+02	3.001E+02	2.994E+02	2.985E+02
SN113M	1.413E+02	1.766E+01	2.208E+00	2.056E-09	2.992E-20
SN117M	2.529E+03	2.524E+03	2.519E+03	2.467E+03	2.407E+03
SN119M	1.943E+03	1.943E+03	1.943E+03	1.940E+03	1.937E+03
SN121	1.303E+03	1.270E+03	1.237E+03	9.554E+02	7.005E+02
SN121M	1.183E-01	1.183E-01	1.183E-01	1.183E-01	1.183E-01
SN123	1.137E+02	1.136E+02	1.136E+02	1.134E+02	1.131E+02
SN123M	4.185E-01	1.483E-01	5.254E-02	1.638E-06	6.414E-12

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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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
SN125	8.842E+02	8.816E+02	8.790E+02	8.530E+02	8.229E+02
SN125M	6.129E+02	7.765E+00	9.838E-02	1.048E-20	0.000E+00
SB122	8.552E+01	8.461E+01	8.371E+01	7.522E+01	6.616E+01
SB122M	6.680E-01	3.345E-05	1.675E-09	0.000E+00	0.000E+00
SB124	2.446E+00	2.444E+00	2.443E+00	2.431E+00	2.418E+00
SB124M	8.406E-03	1.870E-14	4.160E-26	0.000E+00	0.000E+00
SB125	4.024E+02	4.024E+02	4.024E+02	4.026E+02	4.027E+02
SB126	1.102E+01	1.099E+01	1.097E+01	1.072E+01	1.042E+01
SB126M	7.986E-01	8.947E-02	1.002E-02	3.125E-12	1.223E-23
TE123M	2.069E-01	2.068E-01	2.068E-01	2.063E-01	2.057E-01
TE125M	7.832E+01	7.833E+01	7.834E+01	7.841E+01	7.849E+01
TE127	3.655E-02	3.406E-02	3.174E-02	1.599E-02	7.539E-03
TE127M	1.696E-03	1.696E-03	1.695E-03	1.691E-03	1.686E-03
I128	7.249E-04	1.372E-04	2.596E-05	1.530E-12	3.231E-21
EU154	5.526E-03	5.526E-03	5.526E-03	5.525E-03	5.524E-03
EU155	2.052E-03	2.052E-03	2.052E-03	2.052E-03	2.052E-03
EU156	3.798E-02	3.791E-02	3.784E-02	3.713E-02	3.629E-02
GD153	5.755E-01	5.754E-01	5.753E-01	5.746E-01	5.738E-01
GD155M	3.736E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD159	2.704E+01	2.605E+01	2.509E+01	1.729E+01	1.105E+01
GD161	2.921E+00	3.836E-05	5.039E-10	0.000E+00	0.000E+00
GD162	5.970E-04	9.328E-06	1.457E-07	1.264E-25	0.000E+00
TB160	3.049E+00	3.048E+00	3.046E+00	3.034E+00	3.020E+00
TB161	3.402E+00	3.389E+00	3.375E+00	3.237E+00	3.079E+00
TB162	5.850E-04	2.953E-05	5.394E-07	4.897E-25	0.000E+00
DY165	4.319E-02	3.234E-02	2.408E-02	1.261E-03	3.660E-05
DY165M	2.762E-02	1.150E-16	4.789E-31	0.000E+00	0.000E+00
DY166	1.161E-04	1.151E-04	1.142E-04	1.049E-04	9.468E-05
HO166	2.297E-03	2.241E-03	2.187E-03	1.714E-03	1.283E-03
LU176M	1.305E+00	1.081E+00	8.963E-01	1.370E-01	1.438E-02
LU177	2.933E-01	2.920E-01	2.908E-01	2.785E-01	2.645E-01
LU177M	4.428E-04	4.428E-04	4.427E-04	4.419E-04	4.409E-04
HF175	8.364E+00	8.361E+00	8.357E+00	8.323E+00	8.282E+00

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HF178M	2.856E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HF179M	1.795E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HF180M	7.569E+00	6.673E+00	5.883E+00	1.668E+00	3.677E-01
HF181	1.432E+02	1.431E+02	1.430E+02	1.421E+02	1.409E+02
TA182	6.527E+00	6.526E+00	6.524E+00	6.508E+00	6.488E+00
TA182M	1.150E-02	9.244E-04	7.434E-05	8.408E-16	6.149E-29
TA183	1.410E+01	1.402E+01	1.394E+01	1.318E+01	1.231E+01
W181	4.549E-01	4.548E-01	4.547E-01	4.536E-01	4.523E-01
W183M	6.183E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W185	1.095E+01	1.095E+01	1.094E+01	1.090E+01	1.085E+01
W185M	1.247E-02	1.908E-13	2.918E-24	0.000E+00	0.000E+00
W187	2.735E+02	2.657E+02	2.581E+02	1.931E+02	1.363E+02
W188	6.825E-01	6.822E-01	6.819E-01	6.791E-01	6.757E-01
RE186	3.854E+00	3.824E+00	3.795E+00	3.516E+00	3.207E+00
RE188	3.848E+01	3.756E+01	3.614E+01	2.426E+01	1.513E+01
RE188M	3.699E+01	4.001E+00	4.328E-01	9.497E-11	2.438E-22
RE189	1.397E-04	1.358E-04	1.320E-04	9.922E-05	7.046E-05
OS191	2.733E-04	2.731E-04	2.729E-04	2.703E-04	2.660E-04

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
OS191M	1.913E-04	1.813E-04	1.719E-04	1.009E-04	5.319E-05
IR192	2.866E-05	2.865E-05	2.864E-05	2.853E-05	2.839E-05
PB209	1.961E-04	1.589E-04	1.288E-04	1.577E-05	1.268E-06
BI210	1.565E-02	1.556E-02	1.547E-02	1.460E-02	1.363E-02
PO210	1.369E-02	1.369E-02	1.369E-02	1.369E-02	1.369E-02
SUMTOT	1.744E+05	1.589E+05	1.533E+05	1.188E+05	9.590E+04
TOTAL	1.744E+05	1.589E+05	1.533E+05	1.188E+05	9.590E+04

□

OUTPUT UNIT =

6 PAGE 141
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	7.692E+01	7.486E+01	7.486E+01	7.486E+01	7.485E+01
HE	1.402E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LI	8.699E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE	8.752E-01	2.160E-07	2.160E-07	2.160E-07	2.160E-07
B	7.299E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C	1.354E+01	2.727E-01	2.727E-01	2.727E-01	2.727E-01
N	8.306E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
O	1.539E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
F	1.458E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE	6.892E-01	5.466E-30	0.000E+00	0.000E+00	0.000E+00
NA	1.454E+02	9.852E+01	9.407E+01	5.926E+01	3.404E+01
MG	5.924E+00	7.305E-02	9.010E-04	2.683E-09	1.802E-09
AL	1.597E+02	5.634E-04	9.586E-07	2.688E-09	1.806E-09
SI	1.619E+02	1.243E+02	9.539E+01	6.781E+00	2.840E-01
P	2.877E+02	2.871E+02	2.866E+02	2.808E+02	2.741E+02
S	1.032E+01	1.031E+01	1.031E+01	1.027E+01	1.023E+01
CL	2.650E+00	8.579E-01	2.821E-01	2.145E-03	2.142E-03
AR	1.853E-01	1.851E-01	1.850E-01	1.835E-01	1.816E-01
K	3.665E-03	3.433E-03	3.244E-03	1.869E-03	9.677E-04
CA	1.669E-01	1.509E-01	1.508E-01	1.505E-01	1.502E-01
SC	3.449E+00	3.338E+00	3.274E+00	3.049E+00	2.850E+00
TI	3.550E+00	2.597E-03	1.900E-06	0.000E+00	0.000E+00
V	2.438E+02	3.712E-03	5.665E-08	2.643E-15	2.643E-15
CR	1.054E+04	1.038E+04	1.037E+04	1.026E+04	1.014E+04
MN	1.282E+04	9.849E+03	7.580E+03	7.248E+02	2.442E+02
FE	1.287E+03	1.287E+03	1.287E+03	1.286E+03	1.284E+03
CO	1.146E+04	6.096E+03	5.984E+03	5.950E+03	5.934E+03
NI	4.968E+02	4.070E+02	3.389E+02	1.373E+02	1.241E+02
CU	2.044E+02	1.585E+02	1.501E+02	8.697E+01	4.518E+01
ZN	7.672E+01	5.906E+01	5.046E+01	4.083E+01	3.952E+01
GA	2.013E-01	2.857E-02	4.490E-03	3.648E-04	2.022E-04
GE	3.370E-04	3.108E-04	3.101E-04	3.026E-04	2.938E-04
SR	1.852E+01	1.829E+01	1.808E+01	1.665E+01	1.582E+01
Y	7.147E+02	6.887E+02	6.677E+02	5.515E+02	4.813E+02
ZR	4.650E+04	4.534E+04	4.423E+04	3.529E+04	2.841E+04
NB	7.369E+04	7.230E+04	7.057E+04	5.339E+04	3.893E+04

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MO	2.982E+03	2.824E+03	2.787E+03	2.508E+03	2.211E+03
TC	1.736E+02	2.956E+01	2.877E+00	1.401E-03	1.402E-03
RU	5.816E-03	5.812E-03	5.808E-03	5.765E-03	5.715E-03
RH	1.125E-04	2.749E-08	2.584E-08	1.968E-08	1.525E-08
PD	1.213E-02	1.112E-02	1.052E-02	6.262E-03	3.371E-03
AG	3.103E+01	1.540E+00	1.539E+00	1.529E+00	1.520E+00
CD	1.559E+02	1.525E+02	1.497E+02	1.304E+02	1.129E+02
IN	1.244E+03	5.181E+02	4.280E+02	3.450E+02	3.431E+02
SN	7.828E+03	7.058E+03	6.994E+03	6.629E+03	6.280E+03
SB	5.029E+02	5.006E+02	4.996E+02	4.909E+02	4.817E+02
TE	7.857E+01	7.857E+01	7.858E+01	7.863E+01	7.871E+01
I	7.249E-04	1.372E-04	2.596E-05	1.075E-10	5.409E-11
EU	4.556E-02	4.549E-02	4.542E-02	4.470E-02	4.386E-02
GD	3.054E+01	2.662E+01	2.567E+01	1.786E+01	1.163E+01
TB	6.451E+00	6.437E+00	6.421E+00	6.271E+00	6.098E+00
DY	7.093E-02	3.246E-02	2.419E-02	1.366E-03	1.313E-04
HO	2.297E-03	2.241E-03	2.187E-03	1.714E-03	1.283E-03
LU	1.599E+00	1.374E+00	1.187E+00	4.159E-01	2.793E-01
HF	1.957E+03	1.582E+02	1.573E+02	1.521E+02	1.496E+02
TA	2.064E+01	2.055E+01	2.047E+01	1.968E+01	1.880E+01
W	2.862E+02	2.777E+02	2.701E+02	2.051E+02	1.483E+02
RE	7.932E+01	4.538E+01	4.037E+01	2.778E+01	1.834E+01
OS	4.652E-04	4.544E-04	4.448E-04	3.712E-04	3.192E-04
IR	2.910E-05	2.905E-05	2.902E-05	2.880E-05	2.857E-05
PB	1.961E-04	1.589E-04	1.288E-04	1.577E-05	1.268E-06
BI	1.565E-02	1.556E-02	1.547E-02	1.460E-02	1.363E-02
PO	1.369E-02	1.369E-02	1.369E-02	1.369E-02	1.369E-02
SUMTOT	1.744E+05	1.589E+05	1.533E+05	1.188E+05	9.590E+04
TOTAL	1.744E+05	1.589E+05	1.533E+05	1.188E+05	9.590E+04

CUMULATIVE TABLE TOTALS

AP+FP	1.744E+05	1.589E+05	1.533E+05	1.188E+05	9.590E+04
ACT+FP	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AP+ACT+FP	1.744E+05	1.589E+05	1.533E+05	1.188E+05	9.590E+04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

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9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	2.521E-03	2.521E-03	2.520E-03	2.520E-03	2.520E-03
HE 6	1.303E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LI 8	3.244E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE 8	4.929E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
B 12	5.785E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C 14	7.996E-05	7.996E-05	7.996E-05	7.996E-05	7.996E-05
C 15	2.257E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
N 16	3.600E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
O 19	4.395E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
F 20	6.076E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NE 23	8.448E-03	6.701E-32	0.000E+00	0.000E+00	0.000E+00
NA 24	2.859E+00	2.730E+00	2.607E+00	1.642E+00	9.432E-01
NA 24M	1.180E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NA 25	9.713E-05	6.373E-23	0.000E+00	0.000E+00	0.000E+00
MG 27	5.594E-02	6.898E-04	8.508E-06	6.924E-25	0.000E+00
AL 28	2.858E+00	2.477E-08	6.715E-11	4.821E-11	3.239E-11
AL 29	4.614E-03	7.832E-06	1.331E-08	0.000E+00	0.000E+00
AL 30	1.088E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SI 31	5.723E-01	4.394E-01	3.373E-01	2.398E-02	1.004E-03
P 32	2.916E+00	2.910E+00	2.905E+00	2.847E+00	2.778E+00
P 33	1.350E-06	1.348E-06	1.347E-06	1.331E-06	1.313E-06
P 34	8.319E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
S 35	1.023E-02	1.023E-02	1.023E-02	1.019E-02	1.015E-02
S 37	1.699E-04	4.579E-08	1.234E-11	0.000E+00	0.000E+00
CL 36	3.158E-06	3.158E-06	3.158E-06	3.158E-06	3.158E-06
CL 38	4.677E-02	1.530E-02	5.004E-03	7.018E-08	1.053E-13
CL 38M	1.244E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AR 37	2.306E-06	2.304E-06	2.302E-06	2.283E-06	2.261E-06
AR 41	2.154E-07	1.474E-07	1.008E-07	2.269E-09	2.391E-11
K 42	3.547E-05	3.354E-05	3.171E-05	1.810E-05	9.235E-06
K 43	8.620E-07	8.360E-07	8.107E-07	5.966E-07	4.129E-07
K 44	1.325E-06	2.001E-07	3.021E-08	1.863E-16	2.621E-26
CA 45	6.890E-05	6.888E-05	6.887E-05	6.875E-05	6.860E-05
CA 47	2.042E-06	2.029E-06	2.016E-06	1.892E-06	1.753E-06
CA 49	5.019E-04	4.448E-06	3.942E-08	1.177E-28	0.000E+00
SC 46	1.496E-02	1.496E-02	1.495E-02	1.490E-02	1.484E-02
SC 46M	6.508E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SC 47	3.056E-03	3.029E-03	3.003E-03	2.755E-03	2.485E-03
SC 48	3.783E-03	3.723E-03	3.665E-03	3.128E-03	2.587E-03
SC 49	2.059E-03	1.016E-03	4.929E-04	3.561E-07	6.056E-11
SC 50	8.658E-05	2.315E-15	6.193E-26	0.000E+00	0.000E+00
TI 51	2.598E-02	1.901E-05	1.391E-08	0.000E+00	0.000E+00
V 52	3.626E+00	5.532E-05	8.441E-10	0.000E+00	0.000E+00

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V 53	5.716E-03	3.456E-14	2.090E-25	0.000E+00	0.000E+00
V 54	2.175E-04	4.302E-24	0.000E+00	0.000E+00	0.000E+00
CR 51	2.230E+00	2.228E+00	2.226E+00	2.203E+00	2.175E+00
CR 55	9.238E-01	7.552E-06	6.169E-11	0.000E+00	0.000E+00
MN 54	1.119E+00	1.119E+00	1.119E+00	1.118E+00	1.117E+00
MN 56	1.882E+02	1.438E+02	1.099E+02	7.476E+00	2.970E-01
MN 57	6.011E-03	3.634E-14	2.197E-25	0.000E+00	0.000E+00
MN 58	6.594E-05	1.672E-21	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 14:14:12

* 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

9 SUMMARY TABLE: THERMAL POWER, WATTS
 17X17 PWR ASSEMBLY, 4.236% UO2, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
FE 55	3.960E-02	3.959E-02	3.959E-02	3.958E-02	3.957E-02
FE 59	8.906E-01	8.901E-01	8.895E-01	8.838E-01	8.770E-01
CO 58	1.959E+01	1.958E+01	1.957E+01	1.949E+01	1.940E+01
CO 60	4.150E+01	4.150E+01	4.150E+01	4.149E+01	4.149E+01
CO 60M	2.037E+00	3.835E-02	7.223E-04	4.052E-21	0.000E+00
CO 61	1.400E-01	9.195E-02	6.041E-02	9.051E-04	5.854E-06
CO 62	5.766E-03	5.244E-15	4.770E-27	0.000E+00	0.000E+00
NI 59	3.071E-05	3.071E-05	3.071E-05	3.071E-05	3.071E-05
NI 63	1.238E-02	1.238E-02	1.238E-02	1.238E-02	1.238E-02
NI 65	2.613E+00	1.984E+00	1.507E+00	9.629E-02	3.549E-03
NI 66	9.669E-07	9.548E-07	9.427E-07	8.303E-07	7.130E-07
CU 64	3.106E-01	2.941E-01	2.785E-01	1.614E-01	8.382E-02
CU 66	2.532E-01	8.925E-05	1.630E-05	1.434E-05	1.231E-05
CU 67	7.281E-08	7.200E-08	7.120E-08	6.365E-08	5.564E-08
ZN 65	1.334E-01	1.334E-01	1.334E-01	1.332E-01	1.331E-01
ZN 69	6.869E-02	3.544E-02	1.929E-02	2.722E-03	1.480E-03
ZN 69M	6.312E-03	6.002E-03	5.707E-03	3.449E-03	1.884E-03
ZN 71	8.146E-04	3.618E-08	3.029E-08	5.169E-09	6.193E-10
ZN 71M	9.018E-05	7.557E-05	6.332E-05	1.080E-05	1.294E-06
GA 70	7.767E-04	1.082E-04	1.507E-05	4.151E-14	2.218E-24
GA 72	1.251E-05	1.191E-05	1.134E-05	6.934E-06	3.844E-06
SR 89	5.360E-02	5.357E-02	5.354E-02	5.324E-02	5.287E-02
SR 90	2.772E-07	2.772E-07	2.772E-07	2.772E-07	2.772E-07

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SR 91	2.408E-02	2.239E-02	2.081E-02	1.003E-02	4.180E-03
SR 93	1.569E-04	6.130E-07	2.396E-09	0.000E+00	0.000E+00
Y 89M	5.280E-05	5.234E-05	5.188E-05	4.749E-05	4.271E-05
Y 90	3.173E+00	3.139E+00	3.105E+00	2.786E+00	2.447E+00
Y 91	1.415E-01	1.414E-01	1.414E-01	1.407E-01	1.398E-01
Y 92	1.013E+00	8.327E-01	6.845E-01	9.655E-02	9.205E-03
Y 93	7.748E-05	7.325E-05	6.839E-05	3.443E-05	1.511E-05
Y 94	3.582E-02	4.060E-03	4.601E-04	1.608E-13	7.222E-25
Y 96	3.162E-04	4.436E-12	6.223E-20	0.000E+00	0.000E+00
ZR 89	7.280E-05	7.216E-05	7.152E-05	6.547E-05	5.889E-05
ZR 93	6.638E-06	6.638E-06	6.638E-06	6.638E-06	6.638E-06
ZR 95	9.078E+01	9.074E+01	9.070E+01	9.029E+01	8.980E+01
ZR 97	1.489E+02	1.429E+02	1.372E+02	9.103E+01	5.564E+01
NB 92	6.983E-02	6.963E-02	6.943E-02	6.749E-02	6.522E-02
NB 93M	3.183E-07	3.184E-07	3.184E-07	3.190E-07	3.196E-07
NB 94	3.061E-03	3.061E-03	3.061E-03	3.061E-03	3.061E-03
NB 95	8.596E+01	8.596E+01	8.596E+01	8.596E+01	8.596E+01
NB 95M	1.759E-01	1.759E-01	1.759E-01	1.757E-01	1.755E-01
NB 96	3.417E-01	3.317E-01	3.220E-01	2.393E-01	1.676E-01
NB 97	1.902E+02	1.880E+02	1.835E+02	1.249E+02	7.157E+01
NB 97M	1.190E+02	1.144E+02	1.098E+02	7.285E+01	4.453E+01
NB 98	4.959E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100	4.764E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO 93M	7.870E-03	7.113E-03	6.429E-03	2.337E-03	6.939E-04
MO 93	4.903E-07	4.903E-07	4.903E-07	4.903E-07	4.903E-07
MO 99	9.136E+00	9.041E+00	8.947E+00	8.055E+00	7.101E+00
MO101	1.557E+00	9.057E-02	5.267E-03	2.330E-15	3.486E-30
TC 99	7.018E-07	7.018E-07	7.019E-07	7.025E-07	7.032E-07

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
TC100	3.283E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC101	6.544E-01	1.419E-01	1.380E-02	2.202E-14	4.442E-29
RU103	1.946E-05	1.944E-05	1.943E-05	1.929E-05	1.912E-05

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RH104	5.641E-07	2.341E-12	1.614E-16	0.000E+00	0.000E+00
RH106	1.171E-07	7.917E-17	7.916E-17	7.910E-17	7.903E-17
PD109	3.081E-05	2.927E-05	2.780E-05	1.661E-05	8.954E-06
PD109M	1.916E-07	2.699E-11	3.803E-15	0.000E+00	0.000E+00
PD111	1.773E-06	3.850E-07	1.616E-07	3.539E-08	7.801E-09
PD111M	1.445E-07	1.274E-07	1.123E-07	3.185E-08	7.019E-09
AG106	2.511E-06	2.502E-06	2.494E-06	2.411E-06	2.314E-06
AG108	2.107E-02	8.481E-07	8.474E-07	8.474E-07	8.474E-07
AG108M	2.477E-05	2.477E-05	2.477E-05	2.477E-05	2.477E-05
AG109M	2.401E-04	2.398E-04	2.395E-04	2.371E-04	2.355E-04
AG110	1.709E-01	9.146E-05	9.145E-05	9.135E-05	9.122E-05
AG110M	1.599E-02	1.598E-02	1.598E-02	1.596E-02	1.594E-02
AG111	2.280E-04	2.272E-04	2.263E-04	2.177E-04	2.078E-04
AG111M	1.952E-05	3.332E-08	1.582E-08	3.675E-09	8.099E-10
AG112	1.268E-06	1.016E-06	8.145E-07	8.899E-08	6.243E-09
CD107	3.200E-04	2.876E-04	2.585E-04	8.882E-05	2.465E-05
CD109	5.276E-05	5.276E-05	5.276E-05	5.272E-05	5.268E-05
CD111M	2.055E-03	8.748E-04	3.724E-04	7.282E-08	2.581E-12
CD115	4.428E-01	4.371E-01	4.314E-01	3.790E-01	3.244E-01
CD115M	3.856E-02	3.854E-02	3.851E-02	3.826E-02	3.797E-02
CD117	2.990E-02	2.291E-02	1.755E-02	1.220E-03	4.977E-05
CD117M	9.990E-04	8.147E-04	6.645E-04	8.651E-05	7.493E-06
CD119	3.132E-06	3.752E-08	4.496E-10	2.743E-29	0.000E+00
CD121	1.434E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN113M	6.997E-01	6.996E-01	6.995E-01	6.978E-01	6.957E-01
IN114	2.891E-01	1.047E-01	1.046E-01	1.040E-01	1.033E-01
IN114M	3.262E-02	3.260E-02	3.258E-02	3.239E-02	3.216E-02
IN116	4.045E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	5.920E+00	2.746E+00	1.274E+00	5.884E-04	5.849E-08
IN117	1.040E-02	9.883E-03	9.133E-03	1.238E-03	6.545E-05
IN117M	1.478E-02	1.421E-02	1.291E-02	1.792E-03	9.103E-05
IN118	4.546E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN119	2.153E-04	2.537E-08	2.690E-09	2.524E-19	2.296E-31
IN119M	2.412E-06	4.693E-07	4.932E-08	4.592E-18	4.176E-30
IN121	8.547E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN113	5.002E-02	5.000E-02	4.999E-02	4.987E-02	4.972E-02
SN113M	6.642E-02	8.302E-03	1.038E-03	9.665E-13	1.406E-23
SN117M	4.691E+00	4.681E+00	4.672E+00	4.576E+00	4.464E+00
SN119M	1.004E+00	1.004E+00	1.004E+00	1.003E+00	1.001E+00
SN121	1.576E+00	1.536E+00	1.496E+00	1.155E+00	8.470E-01
SN121M	2.370E-04	2.370E-04	2.370E-04	2.370E-04	2.370E-04
SN123	3.550E-01	3.549E-01	3.548E-01	3.540E-01	3.531E-01
SN123M	1.525E-03	5.404E-04	1.915E-04	5.971E-09	2.338E-14
SN125	5.860E+00	5.842E+00	5.825E+00	5.653E+00	5.453E+00
SN125M	4.124E+00	5.224E-02	6.619E-04	7.052E-23	0.000E+00
SB122	5.100E-01	5.046E-01	4.992E-01	4.486E-01	3.945E-01
SB122M	6.415E-04	3.212E-08	1.608E-12	0.000E+00	0.000E+00
SB124	3.247E-02	3.246E-02	3.244E-02	3.228E-02	3.210E-02

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
SB124M	2.161E-05	4.807E-17	1.069E-28	0.000E+00	0.000E+00
SB125	1.258E+00	1.258E+00	1.258E+00	1.259E+00	1.259E+00
SB126	2.036E-01	2.031E-01	2.027E-01	1.980E-01	1.925E-01
SB126M	1.017E-02	1.139E-03	1.276E-04	3.979E-14	1.557E-25
TE123M	3.013E-04	3.012E-04	3.011E-04	3.004E-04	2.995E-04
TE125M	6.583E-02	6.584E-02	6.584E-02	6.590E-02	6.598E-02
TE127	4.935E-05	4.599E-05	4.286E-05	2.159E-05	1.018E-05
TE127M	9.124E-07	9.122E-07	9.120E-07	9.095E-07	9.067E-07
I128	3.596E-06	6.805E-07	1.288E-07	7.592E-15	1.603E-23
EU154	4.943E-05	4.943E-05	4.942E-05	4.942E-05	4.941E-05
EU155	1.493E-06	1.493E-06	1.493E-06	1.493E-06	1.492E-06
EU156	3.920E-04	3.912E-04	3.905E-04	3.831E-04	3.745E-04
GD153	5.199E-04	5.198E-04	5.197E-04	5.191E-04	5.184E-04
GD155M	2.691E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD159	8.814E-02	8.492E-02	8.181E-02	5.636E-02	3.604E-02
GD161	2.119E-02	2.784E-07	3.656E-12	0.000E+00	0.000E+00
GD162	2.169E-06	3.389E-08	5.296E-10	4.594E-28	0.000E+00
TB160	2.483E-02	2.482E-02	2.481E-02	2.471E-02	2.459E-02
TB161	6.816E-03	6.790E-03	6.762E-03	6.485E-03	6.168E-03
TB162	5.833E-06	2.945E-07	5.378E-09	4.882E-27	0.000E+00
DY165	2.000E-04	1.497E-04	1.115E-04	5.837E-06	1.694E-07
DY165M	2.063E-05	8.590E-20	3.577E-34	0.000E+00	0.000E+00
DY166	1.356E-07	1.345E-07	1.333E-07	1.224E-07	1.106E-07
HO166	9.846E-06	9.607E-06	9.374E-06	7.345E-06	5.499E-06
LU176M	1.013E-02	8.398E-03	6.960E-03	1.064E-03	1.116E-04
LU177	3.164E-04	3.150E-04	3.137E-04	3.005E-04	2.853E-04
LU177M	3.565E-06	3.564E-06	3.563E-06	3.557E-06	3.549E-06
HF175	2.057E-02	2.056E-02	2.055E-02	2.047E-02	2.037E-02
HF178M	1.942E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HF179M	4.022E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
HF180M	5.124E-02	4.517E-02	3.982E-02	1.129E-02	2.489E-03

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HF181	6.402E-01	6.397E-01	6.393E-01	6.350E-01	6.298E-01
TA182	5.811E-02	5.810E-02	5.808E-02	5.794E-02	5.776E-02
TA182M	3.428E-05	2.756E-06	2.217E-07	2.507E-18	1.833E-31
TA183	8.944E-02	8.894E-02	8.844E-02	8.357E-02	7.808E-02
W181	1.302E-04	1.302E-04	1.302E-04	1.299E-04	1.295E-04
W183M	9.529E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
W185	8.244E-03	8.241E-03	8.237E-03	8.206E-03	8.168E-03
W185M	1.457E-05	2.228E-16	3.407E-27	0.000E+00	0.000E+00
W187	1.240E+00	1.205E+00	1.170E+00	8.757E-01	6.183E-01
W188	4.082E-04	4.080E-04	4.079E-04	4.062E-04	4.041E-04
RE186	8.239E-03	8.177E-03	8.114E-03	7.517E-03	6.858E-03
RE188	1.909E-01	1.864E-01	1.794E-01	1.204E-01	7.507E-02
RE188M	3.771E-02	4.079E-03	4.413E-04	9.683E-14	2.486E-25
RE189	8.365E-07	8.130E-07	7.901E-07	5.940E-07	4.218E-07
OS191	3.969E-07	3.966E-07	3.964E-07	3.926E-07	3.863E-07
IR192	1.755E-07	1.754E-07	1.754E-07	1.747E-07	1.739E-07
PB209	2.255E-07	1.827E-07	1.481E-07	1.813E-08	1.458E-09
BI210	3.608E-05	3.587E-05	3.567E-05	3.367E-05	3.142E-05
PO210	4.387E-04	4.387E-04	4.387E-04	4.388E-04	4.389E-04
SUMTOT	9.669E+02	8.761E+02	8.242E+02	5.723E+02	4.439E+02
TOTAL	9.669E+02	8.761E+02	8.242E+02	5.723E+02	4.439E+02

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	2.521E-03	2.521E-03	2.520E-03	2.520E-03	2.520E-03
HE	1.303E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LI	3.244E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BE	4.929E-04	2.592E-10	2.592E-10	2.592E-10	2.592E-10
B	5.785E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
C	2.258E-01	7.996E-05	7.996E-05	7.996E-05	7.996E-05
N	3.600E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
O	4.395E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
F	6.076E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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NE	8.448E-03	6.701E-32	0.000E+00	0.000E+00	0.000E+00
NA	2.977E+00	2.730E+00	2.607E+00	1.642E+00	9.432E-01
MG	5.594E-02	6.898E-04	8.508E-06	2.438E-11	1.638E-11
AL	2.862E+00	7.857E-06	1.337E-08	4.821E-11	3.239E-11
SI	5.723E-01	4.394E-01	3.373E-01	2.398E-02	1.004E-03
P	2.917E+00	2.911E+00	2.905E+00	2.847E+00	2.778E+00
S	1.040E-02	1.023E-02	1.023E-02	1.019E-02	1.015E-02
CL	4.690E-02	1.530E-02	5.007E-03	3.229E-06	3.158E-06
AR	2.565E-06	2.495E-06	2.446E-06	2.329E-06	2.304E-06
K	3.766E-05	3.458E-05	3.255E-05	1.870E-05	9.648E-06
CA	5.729E-04	7.536E-05	7.093E-05	7.064E-05	7.036E-05
SC	2.395E-02	2.273E-02	2.211E-02	2.078E-02	1.991E-02
TI	2.598E-02	1.901E-05	1.391E-08	0.000E+00	0.000E+00
V	3.632E+00	5.532E-05	8.441E-10	2.914E-17	2.914E-17
CR	3.154E+00	2.228E+00	2.226E+00	2.203E+00	2.175E+00
MN	1.893E+02	1.449E+02	1.110E+02	8.594E+00	1.414E+00
FE	9.302E-01	9.296E-01	9.291E-01	9.234E-01	9.166E-01
CO	6.327E+01	6.121E+01	6.113E+01	6.099E+01	6.088E+01
NI	2.625E+00	1.997E+00	1.520E+00	1.087E-01	1.596E-02
CU	5.638E-01	2.942E-01	2.785E-01	1.614E-01	8.383E-02
ZN	2.093E-01	1.749E-01	1.585E-01	1.394E-01	1.364E-01
GA	7.892E-04	1.201E-04	2.641E-05	6.934E-06	3.844E-06
SR	7.784E-02	7.596E-02	7.435E-02	6.327E-02	5.705E-02
Y	4.364E+00	4.117E+00	3.932E+00	3.024E+00	2.596E+00
ZR	2.397E+02	2.337E+02	2.279E+02	1.813E+02	1.454E+02
NB	3.958E+02	3.889E+02	3.798E+02	2.842E+02	2.025E+02
MO	1.070E+01	9.139E+00	8.958E+00	8.057E+00	7.102E+00
TC	9.827E-01	1.419E-01	1.380E-02	7.025E-07	7.032E-07
RU	1.946E-05	1.944E-05	1.943E-05	1.929E-05	1.912E-05
RH	6.853E-07	4.195E-11	3.699E-11	2.678E-11	2.104E-11
PD	3.292E-05	2.978E-05	2.807E-05	1.668E-05	8.969E-06
AG	2.085E-01	1.657E-02	1.657E-02	1.654E-02	1.650E-02
CD	5.147E-01	5.006E-01	4.889E-01	4.187E-01	3.625E-01
IN	1.101E+01	3.607E+00	2.133E+00	8.379E-01	8.314E-01
SN	1.773E+01	1.353E+01	1.340E+01	1.279E+01	1.217E+01
SB	2.015E+00	1.999E+00	1.993E+00	1.937E+00	1.878E+00
TE	6.618E-02	6.619E-02	6.619E-02	6.623E-02	6.629E-02
I	3.596E-06	6.805E-07	1.288E-07	1.533E-12	7.785E-13
EU	4.429E-04	4.422E-04	4.414E-04	4.340E-04	4.254E-04
GD	1.099E-01	8.544E-02	8.233E-02	5.688E-02	3.656E-02
TB	3.165E-02	3.161E-02	3.157E-02	3.120E-02	3.076E-02
DY	2.207E-04	1.499E-04	1.116E-04	5.960E-06	2.800E-07
HO	9.846E-06	9.607E-06	9.374E-06	7.345E-06	5.499E-06
LU	1.045E-02	8.716E-03	7.277E-03	1.368E-03	4.005E-04
HF	4.753E+00	7.055E-01	6.997E-01	6.667E-01	6.527E-01
TA	1.476E-01	1.470E-01	1.465E-01	1.415E-01	1.358E-01
W	1.250E+00	1.214E+00	1.179E+00	8.845E-01	6.270E-01
RE	2.369E-01	1.986E-01	1.879E-01	1.279E-01	8.193E-02

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OS	4.875E-07	4.763E-07	4.718E-07	4.368E-07	4.096E-07
IR	1.777E-07	1.776E-07	1.774E-07	1.761E-07	1.748E-07
PB	2.255E-07	1.827E-07	1.481E-07	1.813E-08	1.458E-09
BI	3.608E-05	3.588E-05	3.567E-05	3.367E-05	3.142E-05
PO	4.387E-04	4.387E-04	4.387E-04	4.388E-04	4.389E-04
SUMTOT	9.669E+02	8.761E+02	8.242E+02	5.723E+02	4.439E+02
TOTAL	9.669E+02	8.761E+02	8.242E+02	5.723E+02	4.439E+02

CUMULATIVE TABLE TOTALS

AP+FP	9.669E+02	8.761E+02	8.242E+02	5.723E+02	4.439E+02
ACT+FP	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AP+ACT+FP	9.669E+02	8.761E+02	8.242E+02	5.723E+02	4.439E+02

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
N 14	3.806E-01	3.806E-01	3.806E-01	3.806E-01	3.806E-01
O 16	6.261E+00	6.261E+00	6.261E+00	6.261E+00	6.261E+00
TI 48	2.436E-01	2.436E-01	2.436E-01	2.436E-01	2.436E-01
CR 50	2.739E+00	2.739E+00	2.739E+00	2.739E+00	2.739E+00
CR 52	7.323E+00	7.323E+00	7.323E+00	7.323E+00	7.323E+00
CR 53	6.880E+00	6.880E+00	6.880E+00	6.880E+00	6.880E+00
MN 55	5.237E+00	5.237E+00	5.237E+00	5.237E+00	5.237E+00
FE 54	1.547E+00	1.547E+00	1.547E+00	1.547E+00	1.547E+00
FE 56	2.642E+01	2.642E+01	2.642E+01	2.642E+01	2.642E+01
FE 57	5.937E-01	5.937E-01	5.937E-01	5.937E-01	5.937E-01
CO 58	2.816E-01	2.815E-01	2.814E-01	2.802E-01	2.788E-01
CO 59	2.773E+00	2.773E+00	2.773E+00	2.773E+00	2.773E+00
NI 58	1.237E+01	1.237E+01	1.237E+01	1.237E+01	1.237E+01
NI 59	9.578E-01	9.578E-01	9.578E-01	9.578E-01	9.578E-01
NI 60	2.953E+00	2.953E+00	2.953E+00	2.953E+00	2.953E+00
NI 62	2.000E+00	2.000E+00	2.000E+00	2.000E+00	2.000E+00

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ZR 90	8.603E+00	8.603E+00	8.603E+00	8.603E+00	8.603E+00
ZR 91	2.057E+01	2.057E+01	2.057E+01	2.057E+01	2.057E+01
ZR 92	1.260E+01	1.260E+01	1.260E+01	1.260E+01	1.260E+01
ZR 93	1.487E-01	1.487E-01	1.487E-01	1.487E-01	1.487E-01
ZR 94	2.319E+00	2.319E+00	2.319E+00	2.319E+00	2.319E+00
ZR 96	3.639E+00	3.639E+00	3.639E+00	3.639E+00	3.639E+00
NB 93	1.003E+00	1.003E+00	1.003E+00	1.003E+00	1.003E+00
MO 95	7.640E-01	7.640E-01	7.640E-01	7.641E-01	7.642E-01
MO 96	1.364E-01	1.364E-01	1.364E-01	1.364E-01	1.364E-01
MO 98	3.446E-01	3.446E-01	3.446E-01	3.446E-01	3.446E-01
SN116	7.853E-01	7.853E-01	7.853E-01	7.853E-01	7.853E-01
SN117	4.986E-01	4.986E-01	4.986E-01	4.986E-01	4.986E-01
SN118	8.445E-01	8.445E-01	8.445E-01	8.445E-01	8.445E-01
SN119	1.945E-01	1.945E-01	1.945E-01	1.945E-01	1.945E-01
SN120	1.668E-01	1.668E-01	1.668E-01	1.668E-01	1.668E-01
SN124	1.907E-01	1.907E-01	1.907E-01	1.907E-01	1.907E-01
HF177	1.591E-01	1.591E-01	1.591E-01	1.591E-01	1.591E-01
HF178	3.719E-01	3.719E-01	3.719E-01	3.719E-01	3.719E-01
SUMTOT	1.323E+02	1.323E+02	1.323E+02	1.323E+02	1.323E+02

TOTAL 1.340E+02 1.340E+02 1.340E+02 1.340E+02 1.340E+02

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
N	3.806E-01	3.806E-01	3.806E-01	3.806E-01	3.806E-01
O	6.277E+00	6.277E+00	6.277E+00	6.277E+00	6.277E+00
TI	2.590E-01	2.590E-01	2.590E-01	2.590E-01	2.590E-01
CR	1.698E+01	1.698E+01	1.698E+01	1.698E+01	1.698E+01
MN	5.237E+00	5.237E+00	5.237E+00	5.237E+00	5.237E+00
FE	2.861E+01	2.861E+01	2.861E+01	2.861E+01	2.861E+01
CO	3.059E+00	3.059E+00	3.059E+00	3.058E+00	3.057E+00
NI	1.849E+01	1.849E+01	1.849E+01	1.849E+01	1.849E+01
ZR	4.788E+01	4.788E+01	4.788E+01	4.788E+01	4.788E+01

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NB	1.047E+00	1.047E+00	1.047E+00	1.047E+00	1.047E+00
MO	1.371E+00	1.371E+00	1.372E+00	1.372E+00	1.372E+00
SN	2.867E+00	2.867E+00	2.867E+00	2.867E+00	2.867E+00
HF	6.961E-01	6.961E-01	6.961E-01	6.961E-01	6.961E-01
SUMTOT	1.332E+02	1.332E+02	1.332E+02	1.332E+02	1.331E+02
TOTAL	1.340E+02	1.340E+02	1.340E+02	1.340E+02	1.340E+02

CUMULATIVE TABLE TOTALS

AP+FP	1.340E+02	1.340E+02	1.340E+02	1.340E+02	1.340E+02
ACT+FP	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AP+ACT+FP	1.340E+02	1.340E+02	1.340E+02	1.340E+02	1.340E+02

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

NAL NEUTRONS PER SECOND

17X17 PWR ASSEMBLY, 4.236% UO2, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
N 14	2.841E-03	2.841E-03	2.841E-03	2.841E-03	2.841E-03
O 16	4.674E-02	4.674E-02	4.674E-02	4.674E-02	4.674E-02
TI 48	1.818E-03	1.818E-03	1.818E-03	1.818E-03	1.818E-03
CR 50	2.045E-02	2.045E-02	2.045E-02	2.045E-02	2.045E-02
CR 52	5.466E-02	5.466E-02	5.466E-02	5.466E-02	5.466E-02
CR 53	5.136E-02	5.136E-02	5.136E-02	5.136E-02	5.136E-02
MN 55	3.909E-02	3.909E-02	3.909E-02	3.909E-02	3.909E-02
FE 54	1.155E-02	1.155E-02	1.155E-02	1.155E-02	1.155E-02
FE 56	1.972E-01	1.972E-01	1.972E-01	1.972E-01	1.972E-01
FE 57	4.431E-03	4.431E-03	4.431E-03	4.431E-03	4.431E-03
CO 58	2.102E-03	2.101E-03	2.100E-03	2.092E-03	2.081E-03
CO 59	2.070E-02	2.070E-02	2.070E-02	2.070E-02	2.070E-02
NI 58	9.233E-02	9.233E-02	9.233E-02	9.233E-02	9.233E-02
NI 59	7.149E-03	7.149E-03	7.149E-03	7.149E-03	7.149E-03
NI 60	2.204E-02	2.204E-02	2.204E-02	2.204E-02	2.204E-02
NI 62	1.493E-02	1.493E-02	1.493E-02	1.493E-02	1.493E-02

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ZR 90	6.421E-02	6.421E-02	6.421E-02	6.421E-02	6.421E-02
ZR 91	1.536E-01	1.536E-01	1.536E-01	1.536E-01	1.536E-01
ZR 92	9.403E-02	9.403E-02	9.403E-02	9.403E-02	9.403E-02
ZR 93	1.110E-03	1.110E-03	1.110E-03	1.110E-03	1.110E-03
ZR 94	1.731E-02	1.731E-02	1.731E-02	1.731E-02	1.731E-02
ZR 96	2.716E-02	2.716E-02	2.716E-02	2.716E-02	2.716E-02
NB 93	7.488E-03	7.488E-03	7.488E-03	7.488E-03	7.488E-03
MO 95	5.703E-03	5.703E-03	5.703E-03	5.704E-03	5.704E-03
MO 96	1.018E-03	1.018E-03	1.018E-03	1.018E-03	1.018E-03
MO 98	2.572E-03	2.572E-03	2.572E-03	2.572E-03	2.572E-03
SN116	5.862E-03	5.862E-03	5.862E-03	5.862E-03	5.862E-03
SN117	3.722E-03	3.722E-03	3.722E-03	3.722E-03	3.722E-03
SN118	6.303E-03	6.303E-03	6.303E-03	6.303E-03	6.303E-03
SN119	1.452E-03	1.452E-03	1.452E-03	1.452E-03	1.452E-03
SN120	1.245E-03	1.245E-03	1.245E-03	1.245E-03	1.245E-03
SN124	1.423E-03	1.423E-03	1.423E-03	1.423E-03	1.423E-03
HF177	1.187E-03	1.187E-03	1.187E-03	1.187E-03	1.187E-03
HF178	2.776E-03	2.776E-03	2.776E-03	2.776E-03	2.776E-03
SUMTOT	9.875E-01	9.875E-01	9.875E-01	9.875E-01	9.875E-01

TOTAL 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 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
N	2.841E-03	2.841E-03	2.841E-03	2.841E-03	2.841E-03
O	4.685E-02	4.685E-02	4.685E-02	4.685E-02	4.685E-02
TI	1.933E-03	1.933E-03	1.933E-03	1.933E-03	1.933E-03
CR	1.267E-01	1.267E-01	1.267E-01	1.267E-01	1.267E-01
MN	3.909E-02	3.909E-02	3.909E-02	3.909E-02	3.909E-02
FE	2.135E-01	2.135E-01	2.135E-01	2.135E-01	2.135E-01
CO	2.284E-02	2.283E-02	2.283E-02	2.283E-02	2.282E-02
NI	1.380E-01	1.380E-01	1.380E-01	1.380E-01	1.380E-01

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ZR	3.574E-01	3.574E-01	3.574E-01	3.574E-01	3.574E-01
NB	7.812E-03	7.812E-03	7.812E-03	7.812E-03	7.812E-03
MO	1.024E-02	1.024E-02	1.024E-02	1.024E-02	1.024E-02
SN	2.140E-02	2.140E-02	2.140E-02	2.140E-02	2.140E-02
HF	5.196E-03	5.196E-03	5.196E-03	5.196E-03	5.196E-03
SUMTOT	9.939E-01	9.939E-01	9.939E-01	9.939E-01	9.939E-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 151
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
HE 4	7.300E-03	7.303E-03	7.305E-03	7.330E-03	7.360E-03
TH230	5.148E-04	5.148E-04	5.149E-04	5.153E-04	5.158E-04
PA231	7.629E-05	7.630E-05	7.632E-05	7.644E-05	7.655E-05
U232	4.828E-05	4.829E-05	4.829E-05	4.837E-05	4.845E-05
U233	6.437E-04	6.437E-04	6.437E-04	6.438E-04	6.438E-04
U234	1.393E+02	1.393E+02	1.393E+02	1.393E+02	1.393E+02
U235	1.098E+04	1.098E+04	1.098E+04	1.098E+04	1.098E+04
U236	1.557E+03	1.557E+03	1.557E+03	1.557E+03	1.557E+03
U237	3.858E+00	3.842E+00	3.825E+00	3.665E+00	3.482E+00
U238	4.365E+05	4.365E+05	4.365E+05	4.365E+05	4.365E+05
U239	2.331E-01	3.981E-02	6.800E-03	1.437E-10	8.862E-20
NP236	5.956E-05	5.956E-05	5.956E-05	5.956E-05	5.956E-05
NP237	9.837E+01	9.839E+01	9.840E+01	9.856E+01	9.875E+01
NP238	2.390E-01	2.358E-01	2.326E-01	2.029E-01	1.723E-01
NP239	3.355E+01	3.334E+01	3.296E+01	2.917E+01	2.517E+01
NP240	5.907E-04	3.115E-04	1.643E-04	2.732E-07	1.265E-10
PU236	1.118E-04	1.118E-04	1.119E-04	1.121E-04	1.123E-04
PU238	1.366E+01	1.366E+01	1.366E+01	1.369E+01	1.373E+01
PU239	2.138E+03	2.138E+03	2.139E+03	2.143E+03	2.147E+03
PU240	4.778E+02	4.778E+02	4.778E+02	4.778E+02	4.778E+02
PU241	2.799E+02	2.799E+02	2.799E+02	2.799E+02	2.799E+02
PU242	3.592E+01	3.592E+01	3.592E+01	3.592E+01	3.592E+01
PU243	9.019E-03	7.842E-03	6.818E-03	1.684E-03	3.143E-04

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PU244	4.945E-04	4.946E-04	4.946E-04	4.946E-04	4.946E-04
AM241	4.681E+00	4.683E+00	4.684E+00	4.700E+00	4.718E+00
AM242M	1.446E-01	1.446E-01	1.446E-01	1.446E-01	1.446E-01
AM242	9.127E-03	8.741E-03	8.371E-03	5.431E-03	3.232E-03
AM243	3.315E+00	3.316E+00	3.317E+00	3.322E+00	3.323E+00
AM244M	1.058E-04	2.137E-05	4.317E-06	4.879E-13	2.250E-21
AM244	1.295E-04	1.209E-04	1.129E-04	5.683E-05	2.494E-05
CM242	6.880E-01	6.882E-01	6.884E-01	6.896E-01	6.899E-01
CM243	8.920E-03	8.920E-03	8.920E-03	8.920E-03	8.919E-03
CM244	3.978E-01	3.979E-01	3.980E-01	3.980E-01	3.980E-01
CM245	8.353E-03	8.353E-03	8.353E-03	8.353E-03	8.353E-03
CM246	3.171E-04	3.171E-04	3.171E-04	3.171E-04	3.171E-04
SUMTOT	4.522E+05	4.522E+05	4.522E+05	4.522E+05	4.522E+05

TOTAL 4.522E+05 4.522E+05 4.522E+05 4.522E+05 4.522E+05

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
HE	7.300E-03	7.303E-03	7.305E-03	7.330E-03	7.360E-03
TH	5.551E-04	5.552E-04	5.552E-04	5.556E-04	5.561E-04
PA	7.952E-05	7.953E-05	7.954E-05	7.962E-05	7.969E-05
U	4.492E+05	4.492E+05	4.492E+05	4.492E+05	4.492E+05
NP	1.322E+02	1.320E+02	1.316E+02	1.279E+02	1.241E+02
PU	2.945E+03	2.946E+03	2.946E+03	2.950E+03	2.954E+03
AM	8.150E+00	8.152E+00	8.154E+00	8.172E+00	8.189E+00
CM	1.103E+00	1.104E+00	1.104E+00	1.105E+00	1.106E+00
SUMTOT	4.522E+05	4.522E+05	4.522E+05	4.522E+05	4.522E+05
TOTAL	4.522E+05	4.522E+05	4.522E+05	4.522E+05	4.522E+05

CUMULATIVE TABLE TOTALS

AP+FP	1.968E+05	1.968E+05	1.968E+05	1.968E+05	1.968E+05
ACT+FP	4.522E+05	4.522E+05	4.522E+05	4.522E+05	4.522E+05

AP+ACT+FP 6.491E+05 6.491E+05 6.491E+05 6.491E+05 6.491E+05

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OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
TH231	2.769E-01	2.701E-01	2.635E-01	2.065E-01	1.557E-01
TH233	2.008E-03	3.058E-04	4.657E-05	3.129E-13	4.876E-23
TH234	1.469E-01	1.469E-01	1.469E-01	1.469E-01	1.469E-01
PA232	9.952E-02	9.735E-02	9.522E-02	7.639E-02	5.863E-02
PA233	6.221E-02	6.222E-02	6.223E-02	6.230E-02	6.240E-02
PA234M	1.477E-01	1.469E-01	1.469E-01	1.469E-01	1.469E-01
U232	1.034E-03	1.034E-03	1.034E-03	1.036E-03	1.037E-03
U234	8.709E-01	8.709E-01	8.709E-01	8.709E-01	8.709E-01
U235	2.375E-02	2.375E-02	2.375E-02	2.375E-02	2.375E-02
U236	1.008E-01	1.008E-01	1.008E-01	1.008E-01	1.008E-01
U237	3.151E+05	3.137E+05	3.124E+05	2.993E+05	2.843E+05
U238	1.468E-01	1.468E-01	1.468E-01	1.468E-01	1.468E-01
U239	7.795E+06	1.331E+06	2.274E+05	4.807E-03	2.964E-12
U240	7.189E+00	6.844E+00	6.515E+00	3.985E+00	2.209E+00
NP235	8.424E-04	8.423E-04	8.422E-04	8.416E-04	8.409E-04
NP236M	1.193E+00	1.157E+00	1.122E+00	8.244E-01	5.696E-01
NP237	6.937E-02	6.938E-02	6.939E-02	6.951E-02	6.964E-02
NP238	6.197E+04	6.113E+04	6.030E+04	5.261E+04	4.466E+04
NP239	7.786E+06	7.736E+06	7.649E+06	6.768E+06	5.842E+06
NP240M	1.466E+03	1.219E+01	6.592E+00	4.020E+00	2.229E+00
NP240	7.123E+03	3.756E+03	1.981E+03	3.294E+00	1.525E-03
PU236	5.944E-02	5.945E-02	5.947E-02	5.958E-02	5.967E-02
PU237	1.953E-01	1.952E-01	1.951E-01	1.939E-01	1.924E-01
PU238	2.339E+02	2.339E+02	2.340E+02	2.345E+02	2.351E+02
PU239	1.330E+02	1.330E+02	1.330E+02	1.332E+02	1.335E+02
PU240	1.089E+02	1.089E+02	1.089E+02	1.089E+02	1.089E+02
PU241	2.885E+04	2.885E+04	2.885E+04	2.884E+04	2.884E+04
PU242	1.372E-01	1.372E-01	1.372E-01	1.372E-01	1.372E-01
PU243	2.348E+04	2.042E+04	1.775E+04	4.383E+03	8.182E+02
PU245	1.079E-02	1.011E-02	9.471E-03	4.925E-03	2.247E-03

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AM240	3.117E-02	3.075E-02	3.033E-02	2.646E-02	2.247E-02
AM241	1.607E+01	1.608E+01	1.608E+01	1.614E+01	1.620E+01
AM242M	1.406E+00	1.406E+00	1.406E+00	1.406E+00	1.406E+00
AM242	7.381E+03	7.069E+03	6.770E+03	4.392E+03	2.614E+03
AM243	6.610E-01	6.613E-01	6.615E-01	6.625E-01	6.628E-01
AM244M	3.138E+03	6.337E+02	1.280E+02	1.447E-05	6.671E-14
AM244	1.647E+02	1.538E+02	1.436E+02	7.230E+01	3.173E+01
AM245	1.079E-02	1.069E-02	1.043E-02	6.073E-03	2.792E-03
CM242	2.276E+03	2.276E+03	2.277E+03	2.281E+03	2.282E+03
CM243	4.606E-01	4.606E-01	4.606E-01	4.606E-01	4.606E-01
CM244	3.220E+01	3.221E+01	3.221E+01	3.221E+01	3.221E+01
CM245	1.435E-03	1.435E-03	1.435E-03	1.435E-03	1.435E-03
SUMTOT	1.603E+07	9.506E+06	8.308E+06	7.160E+06	6.206E+06

TOTAL 1.603E+07 9.506E+06 8.308E+06 7.160E+06 6.206E+06

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
TH	4.260E-01	4.175E-01	4.106E-01	3.535E-01	3.027E-01
PA	3.103E-01	3.074E-01	3.052E-01	2.860E-01	2.682E-01
U	8.110E+06	1.645E+06	5.398E+05	2.993E+05	2.843E+05
NP	7.857E+06	7.801E+06	7.712E+06	6.821E+06	5.887E+06
PU	5.280E+04	4.974E+04	4.707E+04	3.370E+04	3.014E+04
AM	1.070E+04	7.875E+03	7.059E+03	4.483E+03	2.664E+03
CM	2.308E+03	2.309E+03	2.310E+03	2.314E+03	2.315E+03
SUMTOT	1.603E+07	9.506E+06	8.308E+06	7.160E+06	6.206E+06
TOTAL	1.603E+07	9.506E+06	8.308E+06	7.160E+06	6.206E+06

CUMULATIVE TABLE TOTALS

AP+FP	1.744E+05	1.589E+05	1.533E+05	1.188E+05	9.590E+04
ACT+FP	1.603E+07	9.506E+06	8.308E+06	7.160E+06	6.206E+06
AP+ACT+FP	1.621E+07	9.665E+06	8.461E+06	7.279E+06	6.302E+06

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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-SEC9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
BI212	2.495E-06	2.496E-06	2.496E-06	2.495E-06	2.614E-06
PO212	4.981E-06	4.983E-06	4.983E-06	4.980E-06	5.219E-06
PO216	6.006E-06	6.007E-06	6.007E-06	6.006E-06	6.007E-06
RN220	5.570E-06	5.571E-06	5.571E-06	5.570E-06	5.572E-06
RA224	5.035E-06	5.035E-06	5.035E-06	5.035E-06	5.036E-06
TH228	4.786E-06	4.787E-06	4.788E-06	4.800E-06	4.815E-06
TH231	1.554E-04	1.516E-04	1.479E-04	1.159E-04	8.734E-05
TH233	5.082E-06	7.740E-07	1.179E-07	7.919E-16	1.234E-25
TH234	5.956E-05	5.956E-05	5.956E-05	5.956E-05	5.956E-05
PA232	6.507E-04	6.365E-04	6.226E-04	4.994E-04	3.833E-04
PA233	1.412E-04	1.412E-04	1.412E-04	1.414E-04	1.416E-04
PA234M	7.297E-04	7.260E-04	7.260E-04	7.260E-04	7.260E-04
PA234	1.356E-05	1.249E-05	1.154E-05	5.866E-06	3.643E-06
U232	3.319E-05	3.319E-05	3.320E-05	3.325E-05	3.330E-05
U234	2.508E-02	2.508E-02	2.508E-02	2.508E-02	2.508E-02
U235	6.221E-04	6.221E-04	6.221E-04	6.221E-04	6.221E-04
U236	2.731E-03	2.731E-03	2.731E-03	2.731E-03	2.731E-03
U237	5.961E+02	5.936E+02	5.910E+02	5.663E+02	5.380E+02
U238	3.723E-03	3.723E-03	3.723E-03	3.723E-03	3.723E-03
U239	2.098E+04	3.584E+03	6.122E+02	1.294E-05	7.978E-15
U240	5.897E-03	5.614E-03	5.345E-03	3.269E-03	1.812E-03
NP236M	9.428E-04	9.142E-04	8.865E-04	6.514E-04	4.501E-04
NP237	2.120E-03	2.121E-03	2.121E-03	2.124E-03	2.128E-03
NP238	2.968E+02	2.928E+02	2.888E+02	2.520E+02	2.139E+02
NP239	1.882E+04	1.870E+04	1.849E+04	1.636E+04	1.412E+04
NP240M	8.495E+00	7.064E-02	3.820E-02	2.330E-02	1.292E-02
NP240	7.549E+01	3.981E+01	2.100E+01	3.492E-02	1.616E-05
PU236	2.069E-03	2.069E-03	2.069E-03	2.073E-03	2.077E-03
PU237	7.202E-05	7.197E-05	7.193E-05	7.147E-05	7.093E-05
PU238	7.751E+00	7.753E+00	7.755E+00	7.772E+00	7.790E+00
PU239	4.097E+00	4.098E+00	4.099E+00	4.106E+00	4.114E+00

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PU240	3.391E+00	3.391E+00	3.391E+00	3.391E+00	3.391E+00
PU241	8.943E-01	8.943E-01	8.943E-01	8.942E-01	8.942E-01
PU242	4.052E-03	4.052E-03	4.052E-03	4.052E-03	4.052E-03
PU243	2.710E+01	2.356E+01	2.049E+01	5.059E+00	9.442E-01
PU245	2.559E-05	2.397E-05	2.246E-05	1.168E-05	5.328E-06
AM240	2.040E-04	2.012E-04	1.985E-04	1.732E-04	1.470E-04
AM241	5.339E-01	5.341E-01	5.342E-01	5.360E-01	5.381E-01
AM242M	5.554E-04	5.554E-04	5.554E-04	5.554E-04	5.554E-04
AM242	8.379E+00	8.024E+00	7.685E+00	4.986E+00	2.967E+00
AM243	2.125E-02	2.126E-02	2.126E-02	2.130E-02	2.130E-02
AM244M	9.491E+00	1.917E+00	3.872E-01	4.376E-08	2.018E-16
AM244	8.633E-01	8.060E-01	7.525E-01	3.789E-01	1.663E-01
AM245	2.003E-05	1.983E-05	1.935E-05	1.127E-05	5.179E-06
CM241	2.201E-06	2.199E-06	2.197E-06	2.180E-06	2.159E-06
CM242	8.385E+01	8.387E+01	8.390E+01	8.405E+01	8.409E+01
CM243	1.690E-02	1.690E-02	1.690E-02	1.690E-02	1.690E-02
CM244	1.126E+00	1.127E+00	1.127E+00	1.127E+00	1.127E+00
CM245	4.761E-05	4.761E-05	4.761E-05	4.761E-05	4.761E-05
CM246	3.190E-06	3.190E-06	3.190E-06	3.190E-06	3.190E-06
SUMTOT	4.093E+04	2.335E+04	2.013E+04	1.729E+04	1.498E+04
TOTAL	4.093E+04	2.335E+04	2.013E+04	1.729E+04	1.498E+04

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
BI	2.497E-06	2.498E-06	2.498E-06	2.497E-06	2.616E-06
PO	1.099E-05	1.099E-05	1.099E-05	1.099E-05	1.123E-05
RN	5.572E-06	5.573E-06	5.573E-06	5.573E-06	5.574E-06
RA	5.037E-06	5.037E-06	5.037E-06	5.037E-06	5.038E-06
TH	2.251E-04	2.170E-04	2.126E-04	1.805E-04	1.520E-04
PA	1.535E-03	1.516E-03	1.502E-03	1.373E-03	1.255E-03
U	2.158E+04	4.178E+03	1.203E+03	5.663E+02	5.380E+02
NP	1.920E+04	1.903E+04	1.880E+04	1.661E+04	1.434E+04
PU	4.324E+01	3.971E+01	3.663E+01	2.123E+01	1.714E+01

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AM	1.929E+01	1.130E+01	9.381E+00	5.923E+00	3.694E+00
CM	8.499E+01	8.502E+01	8.504E+01	8.519E+01	8.523E+01
SUMTOT	4.093E+04	2.335E+04	2.013E+04	1.729E+04	1.498E+04
TOTAL	4.093E+04	2.335E+04	2.013E+04	1.729E+04	1.498E+04

CUMULATIVE TABLE TOTALS

AP+FP	9.669E+02	8.761E+02	8.242E+02	5.723E+02	4.439E+02
ACT+FP	4.093E+04	2.335E+04	2.013E+04	1.729E+04	1.498E+04
AP+ACT+FP	4.190E+04	2.422E+04	2.096E+04	1.786E+04	1.542E+04

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OUTPUT UNIT =

6 PAGE 157
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/
MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	7.022E+00	7.022E+00	7.022E+00	7.022E+00	7.022E+00
U235	1.314E+03	1.314E+03	1.314E+03	1.314E+03	1.314E+03
U236	3.377E+01	3.377E+01	3.377E+01	3.377E+01	3.377E+01
U238	1.056E+03	1.056E+03	1.056E+03	1.056E+03	1.056E+03
NP237	7.706E+00	7.708E+00	7.709E+00	7.722E+00	7.736E+00
PU239	8.445E+02	8.447E+02	8.449E+02	8.464E+02	8.479E+02
PU240	2.567E+02	2.567E+02	2.567E+02	2.567E+02	2.567E+02
PU241	9.439E+01	9.439E+01	9.439E+01	9.438E+01	9.438E+01
SUMTOT	3.614E+03	3.614E+03	3.615E+03	3.616E+03	3.618E+03
TOTAL	3.622E+03	3.622E+03	3.622E+03	3.623E+03	3.625E+03

□

OUTPUT UNIT =

6 PAGE 158
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
U	2.411E+03	2.411E+03	2.411E+03	2.411E+03	2.411E+03
NP	8.854E+00	8.848E+00	8.836E+00	8.718E+00	8.595E+00
PU	1.200E+03	1.200E+03	1.200E+03	1.201E+03	1.203E+03
SUMTOT	3.620E+03	3.620E+03	3.620E+03	3.621E+03	3.623E+03
TOTAL	3.622E+03	3.622E+03	3.622E+03	3.623E+03	3.625E+03

CUMULATIVE TABLE TOTALS

AP+FP	1.340E+02	1.340E+02	1.340E+02	1.340E+02	1.340E+02
ACT+FP	3.622E+03	3.622E+03	3.622E+03	3.623E+03	3.625E+03
AP+ACT+FP	3.756E+03	3.756E+03	3.756E+03	3.757E+03	3.759E+03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
U234	1.939E-03	1.939E-03	1.939E-03	1.938E-03	1.937E-03
U235	3.628E-01	3.627E-01	3.627E-01	3.626E-01	3.624E-01
U236	9.325E-03	9.325E-03	9.325E-03	9.321E-03	9.317E-03
U238	2.917E-01	2.917E-01	2.917E-01	2.916E-01	2.915E-01
NP237	2.128E-03	2.128E-03	2.128E-03	2.131E-03	2.134E-03
PU239	2.332E-01	2.332E-01	2.333E-01	2.336E-01	2.339E-01
PU240	7.088E-02	7.088E-02	7.088E-02	7.085E-02	7.082E-02

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PU241 2.606E-02 2.606E-02 2.606E-02 2.605E-02 2.604E-02
SUMTOT 9.980E-01 9.980E-01 9.980E-01 9.980E-01 9.981E-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 160
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

ASSY DIS 1.0HR 2.0HR 12.0HR 24.0HR

U 6.658E-01 6.658E-01 6.658E-01 6.655E-01 6.652E-01
NP 2.445E-03 2.443E-03 2.440E-03 2.406E-03 2.371E-03
PU 3.312E-01 3.313E-01 3.313E-01 3.316E-01 3.319E-01
SUMTOT 9.995E-01 9.995E-01 9.995E-01 9.995E-01 9.995E-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 161
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

ASSY DIS 1.0HR 2.0HR 12.0HR 24.0HR

U235 1.063E+03 1.063E+03 1.063E+03 1.063E+03 1.063E+03

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U238	1.070E+02	1.070E+02	1.070E+02	1.070E+02	1.070E+02
PU239	5.345E+02	5.346E+02	5.347E+02	5.357E+02	5.367E+02
PU241	7.085E+01	7.085E+01	7.085E+01	7.084E+01	7.084E+01
SUMTOT	1.775E+03	1.775E+03	1.775E+03	1.776E+03	1.777E+03

TOTAL	1.777E+03	1.777E+03	1.777E+03	1.778E+03	1.779E+03
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OUTPUT UNIT =

6 PAGE 162
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

21 SUMMARY TABLE: FISSION RATE, FISSIONS PER SE COND

17X17 PWR ASSEMBLY, 4.236% UO2, 19157 MWD/ MTIHM, 1 CYCLE

ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
U	1.171E+03	1.171E+03	1.171E+03	1.171E+03
PU	6.062E+02	6.063E+02	6.064E+02	6.073E+02
SUMTOT	1.777E+03	1.777E+03	1.777E+03	1.778E+03
TOTAL	1.777E+03	1.777E+03	1.777E+03	1.779E+03

CUMULATIVE TABLE TOTALS

AP+FP	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACT+FP	1.777E+03	1.777E+03	1.777E+03	1.778E+03
AP+ACT+FP	1.777E+03	1.777E+03	1.777E+03	1.778E+03

□

OUTPUT UNIT =

6 PAGE 163
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

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SIONS PER SECOND

17X17 PWR ASSEMBLY, 4.236% UO2, 19157 MWD/

MTIHM, 1 CYCLE

ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR	
U235	5.980E-01	5.979E-01	5.979E-01	5.976E-01	5.972E-01
U238	6.019E-02	6.018E-02	6.018E-02	6.015E-02	6.012E-02
PU239	3.008E-01	3.008E-01	3.008E-01	3.012E-01	3.016E-01
PU241	3.987E-02	3.986E-02	3.986E-02	3.984E-02	3.981E-02
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 =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR	
U	6.587E-01	6.586E-01	6.586E-01	6.583E-01	6.579E-01
PU	3.411E-01	3.411E-01	3.412E-01	3.415E-01	3.419E-01
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

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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

23 SUMMARY TABLE: ALPHA RADIOACTIVITY CURIES

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17X17 PWR ASSEMBLY, 4.236% UO2, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
PU238	2.339E+02	2.339E+02	2.340E+02	2.345E+02	2.351E+02
PU239	1.330E+02	1.330E+02	1.330E+02	1.332E+02	1.335E+02
PU240	1.089E+02	1.089E+02	1.089E+02	1.089E+02	1.089E+02
AM241	1.607E+01	1.608E+01	1.608E+01	1.614E+01	1.620E+01
CM242	2.276E+03	2.276E+03	2.277E+03	2.281E+03	2.282E+03
CM244	3.220E+01	3.221E+01	3.221E+01	3.221E+01	3.221E+01
SUMTOT	2.800E+03	2.800E+03	2.801E+03	2.806E+03	2.808E+03
TOTAL	2.803E+03	2.804E+03	2.804E+03	2.809E+03	2.811E+03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
PU	4.766E+02	4.767E+02	4.768E+02	4.776E+02	4.784E+02
AM	1.674E+01	1.675E+01	1.675E+01	1.681E+01	1.687E+01
CM	2.308E+03	2.309E+03	2.310E+03	2.314E+03	2.315E+03
SUMTOT	2.802E+03	2.802E+03	2.803E+03	2.808E+03	2.810E+03
TOTAL	2.803E+03	2.804E+03	2.804E+03	2.809E+03	2.811E+03

CUMULATIVE TABLE TOTALS

AP+FP	0.000E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ACT+FP	2.803E+03	2.804E+03	2.804E+03	2.809E+03	2.811E+03
AP+ACT+FP	2.803E+03	2.804E+03	2.804E+03	2.809E+03	2.811E+03

□

OUTPUT UNIT =

6

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	1.454E-02	1.454E-02	1.454E-02	1.454E-02	1.454E-02
LI 6	8.174E-05	8.174E-05	8.174E-05	8.174E-05	8.174E-05
LI 7	2.733E-06	2.733E-06	2.733E-06	2.733E-06	2.733E-06
BE 9	5.267E-06	5.267E-06	5.267E-06	5.267E-06	5.267E-06
BE 10	3.513E-05	3.513E-05	3.513E-05	3.513E-05	3.513E-05
C 14	7.103E-06	7.103E-06	7.103E-06	7.103E-06	7.103E-06
ZN 68	3.317E-04	3.317E-04	3.317E-04	3.317E-04	3.317E-04
ZN 70	1.136E-03	1.136E-03	1.136E-03	1.136E-03	1.136E-03
ZN 72	2.950E-05	2.906E-05	2.863E-05	2.467E-05	2.063E-05
GA 72	8.968E-06	8.964E-06	8.953E-06	8.589E-06	7.787E-06
GE 72	4.843E-03	4.843E-03	4.843E-03	4.848E-03	4.853E-03
GA 73	6.834E-06	5.937E-06	5.151E-06	1.245E-06	2.264E-07
GE 73	1.123E-02	1.123E-02	1.123E-02	1.123E-02	1.123E-02
GE 74	2.470E-02	2.470E-02	2.470E-02	2.470E-02	2.470E-02
GE 75	8.820E-06	5.473E-06	3.312E-06	2.181E-08	5.253E-11
AS 75	5.393E-02	5.393E-02	5.394E-02	5.394E-02	5.394E-02
GE 76	1.403E-01	1.403E-01	1.403E-01	1.403E-01	1.403E-01
AS 76	4.945E-06	4.816E-06	4.691E-06	3.605E-06	2.628E-06
SE 76	7.373E-04	7.374E-04	7.375E-04	7.386E-04	7.396E-04
GE 77	1.384E-04	1.303E-04	1.225E-04	6.635E-05	3.178E-05
AS 77	1.333E-03	1.318E-03	1.302E-03	1.140E-03	9.507E-04
SE 77	2.982E-01	2.982E-01	2.983E-01	2.985E-01	2.987E-01
GE 78	1.063E-04	6.598E-05	4.091E-05	3.434E-07	1.108E-09
AS 78	1.133E-04	1.035E-04	8.518E-05	2.681E-06	1.809E-08
SE 78	6.502E-01	6.503E-01	6.503E-01	6.504E-01	6.504E-01
GE 79	1.875E-06	1.207E-31	0.000E+00	0.000E+00	0.000E+00
AS 79	2.799E-05	2.961E-07	2.914E-09	2.488E-29	0.000E+00
SE 79	1.640E+00	1.640E+00	1.640E+00	1.640E+00	1.640E+00
SE 79M	1.212E-05	2.252E-07	2.224E-09	1.894E-29	0.000E+00
BR 79	1.333E-05	1.334E-05	1.334E-05	1.336E-05	1.338E-05
GE 80	2.295E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 80	1.931E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 80	3.781E+00	3.781E+00	3.781E+00	3.781E+00	3.781E+00
KR 80	4.283E-05	4.283E-05	4.284E-05	4.285E-05	4.285E-05
GE 81	1.220E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ML041000029.txt

AS 81	6.047E-06	1.068E-39	0.000E+00	0.000E+00	0.000E+00
SE 81	2.227E-04	2.793E-05	4.700E-06	1.578E-09	2.604E-13
SE 81M	2.006E-05	9.709E-06	4.698E-06	3.310E-09	5.460E-13
BR 81	6.342E+00	6.342E+00	6.342E+00	6.342E+00	6.342E+00
KR 81	2.674E-06	2.674E-06	2.674E-06	2.674E-06	2.674E-06
AS 82	3.810E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82M	9.294E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 82	9.880E+00	9.880E+00	9.880E+00	9.880E+00	9.880E+00
BR 82	1.206E-03	1.184E-03	1.161E-03	9.540E-04	7.538E-04
BR 82M	1.323E-06	1.496E-09	1.687E-12	0.000E+00	0.000E+00
KR 82	1.406E-01	1.406E-01	1.406E-01	1.408E-01	1.410E-01
AS 83	4.584E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 83	2.499E-04	3.962E-05	6.241E-06	5.858E-14	1.364E-23
SE 83M	2.030E-05	7.938E-21	2.619E-36	0.000E+00	0.000E+00
BR 83	4.151E-03	3.300E-03	2.497E-03	1.378E-04	4.243E-06
KR 83	1.437E+01	1.437E+01	1.437E+01	1.438E+01	1.438E+01

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 83M	3.179E-03	3.074E-03	2.795E-03	3.281E-04	1.257E-05
AS 84	1.558E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 84	1.680E-04	5.720E-10	1.923E-15	0.000E+00	0.000E+00
BR 84	1.665E-03	5.015E-04	1.356E-04	2.835E-10	4.332E-17
BR 84M	9.040E-06	8.828E-09	8.621E-12	0.000E+00	0.000E+00
KR 84	3.186E+01	3.186E+01	3.186E+01	3.186E+01	3.186E+01
SE 85	2.023E-05	3.349E-33	0.000E+00	0.000E+00	0.000E+00
SE 85M	7.233E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 85	1.852E-04	1.101E-10	5.508E-17	0.000E+00	0.000E+00
KR 85	7.594E+00	7.595E+00	7.595E+00	7.597E+00	7.597E+00
KR 85M	1.758E-02	1.525E-02	1.306E-02	2.780E-03	4.344E-04
RB 85	2.952E+01	2.953E+01	2.953E+01	2.954E+01	2.954E+01
SE 86	1.758E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 86	4.393E-05	1.119E-24	0.000E+00	0.000E+00	0.000E+00
BR 86M	3.618E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ML041000029.txt

KR 86	5.866E+01	5.866E+01	5.866E+01	5.866E+01	5.866E+01
RB 86	5.946E-03	5.937E-03	5.928E-03	5.837E-03	5.729E-03
SR 86	5.339E-02	5.340E-02	5.341E-02	5.350E-02	5.361E-02
SE 87	4.662E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 87	1.027E-04	4.089E-24	1.219E-43	0.000E+00	0.000E+00
KR 87	1.000E-02	5.863E-03	3.399E-03	1.459E-05	2.113E-08
RB 87	7.561E+01	7.561E+01	7.561E+01	7.562E+01	7.562E+01
SR 87	3.666E-04	3.666E-04	3.666E-04	3.667E-04	3.667E-04
BR 88	3.357E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 88	3.187E-02	2.499E-02	1.958E-02	1.704E-03	9.097E-05
RB 88	3.373E-03	2.883E-03	2.281E-03	1.988E-04	1.062E-05
SR 88	1.087E+02	1.087E+02	1.087E+02	1.087E+02	1.087E+02
BR 89	6.797E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 89	7.440E-04	1.506E-09	3.021E-15	0.000E+00	0.000E+00
RB 89	3.764E-03	3.055E-04	1.980E-05	2.594E-17	1.428E-31
SR 89	1.903E+01	1.903E+01	1.902E+01	1.891E+01	1.878E+01
Y 89	1.237E+02	1.237E+02	1.237E+02	1.238E+02	1.240E+02
BR 90	1.605E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 90	1.266E-04	3.777E-38	0.000E+00	0.000E+00	0.000E+00
RB 90	6.250E-04	1.099E-09	6.298E-14	0.000E+00	0.000E+00
RB 90M	2.351E-04	1.594E-08	1.005E-12	0.000E+00	0.000E+00
SR 90	1.697E+02	1.697E+02	1.697E+02	1.697E+02	1.697E+02
Y 90	4.395E-02	4.393E-02	4.392E-02	4.378E-02	4.363E-02
ZR 90	3.153E+00	3.154E+00	3.154E+00	3.159E+00	3.165E+00
KR 91	2.555E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 91	2.928E-04	7.744E-23	1.862E-41	0.000E+00	0.000E+00
SR 91	1.822E-01	1.697E-01	1.578E-01	7.606E-02	3.169E-02
Y 91	2.839E+01	2.839E+01	2.839E+01	2.834E+01	2.822E+01
Y 91M	9.223E-03	9.018E-03	8.576E-03	4.217E-03	1.756E-03
ZR 91	1.528E+02	1.528E+02	1.528E+02	1.529E+02	1.531E+02
KR 92	2.546E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 92	1.960E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 92	5.565E-02	4.311E-02	3.338E-02	2.586E-03	1.202E-04
Y 92	7.293E-02	7.132E-02	6.743E-02	1.857E-02	2.310E-03
ZR 92	1.920E+02	1.920E+02	1.920E+02	1.921E+02	1.921E+02
RB 93	1.925E-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 14:14:12

* 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

ML041000029.txt

5 SUMMARY TABLE: CONCENTRATIONS, GRAMS
17X17 PWR ASSEMBLY, 4.236% UO2, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
SR 93	2.863E-03	1.126E-05	4.399E-08	0.000E+00	0.000E+00
Y 93	2.363E-01	2.234E-01	2.086E-01	1.050E-01	4.608E-02
ZR 93	2.125E+02	2.126E+02	2.126E+02	2.127E+02	2.127E+02
NB 93	6.655E-06	6.656E-06	6.657E-06	6.666E-06	6.677E-06
NB 93M	6.413E-05	6.414E-05	6.415E-05	6.425E-05	6.437E-05
RB 94	4.637E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 94	4.542E-04	2.121E-18	9.814E-33	0.000E+00	0.000E+00
Y 94	7.452E-03	9.002E-04	1.020E-04	3.566E-14	1.601E-25
ZR 94	2.128E+02	2.128E+02	2.128E+02	2.128E+02	2.128E+02
NB 94	1.306E-04	1.306E-04	1.306E-04	1.306E-04	1.306E-04
SR 95	1.462E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 95	4.372E-03	8.618E-05	1.641E-06	1.032E-23	0.000E+00
ZR 95	4.012E+01	4.011E+01	4.009E+01	3.991E+01	3.970E+01
NB 95	2.225E+01	2.225E+01	2.225E+01	2.225E+01	2.224E+01
NB 95M	1.611E-02	1.610E-02	1.610E-02	1.608E-02	1.604E-02
MO 95	1.589E+02	1.589E+02	1.590E+02	1.591E+02	1.594E+02
SR 96	1.571E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 96	9.131E-04	1.304E-11	1.829E-19	0.000E+00	0.000E+00
ZR 96	2.250E+02	2.250E+02	2.250E+02	2.250E+02	2.250E+02
NB 96	9.189E-04	8.920E-04	8.659E-04	6.435E-04	4.507E-04
MO 96	3.442E+00	3.442E+00	3.442E+00	3.442E+00	3.442E+00
Y 97	6.326E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 97	4.247E-01	4.076E-01	3.912E-01	2.596E-01	1.587E-01
NB 97	3.042E-02	2.997E-02	2.919E-02	1.983E-02	1.136E-02
NB 97M	3.971E-04	3.808E-04	3.655E-04	2.425E-04	1.482E-04
MO 97	2.177E+02	2.177E+02	2.177E+02	2.179E+02	2.180E+02
Y 98	1.230E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 98	2.187E-04	2.429E-39	0.000E+00	0.000E+00	0.000E+00
NB 98	2.003E-05	2.411E-40	0.000E+00	0.000E+00	0.000E+00
NB 98M	1.809E-04	8.068E-05	3.598E-05	1.119E-08	6.924E-13
MO 98	2.218E+02	2.218E+02	2.218E+02	2.218E+02	2.218E+02
TC 98	6.308E-04	6.308E-04	6.308E-04	6.308E-04	6.308E-04
Y 99	1.874E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 99	1.687E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99	1.041E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99M	4.044E-05	4.571E-12	5.166E-19	0.000E+00	0.000E+00
MO 99	1.822E+00	1.804E+00	1.785E+00	1.607E+00	1.417E+00
TC 99	2.195E+02	2.195E+02	2.195E+02	2.197E+02	2.199E+02
TC 99M	1.455E-01	1.454E-01	1.452E-01	1.375E-01	1.235E-01
RU 99	4.852E-04	4.853E-04	4.854E-04	4.862E-04	4.872E-04
ZR100	4.667E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100	9.709E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100M	9.749E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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MO100	2.486E+02	2.486E+02	2.486E+02	2.486E+02	2.486E+02
TC100	1.389E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU100	1.286E+01	1.286E+01	1.286E+01	1.286E+01	1.286E+01
ZR101	1.407E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB101	4.642E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	6.128E-03	3.600E-04	2.093E-05	9.261E-18	1.386E-32
TC101	5.954E-03	1.300E-03	1.266E-04	2.023E-16	4.081E-31
RU101	2.057E+02	2.057E+02	2.057E+02	2.057E+02	2.057E+02

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
ZR102	6.696E-05	8.576E-43	0.000E+00	0.000E+00	0.000E+00
NB102	1.639E-05	1.429E-43	0.000E+00	0.000E+00	0.000E+00
MO102	4.274E-03	1.029E-04	2.428E-06	1.298E-22	3.859E-42
TC102	3.392E-05	8.223E-07	1.940E-08	1.037E-24	0.000E+00
TC102M	1.570E-06	1.106E-10	7.794E-15	0.000E+00	0.000E+00
RU102	1.905E+02	1.905E+02	1.905E+02	1.905E+02	1.905E+02
RH102	9.876E-05	9.876E-05	9.876E-05	9.873E-05	9.870E-05
ZR103	1.428E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB103	5.633E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO103	3.468E-04	3.687E-22	3.197E-40	0.000E+00	0.000E+00
TC103	2.929E-04	1.843E-21	1.599E-39	0.000E+00	0.000E+00
RU103	1.978E+01	1.977E+01	1.976E+01	1.961E+01	1.944E+01
RH103	1.143E+02	1.143E+02	1.144E+02	1.145E+02	1.147E+02
RH103M	1.768E-02	1.767E-02	1.766E-02	1.755E-02	1.739E-02
NB104	1.574E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO104	4.092E-04	2.117E-15	1.089E-26	0.000E+00	0.000E+00
TC104	4.955E-03	5.502E-04	5.599E-05	6.669E-15	8.225E-27
RU104	1.153E+02	1.153E+02	1.153E+02	1.153E+02	1.153E+02
RH104	8.069E-05	4.339E-10	2.990E-14	0.000E+00	0.000E+00
RH104M	3.251E-05	2.240E-09	1.544E-13	0.000E+00	0.000E+00
PD104	2.515E+01	2.515E+01	2.515E+01	2.515E+01	2.515E+01
MO105	1.533E-04	1.317E-24	0.000E+00	0.000E+00	0.000E+00
TC105	1.667E-03	1.017E-05	5.618E-08	0.000E+00	0.000E+00

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RU105	5.623E-02	4.972E-02	4.254E-02	8.925E-03	1.370E-03
RH105	4.204E-01	4.205E-01	4.195E-01	3.746E-01	3.026E-01
RH105M	4.434E-05	3.931E-05	3.364E-05	7.057E-06	1.084E-06
PD105	7.556E+01	7.556E+01	7.557E+01	7.565E+01	7.573E+01
MO106	1.258E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC106	8.242E-05	5.092E-34	0.000E+00	0.000E+00	0.000E+00
RU106	3.686E+01	3.686E+01	3.686E+01	3.683E+01	3.679E+01
RH106	3.924E-05	3.464E-05	3.464E-05	3.462E-05	3.458E-05
RH106M	5.556E-04	4.054E-04	2.959E-04	1.267E-05	2.889E-07
PD106	2.240E+01	2.241E+01	2.241E+01	2.244E+01	2.247E+01
MO107	3.073E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC107	3.334E-05	1.649E-42	0.000E+00	0.000E+00	0.000E+00
RU107	4.532E-04	2.476E-08	1.240E-12	0.000E+00	0.000E+00
RH107	2.354E-03	4.365E-04	6.422E-05	3.050E-13	3.134E-23
PD107	3.500E+01	3.500E+01	3.500E+01	3.500E+01	3.500E+01
AG107	2.012E-06	2.012E-06	2.013E-06	2.017E-06	2.022E-06
TC108	3.533E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU108	3.290E-04	3.224E-08	3.124E-12	0.000E+00	0.000E+00
RH108	2.067E-05	2.139E-09	2.073E-13	0.000E+00	0.000E+00
RH108M	4.181E-06	3.631E-09	3.152E-12	0.000E+00	0.000E+00
PD108	2.316E+01	2.316E+01	2.316E+01	2.316E+01	2.316E+01
CD108	2.380E-05	2.380E-05	2.380E-05	2.380E-05	2.380E-05
TC109	1.695E-05	9.582E-27	0.000E+00	0.000E+00	0.000E+00
RU109	2.674E-05	2.096E-26	0.000E+00	0.000E+00	0.000E+00
RH109	7.139E-05	2.651E-16	2.411E-28	0.000E+00	0.000E+00
RH109M	1.983E-05	4.771E-25	0.000E+00	0.000E+00	0.000E+00
PD109	4.196E-02	4.013E-02	3.812E-02	2.278E-02	1.228E-02
PD109M	1.119E-04	3.189E-08	4.493E-12	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 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
AG109	1.312E+01	1.312E+01	1.312E+01	1.314E+01	1.315E+01
AG109M	3.427E-05	3.281E-05	3.116E-05	1.862E-05	1.004E-05
RU110	5.495E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ML041000029.txt

RH110	1.068E-05	9.249E-43	0.000E+00	0.000E+00	0.000E+00
PD110	7.801E+00	7.801E+00	7.801E+00	7.801E+00	7.801E+00
AG110	5.423E-06	1.305E-09	1.305E-09	1.304E-09	1.302E-09
AG110M	8.614E-02	8.613E-02	8.612E-02	8.603E-02	8.591E-02
CD110	2.601E+00	2.601E+00	2.601E+00	2.601E+00	2.601E+00
RU111	2.500E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH111	1.356E-05	1.064E-22	6.685E-40	0.000E+00	0.000E+00
PD111	2.895E-04	4.837E-05	9.157E-06	6.340E-07	1.397E-07
PD111M	5.916E-05	5.222E-05	4.603E-05	1.305E-05	2.877E-06
AG111	1.419E-01	1.417E-01	1.412E-01	1.358E-01	1.297E-01
AG111M	1.422E-05	2.536E-06	5.143E-07	4.473E-08	9.858E-09
CD111	4.598E+00	4.598E+00	4.599E+00	4.604E+00	4.610E+00
PD112	9.022E-03	8.717E-03	8.422E-03	5.965E-03	3.944E-03
AG112	1.410E-03	1.404E-03	1.390E-03	1.083E-03	7.263E-04
CD112	3.022E+00	3.022E+00	3.022E+00	3.025E+00	3.028E+00
PD113	9.322E-06	8.666E-18	7.882E-30	0.000E+00	0.000E+00
AG113	1.781E-03	1.570E-03	1.378E-03	3.726E-04	7.756E-05
CD113	7.750E-02	7.772E-02	7.791E-02	7.890E-02	7.919E-02
CD113M	4.770E-02	4.770E-02	4.771E-02	4.772E-02	4.772E-02
IN113	1.328E-03	1.328E-03	1.328E-03	1.331E-03	1.334E-03
PD114	1.101E-05	3.341E-13	9.958E-21	0.000E+00	0.000E+00
CD114	4.527E+00	4.527E+00	4.527E+00	4.527E+00	4.527E+00
IN114M	8.634E-06	8.629E-06	8.624E-06	8.574E-06	8.514E-06
SN114	5.169E-05	5.169E-05	5.170E-05	5.174E-05	5.180E-05
PD115	2.872E-06	9.635E-35	0.000E+00	0.000E+00	0.000E+00
AG115	6.794E-05	8.788E-06	1.099E-06	1.023E-15	1.489E-26
CD115	1.401E-02	1.389E-02	1.372E-02	1.205E-02	1.032E-02
CD115M	2.680E-02	2.679E-02	2.677E-02	2.660E-02	2.639E-02
IN115	9.080E-01	9.082E-01	9.084E-01	9.102E-01	9.122E-01
IN115M	1.129E-03	1.128E-03	1.125E-03	1.039E-03	9.000E-04
SN115	7.040E-02	7.040E-02	7.041E-02	7.048E-02	7.054E-02
AG116	5.356E-06	1.061E-12	1.934E-19	0.000E+00	0.000E+00
CD116	1.843E+00	1.843E+00	1.843E+00	1.843E+00	1.843E+00
IN116M	8.793E-05	4.079E-05	1.893E-05	8.741E-09	8.688E-13
SN116	1.133E+00	1.133E+00	1.133E+00	1.133E+00	1.133E+00
AG117	2.436E-06	4.067E-21	6.376E-36	0.000E+00	0.000E+00
CD117	4.108E-04	3.164E-04	2.423E-04	1.685E-05	6.875E-07
CD117M	2.916E-04	2.384E-04	1.944E-04	2.531E-05	2.192E-06
IN117	1.070E-04	1.034E-04	9.487E-05	1.384E-05	9.577E-07
IN117M	3.583E-04	3.455E-04	3.153E-04	4.793E-05	2.983E-06
SN117	1.864E+00	1.864E+00	1.864E+00	1.865E+00	1.865E+00
SN117M	1.520E-04	1.517E-04	1.514E-04	1.483E-04	1.447E-04
CD118	2.056E-04	9.013E-05	3.943E-05	1.012E-08	4.966E-13
SN118	1.901E+00	1.901E+00	1.901E+00	1.901E+00	1.901E+00
CD119	1.915E-05	2.320E-07	2.780E-09	1.696E-28	0.000E+00
CD119M	6.520E-06	1.529E-11	3.469E-17	0.000E+00	0.000E+00
IN119	2.935E-06	7.490E-08	7.818E-09	7.311E-19	6.650E-31
IN119M	5.506E-05	9.404E-06	9.754E-07	9.066E-17	8.245E-29

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
SN119	1.866E+00	1.866E+00	1.866E+00	1.866E+00	1.866E+00
SN119M	1.615E-02	1.615E-02	1.614E-02	1.613E-02	1.610E-02
CD120	3.453E-06	1.656E-27	0.000E+00	0.000E+00	0.000E+00
IN120	1.539E-06	5.739E-27	0.000E+00	0.000E+00	0.000E+00
SN120	1.928E+00	1.928E+00	1.928E+00	1.928E+00	1.928E+00
IN121	1.617E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121M	2.877E-06	1.030E-11	3.466E-17	0.000E+00	0.000E+00
SN121	6.985E-03	6.812E-03	6.638E-03	5.125E-03	3.758E-03
SN121M	7.141E-04	7.141E-04	7.141E-04	7.141E-04	7.141E-04
SB121	1.943E+00	1.943E+00	1.943E+00	1.945E+00	1.946E+00
SN122	2.134E+00	2.134E+00	2.134E+00	2.134E+00	2.134E+00
SB122	1.109E-03	1.097E-03	1.085E-03	9.752E-04	8.577E-04
TE122	6.394E-02	6.396E-02	6.397E-02	6.407E-02	6.419E-02
IN123M	1.186E-06	3.538E-29	0.000E+00	0.000E+00	0.000E+00
SN123	1.797E-01	1.797E-01	1.796E-01	1.792E-01	1.788E-01
SN123M	1.671E-04	5.971E-05	2.116E-05	6.598E-10	2.583E-15
SB123	2.212E+00	2.212E+00	2.212E+00	2.213E+00	2.213E+00
TE123	4.919E-04	4.920E-04	4.920E-04	4.923E-04	4.926E-04
TE123M	1.181E-04	1.181E-04	1.181E-04	1.178E-04	1.175E-04
CD124	1.009E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN124	2.938E+00	2.938E+00	2.938E+00	2.938E+00	2.938E+00
SB124	1.375E-02	1.374E-02	1.374E-02	1.367E-02	1.359E-02
TE124	3.173E-02	3.174E-02	3.175E-02	3.181E-02	3.189E-02
SN125	5.041E-02	5.026E-02	5.011E-02	4.863E-02	4.692E-02
SN125M	5.540E-05	7.100E-07	8.995E-09	9.584E-28	0.000E+00
SB125	3.533E+00	3.533E+00	3.533E+00	3.534E+00	3.534E+00
TE125	5.559E-01	5.560E-01	5.561E-01	5.570E-01	5.582E-01
TE125M	3.889E-02	3.889E-02	3.890E-02	3.894E-02	3.898E-02
SN126	6.195E+00	6.195E+00	6.195E+00	6.195E+00	6.195E+00
SB126	4.637E-03	4.627E-03	4.616E-03	4.510E-03	4.386E-03
SB126M	2.335E-06	2.636E-07	3.152E-08	2.238E-09	2.238E-09

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TE126	1.397E-01	1.398E-01	1.398E-01	1.399E-01	1.400E-01
SN127	2.351E-03	1.690E-03	1.215E-03	4.478E-05	8.529E-07
SN127M	3.719E-05	1.587E-09	6.773E-14	0.000E+00	0.000E+00
SB127	1.632E-01	1.626E-01	1.619E-01	1.513E-01	1.383E-01
TE127	1.625E-02	1.624E-02	1.624E-02	1.592E-02	1.511E-02
TE127M	5.779E-01	5.779E-01	5.779E-01	5.780E-01	5.780E-01
I127	1.188E+01	1.188E+01	1.188E+01	1.189E+01	1.191E+01
SN128	2.882E-03	1.424E-03	7.038E-04	6.111E-07	1.296E-10
SB128	2.085E-03	1.930E-03	1.787E-03	8.282E-04	3.291E-04
SB128M	5.455E-04	3.035E-04	1.506E-04	1.308E-07	2.773E-11
TE128	2.630E+01	2.630E+01	2.630E+01	2.630E+01	2.630E+01
I128	3.841E-05	7.270E-06	1.376E-06	8.111E-14	1.712E-22
XE128	3.231E-01	3.231E-01	3.231E-01	3.231E-01	3.231E-01
SN129	2.384E-04	9.312E-07	3.637E-09	0.000E+00	0.000E+00
SN129M	9.869E-05	5.885E-12	3.508E-19	0.000E+00	0.000E+00
SB129	2.452E-02	2.118E-02	1.804E-02	3.625E-03	5.284E-04
TE129	6.485E-03	6.241E-03	5.756E-03	1.784E-03	7.927E-04
TE129M	6.756E-01	6.755E-01	6.753E-01	6.714E-01	6.650E-01
I129	4.365E+01	4.366E+01	4.366E+01	4.368E+01	4.369E+01
XE129	8.319E-04	8.319E-04	8.319E-04	8.320E-04	8.322E-04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
XE129M	3.868E-06	3.854E-06	3.840E-06	3.704E-06	3.547E-06
SN130	4.086E-04	5.704E-09	7.960E-14	0.000E+00	0.000E+00
SB130	1.226E-03	4.334E-04	1.532E-04	4.677E-09	1.784E-14
SB130M	9.174E-04	2.588E-06	3.537E-09	0.000E+00	0.000E+00
TE130	8.822E+01	8.822E+01	8.822E+01	8.822E+01	8.822E+01
I130	3.539E-03	3.359E-03	3.176E-03	1.813E-03	9.249E-04
I130M	1.684E-05	1.657E-07	1.631E-09	1.393E-29	0.000E+00
XE130	1.191E+00	1.191E+00	1.192E+00	1.193E+00	1.194E+00
SN131	1.066E-04	6.702E-22	4.212E-39	0.000E+00	0.000E+00
SB131	6.221E-03	1.038E-03	1.702E-04	2.388E-12	9.005E-22
TE131	7.080E-03	3.422E-03	1.151E-03	1.914E-04	1.451E-04

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TE131M	8.034E-02	7.886E-02	7.712E-02	6.122E-02	4.640E-02
I131	3.688E+00	3.685E+00	3.677E+00	3.564E+00	3.428E+00
XE131	1.301E+02	1.301E+02	1.302E+02	1.303E+02	1.304E+02
XE131M	6.062E-02	6.062E-02	6.062E-02	6.059E-02	6.050E-02
SN132	3.837E-05	3.100E-32	0.000E+00	0.000E+00	0.000E+00
SB132	4.656E-04	1.828E-10	6.476E-17	0.000E+00	0.000E+00
SB132M	4.540E-04	2.273E-08	1.138E-12	0.000E+00	0.000E+00
TE132	2.162E+00	2.144E+00	2.125E+00	1.945E+00	1.749E+00
I132	6.442E-02	6.413E-02	6.378E-02	5.891E-02	5.299E-02
XE132	2.559E+02	2.559E+02	2.559E+02	2.561E+02	2.563E+02
CS132	3.544E-04	3.528E-04	3.512E-04	3.359E-04	3.184E-04
BA132	1.831E-04	1.831E-04	1.832E-04	1.835E-04	1.838E-04
SB133	4.912E-04	1.465E-11	4.367E-19	0.000E+00	0.000E+00
TE133	4.958E-03	4.387E-04	1.298E-04	6.784E-08	8.302E-12
TE133M	1.470E-02	6.944E-03	3.278E-03	1.800E-06	2.203E-10
I133	8.539E-01	8.386E-01	8.150E-01	5.866E-01	3.932E-01
I133M	2.779E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE133	5.165E+00	5.165E+00	5.164E+00	5.115E+00	4.978E+00
XE133M	6.613E-02	6.608E-02	6.600E-02	6.408E-02	5.983E-02
CS133	3.220E+02	3.220E+02	3.221E+02	3.224E+02	3.227E+02
SB134	5.614E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134M	5.091E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE134	2.522E-02	9.328E-03	3.449E-03	1.647E-07	1.075E-12
I134	4.005E-02	2.858E-02	1.677E-02	1.156E-05	9.313E-10
I134M	2.399E-04	3.153E-09	4.141E-14	0.000E+00	0.000E+00
XE134	3.983E+02	3.983E+02	3.983E+02	3.984E+02	3.984E+02
CS134	1.921E+01	1.921E+01	1.921E+01	1.920E+01	1.919E+01
CS134M	1.424E-03	1.121E-03	8.829E-04	8.088E-05	4.594E-06
BA134	3.000E+00	3.001E+00	3.002E+00	3.009E+00	3.018E+00
TE135	9.910E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	2.565E-01	2.310E-01	2.080E-01	7.292E-02	2.072E-02
XE135	1.132E-01	1.300E-01	1.427E-01	1.554E-01	9.343E-02
XE135M	1.996E-03	1.454E-03	1.286E-03	4.502E-04	1.279E-04
CS135	1.081E+02	1.081E+02	1.081E+02	1.083E+02	1.084E+02
CS135M	1.318E-04	6.015E-05	2.744E-05	1.073E-08	8.731E-13
BA135	8.810E-03	8.810E-03	8.810E-03	8.812E-03	8.813E-03
BA135M	7.100E-06	6.931E-06	6.766E-06	5.314E-06	3.977E-06
TE136	5.966E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I136	4.290E-04	4.462E-17	3.916E-30	0.000E+00	0.000E+00
I136M	1.447E-04	3.996E-28	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 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
XE136	5.888E+02	5.888E+02	5.888E+02	5.888E+02	5.888E+02
CS136	2.012E-01	2.008E-01	2.004E-01	1.960E-01	1.909E-01
BA136	2.880E+00	2.881E+00	2.881E+00	2.886E+00	2.891E+00
TE137	2.619E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I137	1.292E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE137	2.361E-03	4.808E-08	9.249E-13	0.000E+00	0.000E+00
CS137	3.244E+02	3.244E+02	3.244E+02	3.244E+02	3.244E+02
BA137	5.151E+00	5.152E+00	5.153E+00	5.161E+00	5.171E+00
BA137M	4.978E-05	4.964E-05	4.963E-05	4.963E-05	4.963E-05
I138	1.703E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	8.590E-03	4.573E-04	2.430E-05	4.356E-18	2.204E-33
CS138	2.146E-02	9.325E-03	2.744E-03	6.854E-09	1.273E-15
CS138M	8.498E-05	5.025E-11	2.971E-17	0.000E+00	0.000E+00
BA138	3.531E+02	3.531E+02	3.531E+02	3.531E+02	3.531E+02
LA138	2.239E-03	2.239E-03	2.239E-03	2.239E-03	2.239E-03
I139	2.890E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE139	3.182E-04	1.178E-31	0.000E+00	0.000E+00	0.000E+00
CS139	5.979E-03	7.577E-05	9.079E-07	5.538E-26	0.000E+00
BA139	5.392E-02	3.684E-02	2.233E-02	1.462E-04	3.500E-07
LA139	3.381E+02	3.381E+02	3.381E+02	3.381E+02	3.381E+02
XE140	7.403E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS140	6.141E-04	7.317E-21	7.556E-38	0.000E+00	0.000E+00
BA140	1.165E+01	1.163E+01	1.160E+01	1.134E+01	1.104E+01
LA140	1.548E+00	1.548E+00	1.547E+00	1.540E+00	1.526E+00
CE140	3.207E+02	3.208E+02	3.208E+02	3.211E+02	3.214E+02
XE141	3.226E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS141	1.824E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA141	1.102E-02	1.150E-03	1.180E-04	1.528E-14	2.083E-26
LA141	1.429E-01	1.287E-01	1.088E-01	1.868E-02	2.250E-03
CE141	2.885E+01	2.884E+01	2.884E+01	2.867E+01	2.839E+01
PR141	2.835E+02	2.835E+02	2.835E+02	2.838E+02	2.841E+02
CS142	7.725E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA142	6.237E-03	1.281E-04	2.628E-06	3.462E-23	1.990E-43
LA142	5.521E-02	3.962E-02	2.538E-02	2.859E-04	1.312E-06
CE142	3.136E+02	3.136E+02	3.137E+02	3.137E+02	3.137E+02
PR142	1.366E-02	1.321E-02	1.274E-02	8.866E-03	5.740E-03
PR142M	3.404E-05	1.972E-06	1.142E-07	4.861E-20	6.941E-35
ND142	2.638E+00	2.639E+00	2.639E+00	2.643E+00	2.646E+00
CS143	3.957E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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BA143	1.183E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA143	8.148E-03	4.241E-04	2.175E-05	2.729E-18	9.006E-34
CE143	1.158E+00	1.142E+00	1.119E+00	9.067E-01	7.047E-01
PR143	1.137E+01	1.137E+01	1.137E+01	1.134E+01	1.125E+01
ND143	2.618E+02	2.618E+02	2.618E+02	2.620E+02	2.623E+02
BA144	7.436E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA144	3.484E-04	3.650E-31	0.000E+00	0.000E+00	0.000E+00
CE144	1.628E+02	1.628E+02	1.628E+02	1.626E+02	1.624E+02
PR144	6.929E-03	6.880E-03	6.875E-03	6.867E-03	6.859E-03
PR144M	3.441E-05	3.437E-05	3.436E-05	3.433E-05	3.429E-05
ND144	1.604E+02	1.604E+02	1.604E+02	1.606E+02	1.608E+02
BA145	2.095E-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 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
LA145	1.805E-04	8.940E-42	0.000E+00	0.000E+00	0.000E+00
CE145	1.200E-03	1.375E-09	1.311E-15	0.000E+00	0.000E+00
PR145	1.436E-01	1.292E-01	1.150E-01	3.610E-02	8.984E-03
ND145	2.008E+02	2.008E+02	2.008E+02	2.009E+02	2.009E+02
BA146	2.694E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA146	3.336E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE146	4.483E-03	2.416E-04	1.292E-05	2.464E-18	1.343E-33
PR146	7.667E-03	2.752E-03	5.670E-04	2.058E-11	2.276E-20
ND146	1.767E+02	1.767E+02	1.767E+02	1.767E+02	1.767E+02
PM146	1.096E-03	1.096E-03	1.096E-03	1.096E-03	1.096E-03
SM146	3.720E-04	3.720E-04	3.720E-04	3.720E-04	3.721E-04
LA147	1.940E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE147	2.830E-04	1.011E-19	3.336E-35	0.000E+00	0.000E+00
PR147	2.989E-03	1.039E-04	3.247E-06	2.884E-21	2.501E-39
ND147	3.952E+00	3.945E+00	3.935E+00	3.833E+00	3.715E+00
PM147	6.511E+01	6.512E+01	6.513E+01	6.521E+01	6.530E+01
SM147	1.333E+01	1.333E+01	1.334E+01	1.336E+01	1.338E+01
LA148	9.210E-07	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE148	1.249E-04	7.917E-30	0.000E+00	0.000E+00	0.000E+00

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PR148	4.456E-04	8.823E-12	1.238E-19	0.000E+00	0.000E+00
ND148	9.952E+01	9.952E+01	9.952E+01	9.952E+01	9.952E+01
PM148	6.516E-01	6.481E-01	6.447E-01	6.111E-01	5.732E-01
PM148M	6.642E-01	6.637E-01	6.633E-01	6.586E-01	6.531E-01
SM148	2.989E+01	2.989E+01	2.990E+01	2.994E+01	2.998E+01
CE149	1.575E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR149	3.031E-04	4.282E-12	6.007E-20	0.000E+00	0.000E+00
ND149	1.416E-02	9.694E-03	6.494E-03	1.182E-04	9.647E-07
PM149	6.194E-01	6.161E-01	6.113E-01	5.422E-01	4.637E-01
SM149	1.477E+00	1.485E+00	1.493E+00	1.569E+00	1.647E+00
PR150	1.726E-05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND150	4.369E+01	4.369E+01	4.369E+01	4.369E+01	4.369E+01
PM150	2.819E-04	2.177E-04	1.681E-04	1.265E-05	5.680E-07
SM150	7.820E+01	7.820E+01	7.820E+01	7.820E+01	7.820E+01
PR151	3.019E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND151	8.155E-04	2.861E-05	9.999E-07	2.716E-21	9.012E-39
PM151	1.122E-01	1.103E-01	1.077E-01	8.433E-02	6.291E-02
SM151	6.668E+00	6.671E+00	6.673E+00	6.697E+00	6.718E+00
EU151	6.530E-03	6.536E-03	6.542E-03	6.601E-03	6.671E-03
PR152	2.719E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND152	5.164E-04	1.397E-05	3.755E-07	7.392E-23	1.044E-41
PM152	1.885E-04	7.737E-06	2.084E-07	4.095E-23	5.751E-42
PM152M	6.086E-06	2.377E-08	9.288E-11	0.000E+00	0.000E+00
SM152	3.566E+01	3.566E+01	3.566E+01	3.566E+01	3.566E+01
EU152	1.707E-02	1.707E-02	1.707E-02	1.707E-02	1.706E-02
EU152M	2.098E-05	1.948E-05	1.808E-05	8.594E-06	3.520E-06
GD152	8.409E-03	8.410E-03	8.411E-03	8.419E-03	8.423E-03
ND153	2.946E-05	2.734E-21	2.462E-37	0.000E+00	0.000E+00
PM153	1.599E-04	8.960E-08	4.051E-11	0.000E+00	0.000E+00
SM153	2.703E-01	2.665E-01	2.626E-01	2.264E-01	1.894E-01
EU153	2.236E+01	2.236E+01	2.237E+01	2.240E+01	2.244E+01
GD153	3.454E-04	3.453E-04	3.453E-04	3.449E-04	3.444E-04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
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ND154	8.457E-06	6.859E-33	0.000E+00	0.000E+00	0.000E+00
PM154	4.352E-05	1.983E-11	7.025E-18	0.000E+00	0.000E+00
PM154M	4.674E-06	4.319E-16	3.991E-26	0.000E+00	0.000E+00
SM154	7.582E+00	7.582E+00	7.582E+00	7.582E+00	7.582E+00
EU154	4.123E+00	4.123E+00	4.123E+00	4.122E+00	4.122E+00
GD154	1.368E-01	1.368E-01	1.368E-01	1.372E-01	1.377E-01
ND155	2.066E-06	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM155	5.802E-06	2.971E-35	0.000E+00	0.000E+00	0.000E+00
SM155	2.422E-04	3.846E-05	5.907E-06	4.319E-14	7.452E-24
EU155	2.200E+00	2.200E+00	2.200E+00	2.200E+00	2.199E+00
GD155	1.938E-02	1.942E-02	1.945E-02	1.980E-02	2.022E-02
ND156	1.544E-06	4.577E-25	2.186E-43	0.000E+00	0.000E+00
PM156	1.084E-06	1.321E-25	0.000E+00	0.000E+00	0.000E+00
SM156	3.756E-03	3.491E-03	3.243E-03	1.551E-03	6.403E-04
EU156	4.909E-01	4.903E-01	4.896E-01	4.820E-01	4.721E-01
GD156	5.936E+00	5.937E+00	5.938E+00	5.947E+00	5.958E+00
PM157	2.627E-06	3.109E-22	3.634E-38	0.000E+00	0.000E+00
SM157	3.409E-05	2.054E-07	1.135E-09	0.000E+00	0.000E+00
EU157	4.708E-03	4.534E-03	4.332E-03	2.746E-03	1.589E-03
GD157	2.889E-02	2.910E-02	2.930E-02	3.089E-02	3.204E-02
SM158	9.967E-05	3.874E-05	1.505E-05	1.178E-09	1.391E-14
EU158	1.116E-04	8.245E-05	4.783E-05	1.921E-08	5.661E-13
GD158	2.625E+00	2.625E+00	2.625E+00	2.625E+00	2.625E+00
SM159	2.792E-06	5.841E-13	1.217E-19	0.000E+00	0.000E+00
EU159	2.281E-05	2.623E-06	2.636E-07	2.767E-17	2.933E-29
GD159	1.571E-03	1.536E-03	1.483E-03	1.022E-03	6.532E-04
TB159	4.046E-01	4.046E-01	4.047E-01	4.051E-01	4.055E-01
SM160	2.245E-06	1.766E-09	1.389E-12	0.000E+00	0.000E+00
GD160	1.956E-01	1.956E-01	1.956E-01	1.956E-01	1.956E-01
TB160	1.053E-02	1.052E-02	1.052E-02	1.048E-02	1.043E-02
DY160	1.477E-02	1.477E-02	1.478E-02	1.482E-02	1.487E-02
GD161	1.086E-06	1.753E-11	2.302E-16	0.000E+00	0.000E+00
TB161	3.087E-03	3.075E-03	3.062E-03	2.937E-03	2.794E-03
DY161	7.369E-02	7.371E-02	7.372E-02	7.384E-02	7.399E-02
GD162	1.436E-06	3.249E-08	5.086E-10	4.412E-28	0.000E+00
TB162	1.062E-06	7.255E-08	1.389E-09	1.276E-27	0.000E+00
DY162	5.450E-02	5.451E-02	5.451E-02	5.451E-02	5.451E-02
TB163	1.229E-06	1.578E-07	1.870E-08	1.022E-17	7.844E-29
DY163	3.438E-02	3.438E-02	3.438E-02	3.438E-02	3.438E-02
DY164	9.601E-03	9.602E-03	9.602E-03	9.602E-03	9.602E-03
DY165	7.758E-06	5.823E-06	4.336E-06	2.270E-07	6.590E-09
HO165	1.222E-02	1.222E-02	1.223E-02	1.223E-02	1.223E-02
DY166	4.206E-05	4.170E-05	4.135E-05	3.798E-05	3.429E-05
HO166	2.359E-05	2.334E-05	2.309E-05	2.079E-05	1.840E-05
HO166M	6.026E-05	6.026E-05	6.026E-05	6.026E-05	6.026E-05
ER166	3.929E-03	3.929E-03	3.930E-03	3.936E-03	3.942E-03
ER167	8.965E-04	8.965E-04	8.965E-04	8.965E-04	8.965E-04

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ER168	5.974E-04	5.974E-04	5.974E-04	5.974E-04	5.974E-04
TM169	1.929E-06	1.929E-06	1.930E-06	1.936E-06	1.943E-06
SUMTOT	9.168E+03	9.168E+03	9.168E+03	9.168E+03	9.168E+03

TOTAL	9.168E+03	9.168E+03	9.168E+03	9.168E+03	9.168E+03
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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	1.454E-02	1.454E-02	1.454E-02	1.454E-02	1.454E-02
LI	8.448E-05	8.448E-05	8.448E-05	8.448E-05	8.448E-05
BE	4.040E-05	4.040E-05	4.040E-05	4.040E-05	4.040E-05
C	7.103E-06	7.103E-06	7.103E-06	7.103E-06	7.103E-06
ZN	1.497E-03	1.496E-03	1.496E-03	1.492E-03	1.488E-03
GA	1.732E-05	1.545E-05	1.465E-05	1.038E-05	8.561E-06
GE	1.813E-01	1.813E-01	1.812E-01	1.811E-01	1.811E-01
AS	5.543E-02	5.536E-02	5.533E-02	5.509E-02	5.489E-02
SE	1.625E+01	1.625E+01	1.625E+01	1.625E+01	1.625E+01
BR	6.349E+00	6.347E+00	6.346E+00	6.343E+00	6.343E+00
KR	1.127E+02	1.127E+02	1.127E+02	1.126E+02	1.126E+02
RB	1.051E+02	1.051E+02	1.051E+02	1.052E+02	1.052E+02
SR	2.978E+02	2.977E+02	2.977E+02	2.975E+02	2.973E+02
Y	1.525E+02	1.525E+02	1.524E+02	1.523E+02	1.523E+02
ZR	1.039E+03	1.039E+03	1.039E+03	1.039E+03	1.039E+03
NB	2.230E+01	2.230E+01	2.230E+01	2.228E+01	2.227E+01
MO	8.523E+02	8.523E+02	8.524E+02	8.525E+02	8.526E+02
TC	2.196E+02	2.197E+02	2.197E+02	2.198E+02	2.200E+02
RU	5.811E+02	5.811E+02	5.811E+02	5.809E+02	5.807E+02
RH	1.148E+02	1.148E+02	1.148E+02	1.149E+02	1.150E+02
PD	1.891E+02	1.891E+02	1.891E+02	1.892E+02	1.893E+02
AG	1.335E+01	1.335E+01	1.335E+01	1.336E+01	1.336E+01
CD	1.676E+01	1.676E+01	1.676E+01	1.677E+01	1.677E+01
IN	9.111E-01	9.111E-01	9.113E-01	9.127E-01	9.145E-01
SN	2.029E+01	2.029E+01	2.029E+01	2.028E+01	2.028E+01
SB	7.908E+00	7.896E+00	7.891E+00	7.866E+00	7.852E+00

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TE	1.189E+02	1.189E+02	1.188E+02	1.186E+02	1.184E+02
I	6.044E+01	6.039E+01	6.032E+01	5.986E+01	5.950E+01
XE	1.380E+03	1.380E+03	1.380E+03	1.381E+03	1.381E+03
CS	7.740E+02	7.740E+02	7.740E+02	7.744E+02	7.748E+02
BA	3.759E+02	3.758E+02	3.758E+02	3.755E+02	3.752E+02
LA	3.398E+02	3.398E+02	3.398E+02	3.397E+02	3.397E+02
CE	8.272E+02	8.272E+02	8.272E+02	8.270E+02	8.266E+02
PR	2.950E+02	2.950E+02	2.950E+02	2.952E+02	2.954E+02
ND	9.494E+02	9.494E+02	9.495E+02	9.499E+02	9.503E+02
PM	6.716E+01	6.716E+01	6.716E+01	6.711E+01	6.706E+01
SM	1.731E+02	1.731E+02	1.731E+02	1.732E+02	1.734E+02
EU	2.920E+01	2.920E+01	2.921E+01	2.923E+01	2.926E+01
GD	8.952E+00	8.953E+00	8.954E+00	8.965E+00	8.978E+00
TB	4.182E-01	4.182E-01	4.183E-01	4.186E-01	4.187E-01
DY	1.870E-01	1.870E-01	1.870E-01	1.872E-01	1.874E-01
HO	1.231E-02	1.231E-02	1.231E-02	1.231E-02	1.231E-02
ER	5.423E-03	5.423E-03	5.424E-03	5.430E-03	5.436E-03
TM	2.113E-06	2.114E-06	2.114E-06	2.120E-06	2.126E-06
SUMTOT	9.168E+03	9.168E+03	9.168E+03	9.168E+03	9.168E+03
TOTAL	9.168E+03	9.168E+03	9.168E+03	9.168E+03	9.168E+03

CUMULATIVE TABLE TOTALS

AP+FP	2.060E+05	2.060E+05	2.060E+05	2.060E+05	2.060E+05
ACT+FP	4.614E+05	4.614E+05	4.614E+05	4.614E+05	4.614E+05
AP+ACT+FP	6.582E+05	6.582E+05	6.582E+05	6.582E+05	6.582E+05

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	1.404E+02	1.404E+02	1.404E+02	1.404E+02	1.404E+02
CO 72	6.276E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 72	1.237E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 72	2.394E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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ZN 72	2.762E+01	2.721E+01	2.681E+01	2.310E+01	1.931E+01
GA 72	2.769E+01	2.768E+01	2.765E+01	2.653E+01	2.405E+01
CO 73	1.929E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 73	9.905E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 73	3.365E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 73	5.758E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 73	6.013E+01	5.225E+01	4.533E+01	1.095E+01	1.993E+00
GE 73M	6.017E+01	5.225E+01	4.533E+01	1.095E+01	1.993E+00
CO 74	4.069E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 74	6.851E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 74	5.048E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 74	1.167E+02	4.582E-10	1.793E-21	0.000E+00	0.000E+00
GA 74	1.233E+02	8.941E-01	5.267E-03	0.000E+00	0.000E+00
NI 75	2.771E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 75	5.129E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 75	2.259E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 75	2.649E+02	8.872E-08	2.766E-17	0.000E+00	0.000E+00
GE 75	2.672E+02	1.658E+02	1.003E+02	6.607E-01	1.591E-03
GE 75M	1.172E+01	6.215E-09	1.937E-18	0.000E+00	0.000E+00
NI 76	7.462E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 76	4.153E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 76	4.290E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 76	6.251E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 76	7.750E+00	7.549E+00	7.353E+00	5.650E+00	4.119E+00
NI 77	1.227E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 77	1.884E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 77	4.845E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 77	1.174E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 77	4.987E+02	4.694E+02	4.415E+02	2.391E+02	1.145E+02
GE 77M	1.134E+03	1.624E-17	0.000E+00	0.000E+00	0.000E+00
AS 77	1.398E+03	1.382E+03	1.366E+03	1.196E+03	9.975E+02
SE 77M	3.541E+00	3.429E+00	3.388E+00	2.966E+00	2.474E+00
NI 78	1.411E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 78	6.838E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 78	5.046E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 78	2.173E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 78	2.948E+03	1.829E+03	1.134E+03	9.518E+00	3.072E-02
AS 78	3.013E+03	2.752E+03	2.265E+03	7.129E+01	4.810E-01
CU 79	1.629E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 79	2.752E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 79	2.263E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 79	6.230E+03	4.011E-22	0.000E+00	0.000E+00	0.000E+00
AS 79	7.406E+03	7.834E+01	7.711E-01	6.583E-21	0.000E+00
SE 79	1.143E-01	1.143E-01	1.143E-01	1.143E-01	1.143E-01
SE 79M	7.418E+03	1.378E+02	1.361E+00	1.159E-20	0.000E+00
CU 80	1.793E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 80	1.071E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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OUTPUT UNIT =

6 PAGE 179
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
GA 80	2.524E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 80	1.349E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 80	1.651E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 80	3.013E-01	1.846E-01	1.511E-01	3.132E-02	4.769E-03
BR 80M	1.922E-01	1.643E-01	1.404E-01	2.927E-02	4.456E-03
CU 81	1.254E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 81	2.269E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 81	1.432E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 81	1.684E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 81	2.633E+04	4.649E-30	0.000E+00	0.000E+00	0.000E+00
SE 81	2.795E+04	3.506E+03	5.901E+02	1.981E-01	3.268E-05
SE 81M	8.131E+02	3.935E+02	1.904E+02	1.341E-01	2.213E-05
KR 81M	8.874E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 82	2.767E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 82	5.068E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 82	1.509E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82	2.497E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82M	9.840E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 82	1.306E+03	1.282E+03	1.257E+03	1.033E+03	8.163E+02
BR 82M	4.949E+02	5.599E-01	6.312E-04	0.000E+00	0.000E+00
ZN 83	2.486E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 83	1.353E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 83	1.096E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 83	4.617E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 83	2.517E+04	3.991E+03	6.286E+02	5.901E-06	1.374E-15
SE 83M	3.943E+04	1.542E-11	5.088E-27	0.000E+00	0.000E+00
BR 83	6.560E+04	5.215E+04	3.946E+04	2.177E+03	6.706E+01
KR 83M	6.562E+04	6.345E+04	5.769E+04	6.772E+03	2.594E+02
GA 84	1.403E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 84	2.876E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 84	3.608E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 84	1.140E+05	3.881E-01	1.305E-06	0.000E+00	0.000E+00

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BR 84	1.173E+05	3.532E+04	9.550E+03	1.996E-02	3.051E-09
BR 84M	3.374E+03	3.295E+00	3.218E-03	0.000E+00	0.000E+00
GE 85	8.090E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 85	2.235E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 85	6.889E+04	1.140E-23	0.000E+00	0.000E+00	0.000E+00
SE 85M	5.055E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 85	1.430E+05	8.496E-02	4.252E-08	0.000E+00	0.000E+00
KR 85	2.981E+03	2.981E+03	2.981E+03	2.982E+03	2.982E+03
KR 85M	1.447E+05	1.255E+05	1.075E+05	2.289E+04	3.576E+03
GE 86	1.501E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 86	1.213E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 86	1.390E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 86	1.048E+05	2.671E-15	0.000E+00	0.000E+00	0.000E+00
BR 86M	1.055E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 86	4.841E+02	4.833E+02	4.826E+02	4.752E+02	4.664E+02
RB 86M	6.085E+01	1.101E-16	2.589E-34	0.000E+00	0.000E+00
GE 87	2.223E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 87	6.449E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 87	1.080E+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 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
BR 87	2.387E+05	9.507E-15	2.834E-34	0.000E+00	0.000E+00
KR 87	2.835E+05	1.661E+05	9.633E+04	4.136E+02	5.987E-01
SR 87M	1.135E+00	8.866E-01	6.925E-01	5.854E-02	3.019E-03
GE 88	6.217E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 88	3.952E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 88	4.047E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 88	2.641E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 88	3.999E+05	3.136E+05	2.457E+05	2.138E+04	1.142E+03
RB 88	4.051E+05	3.462E+05	2.740E+05	2.387E+04	1.275E+03
AS 89	3.850E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 89	1.125E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 89	1.916E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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KR 89	4.960E+05	1.004E+00	2.014E-06	0.000E+00	0.000E+00
RB 89	5.234E+05	4.247E+04	2.753E+03	3.607E-09	1.985E-23
SR 89	5.533E+05	5.531E+05	5.528E+05	5.496E+05	5.458E+05
Y 89M	1.812E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 90	3.642E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 90	1.258E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 90	4.914E+05	1.466E-28	0.000E+00	0.000E+00	0.000E+00
RB 90	5.123E+05	9.005E-01	5.162E-05	0.000E+00	0.000E+00
RB 90M	1.143E+05	7.750E+00	4.885E-04	0.000E+00	0.000E+00
SR 90	2.316E+04	2.316E+04	2.316E+04	2.316E+04	2.316E+04
Y 90	2.392E+04	2.391E+04	2.390E+04	2.383E+04	2.375E+04
Y 90M	5.836E+00	4.667E+00	3.732E+00	3.989E-01	2.726E-02
SE 91	4.667E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 91	4.152E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 91	3.642E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 91	6.241E+05	1.650E-13	3.968E-32	0.000E+00	0.000E+00
SR 91	6.609E+05	6.154E+05	5.721E+05	2.758E+05	1.149E+05
Y 91	6.967E+05	6.966E+05	6.966E+05	6.953E+05	6.923E+05
Y 91M	3.835E+05	3.750E+05	3.566E+05	1.753E+05	7.303E+04
SE 92	1.903E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 92	3.338E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 92	1.697E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 92	5.367E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 92	6.998E+05	5.421E+05	4.198E+05	3.252E+04	1.511E+03
Y 92	7.023E+05	6.868E+05	6.494E+05	1.788E+05	2.225E+04
BR 93	6.628E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 93	6.031E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 93	4.028E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 93	7.721E+05	3.037E+03	1.186E+01	0.000E+00	0.000E+00
Y 93	7.888E+05	7.456E+05	6.962E+05	3.505E+05	1.538E+05
ZR 93	5.343E-01	5.343E-01	5.343E-01	5.346E-01	5.347E-01
NB 93M	1.813E-02	1.814E-02	1.814E-02	1.817E-02	1.820E-02
BR 94	5.257E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 94	2.398E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 94	2.070E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 94	7.214E+05	3.369E-09	1.559E-23	0.000E+00	0.000E+00
Y 94	7.808E+05	9.431E+04	1.069E+04	3.737E-06	1.678E-17
NB 94M	3.929E-01	5.116E-04	6.649E-07	0.000E+00	0.000E+00
BR 95	3.396E+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 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
KR 95	2.246E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 95	1.053E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 95	6.679E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 95	8.244E+05	1.625E+04	3.095E+02	1.945E-15	0.000E+00
ZR 95	8.623E+05	8.620E+05	8.617E+05	8.578E+05	8.531E+05
NB 95	8.704E+05	8.704E+05	8.704E+05	8.703E+05	8.702E+05
NB 95M	6.137E+03	6.136E+03	6.135E+03	6.126E+03	6.113E+03
BR 96	1.789E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 96	3.561E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 96	2.751E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 96	4.617E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 96	7.779E+05	1.111E-02	1.558E-10	0.000E+00	0.000E+00
NB 96	1.285E+03	1.248E+03	1.211E+03	9.000E+02	6.303E+02
KR 97	1.832E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 97	5.162E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 97	2.413E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 97	6.632E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 97	8.122E+05	7.796E+05	7.482E+05	4.965E+05	3.035E+05
NB 97	8.182E+05	8.060E+05	7.852E+05	5.335E+05	3.056E+05
NB 97M	7.700E+05	7.384E+05	7.088E+05	4.703E+05	2.875E+05
KR 98	2.161E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 98	1.042E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 98	9.310E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 98	4.722E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 98	8.124E+05	9.025E-30	0.000E+00	0.000E+00	0.000E+00
NB 98	8.240E+05	9.919E-30	0.000E+00	0.000E+00	0.000E+00
NB 98M	6.743E+03	3.007E+03	1.341E+03	4.171E-01	2.581E-05
RB 99	9.809E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 99	2.394E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 99	2.671E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 99	8.012E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99	8.296E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99M	2.955E+04	3.340E-03	3.775E-10	0.000E+00	0.000E+00
MO 99	8.745E+05	8.654E+05	8.564E+05	7.710E+05	6.797E+05
TC 99	3.722E+00	3.723E+00	3.723E+00	3.726E+00	3.730E+00
TC 99M	7.656E+05	7.652E+05	7.639E+05	7.234E+05	6.499E+05
RB100	7.804E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR100	4.422E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y100	1.191E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR100	7.418E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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NB100	4.566E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100M	4.566E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC100	9.923E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR101	6.124E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y101	3.825E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR101	4.764E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB101	7.410E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	7.807E+05	4.586E+04	2.667E+03	1.180E-09	1.765E-24
TC101	7.809E+05	1.706E+05	1.661E+04	2.653E-08	5.352E-23
SR102	5.273E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y102	8.785E+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 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
ZR102	2.589E+05	3.316E-33	0.000E+00	0.000E+00	0.000E+00
NB102	6.046E+05	5.272E-33	0.000E+00	0.000E+00	0.000E+00
MO102	7.101E+05	1.710E+04	4.034E+02	2.157E-14	6.412E-34
TC102	7.108E+05	1.723E+04	4.066E+02	2.174E-14	0.000E+00
TC102M	6.658E+02	4.691E-02	3.304E-06	0.000E+00	0.000E+00
RH102	1.194E-01	1.194E-01	1.194E-01	1.194E-01	1.193E-01
SR103	1.642E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y103	1.141E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR103	8.839E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB103	3.939E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO103	6.333E+05	6.733E-13	5.839E-31	0.000E+00	0.000E+00
TC103	6.420E+05	4.039E-12	3.504E-30	0.000E+00	0.000E+00
RU103	6.388E+05	6.383E+05	6.379E+05	6.332E+05	6.276E+05
RH103M	5.753E+05	5.752E+05	5.749E+05	5.712E+05	5.659E+05
SR104	6.043E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y104	8.791E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR104	1.788E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB104	1.709E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO104	4.626E+05	2.393E-06	1.231E-17	0.000E+00	0.000E+00
TC104	4.925E+05	5.468E+04	5.564E+03	6.627E-07	8.175E-19

ML041000029.txt

RH104	2.070E+05	1.113E+00	7.671E-05	0.000E+00	0.000E+00
RH104M	1.355E+04	9.335E-01	6.433E-05	0.000E+00	0.000E+00
Y105	4.952E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR105	2.363E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB105	5.339E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO105	3.051E+05	2.621E-15	0.000E+00	0.000E+00	0.000E+00
TC105	3.733E+05	2.277E+03	1.258E+01	0.000E+00	0.000E+00
RU105	3.783E+05	3.344E+05	2.861E+05	6.004E+04	9.218E+03
RH105	3.550E+05	3.551E+05	3.542E+05	3.163E+05	2.555E+05
RH105M	1.059E+05	9.390E+04	8.034E+04	1.686E+04	2.588E+03
ZR106	3.390E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB106	1.442E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO106	1.489E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC106	2.372E+05	1.465E-24	0.000E+00	0.000E+00	0.000E+00
RU106	1.234E+05	1.234E+05	1.234E+05	1.233E+05	1.232E+05
RH106	1.397E+05	1.234E+05	1.234E+05	1.233E+05	1.232E+05
RH106M	7.469E+03	5.451E+03	3.978E+03	1.703E+02	3.884E+00
ZR107	1.595E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB107	2.158E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO107	5.072E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC107	1.213E+05	5.999E-33	0.000E+00	0.000E+00	0.000E+00
RU107	1.897E+05	1.036E+01	5.189E-04	0.000E+00	0.000E+00
RH107	1.907E+05	3.536E+04	5.203E+03	2.471E-05	2.539E-15
PD107	1.801E-02	1.801E-02	1.801E-02	1.801E-02	1.801E-02
PD107M	7.309E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR108	3.691E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB108	4.909E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO108	1.603E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC108	7.099E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU108	1.273E+05	1.248E+01	1.209E-03	0.000E+00	0.000E+00
RH108	1.286E+05	1.331E+01	1.289E-03	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 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

ASSY DIS 1.0HR 2.0HR 12.0HR 24.0HR

ML041000029.txt

RH108M	1.234E+03	1.072E+00	9.306E-04	0.000E+00	0.000E+00
AG108	2.164E-01	3.741E-07	3.689E-07	3.689E-07	3.689E-07
ZR109	2.628E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB109	9.124E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO109	5.307E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC109	3.442E+04	1.945E-17	0.000E+00	0.000E+00	0.000E+00
RU109	7.912E+04	6.201E-17	0.000E+00	0.000E+00	0.000E+00
RH109	8.214E+04	3.050E-07	2.774E-19	0.000E+00	0.000E+00
RH109M	4.107E+04	9.880E-16	0.000E+00	0.000E+00	0.000E+00
PD109	8.965E+04	8.575E+04	8.145E+04	4.867E+04	2.624E+04
PD109M	4.119E+04	1.173E+01	1.653E-03	0.000E+00	0.000E+00
AG109M	8.961E+04	8.578E+04	8.147E+04	4.868E+04	2.624E+04
NB110	1.042E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO110	1.133E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC110	9.109E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU110	3.524E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH110	3.780E+04	3.272E-33	0.000E+00	0.000E+00	0.000E+00
RH110M	2.562E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG110	2.262E+04	5.444E+00	5.444E+00	5.437E+00	5.430E+00
AG110M	4.094E+02	4.093E+02	4.093E+02	4.088E+02	4.083E+02
NB111	8.840E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO111	2.352E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC111	3.186E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU111	1.649E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH111	2.188E+04	1.717E-13	1.079E-30	0.000E+00	0.000E+00
PD111	2.230E+04	3.726E+03	7.054E+02	4.884E+01	1.076E+01
PD111M	3.038E+02	2.681E+02	2.364E+02	6.704E+01	1.477E+01
AG111	2.242E+04	2.238E+04	2.230E+04	2.146E+04	2.048E+04
AG111M	2.224E+04	3.968E+03	8.045E+02	6.997E+01	1.542E+01
CD111M	1.643E+00	6.995E-01	2.978E-01	5.822E-05	2.063E-09
MO112	4.310E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC112	1.114E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU112	7.700E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH112	1.181E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD112	1.257E+04	1.214E+04	1.173E+04	8.308E+03	5.492E+03
AG112	1.261E+04	1.255E+04	1.243E+04	9.680E+03	6.494E+03
MO113	3.064E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC113	2.974E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU113	4.341E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH113	8.731E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD113	1.035E+04	9.617E-09	8.747E-21	0.000E+00	0.000E+00
AG113	9.324E+03	8.221E+03	7.213E+03	1.950E+03	4.060E+02
AG113M	1.048E+03	3.606E-09	3.280E-21	0.000E+00	0.000E+00
CD113M	1.035E+01	1.035E+01	1.035E+01	1.035E+01	1.035E+01
MO114	3.134E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC114	6.720E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU114	2.024E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH114	5.356E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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PD114 7.570E+03 2.297E-04 6.847E-12 0.000E+00 0.000E+00
AG114 7.666E+03 2.372E-04 7.069E-12 0.000E+00 0.000E+00
IN114 5.892E-01 1.911E-01 1.910E-01 1.899E-01 1.886E-01

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
IN114M	1.998E-01	1.997E-01	1.996E-01	1.984E-01	1.970E-01
MO115	2.097E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC115	1.414E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU115	9.488E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH115	4.115E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD115	7.417E+03	2.489E-25	0.000E+00	0.000E+00	0.000E+00
AG115	5.557E+03	7.188E+02	8.984E+01	8.367E-08	1.218E-18
AG115M	2.134E+03	1.216E-25	0.000E+00	0.000E+00	0.000E+00
CD115	7.143E+03	7.082E+03	6.995E+03	6.145E+03	5.260E+03
CD115M	6.827E+02	6.823E+02	6.818E+02	6.774E+02	6.722E+02
IN115M	7.158E+03	7.152E+03	7.135E+03	6.588E+03	5.706E+03
TC116	8.767E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU116	2.120E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH116	1.984E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD116	5.824E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG116	3.241E+03	6.422E-04	1.170E-10	0.000E+00	0.000E+00
AG116M	3.241E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116	3.616E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	2.633E+03	1.222E+03	5.668E+02	2.618E-01	2.602E-05
TC117	3.769E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU117	3.340E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH117	1.340E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD117	5.390E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG117	3.211E+03	5.360E-12	8.402E-27	0.000E+00	0.000E+00
AG117M	3.210E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD117	4.234E+03	3.261E+03	2.498E+03	1.737E+02	7.085E+00
CD117M	2.298E+03	1.879E+03	1.532E+03	1.995E+02	1.728E+01
IN117	3.909E+03	3.778E+03	3.467E+03	5.057E+02	3.500E+01

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IN117M	4.949E+03	4.772E+03	4.355E+03	6.620E+02	4.120E+01
SN117M	1.212E+01	1.210E+01	1.207E+01	1.183E+01	1.154E+01
RU118	2.059E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH118	1.613E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD118	4.203E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG118	4.360E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG118M	2.905E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD118	6.517E+03	2.856E+03	1.250E+03	3.206E-01	1.574E-05
IN118	6.520E+03	2.861E+03	1.252E+03	3.211E-01	1.576E-05
IN118M	2.376E+00	2.075E-04	1.812E-08	0.000E+00	0.000E+00
RH119	1.235E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD119	2.919E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG119	5.759E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD119	3.221E+03	3.902E+01	4.675E-01	2.852E-20	0.000E+00
CD119M	3.221E+03	7.555E-03	1.714E-08	0.000E+00	0.000E+00
IN119	1.856E+03	4.736E+01	4.944E+00	4.623E-10	4.204E-22
IN119M	4.835E+03	8.259E+02	8.565E+01	7.962E-09	7.241E-21
SN119M	7.234E+01	7.234E+01	7.233E+01	7.224E+01	7.214E+01
RU120	4.304E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH120	1.964E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD120	1.139E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG120	4.057E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD120	6.394E+03	3.065E-18	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 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
IN120	3.260E+03	1.216E-17	0.000E+00	0.000E+00	0.000E+00
IN120M	3.260E+03	1.632E-18	0.000E+00	0.000E+00	0.000E+00
RH121	3.092E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD121	4.406E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG121	2.801E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD121	6.337E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121	5.388E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121M	1.356E+03	4.855E-03	1.633E-08	0.000E+00	0.000E+00

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SN121	6.753E+03	6.586E+03	6.417E+03	4.955E+03	3.633E+03
SN121M	4.224E-02	4.224E-02	4.224E-02	4.224E-02	4.224E-02
RH122	3.744E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD122	1.347E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG122	1.725E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD122	6.112E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN122	6.570E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN122M	4.594E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB122	4.397E+02	4.350E+02	4.303E+02	3.867E+02	3.401E+02
SB122M	3.478E+00	1.742E-04	8.721E-09	0.000E+00	0.000E+00
RH123	3.208E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD123	3.065E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG123	9.046E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD123	5.817E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN123	5.415E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN123M	2.267E+03	6.763E-20	0.000E+00	0.000E+00	0.000E+00
SN123	1.478E+03	1.477E+03	1.477E+03	1.474E+03	1.470E+03
SN123M	6.376E+03	2.278E+03	8.072E+02	2.517E-02	9.855E-08
TE123M	1.048E+00	1.048E+00	1.048E+00	1.045E+00	1.042E+00
PD124	5.651E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG124	4.079E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD124	5.350E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN124	8.890E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB124	2.406E+02	2.405E+02	2.404E+02	2.392E+02	2.379E+02
SB124M	3.380E+00	7.520E-12	1.673E-23	0.000E+00	0.000E+00
AG125	1.222E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD125	3.651E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN125	5.372E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN125M	3.934E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN125	5.465E+03	5.449E+03	5.432E+03	5.272E+03	5.086E+03
SN125M	8.757E+03	1.122E+02	1.422E+00	1.515E-19	0.000E+00
SB125	3.650E+03	3.650E+03	3.650E+03	3.650E+03	3.651E+03
TE125M	7.007E+02	7.008E+02	7.009E+02	7.016E+02	7.024E+02
PD126	8.036E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG126	3.760E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD126	2.798E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN126	1.278E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN126	1.758E-01	1.758E-01	1.758E-01	1.758E-01	1.758E-01
SB126	3.879E+02	3.870E+02	3.861E+02	3.772E+02	3.668E+02
SB126M	1.835E+02	2.071E+01	2.477E+00	1.758E-01	1.758E-01
CD127	1.448E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN127	7.217E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN127M	7.226E+03	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 14:14:12

* 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-SEC7 SUMMARY TABLE: RADIOACTIVITY, CURIES
17X17 PWR ASSEMBLY, 4.236% UO2, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
SN127	2.763E+04	1.987E+04	1.428E+04	5.264E+02	1.003E+01
SN127M	1.333E+04	5.687E-01	2.427E-05	0.000E+00	0.000E+00
SB127	4.360E+04	4.346E+04	4.326E+04	4.043E+04	3.696E+04
TE127	4.289E+04	4.289E+04	4.287E+04	4.202E+04	3.989E+04
TE127M	5.453E+03	5.453E+03	5.453E+03	5.454E+03	5.454E+03
XE127	3.577E-03	3.575E-03	3.572E-03	3.543E-03	3.510E-03
AG128	1.431E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD128	5.592E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN128	1.271E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN128	7.178E+04	3.548E+04	1.753E+04	1.522E+01	3.228E-03
SB128	5.666E+03	5.247E+03	4.858E+03	2.251E+03	8.944E+02
SB128M	7.709E+04	4.288E+04	2.128E+04	1.848E+01	3.918E-03
I128	2.260E+03	4.277E+02	8.094E+01	4.771E-06	1.007E-14
CD129	2.188E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN129	9.915E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN129	4.634E+04	1.811E+02	7.071E-01	0.000E+00	0.000E+00
SN129M	5.756E+04	3.433E-03	2.046E-10	0.000E+00	0.000E+00
SB129	1.380E+05	1.192E+05	1.015E+05	2.039E+04	2.973E+03
TE129	1.359E+05	1.308E+05	1.206E+05	3.737E+04	1.661E+04
TE129M	2.036E+04	2.036E+04	2.035E+04	2.024E+04	2.004E+04
I129	7.710E-03	7.710E-03	7.711E-03	7.715E-03	7.717E-03
XE129M	4.896E-01	4.878E-01	4.861E-01	4.688E-01	4.490E-01
CD130	2.324E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN130	1.248E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN130	1.589E+05	2.219E+00	3.096E-05	0.000E+00	0.000E+00
SB130	4.435E+04	1.568E+04	5.544E+03	1.692E-01	6.453E-07
SB130M	2.107E+05	5.944E+02	8.124E-01	0.000E+00	0.000E+00
I130	6.904E+03	6.553E+03	6.196E+03	3.537E+03	1.804E+03
I130M	2.707E+03	2.665E+01	2.623E-01	2.239E-21	0.000E+00
CD131	3.515E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN131	4.450E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN131	1.458E+05	9.166E-13	5.760E-30	0.000E+00	0.000E+00
SB131	3.884E+05	6.482E+04	1.063E+04	1.491E-04	5.622E-14
TE131	4.067E+05	1.966E+05	6.613E+04	1.099E+04	8.332E+03
TE131M	6.409E+04	6.291E+04	6.152E+04	4.884E+04	3.701E+04
I131	4.574E+05	4.570E+05	4.560E+05	4.420E+05	4.251E+05

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XE131M	5.080E+03	5.080E+03	5.080E+03	5.078E+03	5.070E+03
CD132	3.196E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN132	1.178E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN132	8.202E+04	6.625E-23	0.000E+00	0.000E+00	0.000E+00
SB132	2.369E+05	9.303E-02	3.296E-08	0.000E+00	0.000E+00
SB132M	1.540E+05	7.712E+00	3.861E-04	0.000E+00	0.000E+00
TE132	6.568E+05	6.512E+05	6.455E+05	5.907E+05	5.311E+05
I132	6.652E+05	6.623E+05	6.586E+05	6.083E+05	5.472E+05
CS132	5.417E+01	5.393E+01	5.369E+01	5.134E+01	4.867E+01
IN133	1.184E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN133	2.456E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB133	2.895E+05	8.635E-03	2.573E-10	0.000E+00	0.000E+00
TE133	5.632E+05	4.984E+04	1.474E+04	7.707E+00	9.431E-04
TE133M	3.753E+05	1.773E+05	8.368E+04	4.596E+01	5.624E-03
I133	9.678E+05	9.503E+05	9.236E+05	6.648E+05	4.456E+05

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OUTPUT UNIT =

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 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
I133M	2.620E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE133	9.671E+05	9.671E+05	9.669E+05	9.577E+05	9.322E+05
XE133M	2.966E+04	2.964E+04	2.960E+04	2.874E+04	2.684E+04
IN134	6.123E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN134	2.911E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134	4.299E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134M	4.008E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE134	8.469E+05	3.133E+05	1.158E+05	5.531E+00	3.611E-05
I134	1.069E+06	7.627E+05	4.475E+05	3.085E+02	2.486E-02
I134M	9.102E+04	1.196E+00	1.571E-05	0.000E+00	0.000E+00
XE134M	6.049E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS134	2.486E+04	2.486E+04	2.486E+04	2.485E+04	2.484E+04
CS134M	1.149E+04	9.046E+03	7.123E+03	6.526E+02	3.707E+01
SN135	3.323E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB135	2.676E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE135	4.315E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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I135	9.010E+05	8.116E+05	7.308E+05	2.561E+05	7.279E+04
XE135	2.892E+05	3.321E+05	3.647E+05	3.970E+05	2.387E+05
XE135M	1.819E+05	1.325E+05	1.172E+05	4.103E+04	1.166E+04
CS135	1.245E-01	1.246E-01	1.246E-01	1.247E-01	1.248E-01
CS135M	3.466E+03	1.581E+03	7.215E+02	2.821E-01	2.296E-05
BA135M	5.747E+00	5.609E+00	5.476E+00	4.301E+00	3.218E+00
SN136	2.706E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB136	4.910E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE136	2.358E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I136	4.289E+05	4.461E-08	3.915E-21	0.000E+00	0.000E+00
I136M	2.611E+05	7.210E-19	0.000E+00	0.000E+00	0.000E+00
CS136	1.475E+04	1.472E+04	1.469E+04	1.437E+04	1.399E+04
BA136M	2.431E+03	2.426E+03	2.421E+03	2.368E+03	2.306E+03
SB137	6.384E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE137	6.164E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I137	4.327E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE137	8.464E+05	1.724E+01	3.316E-04	0.000E+00	0.000E+00
CS137	2.823E+04	2.823E+04	2.823E+04	2.823E+04	2.823E+04
BA137M	2.679E+04	2.671E+04	2.671E+04	2.670E+04	2.670E+04
SB138	7.489E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE138	1.483E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I138	2.177E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	8.263E+05	4.399E+04	2.337E+03	4.190E-10	2.120E-25
CS138	9.084E+05	3.948E+05	1.162E+05	2.901E-01	5.389E-08
CS138M	3.995E+04	2.362E-02	1.397E-08	0.000E+00	0.000E+00
SB139	5.389E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE139	2.749E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I139	9.777E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE139	6.541E+05	2.421E-22	0.000E+00	0.000E+00	0.000E+00
CS139	8.607E+05	1.091E+04	1.307E+02	7.973E-18	0.000E+00
BA139	8.823E+05	6.028E+05	3.654E+05	2.392E+03	5.727E+00
TE140	3.248E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I140	2.825E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE140	4.388E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS140	7.760E+05	9.245E-12	9.548E-29	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 14:14:12

* 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

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
BA140	8.502E+05	8.483E+05	8.464E+05	8.275E+05	8.054E+05
LA140	8.619E+05	8.617E+05	8.614E+05	8.575E+05	8.497E+05
PR140	4.265E+00	2.004E-05	9.418E-11	0.000E+00	0.000E+00
TE141	1.421E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I141	4.492E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE141	1.501E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS141	5.841E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA141	8.047E+05	8.400E+04	8.620E+03	1.116E-06	1.521E-18
LA141	8.082E+05	7.281E+05	6.156E+05	1.057E+05	1.273E+04
CE141	8.220E+05	8.219E+05	8.218E+05	8.171E+05	8.089E+05
TE142	1.363E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I142	5.536E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE142	5.135E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS142	3.612E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA142	7.722E+05	1.586E+04	3.253E+02	4.287E-15	2.464E-35
LA142	7.890E+05	5.661E+05	3.627E+05	4.085E+03	1.875E+01
PR142	1.577E+04	1.524E+04	1.470E+04	1.023E+04	6.625E+03
PR142M	3.089E+03	1.789E+02	1.037E+01	4.410E-12	6.297E-27
I143	3.380E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE143	8.026E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS143	1.837E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA143	6.863E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA143	7.656E+05	3.985E+04	2.043E+03	2.565E-10	8.462E-26
CE143	7.695E+05	7.587E+05	7.432E+05	6.024E+05	4.682E+05
PR143	7.657E+05	7.657E+05	7.657E+05	7.636E+05	7.578E+05
I144	2.614E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE144	1.320E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS144	4.685E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA144	5.298E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA144	6.827E+05	7.152E-22	0.000E+00	0.000E+00	0.000E+00
CE144	5.197E+05	5.196E+05	5.195E+05	5.190E+05	5.184E+05
PR144	5.237E+05	5.200E+05	5.196E+05	5.190E+05	5.184E+05
PR144M	6.242E+03	6.235E+03	6.235E+03	6.228E+03	6.221E+03
XE145	1.195E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS145	1.156E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA145	2.630E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA145	4.846E+05	2.400E-32	0.000E+00	0.000E+00	0.000E+00
CE145	5.191E+05	5.945E-01	5.670E-07	0.000E+00	0.000E+00
PR145	5.193E+05	4.670E+05	4.159E+05	1.305E+05	3.248E+04
XE146	8.033E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS146	1.595E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA146	9.465E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA146	3.107E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE146	4.067E+05	2.192E+04	1.172E+03	2.235E-10	1.219E-25

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PR146	4.082E+05	1.465E+05	3.019E+04	1.095E-03	1.211E-12
PM146	4.882E-01	4.882E-01	4.882E-01	4.881E-01	4.880E-01
XE147	6.770E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS147	2.384E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA147	2.089E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA147	1.490E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE147	3.105E+05	1.109E-10	3.659E-26	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 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
PR147	3.187E+05	1.108E+04	3.462E+02	3.075E-13	2.667E-31
ND147	3.175E+05	3.169E+05	3.161E+05	3.080E+05	2.985E+05
PM147	6.038E+04	6.039E+04	6.040E+04	6.047E+04	6.056E+04
CS148	1.467E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA148	3.384E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA148	5.403E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE148	2.216E+05	1.404E-20	0.000E+00	0.000E+00	0.000E+00
PR148	2.463E+05	4.876E-03	6.840E-11	0.000E+00	0.000E+00
PM148	1.071E+05	1.065E+05	1.060E+05	1.004E+05	9.421E+04
PM148M	1.420E+04	1.419E+04	1.418E+04	1.408E+04	1.396E+04
BA149	3.527E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA149	1.265E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE149	1.193E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR149	1.664E+05	2.350E-03	3.297E-11	0.000E+00	0.000E+00
ND149	1.722E+05	1.179E+05	7.898E+04	1.437E+03	1.173E+01
PM149	2.455E+05	2.442E+05	2.423E+05	2.149E+05	1.838E+05
CS150	1.332E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA150	2.549E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA150	2.277E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE150	5.182E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR150	1.047E+05	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM150	2.199E+03	1.698E+03	1.311E+03	9.868E+01	4.429E+00
LA151	2.751E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE151	1.490E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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PR151	5.642E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND151	8.193E+04	2.874E+03	1.005E+02	2.729E-13	9.054E-31
PM151	8.207E+04	8.066E+04	7.873E+04	6.168E+04	4.601E+04
SM151	1.755E+02	1.756E+02	1.756E+02	1.762E+02	1.768E+02
BA152	6.485E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA152	2.952E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE152	3.159E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR152	2.427E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND152	5.557E+04	1.504E+03	4.041E+01	7.954E-15	1.123E-33
PM152	5.690E+04	2.335E+03	6.290E+01	1.236E-14	1.736E-33
PM152M	1.004E+03	3.923E+00	1.533E-02	0.000E+00	0.000E+00
EU152	2.953E+00	2.953E+00	2.953E+00	2.952E+00	2.952E+00
EU152M	4.643E+01	4.311E+01	4.002E+01	1.902E+01	7.791E+00
LA153	2.973E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE153	5.223E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR153	7.431E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND153	3.217E+04	2.986E-12	2.689E-28	0.000E+00	0.000E+00
PM153	3.642E+04	2.040E+01	9.222E-03	0.000E+00	0.000E+00
SM153	1.186E+05	1.170E+05	1.152E+05	9.934E+04	8.313E+04
GD153	1.218E+00	1.218E+00	1.218E+00	1.217E+00	1.215E+00
LA154	1.368E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE154	5.840E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR154	1.673E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND154	1.550E+04	1.257E-23	0.000E+00	0.000E+00	0.000E+00
PM154	1.898E+04	8.650E-03	3.065E-09	0.000E+00	0.000E+00
PM154M	3.172E+03	2.931E-07	2.708E-17	0.000E+00	0.000E+00
EU154	1.113E+03	1.113E+03	1.113E+03	1.113E+03	1.113E+03

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
CE155	6.624E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR155	3.206E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND155	5.773E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM155	1.155E+04	5.918E-26	0.000E+00	0.000E+00	0.000E+00

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SM155	1.324E+04	2.102E+03	3.229E+02	2.361E-06	4.074E-16
EU155	1.024E+03	1.024E+03	1.024E+03	1.023E+03	1.023E+03
GD155M	2.492E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE156	6.217E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR156	5.706E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND156	1.909E+03	5.661E-16	2.704E-34	0.000E+00	0.000E+00
PM156	5.985E+03	7.295E-16	0.000E+00	0.000E+00	0.000E+00
SM156	8.029E+03	7.464E+03	6.933E+03	3.317E+03	1.369E+03
EU156	2.707E+04	2.704E+04	2.700E+04	2.658E+04	2.603E+04
CE157	4.883E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR157	8.833E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND157	5.181E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM157	2.777E+03	3.286E-13	3.841E-29	0.000E+00	0.000E+00
SM157	5.106E+03	3.077E+01	1.700E-01	0.000E+00	0.000E+00
EU157	6.186E+03	5.957E+03	5.691E+03	3.607E+03	2.087E+03
PR158	6.611E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND158	7.785E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM158	8.742E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM158	2.698E+03	1.049E+03	4.073E+02	3.187E-02	3.764E-07
EU158	2.894E+03	2.139E+03	1.241E+03	4.982E-01	1.468E-05
PR159	2.614E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND159	7.734E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM159	1.928E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM159	1.222E+03	2.556E-04	5.325E-11	0.000E+00	0.000E+00
EU159	1.491E+03	1.714E+02	1.723E+01	1.809E-09	1.917E-21
GD159	1.665E+03	1.629E+03	1.572E+03	1.083E+03	6.924E+02
ND160	6.622E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM160	3.450E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM160	4.537E+02	3.569E-01	2.807E-04	0.000E+00	0.000E+00
EU160	6.887E+02	4.180E-01	3.287E-04	0.000E+00	0.000E+00
TB160	1.189E+02	1.188E+02	1.188E+02	1.183E+02	1.177E+02
ND161	4.626E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM161	3.941E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM161	1.218E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU161	2.960E+02	6.001E-24	0.000E+00	0.000E+00	0.000E+00
GD161	3.428E+02	5.535E-03	7.270E-08	0.000E+00	0.000E+00
TB161	3.619E+02	3.606E+02	3.591E+02	3.444E+02	3.276E+02
PM162	1.813E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM162	1.653E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU162	9.074E+01	8.856E-03	8.522E-07	0.000E+00	0.000E+00
GD162	1.667E+02	3.772E+00	5.906E-02	5.122E-20	0.000E+00
TB162	1.651E+02	1.128E+01	2.159E-01	1.984E-19	0.000E+00
TB162M	5.097E+00	3.977E+00	2.919E+00	1.304E-01	3.129E-03
SM163	1.920E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU163	2.148E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD163	6.728E+01	1.487E-10	3.094E-22	0.000E+00	0.000E+00
TB163	7.272E+01	9.341E+00	1.107E+00	6.049E-10	4.642E-21

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
SM164	1.753E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU164	4.476E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD164	2.721E+01	3.998E+00	5.873E-01	2.748E-09	2.775E-19
TB164	3.372E+01	4.652E+00	6.816E-01	3.190E-09	3.221E-19
SM165	1.124E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU165	7.264E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD165	9.352E+00	1.433E-10	2.192E-21	0.000E+00	0.000E+00
TB165	1.513E+01	2.129E-10	3.257E-21	0.000E+00	0.000E+00
DY165	6.273E+01	4.708E+01	3.505E+01	1.836E+00	5.328E-02
DY165M	3.786E+01	4.295E-10	6.568E-21	0.000E+00	0.000E+00
DY166	9.747E+00	9.664E+00	9.582E+00	8.801E+00	7.947E+00
HO166	1.662E+01	1.645E+01	1.627E+01	1.465E+01	1.297E+01
ER167M	2.153E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ER169	1.639E-02	1.634E-02	1.629E-02	1.580E-02	1.523E-02
SUMTOT	8.277E+07	3.071E+07	2.722E+07	1.952E+07	1.654E+07
TOTAL	8.277E+07	3.071E+07	2.722E+07	1.952E+07	1.654E+07

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OUTPUT UNIT =

6 PAGE 192
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

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ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	1.404E+02	1.404E+02	1.404E+02	1.404E+02
CO	8.666E-01	0.000E+00	0.000E+00	0.000E+00
NI	3.278E+01	0.000E+00	0.000E+00	0.000E+00
CU	2.284E+02	1.546E-08	6.869E-11	5.745E-11
ZN	2.254E+03	2.721E+01	2.681E+01	2.310E+01
GA	1.132E+04	8.082E+01	7.298E+01	3.748E+01
GE	7.138E+04	2.517E+03	1.721E+03	2.602E+02
AS	2.131E+05	4.220E+03	3.639E+03	1.273E+03
SE	6.371E+05	8.032E+03	1.414E+03	3.413E+00
BR	1.407E+06	8.876E+04	5.027E+04	3.211E+03
KR	2.505E+06	6.717E+05	5.102E+05	5.443E+04
RB	3.465E+06	3.891E+05	2.772E+05	2.435E+04
SR	4.924E+06	1.737E+06	1.568E+06	8.811E+05
Y	6.548E+06	2.638E+06	2.434E+06	1.424E+06
ZR	4.874E+06	1.642E+06	1.610E+06	1.354E+06
NB	7.050E+06	2.425E+06	2.373E+06	1.881E+06
MO	3.989E+06	9.284E+05	8.594E+05	7.710E+05
TC	4.343E+06	1.010E+06	7.865E+05	7.234E+05
RU	1.604E+06	1.096E+06	1.047E+06	8.165E+05
RH	1.945E+06	1.188E+06	1.142E+06	1.028E+06
PD	2.114E+05	1.019E+05	9.412E+04	5.709E+04
AG	2.316E+05	1.340E+05	1.247E+05	8.226E+04
CD	6.628E+04	1.581E+04	1.297E+04	7.206E+03
IN	1.497E+05	2.066E+04	1.687E+04	7.757E+03
SN	6.602E+05	7.151E+04	4.603E+04	1.233E+04
SB	1.709E+06	2.966E+05	1.918E+05	6.775E+04
TE	3.865E+06	1.651E+06	1.177E+06	7.564E+05
I	5.661E+06	3.651E+06	3.223E+06	1.975E+06
XE	4.456E+06	1.510E+06	1.486E+06	1.430E+06
CS	3.857E+06	4.842E+05	1.920E+05	6.815E+04
BA	4.937E+06	1.580E+06	1.250E+06	8.589E+05
LA	4.921E+06	2.196E+06	1.842E+06	9.672E+05
CE	3.759E+06	2.122E+06	2.086E+06	1.939E+06
PR	3.168E+06	1.932E+06	1.753E+06	1.430E+06
ND	6.832E+05	4.392E+05	3.952E+05	3.094E+05
PM	6.494E+05	5.100E+05	5.029E+05	4.517E+05
SM	1.497E+05	1.278E+05	1.231E+05	1.028E+05
EU	4.093E+04	3.749E+04	3.613E+04	3.235E+04
GD	2.280E+03	1.638E+03	1.574E+03	1.084E+03
TB	7.726E+02	5.086E+02	4.827E+02	4.628E+02
DY	1.103E+02	5.675E+01	4.464E+01	1.064E+01
HO	1.662E+01	1.645E+01	1.627E+01	1.465E+01
ER	2.317E-01	1.634E-02	1.629E-02	1.580E-02
SUMTOT	8.277E+07	3.071E+07	2.722E+07	1.952E+07
TOTAL	8.277E+07	3.071E+07	2.722E+07	1.654E+07

CUMULATIVE TABLE TOTALS

AP+FP 8.294E+07 3.087E+07 2.737E+07 1.964E+07 1.664E+07
 ACT+FP 9.880E+07 4.022E+07 3.553E+07 2.668E+07 2.275E+07
 AP+ACT+FP 9.897E+07 4.038E+07 3.568E+07 2.680E+07 2.284E+07

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OUTPUT UNIT =

6 PAGE 193
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H 3	4.726E-03	4.726E-03	4.726E-03	4.726E-03	4.726E-03
CO 72	3.192E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 72	2.352E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 72	6.657E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 72	4.180E-02	4.118E-02	4.057E-02	3.495E-02	2.923E-02
GA 72	5.265E-01	5.262E-01	5.256E-01	5.042E-01	4.571E-01
CO 73	8.720E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 73	3.156E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 73	6.898E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 73	8.380E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 73	2.720E-01	2.363E-01	2.050E-01	4.954E-02	9.012E-03
GE 73M	2.390E-02	2.075E-02	1.800E-02	4.351E-03	7.914E-04
CO 74	2.300E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 74	1.726E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 74	1.677E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 74	7.500E-01	2.944E-12	1.152E-23	0.000E+00	0.000E+00
GA 74	3.174E+00	2.301E-02	1.355E-04	0.000E+00	0.000E+00
CO 75	2.727E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI 75	1.054E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 75	1.370E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 75	4.390E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 75	2.168E+00	7.263E-10	2.264E-19	0.000E+00	0.000E+00
GE 75	7.380E-01	4.579E-01	2.771E-01	1.825E-03	4.396E-06
GE 75M	9.657E-03	5.121E-12	1.596E-21	0.000E+00	0.000E+00
NI 76	2.332E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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CU 76	1.632E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 76	5.592E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 76	1.804E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 76	6.864E-02	6.685E-02	6.512E-02	5.004E-02	3.648E-02
NI 77	5.374E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 77	6.167E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 77	1.214E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 77	1.780E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 77	5.123E+00	4.822E+00	4.535E+00	2.456E+00	1.176E+00
GE 77M	6.948E+00	9.954E-20	0.000E+00	0.000E+00	0.000E+00
AS 77	1.969E+00	1.947E+00	1.924E+00	1.684E+00	1.405E+00
SE 77M	5.248E-03	5.081E-03	5.021E-03	4.396E-03	3.666E-03
NI 78	5.271E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU 78	3.077E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 78	9.255E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 78	5.904E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 78	8.999E+00	5.584E+00	3.462E+00	2.906E-02	9.377E-05
AS 78	4.710E+01	4.301E+01	3.540E+01	1.114E+00	7.519E-03
CU 79	6.313E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 79	8.583E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 79	4.697E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 79	7.917E+01	5.098E-24	0.000E+00	0.000E+00	0.000E+00
AS 79	3.859E+01	4.082E-01	4.018E-03	3.430E-23	0.000E+00
SE 79	2.846E-05	2.846E-05	2.846E-05	2.846E-05	2.846E-05
SE 79M	4.177E+00	7.761E-02	7.665E-04	6.529E-24	0.000E+00
CU 80	1.014E-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 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
ZN 80	2.580E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 80	8.414E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 80	8.228E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 80	3.062E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 80	1.432E-03	8.770E-04	7.180E-04	1.488E-04	2.266E-05

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BR 80M	9.630E-05	8.232E-05	7.037E-05	1.466E-05	2.233E-06
CU 81	6.775E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZN 81	9.771E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 81	3.802E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 81	3.240E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 81	2.605E+02	4.600E-32	0.000E+00	0.000E+00	0.000E+00
SE 81	1.016E+02	1.274E+01	2.144E+00	7.198E-04	1.188E-07
SE 81M	4.964E-01	2.402E-01	1.163E-01	8.190E-05	1.351E-08
ZN 82	1.104E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 82	2.280E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 82	1.846E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82	5.164E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 82M	3.327E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 82	2.152E+01	2.112E+01	2.071E+01	1.702E+01	1.345E+01
BR 82M	2.292E-01	2.592E-04	2.923E-07	0.000E+00	0.000E+00
ZN 83	1.212E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GA 83	5.726E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 83	3.275E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 83	7.283E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 83	4.477E+02	7.100E+01	1.118E+01	1.050E-07	2.444E-17
SE 83M	5.168E+02	2.021E-13	6.669E-29	0.000E+00	0.000E+00
BR 83	1.278E+02	1.016E+02	7.687E+01	4.241E+00	1.306E-01
KR 83M	1.585E+01	1.533E+01	1.394E+01	1.636E+00	6.267E-02
GA 84	7.107E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GE 84	7.390E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 84	1.255E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 84	6.346E+02	2.160E-03	7.265E-09	0.000E+00	0.000E+00
BR 84	2.110E+03	6.356E+02	1.719E+02	3.592E-04	5.490E-11
BR 84M	7.328E+01	7.156E-02	6.988E-05	0.000E+00	0.000E+00
GE 85	2.910E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 85	6.673E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 85	1.370E+03	2.267E-25	0.000E+00	0.000E+00	0.000E+00
SE 85M	1.047E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 85	8.824E+02	5.243E-04	2.624E-10	0.000E+00	0.000E+00
KR 85	4.465E+00	4.465E+00	4.465E+00	4.466E+00	4.466E+00
KR 85M	3.544E+02	3.073E+02	2.633E+02	5.604E+01	8.756E+00
GE 86	4.946E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 86	4.895E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 86	2.009E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 86	3.165E+03	8.064E-17	0.000E+00	0.000E+00	0.000E+00
BR 86M	2.972E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 86	2.187E+00	2.184E+00	2.181E+00	2.147E+00	2.108E+00
RB 86M	2.020E-01	3.655E-19	8.595E-37	0.000E+00	0.000E+00
GE 87	9.387E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 87	2.254E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 87	2.713E+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

9 SUMMARY TABLE: THERMAL POWER, WATTS
17X17 PWR ASSEMBLY, 4.236% UO2, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
BR 87	5.466E+03	2.176E-16	6.489E-36	0.000E+00	0.000E+00
KR 87	3.562E+03	2.088E+03	1.211E+03	5.197E+00	7.524E-03
SR 87M	2.603E-03	2.033E-03	1.588E-03	1.343E-04	6.924E-06
GE 88	2.395E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AS 88	1.852E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 88	8.942E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 88	3.959E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 88	5.498E+03	4.311E+03	3.377E+03	2.939E+02	1.569E+01
RB 88	6.445E+03	5.507E+03	4.359E+03	3.798E+02	2.028E+01
AS 89	1.674E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 89	3.396E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 89	5.447E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 89	9.403E+03	1.904E-02	3.819E-08	0.000E+00	0.000E+00
RB 89	9.615E+03	7.803E+02	5.058E+01	6.625E-11	3.647E-25
SR 89	1.913E+03	1.912E+03	1.911E+03	1.900E+03	1.887E+03
Y 89M	9.846E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SE 90	9.909E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 90	4.231E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 90	7.547E+03	2.251E-30	0.000E+00	0.000E+00	0.000E+00
RB 90	1.221E+04	2.146E-02	1.230E-06	0.000E+00	0.000E+00
RB 90M	3.029E+03	2.054E-01	1.295E-05	0.000E+00	0.000E+00
SR 90	2.688E+01	2.688E+01	2.688E+01	2.688E+01	2.688E+01
Y 90	1.326E+02	1.325E+02	1.325E+02	1.321E+02	1.316E+02
Y 90M	2.363E-02	1.889E-02	1.511E-02	1.615E-03	1.104E-04
SE 91	1.811E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 91	1.327E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 91	7.127E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 91	1.505E+04	3.978E-15	9.565E-34	0.000E+00	0.000E+00
SR 91	5.296E+03	4.932E+03	4.585E+03	2.210E+03	9.210E+02
Y 91	2.502E+03	2.502E+03	2.502E+03	2.497E+03	2.486E+03
Y 91M	1.268E+03	1.239E+03	1.179E+03	5.796E+02	2.414E+02
SE 92	6.285E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BR 92	1.324E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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KR 92	3.209E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 92	1.188E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 92	6.368E+03	4.933E+03	3.819E+03	2.959E+02	1.375E+01
Y 92	7.069E+03	6.913E+03	6.536E+03	1.800E+03	2.239E+02
BR 93	2.579E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 93	1.715E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 93	8.217E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 93	1.170E+04	4.602E+01	1.797E-01	0.000E+00	0.000E+00
Y 93	5.901E+03	5.577E+03	5.208E+03	2.622E+03	1.151E+03
ZR 93	6.207E-05	6.208E-05	6.208E-05	6.211E-05	6.213E-05
BR 94	2.635E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 94	5.499E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 94	5.809E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 94	9.031E+03	4.218E-11	1.951E-25	0.000E+00	0.000E+00
Y 94	1.301E+04	1.572E+03	1.781E+02	6.226E-08	2.796E-19
NB 94M	1.097E-04	1.428E-07	1.856E-10	0.000E+00	0.000E+00
BR 95	1.509E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 95	7.840E+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 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
RB 95	2.822E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 95	1.307E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 95	1.092E+04	2.152E+02	4.099E+00	2.576E-17	0.000E+00
ZR 95	4.368E+03	4.366E+03	4.364E+03	4.345E+03	4.321E+03
NB 95	4.175E+03	4.175E+03	4.175E+03	4.175E+03	4.174E+03
NB 95M	8.526E+00	8.525E+00	8.524E+00	8.512E+00	8.494E+00
BR 96	9.934E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
KR 96	1.024E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 96	1.006E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 96	6.765E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 96	1.784E+04	2.547E-04	3.574E-12	0.000E+00	0.000E+00
NB 96	2.137E+01	2.074E+01	2.014E+01	1.497E+01	1.048E+01
KR 97	7.599E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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RB 97	1.601E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 97	5.988E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 97	1.217E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 97	4.232E+03	4.062E+03	3.899E+03	2.587E+03	1.582E+03
NB 97	5.447E+03	5.366E+03	5.227E+03	3.551E+03	2.034E+03
NB 97M	3.390E+03	3.251E+03	3.120E+03	2.070E+03	1.266E+03
KR 98	7.309E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RB 98	4.202E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 98	1.758E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 98	1.340E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 98	4.349E+03	4.831E-32	0.000E+00	0.000E+00	0.000E+00
NB 98	1.017E+04	1.224E-31	0.000E+00	0.000E+00	0.000E+00
NB 98M	1.297E+02	5.784E+01	2.579E+01	8.024E-03	4.964E-07
RB 99	3.501E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR 99	7.386E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y 99	5.918E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR 99	1.146E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99	7.657E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB 99M	3.800E+02	4.294E-05	4.854E-12	0.000E+00	0.000E+00
MO 99	2.808E+03	2.779E+03	2.750E+03	2.476E+03	2.183E+03
TC 99	1.867E-03	1.867E-03	1.867E-03	1.869E-03	1.870E-03
TC 99M	6.453E+02	6.450E+02	6.439E+02	6.098E+02	5.478E+02
RB100	3.913E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR100	1.039E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y100	4.114E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR100	6.020E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100	1.077E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB100M	9.429E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC100	8.734E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SR101	2.212E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y101	1.046E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR101	8.818E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB101	9.799E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO101	8.917E+03	5.238E+02	3.046E+01	1.348E-11	2.016E-26
TC101	3.748E+03	8.186E+02	7.971E+01	1.273E-10	2.569E-25
SR102	1.525E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y102	3.507E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR102	3.330E+03	4.265E-35	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 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
NB102	1.496E+04	1.305E-34	0.000E+00	0.000E+00	0.000E+00
MO102	1.309E+03	3.152E+01	7.436E-01	3.976E-17	1.182E-36
TC102	7.332E+03	1.777E+02	4.194E+00	2.242E-16	0.000E+00
TC102M	1.264E+01	8.903E-04	6.272E-08	0.000E+00	0.000E+00
RH102	1.523E-03	1.523E-03	1.523E-03	1.523E-03	1.522E-03
SR103	6.836E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y103	3.746E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR103	2.168E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB103	7.282E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO103	8.612E+03	9.155E-15	7.939E-33	0.000E+00	0.000E+00
TC103	4.669E+03	2.937E-14	2.548E-32	0.000E+00	0.000E+00
RU103	2.137E+03	2.136E+03	2.134E+03	2.118E+03	2.100E+03
RH103M	1.324E+02	1.324E+02	1.323E+02	1.315E+02	1.302E+02
SR104	2.139E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
Y104	3.974E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR104	3.155E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB104	5.160E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO104	2.838E+03	1.468E-08	7.554E-20	0.000E+00	0.000E+00
TC104	1.071E+04	1.189E+03	1.210E+02	1.441E-08	1.777E-20
RH104	1.224E+03	6.582E-03	4.535E-07	0.000E+00	0.000E+00
RH104M	1.124E+01	7.747E-04	5.339E-08	0.000E+00	0.000E+00
Y105	1.951E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR105	7.017E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB105	1.252E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO105	5.634E+03	4.840E-17	0.000E+00	0.000E+00	0.000E+00
TC105	4.118E+03	2.512E+01	1.388E-01	0.000E+00	0.000E+00
RU105	2.655E+03	2.347E+03	2.008E+03	4.214E+02	6.469E+01
RH105	4.859E+02	4.860E+02	4.848E+02	4.329E+02	3.497E+02
RH105M	8.093E+01	7.175E+01	6.139E+01	1.288E+01	1.978E+00
ZR106	7.958E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB106	5.132E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO106	1.584E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC106	5.466E+03	3.377E-26	0.000E+00	0.000E+00	0.000E+00
RU106	7.336E+00	7.335E+00	7.335E+00	7.329E+00	7.322E+00
RH106	1.340E+03	1.183E+03	1.183E+03	1.182E+03	1.181E+03
RH106M	1.423E+02	1.039E+02	7.580E+01	3.246E+00	7.402E-02
Y107	1.940E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR107	5.673E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB107	6.356E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO107	1.110E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC107	2.013E+03	9.961E-35	0.000E+00	0.000E+00	0.000E+00

ML041000029.txt

RU107	1.633E+03	8.920E-02	4.466E-06	0.000E+00	0.000E+00
RH107	9.122E+02	1.691E+02	2.488E+01	1.182E-07	1.215E-17
PD107M	9.099E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ZR108	1.062E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB108	2.041E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO108	2.558E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC108	1.945E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU108	3.894E+02	3.817E-02	3.698E-06	0.000E+00	0.000E+00
RH108	1.777E+03	1.840E-01	1.782E-05	0.000E+00	0.000E+00
RH108M	2.326E+01	2.020E-02	1.754E-05	0.000E+00	0.000E+00

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OUTPUT UNIT =

6 PAGE 198
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
AG108	8.057E-04	1.393E-09	1.373E-09	1.373E-09	1.373E-09
ZR109	1.069E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NB109	3.189E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO109	1.445E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC109	7.596E+02	4.293E-19	0.000E+00	0.000E+00	0.000E+00
RU109	1.117E+03	8.756E-19	0.000E+00	0.000E+00	0.000E+00
RH109	6.208E+02	2.305E-09	2.097E-21	0.000E+00	0.000E+00
RH109M	6.086E+01	1.464E-18	0.000E+00	0.000E+00	0.000E+00
PD109	2.384E+02	2.280E+02	2.166E+02	1.294E+02	6.977E+01
PD109M	4.591E+01	1.308E-02	1.842E-06	0.000E+00	0.000E+00
AG109M	4.619E+01	4.422E+01	4.200E+01	2.510E+01	1.353E+01
NB110	4.839E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO110	2.355E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC110	3.044E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU110	3.215E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH110	8.095E+02	7.008E-35	0.000E+00	0.000E+00	0.000E+00
RH110M	3.853E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG110	1.625E+02	3.911E-02	3.911E-02	3.906E-02	3.901E-02
AG110M	6.836E+00	6.835E+00	6.835E+00	6.827E+00	6.817E+00
NB111	3.549E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
MO111	7.639E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ML041000029.txt

TC111	8.627E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU111	3.168E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH111	2.951E+02	2.315E-15	1.455E-32	0.000E+00	0.000E+00
PD111	1.186E+02	1.981E+01	3.750E+00	2.597E-01	5.724E-02
PD111M	1.059E+00	9.346E-01	8.239E-01	2.337E-01	5.150E-02
AG111	5.022E+01	5.012E+01	4.995E+01	4.806E+01	4.588E+01
AG111M	8.569E+00	1.529E+00	3.100E-01	2.696E-02	5.942E-03
CD111M	3.857E-03	1.642E-03	6.990E-04	1.367E-07	4.843E-12
MO112	1.107E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC112	4.324E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU112	1.007E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH112	2.852E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD112	1.154E+01	1.115E+01	1.078E+01	7.633E+00	5.046E+00
AG112	1.564E+02	1.558E+02	1.542E+02	1.201E+02	8.057E+01
MO113	1.165E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC113	9.567E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU113	1.041E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH113	1.559E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD113	1.218E+02	1.132E-10	1.030E-22	0.000E+00	0.000E+00
AG113	5.820E+01	5.131E+01	4.502E+01	1.217E+01	2.534E+00
AG113M	7.334E+00	2.525E-11	2.296E-23	0.000E+00	0.000E+00
CD113M	1.742E-02	1.742E-02	1.742E-02	1.743E-02	1.743E-02
MO114	9.653E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TC114	2.980E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU114	3.535E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH114	1.542E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD114	5.264E+01	1.597E-06	4.761E-14	0.000E+00	0.000E+00
AG114	9.315E+01	2.882E-06	8.589E-14	0.000E+00	0.000E+00
IN114	2.806E-03	9.102E-04	9.097E-04	9.044E-04	8.981E-04
IN114M	2.835E-04	2.834E-04	2.832E-04	2.816E-04	2.796E-04

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

ASSY DIS 1.0HR 2.0HR 12.0HR 24.0HR

MO115 8.973E-04 0.000E+00 0.000E+00 0.000E+00 0.000E+00

ML041000029.txt

TC115	5.299E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU115	2.750E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH115	9.234E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD115	1.134E+02	3.804E-27	0.000E+00	0.000E+00	0.000E+00
AG115	5.682E+01	7.349E+00	9.187E-01	8.556E-10	1.245E-20
AG115M	2.413E+01	1.375E-27	0.000E+00	0.000E+00	0.000E+00
CD115	2.267E+01	2.248E+01	2.220E+01	1.951E+01	1.670E+01
CD115M	2.546E+00	2.545E+00	2.543E+00	2.527E+00	2.507E+00
IN115M	1.427E+01	1.426E+01	1.423E+01	1.314E+01	1.138E+01
TC116	4.293E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU116	4.686E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH116	6.748E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD116	5.417E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG116	6.577E+01	1.303E-05	2.375E-12	0.000E+00	0.000E+00
AG116M	7.703E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116	2.962E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN116M	4.335E+01	2.011E+01	9.330E+00	4.309E-03	4.283E-07
TC117	1.569E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RU117	1.152E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH117	3.644E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD117	1.076E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG117	4.718E+01	7.876E-14	1.235E-28	0.000E+00	0.000E+00
AG117M	4.947E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD117	3.049E+01	2.348E+01	1.799E+01	1.251E+00	5.103E-02
CD117M	1.868E+01	1.527E+01	1.245E+01	1.621E+00	1.404E-01
IN117	1.761E+01	1.702E+01	1.562E+01	2.278E+00	1.577E-01
IN117M	1.869E+01	1.802E+01	1.644E+01	2.500E+00	1.556E-01
SN117M	2.248E-02	2.244E-02	2.239E-02	2.193E-02	2.140E-02
RU118	5.407E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH118	6.393E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD118	5.621E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG118	8.228E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG118M	3.655E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD118	1.696E+01	7.433E+00	3.252E+00	8.342E-04	4.095E-08
IN118	7.872E+01	3.455E+01	1.511E+01	3.877E-03	1.903E-07
IN118M	4.654E-02	4.064E-06	3.549E-10	0.000E+00	0.000E+00
RH119	3.892E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD119	7.409E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG119	1.086E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD119	3.532E+01	4.279E-01	5.127E-03	3.127E-22	0.000E+00
CD119M	3.940E+01	9.243E-05	2.097E-10	0.000E+00	0.000E+00
IN119	1.484E+01	3.787E-01	3.953E-02	3.697E-12	3.362E-24
IN119M	4.084E+01	6.976E+00	7.235E-01	6.725E-11	6.116E-23
SN119M	3.739E-02	3.739E-02	3.739E-02	3.734E-02	3.729E-02
RU120	1.357E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
RH120	8.596E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD120	1.993E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG120	6.177E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

CD120 3.593E+01 1.723E-20 0.000E+00 0.000E+00 0.000E+00
IN120 7.547E+01 2.815E-19 0.000E+00 0.000E+00 0.000E+00

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OUTPUT UNIT =

6 PAGE 200
ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
IN120M	5.223E+01	2.614E-20	0.000E+00	0.000E+00	0.000E+00
RH121	1.142E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD121	1.295E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG121	6.411E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD121	1.050E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121	6.490E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN121M	1.746E+01	6.253E-05	2.103E-10	0.000E+00	0.000E+00
SN121	8.166E+00	7.964E+00	7.760E+00	5.992E+00	4.393E+00
SN121M	8.463E-05	8.463E-05	8.463E-05	8.463E-05	8.463E-05
RH122	1.769E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD122	3.008E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG122	6.011E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD122	5.250E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN122	1.811E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN122M	9.010E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB122	2.622E+00	2.594E+00	2.566E+00	2.306E+00	2.028E+00
SB122M	3.340E-03	1.673E-07	8.375E-12	0.000E+00	0.000E+00
RH123	1.316E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PD123	1.034E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG123	2.520E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD123	1.161E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN123	7.514E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN123M	3.653E+01	1.090E-21	0.000E+00	0.000E+00	0.000E+00
SN123	4.615E+00	4.614E+00	4.613E+00	4.603E+00	4.590E+00
SN123M	2.324E+01	8.303E+00	2.942E+00	9.174E-05	3.591E-10
TE123M	1.527E-03	1.527E-03	1.526E-03	1.523E-03	1.518E-03
PD124	1.513E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG124	1.604E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD124	7.253E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00

ML041000029.txt

IN124	2.348E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB124	3.195E+00	3.193E+00	3.192E+00	3.177E+00	3.158E+00
SB124M	8.690E-03	1.933E-14	4.300E-26	0.000E+00	0.000E+00
AG125	3.969E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD125	8.743E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN125	1.029E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN125M	7.814E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN125	3.622E+01	3.611E+01	3.600E+01	3.494E+01	3.371E+01
SN125M	5.892E+01	7.551E-01	9.566E-03	1.019E-21	0.000E+00
SB125	1.141E+01	1.141E+01	1.141E+01	1.141E+01	1.141E+01
TE125M	5.890E-01	5.891E-01	5.891E-01	5.897E-01	5.904E-01
PD126	2.540E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
AG126	1.620E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD126	4.909E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN126	3.889E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN126	2.193E-04	2.193E-04	2.193E-04	2.193E-04	2.193E-04
SB126	7.166E+00	7.150E+00	7.133E+00	6.969E+00	6.777E+00
SB126M	2.336E+00	2.638E-01	3.154E-02	2.239E-03	2.239E-03
CD127	4.000E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN127	1.740E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN127M	1.820E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN127	4.000E+02	2.876E+02	2.067E+02	7.620E+00	1.451E-01

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
SN127M	1.286E+02	5.488E-03	2.342E-07	0.000E+00	0.000E+00
SB127	2.587E+02	2.579E+02	2.567E+02	2.399E+02	2.193E+02
TE127	5.792E+01	5.791E+01	5.789E+01	5.674E+01	5.386E+01
TE127M	2.933E+00	2.933E+00	2.933E+00	2.934E+00	2.934E+00
AG128	6.695E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CD128	1.225E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN128	4.421E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN128	3.463E+02	1.712E+02	8.459E+01	7.345E-02	1.557E-05
SB128	1.169E+02	1.083E+02	1.003E+02	4.646E+01	1.846E+01

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SB128M	1.353E+03	7.524E+02	3.734E+02	3.242E-01	6.875E-05
I128	1.121E+01	2.121E+00	4.015E-01	2.366E-08	4.996E-17
CD129	7.038E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN129	2.715E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN129	6.950E+02	2.715E+00	1.060E-02	0.000E+00	0.000E+00
SN129M	9.168E+02	5.467E-05	3.259E-12	0.000E+00	0.000E+00
SB129	1.541E+03	1.331E+03	1.134E+03	2.279E+02	3.322E+01
TE129	4.854E+02	4.672E+02	4.309E+02	1.335E+02	5.933E+01
TE129M	3.570E+01	3.570E+01	3.569E+01	3.548E+01	3.514E+01
XE129M	6.849E-04	6.825E-04	6.800E-04	6.559E-04	6.281E-04
CD130	6.307E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN130	3.976E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN130	1.239E+03	1.730E-02	2.413E-07	0.000E+00	0.000E+00
SB130	1.038E+03	3.670E+02	1.298E+02	3.960E-03	1.511E-08
SB130M	4.641E+03	1.309E+01	1.790E-02	0.000E+00	0.000E+00
I130	9.940E+01	9.435E+01	8.921E+01	5.092E+01	2.598E+01
I130M	4.936E+00	4.858E-02	4.782E-04	4.083E-24	0.000E+00
CD131	1.543E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN131	1.430E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN131	2.604E+03	1.637E-14	1.028E-31	0.000E+00	0.000E+00
SB131	5.622E+03	9.382E+02	1.538E+02	2.158E-06	8.138E-16
TE131	2.746E+03	1.327E+03	4.465E+02	7.423E+01	5.626E+01
TE131M	6.162E+02	6.049E+02	5.915E+02	4.696E+02	3.559E+02
I131	1.553E+03	1.552E+03	1.549E+03	1.501E+03	1.444E+03
XE131M	4.888E+00	4.888E+00	4.888E+00	4.885E+00	4.878E+00
CD132	1.267E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
IN132	5.924E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN132	1.002E+03	8.098E-25	0.000E+00	0.000E+00	0.000E+00
SB132	5.528E+03	2.170E-03	7.690E-10	0.000E+00	0.000E+00
SB132M	3.589E+03	1.797E-01	8.998E-06	0.000E+00	0.000E+00
TE132	1.301E+03	1.290E+03	1.279E+03	1.170E+03	1.052E+03
I132	1.093E+04	1.089E+04	1.083E+04	9.999E+03	8.995E+03
CS132	2.339E-01	2.328E-01	2.318E-01	2.217E-01	2.101E-01
IN133	5.477E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN133	7.113E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB133	6.349E+03	1.894E-04	5.644E-12	0.000E+00	0.000E+00
TE133	5.829E+03	5.158E+02	1.526E+02	7.976E-02	9.761E-06
TE133M	6.633E+03	3.134E+03	1.479E+03	8.124E-01	9.942E-05
I133	5.811E+03	5.707E+03	5.546E+03	3.992E+03	2.676E+03
I133M	2.533E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE133	1.036E+03	1.036E+03	1.036E+03	1.026E+03	9.985E+02
XE133M	4.074E+01	4.070E+01	4.066E+01	3.948E+01	3.686E+01

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
IN134	3.320E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SN134	7.136E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134	1.256E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB134M	1.199E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE134	5.934E+03	2.195E+03	8.116E+02	3.875E-02	2.530E-07
I134	2.058E+04	1.468E+04	8.616E+03	5.940E+00	4.785E-04
I134M	1.871E+02	2.459E-03	3.230E-08	0.000E+00	0.000E+00
XE134M	6.827E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS134	2.530E+02	2.530E+02	2.530E+02	2.529E+02	2.528E+02
CS134M	9.207E+00	7.250E+00	5.708E+00	5.230E-01	2.971E-02
SN135	1.111E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB135	7.727E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE135	7.945E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I135	1.034E+04	9.314E+03	8.387E+03	2.939E+03	8.353E+02
XE135	9.679E+02	1.111E+03	1.220E+03	1.329E+03	7.988E+02
XE135M	5.679E+02	4.136E+02	3.660E+02	1.281E+02	3.640E+01
CS135	4.156E-05	4.157E-05	4.157E-05	4.162E-05	4.166E-05
CS135M	3.326E+01	1.518E+01	6.924E+00	2.707E-03	2.203E-07
BA135M	9.081E-03	8.865E-03	8.653E-03	6.796E-03	5.086E-03
SN136	7.858E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SB136	1.914E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE136	3.970E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I136	1.082E+04	1.126E-09	9.877E-23	0.000E+00	0.000E+00
I136M	5.918E+03	1.634E-20	0.000E+00	0.000E+00	0.000E+00
CS136	2.011E+02	2.007E+02	2.003E+02	1.959E+02	1.908E+02
BA136M	2.940E+01	2.934E+01	2.927E+01	2.863E+01	2.789E+01
SB137	2.212E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE137	1.568E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I137	9.088E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE137	9.849E+03	2.006E-01	3.858E-06	0.000E+00	0.000E+00
CS137	3.123E+01	3.123E+01	3.123E+01	3.122E+01	3.122E+01
BA137M	1.052E+02	1.049E+02	1.049E+02	1.049E+02	1.049E+02
SB138	3.307E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE138	3.155E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I138	5.162E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE138	8.822E+03	4.696E+02	2.495E+01	4.473E-12	2.264E-27
CS138	1.916E+04	8.326E+03	2.450E+03	6.119E-03	1.137E-09

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CS138M	2.211E+02	1.308E-04	7.731E-11	0.000E+00	0.000E+00
SB139	2.075E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
TE139	8.556E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I139	2.448E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE139	1.036E+04	3.834E-24	0.000E+00	0.000E+00	0.000E+00
CS139	1.019E+04	1.291E+02	1.547E+00	9.438E-20	0.000E+00
BA139	4.913E+03	3.357E+03	2.035E+03	1.332E+01	3.189E-02
TE140	8.167E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I140	8.407E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE140	5.835E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS140	1.869E+04	2.226E-13	2.299E-30	0.000E+00	0.000E+00
BA140	2.372E+03	2.367E+03	2.362E+03	2.309E+03	2.247E+03
LA140	1.445E+04	1.444E+04	1.444E+04	1.437E+04	1.424E+04
PR140	1.770E-02	8.316E-08	3.908E-13	0.000E+00	0.000E+00

□

OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
TE141	5.064E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I141	1.287E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE141	3.418E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS141	1.109E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA141	8.247E+03	8.609E+02	8.834E+01	1.144E-08	1.559E-20
LA141	4.746E+03	4.276E+03	3.615E+03	6.205E+02	7.476E+01
CE141	1.203E+03	1.203E+03	1.203E+03	1.196E+03	1.184E+03
TE142	3.743E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
I142	2.243E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE142	8.715E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS142	9.825E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA142	6.724E+03	1.381E+02	2.833E+00	3.733E-17	2.145E-37
LA142	1.671E+04	1.199E+04	7.681E+03	8.650E+01	3.970E-01
PR142	8.104E+01	7.834E+01	7.556E+01	5.259E+01	3.405E+01
PR142M	4.577E+00	2.652E-01	1.536E-02	6.536E-15	9.332E-30
I143	1.104E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE143	2.135E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00

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CS143	4.065E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA143	1.082E+04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA143	8.949E+03	4.658E+02	2.388E+01	2.998E-12	9.892E-28
CE143	3.241E+03	3.195E+03	3.130E+03	2.537E+03	1.972E+03
PR143	1.427E+03	1.427E+03	1.426E+03	1.423E+03	1.412E+03
I144	1.118E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
XE144	2.507E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS144	1.497E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA144	5.320E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA144	1.395E+04	1.461E-23	0.000E+00	0.000E+00	0.000E+00
CE144	3.447E+02	3.447E+02	3.446E+02	3.443E+02	3.438E+02
PR144	3.850E+03	3.822E+03	3.819E+03	3.815E+03	3.810E+03
PR144M	2.136E+00	2.133E+00	2.133E+00	2.131E+00	2.128E+00
XE145	3.566E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS145	2.756E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA145	5.001E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA145	7.405E+03	3.667E-34	0.000E+00	0.000E+00	0.000E+00
CE145	4.570E+03	5.233E-03	4.991E-09	0.000E+00	0.000E+00
PR145	2.129E+03	1.914E+03	1.705E+03	5.350E+02	1.331E+02
XE146	1.882E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS146	5.487E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA146	1.088E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA146	7.598E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE146	1.059E+03	5.706E+01	3.051E+00	5.818E-13	3.172E-28
PR146	6.202E+03	2.226E+03	4.586E+02	1.664E-05	1.841E-14
PM146	2.462E-03	2.462E-03	2.462E-03	2.462E-03	2.461E-03
XE147	2.294E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CS147	6.933E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA147	4.530E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA147	2.539E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE147	3.907E+03	1.396E-12	4.605E-28	0.000E+00	0.000E+00
PR147	2.962E+03	1.030E+02	3.218E+00	2.858E-15	2.479E-33
ND147	7.660E+02	7.646E+02	7.627E+02	7.430E+02	7.201E+02
PM147	2.166E+01	2.166E+01	2.166E+01	2.169E+01	2.172E+01

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OUTPUT UNIT =

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

ML041000029.txt

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
CS148	5.710E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA148	5.255E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA148	1.473E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE148	1.295E+03	8.206E-23	0.000E+00	0.000E+00	0.000E+00
PR148	4.118E+03	8.153E-05	1.144E-12	0.000E+00	0.000E+00
PM148	8.246E+02	8.202E+02	8.158E+02	7.734E+02	7.254E+02
PM148M	1.800E+02	1.799E+02	1.797E+02	1.785E+02	1.770E+02
BA149	9.007E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA149	2.686E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE149	1.778E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR149	1.390E+03	1.963E-05	2.754E-13	0.000E+00	0.000E+00
ND149	9.085E+02	6.220E+02	4.167E+02	7.581E+00	6.190E-02
PM149	5.485E+02	5.456E+02	5.413E+02	4.802E+02	4.106E+02
CS150	5.735E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
BA150	5.155E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA150	7.114E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE150	4.669E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR150	1.994E+03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM150	2.975E+01	2.297E+01	1.774E+01	1.335E+00	5.994E-02
LA151	7.176E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE151	2.736E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR151	7.949E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND151	7.202E+02	2.527E+01	8.830E-01	2.399E-15	7.959E-33
PM151	3.021E+02	2.969E+02	2.898E+02	2.270E+02	1.694E+02
SM151	2.058E-02	2.058E-02	2.059E-02	2.066E-02	2.073E-02
BA152	1.611E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
LA152	1.062E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE152	4.187E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR152	5.735E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND152	1.851E+02	5.009E+00	1.346E-01	2.650E-17	3.742E-36
PM152	5.825E+02	2.391E+01	6.439E-01	1.265E-16	1.777E-35
PM152M	1.016E+01	3.969E-02	1.551E-04	0.000E+00	0.000E+00
EU152	2.233E-02	2.233E-02	2.233E-02	2.233E-02	2.233E-02
EU152M	2.231E-01	2.071E-01	1.922E-01	9.137E-02	3.743E-02
LA153	9.177E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE153	1.180E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR153	1.385E+02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND153	3.982E+02	3.695E-14	3.328E-30	0.000E+00	0.000E+00
PM153	1.619E+02	9.069E-02	4.100E-05	0.000E+00	0.000E+00
SM153	2.327E+02	2.295E+02	2.261E+02	1.949E+02	1.631E+02
GD153	1.101E-03	1.101E-03	1.100E-03	1.099E-03	1.098E-03
LA154	5.540E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CE154	1.022E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR154	4.684E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND154	9.911E+01	8.038E-26	0.000E+00	0.000E+00	0.000E+00

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PM154	2.976E+02	1.356E-04	4.805E-11	0.000E+00	0.000E+00
PM154M	4.806E+01	4.440E-09	4.103E-19	0.000E+00	0.000E+00
EU154	9.958E+00	9.958E+00	9.958E+00	9.957E+00	9.956E+00
CE155	1.795E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR155	7.380E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND155	8.737E+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 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
PM155	1.343E+02	6.879E-28	0.000E+00	0.000E+00	0.000E+00
SM155	7.723E+01	1.226E+01	1.884E+00	1.377E-08	2.376E-18
EU155	7.445E-01	7.445E-01	7.445E-01	7.444E-01	7.443E-01
CE156	1.412E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR156	1.863E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND156	1.952E+01	5.788E-18	2.765E-36	0.000E+00	0.000E+00
PM156	1.141E+02	1.390E-17	0.000E+00	0.000E+00	0.000E+00
SM156	2.032E+01	1.889E+01	1.755E+01	8.395E+00	3.465E+00
EU156	2.794E+02	2.790E+02	2.786E+02	2.743E+02	2.686E+02
CE157	1.549E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PR157	2.507E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND157	9.965E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM157	4.322E+01	5.114E-15	5.978E-31	0.000E+00	0.000E+00
SM157	4.603E+01	2.774E-01	1.532E-03	0.000E+00	0.000E+00
EU157	2.757E+01	2.655E+01	2.537E+01	1.608E+01	9.303E+00
PR158	2.476E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND158	1.170E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM158	2.148E+01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM158	1.131E+01	4.395E+00	1.707E+00	1.336E-04	1.577E-09
EU158	3.654E+01	2.700E+01	1.566E+01	6.291E-03	1.854E-07
PR159	8.875E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ND159	1.815E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM159	3.948E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM159	1.432E+01	2.996E-06	6.240E-13	0.000E+00	0.000E+00
EU159	1.398E+01	1.608E+00	1.616E-01	1.696E-11	1.798E-23

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GD159	5.430E+00	5.310E+00	5.124E+00	3.530E+00	2.257E+00
ND160	1.324E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM160	1.001E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM160	4.817E+00	3.789E-03	2.980E-06	0.000E+00	0.000E+00
EU160	9.263E+00	5.622E-03	4.422E-06	0.000E+00	0.000E+00
TB160	9.681E-01	9.677E-01	9.673E-01	9.635E-01	9.589E-01
ND161	1.335E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
PM161	1.010E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM161	1.983E+00	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU161	3.644E+00	7.388E-26	0.000E+00	0.000E+00	0.000E+00
GD161	2.487E+00	4.016E-05	5.275E-10	0.000E+00	0.000E+00
TB161	7.251E-01	7.224E-01	7.194E-01	6.900E-01	6.563E-01
PM162	6.253E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
SM162	2.135E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU162	1.801E+00	1.758E-04	1.692E-08	0.000E+00	0.000E+00
GD162	6.057E-01	1.371E-02	2.146E-04	1.861E-22	0.000E+00
TB162	1.646E+00	1.124E-01	2.153E-03	1.978E-21	0.000E+00
TB162M	5.535E-02	4.319E-02	3.170E-02	1.416E-03	3.398E-05
SM163	4.073E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU163	3.830E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD163	6.648E-01	1.469E-12	3.058E-24	0.000E+00	0.000E+00
TB163	4.388E-01	5.637E-02	6.680E-03	3.650E-12	2.801E-23
SM164	3.051E-03	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU164	1.170E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD164	1.734E-01	2.548E-02	3.743E-03	1.751E-11	1.768E-21
TB164	4.724E-01	6.516E-02	9.548E-03	4.468E-11	4.511E-21

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ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
SM165	2.924E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
EU165	1.628E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
GD165	1.290E-01	1.977E-12	3.024E-23	0.000E+00	0.000E+00
TB165	1.527E-01	2.149E-12	3.287E-23	0.000E+00	0.000E+00
DY165	2.904E-01	2.180E-01	1.623E-01	8.498E-03	2.467E-04

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DY165M	2.827E-02	3.208E-13	4.906E-24	0.000E+00	0.000E+00
DY166	1.138E-02	1.129E-02	1.119E-02	1.028E-02	9.280E-03
HO166	7.125E-02	7.049E-02	6.974E-02	6.281E-02	5.559E-02
ER167M	2.655E-04	0.000E+00	0.000E+00	0.000E+00	0.000E+00
ER169	3.303E-05	3.293E-05	3.283E-05	3.184E-05	3.068E-05
SUMTOT	1.012E+06	2.034E+05	1.616E+05	9.179E+04	7.392E+04

TOTAL 1.012E+06 2.034E+05 1.616E+05 9.179E+04 7.392E+04

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OUTPUT UNIT =

6 PAGE 207
 ORIGEN2 V2.2 (5-4-2002), Run on 04/29/03 at 14:14:12

* 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, 19157 MWD/

MTIHM, 1 CYCLE

	ASSY DIS	1.0HR	2.0HR	12.0HR	24.0HR
H	4.726E-03	4.726E-03	4.726E-03	4.726E-03	4.726E-03
CO	4.321E-02	0.000E+00	0.000E+00	0.000E+00	0.000E+00
NI	8.580E-01	0.000E+00	0.000E+00	0.000E+00	0.000E+00
CU	7.033E+00	1.055E-10	1.335E-13	9.225E-14	8.065E-14
ZN	4.527E+01	4.119E-02	4.057E-02	3.495E-02	2.923E-02
GA	2.994E+02	7.855E-01	7.308E-01	5.538E-01	4.662E-01
GE	1.128E+03	1.088E+01	8.292E+00	2.491E+00	1.177E+00
AS	4.889E+03	4.544E+01	3.740E+01	2.849E+00	1.449E+00
SE	1.020E+04	8.406E+01	1.345E+01	5.226E-03	3.695E-03
BR	2.994E+04	7.584E+02	2.694E+02	2.126E+01	1.358E+01
KR	3.907E+04	6.726E+03	4.869E+03	3.612E+02	2.899E+01
RB	7.629E+04	6.290E+03	4.411E+03	3.820E+02	2.239E+01
SR	6.278E+04	1.185E+04	1.034E+04	4.433E+03	2.849E+03
Y	9.568E+04	1.815E+04	1.574E+04	7.630E+03	4.234E+03
ZR	4.514E+04	8.429E+03	8.264E+03	6.932E+03	5.903E+03
NB	9.064E+04	1.288E+04	1.258E+04	9.820E+03	7.493E+03
MO	3.325E+04	3.335E+03	2.782E+03	2.476E+03	2.183E+03
TC	4.274E+04	2.855E+03	8.489E+02	6.098E+02	5.479E+02
RU	8.856E+03	4.490E+03	4.150E+03	2.547E+03	2.172E+03
RH	8.815E+03	2.147E+03	1.962E+03	1.763E+03	1.663E+03
PD	1.032E+03	2.599E+02	2.319E+02	1.375E+02	7.492E+01
AG	1.370E+03	3.172E+02	2.993E+02	2.123E+02	1.494E+02
CD	7.520E+02	7.166E+01	5.846E+01	2.492E+01	1.941E+01

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IN	3.241E+03	1.113E+02	7.149E+01	1.792E+01	1.169E+01
SN	8.258E+03	5.193E+02	3.427E+02	5.329E+01	4.289E+01
SB	3.351E+04	3.793E+03	2.172E+03	5.384E+02	2.944E+02
TE	3.753E+04	9.631E+03	5.288E+03	1.944E+03	1.616E+03
I	8.420E+04	4.224E+04	3.501E+04	1.849E+04	1.398E+04
XE	4.208E+04	3.076E+03	2.692E+03	2.527E+03	1.875E+03
CS	7.559E+04	8.962E+03	2.949E+03	4.808E+02	4.751E+02
BA	4.513E+04	6.857E+03	4.621E+03	2.456E+03	2.380E+03
LA	7.816E+04	3.117E+04	2.576E+04	1.508E+04	1.432E+04
CE	1.819E+04	4.800E+03	4.681E+03	4.078E+03	3.500E+03
PR	2.572E+04	9.572E+03	7.490E+03	5.827E+03	5.392E+03
ND	3.195E+03	1.417E+03	1.180E+03	7.506E+02	7.202E+02
PM	3.325E+03	1.911E+03	1.867E+03	1.682E+03	1.504E+03
SM	4.090E+02	2.653E+02	2.473E+02	2.033E+02	1.666E+02
EU	3.837E+02	3.451E+02	3.307E+02	3.012E+02	2.887E+02
GD	9.491E+00	5.351E+00	5.129E+00	3.532E+00	2.259E+00
TB	4.459E+00	1.967E+00	1.737E+00	1.655E+00	1.615E+00
DY	3.301E-01	2.292E-01	1.735E-01	1.878E-02	9.527E-03
HO	7.125E-02	7.049E-02	6.974E-02	6.281E-02	5.559E-02
ER	2.985E-04	3.293E-05	3.283E-05	3.184E-05	3.068E-05
SUMTOT	1.012E+06	2.034E+05	1.616E+05	9.179E+04	7.392E+04
TOTAL	1.012E+06	2.034E+05	1.616E+05	9.179E+04	7.392E+04

CUMULATIVE TABLE TOTALS

AP+FP	1.013E+06	2.043E+05	1.624E+05	9.236E+04	7.437E+04
ACT+FP	1.053E+06	2.267E+05	1.817E+05	1.091E+05	8.890E+04
AP+ACT+FP	1.054E+06	2.276E+05	1.825E+05	1.097E+05	8.935E+04