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Fast Breeder Reactor
Static Physics Methods
Development and Analysis Project
Volume 3 — Listing of Sample Problem Output
From RETAP and FARED Programs

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Fast Breeder Reactor
Static Physics Methods
Development and Analysis Project
Volume 3 — Listing of Sample Problem Output
From RETAP and FARED Programs

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1. INTRODUCTION

The sample problem described here is designed to illustrate the flexibility of the FARED program in performing realistic fast reactor physics design calculations. This is a condensed version of the sample problem described in the user's manual. In addition to the calculation of microscopic cross-section sets, this problem employs criticality searches, depletion, fuel management, and a wide variety of edit calculations. The sample problem input deck is listed in section 2.

Section 3 contains a listing of the RETAP library tape edit. The edit is abbreviated to include data from files three, four, five, and seven only for those nuclides used in the sample problem. The edits for files two and six contain only the depletion chain and fission spectrum, respectively, used in the sample problem.

The sample problem output from the FARED program is listed in section 4. This listing is complete except for the results of the microscopic cross-section calculations for blocks two and three, which have been omitted.

*** 1955-MW LMFBR SAMPLE PROBLEM ***

CONFIGURATION

GDATA CYL 17 5 2342.2 88.222 5 1 5 1 .1-3 40 .6 .2
 BULK BM1 1 FUEL PU239 .2016-2 PU240 .7823-3
 PU241 .1514-3
 DILUENT U238 .1785-1
 MIX O16 .4182-1
 U.5398 ZM1 ZM21 ZM24 ZM27
 BM2 1 FUEL PU239 .2172-2 PU240 .8429-3
 PU241 .1621-3
 DILUENT U238 .1762-1
 MIX O16 .4184-1
 U.5398 ZM2 ZM22 ZM25 ZM28
 BM3 1 FUEL PU239 .2524-2 PU240 .9794-3
 PU241 .1884-3
 DILUENT U238 .1712-1
 MIX O16 .4188-1
 U.5398 ZM3 ZM23 ZM26 ZM29
 BM4 1 U238 .2196-1 O16 .4404-1
 U.7341 ZM4
 BM5 NA23 .2159-1
 U.3514 ZM5
 U.1391 ZM6
 1.0 ZM7
 BM6 SS304 .8613-1
 U.1392 ZM8
 U.0668 ZM9
 1.0 ZM10
 BM7 FUEL B10 1.0-2
 1.0 ZM11 ZM12 ZM13
 ZONE Z1 CORE 90.426 20 U.7836 ZM1 ZM5 ZM8 U.1393 ZM7
 U.3766 ZM10 U.0005 ZM11
 Z2 CORE 122.282 10 U.8334 ZM2 ZM5 ZM8 U.0925 ZM7
 U.0766 ZM10 U.0005 ZM12
 Z3 CORE 153.359 10 U.8429 ZM3 ZM5 ZM8 U.0800 ZM7
 U.0766 ZM10 U.0005 ZM13
 Z4 BLANKET 184.038 10 U.8767 ZM4 ZM6 ZM9 U.0467 ZM7
 U.0766 ZM10
 Z5 REFLECTOR 214.038 10 U.5 ZM7 U.5 ZM10
 BLOCK B1 Z1 Z2 Z3 U.950-3 13 C1
 B2 Z4 U.950-3 13 C2
 B3 Z5 U.950-3 13
 CELL C1 1 HEX U.8640 U.85598 1643.3 U.2657
 C2 1 HEX 1.45796 1.62052 1366.4 U.2774
 POLYG 5 9 13 17 23 31 33 41 44 47 50 53 56 59
 62 65 68

```

ZSOURCE 1.0 1.0 1.0 0.1 0.0
BUCK 0.6435-3
REGA REGRES REGMICRO
RAIM
SEARCH COMPOSITION ZM11 ZM12 ZM13 1.0 .00001 40
EDIT REACTOR ZONEMAT RATES BALANCE
ADJOINT
EDIT VPERT Z1 NA23 M0.0
VPERT Z2 NA23 M0.0
VPERT Z3 NA23 M0.0
LIFE
DEplete 0.0 3 100.0 4 REACTOR
TEST BMAXIMUM 3.3+4 ZM1 ZM2 ZM3
IMINIMUM B10 0.0 ZM1
B10 0.0 ZM12
B10 0.0 ZM13
CONTROL ZM11 ZM12 ZM13 1.0 .00001
DEplete TIME 10 50.0 2 SETTEST SETEDIT
EDIT ZONEMAT
FUELMGMT
MOVE ZM1 Z1 .666667 ZM31
.333333 OUT
ZM2 Z2 .666667 ZM32
.333333 OUT
ZM3 Z3 .666667 ZM33
.333333 OUT
ZM21 Z1 .2612 IN
ZM22 Z2 .2768 IN
ZM23 Z3 .2810 IN
RAIM
SEARCH COMPOSITION ZM11 ZM12 ZM13 1.0 .00001 40
EDIT REACTOR BALANCE ZONEMAT RATES
FINIS

```

**** REGA LIBRARY TAPE ****

*** N U C L I D E L I S T ***

THE FOLLOWING LIST OF NUCLIDES IS A SUMMARY OF THOSE APPEARING ON THE RETAP TAPE. BECAUSE FILES, ONE, TWO, AND SIX ARE NOT NUCLIDE DEPENDENT, ONLY FILES THREE, FOUR FIVE, AND SEVEN WERE CONSIDERED IN COMPOSING THIS LIST.

Bi0	C12	O16	NA23	AL27	CR52	MN55
FE56	NI59	XE135	SM149	TA181	SS304	SS316
TH232	U233	U234	U235	U238	NP237	PU238
PU239	PU240	PU241	PU242	AM241	AM243	CM244
GR52A	FE56A	NI59A	FP23R	FP25R	FP39R	FP23S
FP25S	FP39S	FP49T	FP23U	FP25U	FP39U	

*** F I L E O N E ***

GENERAL INFORMATION

TAPE IDENTIFICATION PARAMETERS

TAPE NUMBER IS 1

CREATION DATE OF TAPE 12/ 8/69 (120869)

NUMBER OF GROUPS 68

TAPE DESCRIPTION

THIS DATA TAPE IS THE FIRST FARED LIBRARY TAPE TO BE RELEASED. THE DATA WERE RETRIEVED FROM ENDF/B, MC2 AND THE BWIG LIBRARY TAPE. BWIG IS A SPECTRAL CODE WHICH IS BASICALLY THE GAM1 CODE, BUT MODIFIED TO USE DRIP (ERIC2 TYPE CODE) AS A RESONANCE ROUTINE. THE FOLLOWING IS A LIST OF THE NUCLIDES AVAILABLE ON THIS TAPE.

310 DATA FROM BWIG
C12 DATA FROM BWIG
O16 DATA FROM ENDF/B WITH ELASTIC MATRIX FROM BWIG
NA23 DATA FROM ENDF/B WITH ELASTIC MATRIX FROM BWIG
AL27 DATA FROM BWIG
CR52 DATA FROM BWIG
CR52A DATA FROM ANL MC2 WITH ELASTIC MATRIX FROM BWIG
MN55 DATA FROM BWIG
Fe56 DATA FROM ENDF/B WITH ELASTIC MATRIX FROM BWIG
Fe56A DATA FROM ANL MC2 WITH ELASTIC MATRIX FROM BWIG
NI59 DATA FROM BWIG
NI59A DATA FROM ANL MC2 WITH ELASTIC MATRIX FROM BWIG
Xe135 DATA FROM BWIG
SM149 DATA FROM BWIG
TA181 DATA FROM ENDF/B
SS304 STAINLESS STEEL 304. DATA FROM BWIG
SS316 STAINLESS STEEL 316. DATA FROM BWIG
TH232 DATA FROM ENDF/B WITH ELASTIC MATRIX FROM BWIG
U235 DATA FROM ENDF/B WITH ELASTIC MATRIX FROM BWIG
U238 DATA FROM ENDF/B WITH ELASTIC MATRIX FROM BWIG
U235 DATA FROM ENDF/B WITH ELASTIC MATRIX FROM BWIG
U238 DATA FROM ENDF/B WITH ELASTIC MATRIX FROM BWIG
NP237 DATA FROM ENDF/B
PU238 DATA FROM ENDF/B
PU239 DATA FROM ENDF/B WITH ELASTIC MATRIX FROM BWIG
PU240 DATA FROM ENDF/B WITH ELASTIC MATRIX FROM BWIG
PU241 DATA FROM ENDF/B WITH ELASTIC MATRIX FROM BWIG

TAPE DESCRIPTION (CONT.)

PU242 DATA FROM ENDF/B
 AM243 DATA FROM ENDF/B
 AM244 DATA FROM ENDF/B
 FP238 RAPIDLY SATURATING FISSION FRAGMENT OF TH232, U233 AND U234.
 DATA FROM ENDF/B
 FP235 SLOWLY SATURATING FISSION FRAGMENT OF TH232, U233 AND U234.
 DATA FROM ENDF/B
 FP230 NON-SATURATING FISSION FRAGMENT OF TH232, U233 AND U234.
 DATA FROM ENDF/B
 FP258 RAPIDLY SATURATING FISSION FRAGMENT OF U235 AND U238.
 DATA FROM ENDF/B
 FP255 SLOWLY SATURATING FISSION FRAGMENT OF U235 AND U238.
 DATA FROM ENDF/B
 FP250 NON-SATURATING FISSION FRAGMENT OF U235 AND U238.
 DATA FROM ENDF/B
 FP298 RAPIDLY SATURATING FISSION FRAGMENT OF PU239, PU240, PU241
 AND PU242. DATA FROM ENDF/B
 FP293 SLOWLY SATURATING FISSION FRAGMENT OF PU239, PU240, PU241
 AND PU242. DATA FROM ENDF/B
 FP390 NON-SATURATING FISSION FRAGMENT OF PU239, PU240, PU241
 AND PU242. DATA FROM ENDF/B
 FP491 SINGLE LUMP FISSION FRAGMENT OF U235, U238, PU239, PU240,
 PU241 AND PU242. DATA FROM JWG

SIX DEPLETION CHAINS ARE AVAILABLE ON THIS LIBRARY TAPE. THEY
 ARE CONSIDERED FROM THE STANDARD TH232 AND U238 DECAY CHAINS WITH
 ONE AS A BURNABLE POISON. DIFFERENCES BETWEEN THE DEPLETION CHAINS
 INCLUDE THE TREATMENT OF FISSION PRODUCTS AND (N,2N) PRODUCTION.
 CHAIN 1 TH232 CHAIN, SIX AND SIX FISSION FRAGMENTS. (N,2N)
 PRODUCTION IS ALLOWED.
 CHAIN 2 U238 CHAIN, SIX AND SIX FISSION FRAGMENTS. (N,2N)
 PRODUCTION IS ALLOWED.
 CHAIN 3 TH232 AND U238 CHAINS, SIX AND NINE FISSION FRAGMENTS.
 (N,2N) PRODUCTION IS ALLOWED.
 CHAIN 4 U238 CHAIN, SIX AND A SINGLE LUMPED FISSION FRAGMENT.
 (N,2N) PRODUCTION IS ALLOWED.
 CHAIN 5 U238 CHAIN, SIX AND SIX FISSION FRAGMENTS. THERE IS
 NO (N,2N) PRODUCTION.
 CHAIN 6 U238 CHAIN, SIX AND A SINGLE LUMPED FISSION FRAGMENT.
 THERE IS NO (N,2N) PRODUCTION.

TAPE DESCRIPTION (COND.)

THIRTEEN FISSION SPECTRA ARE INCLUDED ON THIS LIBRARY TAPE.

SPECTRUM 1	U233 SPECTRUM BY SMITH
SPECTRUM 2	U235 SPECTRUM BY CRANBERG
SPECTRUM 3	PU239 SPECTRUM BY NERESON
SPECTRUM 4	PU241 SPECTRUM BY SMITH
SPECTRUM 5	CF252 SPECTRUM BY SMITH
SPECTRUM 6	PO-BE SPECTRUM BY WHITMORE AND BAKER
SPECTRUM 7	PO-BE SPECTRUM BY COCHRANE AND HENRY
SPECTRUM 8	RA-BE SPECTRUM BY HILL
SPECTRUM 9	PU-BE SPECTRUM
SPECTRUM 10	PU239 SPECTRUM, NUCLEAR TEMP. = 1.41 MEV.
SPECTRUM 11	PU239 SPECTRUM, NUCLEAR TEMP. = 1.31 MEV.
SPECTRUM 12	PU239 SPECTRUM, NUCLEAR TEMP. = 1.48 MEV. TRUNCATED AT 10 MEV.
SPECTRUM 13	PU239 SPECTRUM, NUCLEAR TEMP. = 1.41 MEV. NORMAL- IZED FOR CUTOFF AT 15 MEV.

ADDITIONAL DATA CONCERNING THE DEPLETION CHAINS AND FISSION SPECTRA ARE CONTAINED IN FILES 2 AND 6, RESPECTIVELY, ON THE LIBRARY TAPE. RESOLVED AND UNRESOLVED RESONANCE PARAMETERS, SMOOTH CROSS SECTIONS AND RELATED NUCLEAR DATA ARE AVAILABLE FOR EACH NUCLIDE ON FILES 3, 4, 5 AND 7 OF THE LIBRARY TAPE. ANY OF THIS DATA MAY BE INSPECTED BY PERFORMING THE DESIRED LIBRARY TAPE EDIT.

MICROGROUP LOW ENERGY BOUNDS

MAXIMUM NEUTRON ENERGY = 10.00 MEV

GROUP ENERGY		GROUP ENERGY		GROUP ENERGY		GROUP ENERGY		GROUP ENERGY	
1	7.790E+00	13	3.880E+05	25	1.930E+04	37	9.610E+02	49	4.790E+01
2	6.070E+00	14	3.020E+05	26	1.500E+04	38	7.480E+02	50	3.730E+01
3	4.720E+00	15	2.390E+05	27	1.170E+04	39	5.830E+02	51	2.900E+01
4	3.680E+00	16	1.830E+05	28	9.120E+03	40	4.540E+02	52	2.260E+01
5	2.870E+00	17	1.430E+05	29	7.100E+03	41	3.540E+02	53	1.760E+01
6	2.230E+00	18	1.110E+05	30	5.530E+03	42	2.750E+02	54	1.370E+01
7	1.740E+00	19	8.650E+04	31	4.310E+03	43	2.150E+02	55	1.070E+01
8	1.350E+00	20	6.740E+04	32	3.360E+03	44	1.670E+02	56	8.320E+00
9	1.050E+00	21	5.250E+04	33	2.610E+03	45	1.300E+02	57	6.480E+00
10	8.210E+00	22	4.090E+04	34	2.040E+03	46	1.010E+02	58	5.040E+00
11	6.390E+00	23	3.180E+04	35	1.590E+03	47	7.890E+01	59	3.930E+00
12	4.980E+00	24	2.400E+04	36	1.230E+03	48	6.140E+01	60	3.050E+00
61	2.380E+00	62	1.860E+00	63	1.440E+00	64	1.130E+00	65	8.760E-01
66	6.830E-01	67	5.320E-01	68	4.140E-01				

*** FILE TWO ***
NUCLEAR DEPLETION CHAIN DATA

*** CHAIN ID = 3 ***
CONTAINS 19 ISOTOPES

*B10 *	NON-FISSIONABLE	NO PARENTS	
*TH232 *	FISSIONABLE	NO PARENTS	
*U233 *	FISSIONABLE	PARENT TH232	REACTION TYPE CAPTURE
*U234 *	FISSIONABLE	PARENT U233 U235	REACTION TYPE CAPTURE N,2N
*U235 *	FISSIONABLE	PARENT U234	REACTION TYPE CAPTURE
*U238 *	FISSIONABLE	NO PARENTS	
*PU239 *	FISSIONABLE	PARENT U238 PU240	REACTION TYPE CAPTURE N,2N
*PU240 *	FISSIONABLE	PARENT PU239 PU241	REACTION TYPE CAPTURE N,2N
*PU241 *	FISSIONABLE	PARENT PU240	REACTION TYPE CAPTURE
*PU242 *	FISSIONABLE	PARENT PU241	REACTION TYPE CAPTURE
*FP239 *	NON-FISSIONABLE	PARENT TH232 U233 U234	REACTION TYPE FISSION FISSION FISSION
*FP235 *	NON-FISSIONABLE	PARENT TH232 U233 U234	REACTION TYPE FISSION FISSION FISSION
*FP238 *	NON-FISSIONABLE	PARENT TH232 U233	REACTION TYPE FISSION FISSION

		U234	FISSION
*FP29R *	NON-FISSIONABLE	PARENT	REACTION TYPE
		U235	FISSION
		U238	FISSION
*FP29S *	NON-FISSIONABLE	PARENT	REACTION TYPE
		U235	FISSION
		U238	FISSION
*FP29U *	NON-FISSIONABLE	PARENT	REACTION TYPE
		U235	FISSION
		U238	FISSION
*FP39R *	NON-FISSIONABLE	PARENT	REACTION TYPE
		PU239	FISSION
		PU240	FISSION
		PU241	FISSION
		PU242	FISSION
*FP39S *	NON-FISSIONABLE	PARENT	REACTION TYPE
		PU239	FISSION
		PU240	FISSION
		PU241	FISSION
		PU242	FISSION
*FP39U *	NON-FISSIONABLE	PARENT	REACTION TYPE
		PU239	FISSION
		PU240	FISSION
		PU241	FISSION
		PU242	FISSION

*** FILE THREE ***

RESOLVED RESONANCE DATA

** B10 ** ATOMIC MASS = 1.08110E+01 SCATTERING LENGTH = 5.64189E-01 NO RESOLVED PEAKS
 ** O16 ** ATOMIC MASS = 1.00000E+01 SCATTERING LENGTH = 5.47300E-01 NO RESOLVED PEAKS
 ** NA23 ** ATOMIC MASS = 2.30000E+01 SCATTERING LENGTH = 5.27800E-01 NO RESOLVED PEAKS
 ** SS304 ** ATOMIC MASS = 5.00000E+01 SCATTERING LENGTH = 9.35000E-01 NO RESOLVED PEAKS
 ** U238 ** ATOMIC MASS = 2.38051E+02 SCATTERING LENGTH = 9.14340E-01 NUCLEAR SPIN = 0.

MEAN LEVEL SPACING D = 1.85000E+01 CORRECTION POINTS FOR CAPTURE = 0 FOR FISSION = 0

208 RESOLVED PEAKS:

PEAK	ENERGY	J	GAMMA-N	GAMMA-G	GAMMA-F	ABUNDANCE
1	6.67000E+00	.50	1.52000E-03	2.46000E-02	0.	1.00000E+00
2	1.02000E+01	.50	1.40000E-06	2.46000E-02	0.	1.00000E+00
3	2.10000E+01	.50	8.50000E-03	2.46000E-02	0.	1.00000E+00
4	3.67000E+01	.50	3.10000E-02	2.46000E-02	0.	1.00000E+00
5	6.62000E+01	.50	2.50000E-02	2.46000E-02	0.	1.00000E+00
6	8.11000E+01	.50	2.00000E-03	2.46000E-02	0.	1.00000E+00
7	8.95000E+01	.50	8.50000E-05	2.46000E-02	0.	1.00000E+00
8	1.02700E+02	.50	6.80000E-02	2.46000E-02	0.	1.00000E+00
9	1.16900E+02	.50	2.60000E-02	2.46000E-02	0.	1.00000E+00
10	1.45700E+02	.50	7.00000E-04	2.46000E-02	0.	1.00000E+00
11	1.65400E+02	.50	3.00000E-03	2.46000E-02	0.	1.00000E+00
12	1.89000E+02	.50	1.45000E-01	2.46000E-02	0.	1.00000E+00
13	2.00000E+02	.50	5.60000E-02	2.46000E-02	0.	1.00000E+00
14	2.37400E+02	.50	2.90000E-02	2.46000E-02	0.	1.00000E+00
15	2.63900E+02	.50	2.30000E-04	2.46000E-02	0.	1.00000E+00
16	2.73700E+02	.50	2.50000E-02	2.46000E-02	0.	1.00000E+00
17	2.91100E+02	.50	1.60000E-02	2.46000E-02	0.	1.00000E+00
18	3.11100E+02	.50	9.90000E-04	2.46000E-02	0.	1.00000E+00
19	3.47900E+02	.50	7.50000E-02	2.46000E-02	0.	1.00000E+00
20	3.76900E+02	.50	1.15000E-03	2.46000E-02	0.	1.00000E+00
21	3.97000E+02	.50	7.00000E-03	2.46000E-02	0.	1.00000E+00
22	4.10000E+02	.50	1.80000E-02	2.46000E-02	0.	1.00000E+00

PEAK	ENERGY	J	GAMMA-N	GAMMA-G	GAMMA-F	ABUNDANCE
23	4.34200E+02	.50	9.00000E-03	2.46000E-02	0.	1.00000E+00
24	4.54200E+02	.50	5.00000E-04	2.46000E-02	0.	1.00000E+00
25	4.63000E+02	.50	5.20000E-03	2.46000E-02	0.	1.00000E+00
26	4.76700E+02	.50	3.10000E-03	2.46000E-02	0.	1.00000E+00
27	4.80900E+02	.50	4.40000E-04	2.46000E-02	0.	1.00000E+00
28	5.18600E+02	.50	4.30000E-02	2.46000E-02	0.	1.00000E+00
29	5.35500E+02	.50	4.00000E-02	2.46000E-02	0.	1.00000E+00
30	5.50100E+02	.50	7.00000E-04	2.46000E-02	0.	1.00000E+00
31	5.80200E+02	.50	3.10000E-02	2.46000E-02	0.	1.00000E+00
32	5.95200E+02	.50	8.00000E-02	2.46000E-02	0.	1.00000E+00
33	6.20000E+02	.50	3.00000E-02	2.46000E-02	0.	1.00000E+00
34	6.28700E+02	.50	4.00000E-03	2.46000E-02	0.	1.00000E+00
35	6.61200E+02	.50	1.20000E-01	2.46000E-02	0.	1.00000E+00
36	6.77000E+02	.50	9.00000E-04	2.46000E-02	0.	1.00000E+00
37	6.93300E+02	.50	3.70000E-02	2.46000E-02	0.	1.00000E+00
38	7.08900E+02	.50	2.10000E-02	2.46000E-02	0.	1.00000E+00
39	7.21000E+02	.50	1.20000E-03	2.46000E-02	0.	1.00000E+00
40	7.30100E+02	.50	1.60000E-03	2.46000E-02	0.	1.00000E+00
41	7.65100E+02	.50	6.60000E-03	2.46000E-02	0.	1.00000E+00
42	7.79200E+02	.50	1.70000E-03	2.46000E-02	0.	1.00000E+00
43	7.90900E+02	.50	5.10000E-03	2.46000E-02	0.	1.00000E+00
44	8.21000E+02	.50	5.90000E-02	2.46000E-02	0.	1.00000E+00
45	8.51000E+02	.50	5.80000E-02	2.46000E-02	0.	1.00000E+00
46	8.56200E+02	.50	8.20000E-02	2.46000E-02	0.	1.00000E+00
47	8.66500E+02	.50	3.50000E-03	2.46000E-02	0.	1.00000E+00
48	8.91300E+02	.50	1.20000E-03	2.46000E-02	0.	1.00000E+00
49	9.05100E+02	.50	5.10000E-02	2.46000E-02	0.	1.00000E+00
50	9.25200E+02	.50	1.00000E-02	2.46000E-02	0.	1.00000E+00
51	9.30900E+02	.50	1.50000E-01	2.46000E-02	0.	1.00000E+00
52	9.58400E+02	.50	1.55000E-01	2.46000E-02	0.	1.00000E+00
53	9.91800E+02	.50	3.50000E-01	2.46000E-02	0.	1.00000E+00
54	1.01100E+03	.50	1.30000E-03	2.46000E-02	0.	1.00000E+00
55	1.02300E+03	.50	1.30000E-02	2.46000E-02	0.	1.00000E+00
56	1.03320E+03	.50	7.00000E-04	2.46000E-02	0.	1.00000E+00
57	1.03390E+03	.50	6.50000E-02	2.46000E-02	0.	1.00000E+00
58	1.07050E+03	.50	3.27000E-04	2.46000E-02	0.	1.00000E+00
59	1.08110E+03	.50	7.00000E-04	2.46000E-02	0.	1.00000E+00
60	1.09340E+03	.50	1.20000E-02	2.46000E-02	0.	1.00000E+00
61	1.1090E+03	.50	2.30000E-02	2.46000E-02	0.	1.00000E+00
62	1.13150E+03	.50	2.30000E-03	2.46000E-02	0.	1.00000E+00
63	1.14340E+03	.50	2.30000E-01	2.46000E-02	0.	1.00000E+00
64	1.16750E+03	.50	7.00000E-02	2.46000E-02	0.	1.00000E+00
65	1.1770E+03	.50	5.80000E-02	2.46000E-02	0.	1.00000E+00
66	1.1950E+03	.50	8.30000E-02	2.46000E-02	0.	1.00000E+00
67	1.21090E+03	.50	9.00000E-03	2.46000E-02	0.	1.00000E+00
68	1.24510E+03	.50	2.30000E-01	2.46000E-02	0.	1.00000E+00
69	1.26730E+03	.50	2.70000E-02	2.46000E-02	0.	1.00000E+00
70	1.27020E+03	.50	2.90000E-02	2.46000E-02	0.	1.00000E+00
71	1.29350E+03	.50	3.60000E-03	2.46000E-02	0.	1.00000E+00
72	1.31720E+03	.50	4.70000E-03	2.46000E-02	0.	1.00000E+00
73	1.30070E+03	.50	1.50000E-03	2.46000E-02	0.	1.00000E+00

PEAK	ENERGY	J	GAMMA-N	GAMMA-G	GAMMA-F	ABUNDANCE
74	1.39300E+03	.50	1.73000E-01	2.46000E-02	0.	1.00000E+00
75	1.40510E+03	.50	8.20000E-02	2.46000E-02	0.	1.00000E+00
76	1.41970E+03	.50	1.10000E-02	2.46000E-02	0.	1.00000E+00
77	1.42700E+03	.50	3.40000E-02	2.46000E-02	0.	1.00000E+00
78	1.44410E+03	.50	2.30000E-02	2.46000E-02	0.	1.00000E+00
79	1.47380E+03	.50	8.05000E-02	2.46000E-02	0.	1.00000E+00
80	1.52310E+03	.50	2.13000E-01	2.46000E-02	0.	1.00000E+00
81	1.54600E+03	.50	2.30000E-03	2.46000E-02	0.	1.00000E+00
82	1.55000E+03	.50	2.30000E-03	2.46000E-02	0.	1.00000E+00
83	1.50500E+03	.50	2.43000E-03	2.46000E-02	0.	1.00000E+00
84	1.62290E+03	.50	9.00000E-02	2.46000E-02	0.	1.00000E+00
85	1.63820E+03	.50	4.04000E-02	2.46000E-02	0.	1.00000E+00
86	1.66210E+03	.50	1.60000E-01	2.46000E-02	0.	1.00000E+00
87	1.66630E+03	.50	7.00000E-02	2.46000E-02	0.	1.00000E+00
88	1.70940E+03	.50	5.00000E-02	2.46000E-02	0.	1.00000E+00
89	1.72300E+03	.50	1.40000E-02	2.46000E-02	0.	1.00000E+00
90	1.75580E+03	.50	7.00000E-02	2.46000E-02	0.	1.00000E+00
91	1.78230E+03	.50	5.00000E-01	2.46000E-02	0.	1.00000E+00
92	1.79770E+03	.50	2.12000E-03	2.46000E-02	0.	1.00000E+00
93	1.80830E+03	.50	1.70000E-02	2.46000E-02	0.	1.00000E+00
94	1.84560E+03	.50	1.33180E-02	2.46000E-02	0.	1.00000E+00
95	1.90230E+03	.50	2.09350E-02	2.46000E-02	0.	1.00000E+00
96	1.91710E+03	.50	2.18920E-02	2.46000E-02	0.	1.00000E+00
97	1.90870E+03	.50	5.76800E-01	2.46000E-02	0.	1.00000E+00
98	1.97460E+03	.50	4.66590E-01	2.46000E-02	0.	1.00000E+00
99	2.02360E+03	.50	2.02430E-01	2.46000E-02	0.	1.00000E+00
100	2.03110E+03	.50	4.95740E-02	2.46000E-02	0.	1.00000E+00
101	2.08060E+03	.50	1.37100E-02	2.46000E-02	0.	1.00000E+00
102	2.09650E+03	.50	1.00730E-02	2.46000E-02	0.	1.00000E+00
103	2.12430E+03	.50	4.61910E-03	2.46000E-02	0.	1.00000E+00
104	2.14600E+03	.50	3.47430E-02	2.46000E-02	0.	1.00000E+00
105	2.15280E+03	.50	1.76310E-01	2.46000E-02	0.	1.00000E+00
106	2.17200E+03	.50	2.33020E-03	2.46000E-02	0.	1.00000E+00
107	2.18000E+03	.50	3.64690E-01	2.46000E-02	0.	1.00000E+00
108	2.19400E+03	.50	2.34200E-03	2.46000E-02	0.	1.00000E+00
109	2.20140E+03	.50	1.12610E-01	2.46000E-02	0.	1.00000E+00
110	2.20000E+03	.50	4.72220E-03	2.46000E-02	0.	1.00000E+00
111	2.20570E+03	.50	4.72840E-03	2.46000E-02	0.	1.00000E+00
112	2.24150E+03	.50	1.42030E-03	2.46000E-02	0.	1.00000E+00
113	2.25910E+03	.50	6.55910E-02	2.46000E-02	0.	1.00000E+00
114	2.20040E+03	.50	1.40200E-01	2.46000E-02	0.	1.00000E+00
115	2.28100E+03	.50	1.00850E-01	2.46000E-02	0.	1.00000E+00
116	2.20070E+03	.50	2.39200E-03	2.46000E-02	0.	1.00000E+00
117	2.30200E+03	.50	9.59580E-04	2.46000E-02	0.	1.00000E+00
118	2.31590E+03	.50	1.44370E-02	2.46000E-02	0.	1.00000E+00
119	2.30740E+03	.50	4.85470E-03	2.46000E-02	0.	1.00000E+00
120	2.35200E+03	.50	6.30470E-02	2.46000E-02	0.	1.00000E+00
121	2.35030E+03	.50	6.31000E-02	2.46000E-02	0.	1.00000E+00
122	2.39250E+03	.50	1.12500E-02	2.46000E-02	0.	1.00000E+00
123	2.41020E+03	.50	4.41840E-03	2.46000E-02	0.	1.00000E+00
124	2.42650E+03	.50	8.12780E-02	2.46000E-02	0.	1.00000E+00

PEAK	ENERGY	J	GAMMA-N	GAMMA-G	GAMMA-F	ABUNDANCE
125	2.44020E+03	.50	1.11280E-01	2.46000E-02	0.	1.00000E+00
126	2.45400E+03	.50	2.47690E-03	2.46000E-02	0.	1.00000E+00
127	2.46900E+03	.50	5.48880E-02	2.46000E-02	0.	1.00000E+00
128	2.52070E+03	.50	1.33410E-02	2.46000E-02	0.	1.00000E+00
129	2.54870E+03	.50	3.43300E-01	2.46000E-02	0.	1.00000E+00
130	2.55900E+03	.50	2.17530E-01	2.46000E-02	0.	1.00000E+00
131	2.58070E+03	.50	2.45840E-01	2.46000E-02	0.	1.00000E+00
132	2.59670E+03	.50	5.63750E-01	2.46000E-02	0.	1.00000E+00
133	2.60400E+03	.50	2.55150E-03	2.46000E-02	0.	1.00000E+00
134	2.62060E+03	.50	4.33530E-02	2.46000E-02	0.	1.00000E+00
135	2.63160E+03	.50	1.02600E-03	2.46000E-02	0.	1.00000E+00
136	2.67230E+03	.50	1.75780E-01	2.46000E-02	0.	1.00000E+00
137	2.69550E+03	.50	2.13640E-02	2.46000E-02	0.	1.00000E+00
138	2.71080E+03	.50	7.33870E-02	2.46000E-02	0.	1.00000E+00
139	2.73000E+03	.50	2.61250E-03	2.46000E-02	0.	1.00000E+00
140	2.75010E+03	.50	3.95310E-02	2.46000E-02	0.	1.00000E+00
141	2.76190E+03	.50	1.57660E-02	2.46000E-02	0.	1.00000E+00
142	2.76730E+03	.50	1.35600E-02	2.46000E-02	0.	1.00000E+00
143	2.79000E+03	.50	2.64480E-03	2.46000E-02	0.	1.00000E+00
144	2.80020E+03	.50	6.88660E-03	2.46000E-02	0.	1.00000E+00
145	2.82060E+03	.50	9.04140E-03	2.46000E-02	0.	1.00000E+00
146	2.84520E+03	.50	2.66700E-03	2.46000E-02	0.	1.00000E+00
147	2.86010E+03	.50	7.92330E-02	2.46000E-02	0.	1.00000E+00
148	2.88290E+03	.50	5.20190E-01	2.46000E-02	0.	1.00000E+00
149	2.89780E+03	.50	2.69160E-02	2.46000E-02	0.	1.00000E+00
150	2.90890E+03	.50	2.69650E-03	2.46000E-02	0.	1.00000E+00
151	2.92060E+03	.50	4.32560E-03	2.46000E-02	0.	1.00000E+00
152	2.93200E+03	.50	2.49090E-02	2.46000E-02	0.	1.00000E+00
153	2.95030E+03	.50	1.52240E-02	2.46000E-02	0.	1.00000E+00
154	2.96740E+03	.50	8.17110E-03	2.46000E-02	0.	1.00000E+00
155	2.97400E+03	.50	2.72670E-03	2.46000E-02	0.	1.00000E+00
156	2.98740E+03	.50	5.48570E-03	2.46000E-02	0.	1.00000E+00
157	3.00010E+03	.50	9.31610E-02	2.46000E-02	0.	1.00000E+00
158	3.01000E+03	.50	7.13820E-03	2.46000E-02	0.	1.00000E+00
159	3.02900E+03	.50	1.37590E-01	2.46000E-02	0.	1.00000E+00
160	3.04100E+03	.50	2.75730E-03	2.46000E-02	0.	1.00000E+00
161	3.06020E+03	.50	2.70630E-02	2.46000E-02	0.	1.00000E+00
162	3.06110E+03	.50	4.44060E-03	2.46000E-02	0.	1.00000E+00
163	3.11940E+03	.50	1.11370E-01	2.46000E-02	0.	1.00000E+00
164	3.13320E+03	.50	5.59750E-03	2.46000E-02	0.	1.00000E+00
165	3.14900E+03	.50	6.17280E-02	2.46000E-02	0.	1.00000E+00
166	3.16900E+03	.50	1.01350E-02	2.46000E-02	0.	1.00000E+00
167	3.17400E+03	.50	6.25250E-02	2.46000E-02	0.	1.00000E+00
168	3.18900E+03	.50	4.34830E-02	2.46000E-02	0.	1.00000E+00
169	3.20600E+03	.50	5.66220E-02	2.46000E-02	0.	1.00000E+00
170	3.22600E+03	.50	2.27190E-02	2.46000E-02	0.	1.00000E+00
171	3.24200E+03	.50	1.14000E-02	2.46000E-02	0.	1.00000E+00
172	3.26000E+03	.50	1.03090E-01	2.46000E-02	0.	1.00000E+00
173	3.29500E+03	.50	8.61000E-03	2.46000E-02	0.	1.00000E+00
174	3.31090E+03	.50	9.43420E-02	2.46000E-02	0.	1.00000E+00
175	3.32130E+03	.50	8.13360E-02	2.46000E-02	0.	1.00000E+00

PEAK	ENERGY	J	GAMMA-N	GAMMA-G	GAMMA-F	ABUNDANCE
176	3.33400E+03	.50	5.77410E-02	2.46000E-02	0.	1.00000E+00
177	3.35570E+03	.50	7.53070E-02	2.46000E-02	0.	1.00000E+00
178	3.37100E+03	.50	2.90300E-03	2.46000E-02	0.	1.00000E+00
179	3.38700E+03	.50	8.14870E-03	2.46000E-02	0.	1.00000E+00
180	3.40900E+03	.50	1.05100E-01	2.46000E-02	0.	1.00000E+00
181	3.41900E+03	.50	2.92360E-03	2.46000E-02	0.	1.00000E+00
182	3.43690E+03	.50	1.90530E-01	2.46000E-02	0.	1.00000E+00
183	3.45910E+03	.50	3.82290E-01	2.46000E-02	0.	1.00000E+00
184	3.47000E+03	.50	1.17810E-03	2.46000E-02	0.	1.00000E+00
185	3.48430E+03	.50	1.18060E-01	2.46000E-02	0.	1.00000E+00
186	3.49200E+03	.50	1.12280E-02	2.46000E-02	0.	1.00000E+00
187	3.51200E+03	.50	2.96310E-03	2.46000E-02	0.	1.00000E+00
188	3.52600E+03	.50	1.06880E-02	2.46000E-02	0.	1.00000E+00
189	3.56150E+03	.50	1.43230E-01	2.46000E-02	0.	1.00000E+00
190	3.57400E+03	.50	2.39130E-01	2.46000E-02	0.	1.00000E+00
191	3.59300E+03	.50	1.55850E-02	2.46000E-02	0.	1.00000E+00
192	3.60000E+03	.50	3.00000E-03	2.46000E-02	0.	1.00000E+00
193	3.61100E+03	.50	3.00460E-03	2.46000E-02	0.	1.00000E+00
194	3.62500E+03	.50	3.01040E-03	2.46000E-02	0.	1.00000E+00
195	3.63000E+03	.50	2.16900E-01	2.46000E-02	0.	1.00000E+00
196	3.64700E+03	.50	3.01950E-03	2.46000E-02	0.	1.00000E+00
197	3.67400E+03	.50	3.06760E-03	2.46000E-02	0.	1.00000E+00
198	3.69300E+03	.50	2.43080E-01	2.46000E-02	0.	1.00000E+00
199	3.71770E+03	.50	6.09730E-02	2.46000E-02	0.	1.00000E+00
200	3.73330E+03	.50	1.52750E-01	2.46000E-02	0.	1.00000E+00
201	3.76470E+03	.50	3.43600E-02	2.46000E-02	0.	1.00000E+00
202	3.78370E+03	.50	2.76800E-01	2.46000E-02	0.	1.00000E+00
203	3.79970E+03	.50	3.08210E-03	2.46000E-02	0.	1.00000E+00
204	3.83200E+03	.50	6.19030E-03	2.46000E-02	0.	1.00000E+00
205	3.85000E+03	.50	3.41620E-01	2.46000E-02	0.	1.00000E+00
206	3.87130E+03	.50	2.48880E-01	2.46000E-02	0.	1.00000E+00
207	3.89500E+03	.50	4.99280E-03	2.46000E-02	0.	1.00000E+00
208	3.90440E+03	.50	2.24950E-01	2.46000E-02	0.	1.00000E+00

** PU239 ** ATOMIC MASS = 2.39052E+02 SCATTERING LENGTH = 9.05344E-01 NUCLEAR SPIN = 5.00000E-01

MEAN LEVEL SPACING D = 3.12000E+00 CORRECTION POINTS FOR CAPTURE = 0 FOR FISSION = 0

87 RESOLVED PEAKS:

PEAK	ENERGY	J	GAMMA-N	GAMMA-G	GAMMA-F	ABUNDANCE
1	7.83000E+00	1.00	8.70000E-04	4.06000E-02	4.15000E-02	1.00000E+00
2	1.09300E+01	1.00	1.82000E-03	3.15000E-02	1.46700E-01	1.00000E+00
3	1.19000E+01	1.00	1.07000E-03	4.09000E-02	2.20000E-02	1.00000E+00
4	1.42000E+01	1.00	5.50000E-04	3.87000E-02	5.25000E-02	1.00000E+00
5	1.46000E+01	1.00	2.20000E-03	3.87000E-02	3.17000E-02	1.00000E+00
6	1.55000E+01	0.00	2.37000E-03	3.87000E-02	7.60500E-01	1.00000E+00
7	1.76000E+01	1.00	1.60000E-03	3.91000E-02	4.63000E-02	1.00000E+00
8	2.22000E+01	1.00	2.23000E-03	3.13000E-02	7.50000E-02	1.00000E+00
9	2.39000E+01	1.00	8.70000E-04	3.87000E-02	3.71000E-02	1.00000E+00
10	2.62000E+01	1.00	1.78000E-03	3.87000E-02	3.57000E-02	1.00000E+00
11	2.73000E+01	1.00	1.30000E-04	3.87000E-02	2.80000E-03	1.00000E+00
12	3.23000E+01	0.00	8.60000E-04	3.87000E-02	1.89000E-01	1.00000E+00

PEAK	ENERGY	J	GAMMA-N	GAMMA-G	GAMMA-F	ABUNDANCE
13	3.50000E+01	1.00	3.10000E-04	3.87000E-02	4.10000E-03	1.00000E+00
14	4.14000E+01	1.00	6.07000E-03	5.92000E-02	1.07000E-02	1.00000E+00
15	4.45000E+01	1.00	6.34000E-03	2.78000E-02	4.20000E-03	1.00000E+00
16	4.70000E+01	0.00	5.40000E-03	3.87000E-02	3.01000E-01	1.00000E+00
17	4.90000E+01	0.00	4.40000E-04	5.98000E-02	7.50000E-01	1.00000E+00
18	5.02000E+01	1.00	3.04000E-03	4.13000E-02	1.12000E-02	1.00000E+00
19	5.26000E+01	1.00	1.00000E-02	3.93000E-02	7.70000E-03	1.00000E+00
20	5.57900E+01	1.00	1.43000E-03	2.60000E-02	2.20000E-02	1.00000E+00
21	5.76000E+01	0.00	1.70000E-02	3.87000E-02	5.46000E-01	1.00000E+00
22	5.80000E+01	0.00	1.20000E-02	3.87000E-02	8.05000E-01	1.00000E+00
23	5.93000E+01	1.00	5.50000E-03	4.86000E-02	1.33000E-01	1.00000E+00
24	6.10000E+01	0.00	2.24000E-02	3.87000E-02	2.00000E+00	1.00000E+00
25	6.34000E+01	1.00	1.94000E-03	3.87000E-02	1.39000E-02	1.00000E+00
26	6.59000E+01	1.00	1.25000E-02	2.24000E-02	7.70000E-02	1.00000E+00
27	7.40000E+01	1.00	3.27000E-03	3.66000E-02	2.95000E-02	1.00000E+00
28	7.52000E+01	1.00	2.21000E-02	4.49000E-02	9.50000E-02	1.00000E+00
29	8.20000E+01	0.00	6.20000E-03	3.87000E-02	1.50000E+00	1.00000E+00
30	8.53000E+01	0.00	8.67000E-03	3.87000E-02	2.00000E+00	1.00000E+00
31	8.50000E+01	1.00	3.07000E-03	3.87000E-02	2.10700E-01	1.00000E+00
32	9.09000E+01	1.00	2.47000E-03	3.87000E-02	1.14600E-01	1.00000E+00
33	9.55000E+01	1.00	9.34000E-04	3.87000E-02	2.30000E-01	1.00000E+00
34	9.60000E+01	0.00	9.20000E-03	3.87000E-02	1.40000E+00	1.00000E+00
35	9.70000E+01	0.00	1.80000E-03	3.87000E-02	3.60000E-01	1.00000E+00
36	9.90000E+01	0.00	9.35000E-03	3.87000E-02	2.00000E+00	1.00000E+00
37	1.01200E+02	0.00	5.60000E-04	3.87000E-02	3.11000E-01	1.00000E+00
38	1.00000E+02	1.00	1.74000E-03	3.87000E-02	8.37000E-02	1.00000E+00
39	1.00400E+02	1.00	5.87000E-03	3.87000E-02	1.02500E-01	1.00000E+00
40	1.00800E+02	1.00	8.00000E-03	3.49000E-02	3.31000E-02	1.00000E+00
41	1.10400E+02	1.00	9.33000E-04	3.87000E-02	3.10000E-03	1.00000E+00
42	1.16100E+02	1.00	3.34000E-03	2.70000E-02	1.80000E-01	1.00000E+00
43	1.10900E+02	1.00	1.47000E-02	5.23000E-02	6.57000E-02	1.00000E+00
44	1.21000E+02	1.00	2.80000E-03	3.87000E-02	3.53000E-02	1.00000E+00
45	1.20400E+02	1.00	5.30000E-04	2.51000E-02	5.10000E-02	1.00000E+00
46	1.20000E+02	1.00	1.87000E-03	5.00000E-02	3.22000E-02	1.00000E+00
47	1.27000E+02	1.00	5.30000E-04	3.87000E-02	2.15000E-01	1.00000E+00
48	1.31000E+02	0.00	3.43000E-02	3.87000E-02	3.74000E+00	1.00000E+00
49	1.33000E+02	1.00	5.34000E-03	2.76000E-02	1.14000E-02	1.00000E+00
50	1.35400E+02	1.00	4.00000E-04	3.87000E-02	9.27000E-02	1.00000E+00
51	1.30000E+02	1.00	3.20000E-03	3.87000E-02	2.65000E-02	1.00000E+00
52	1.40000E+02	1.00	7.33000E-03	3.87000E-02	5.34000E-02	1.00000E+00
53	1.40000E+02	1.00	7.04000E-03	5.42000E-02	1.42000E-02	1.00000E+00
54	1.40000E+02	1.00	1.33000E-03	3.87000E-02	9.10000E-03	1.00000E+00
55	1.49400E+02	1.00	1.47000E-03	5.13000E-02	3.65000E-02	1.00000E+00
56	1.57000E+02	0.00	3.43000E-02	3.87000E-02	7.04000E-01	1.00000E+00
57	1.60000E+02	0.00	6.00000E-03	3.87000E-02	5.08000E-01	1.00000E+00
58	1.64400E+02	1.00	2.54000E-02	4.02000E-02	1.10000E-02	1.00000E+00
59	1.60000E+02	1.00	5.70000E-03	3.87000E-02	4.77000E-02	1.00000E+00
60	1.70000E+02	0.00	8.80000E-03	3.87000E-02	1.26000E+00	1.00000E+00
61	1.70000E+02	1.00	2.10000E-03	3.29000E-02	4.39000E-02	1.00000E+00
62	1.77000E+02	1.00	3.90000E-03	6.22000E-02	7.00000E-03	1.00000E+00
63	1.70000E+02	1.00	1.30000E-03	3.87000E-02	1.40000E-02	1.00000E+00

PEAK	ENERGY	J	GAMMA-N	GAMMA-G	GAMMA-F	ABUNDANCE
64	1.85100E+02	1.00	1.40000E-02	3.87000E-02	1.75000E+00	1.00000E+00
65	1.90300E+02	1.00	1.60000E-03	3.87000E-02	1.18900E-01	1.00000E+00
66	1.95100E+02	1.00	4.96000E-02	3.87000E-02	3.37000E-01	1.00000E+00
67	1.96400E+02	1.00	5.07000E-03	5.85000E-02	6.89000E-02	1.00000E+00
68	1.99200E+02	1.00	8.95000E-03	2.16000E-02	1.25000E-01	1.00000E+00
69	2.03600E+02	1.00	1.87000E-02	3.87000E-02	2.98000E-01	1.00000E+00
70	2.07100E+02	1.00	6.70000E-03	3.87000E-02	1.13000E-02	1.00000E+00
71	2.16300E+02	1.00	6.40000E-03	3.87000E-02	2.17000E-02	1.00000E+00
72	2.22800E+02	1.00	3.07000E-03	3.87000E-02	5.17000E-02	1.00000E+00
73	2.31100E+02	1.00	1.01000E-02	3.87000E-02	1.21000E-02	1.00000E+00
74	2.34000E+02	1.00	9.07000E-03	3.87000E-02	1.97000E-02	1.00000E+00
75	2.38700E+02	1.00	5.20000E-03	3.87000E-02	6.85000E-02	1.00000E+00
76	2.42600E+02	1.00	5.70000E-03	3.87000E-02	5.27000E-02	1.00000E+00
77	2.48500E+02	1.00	1.47000E-02	3.87000E-02	3.43000E-02	1.00000E+00
78	2.51900E+02	1.00	2.40000E-02	3.87000E-02	1.53000E-02	1.00000E+00
79	2.61800E+02	1.00	8.48000E-02	3.87000E-02	6.32000E+00	1.00000E+00
80	2.64200E+02	1.00	1.72000E-02	3.87000E-02	3.33000E-01	1.00000E+00
81	2.72300E+02	1.00	2.40000E-02	3.87000E-02	1.53000E-02	1.00000E+00
82	2.75200E+02	1.00	2.80000E-02	3.87000E-02	2.99000E-01	1.00000E+00
83	2.79100E+02	1.00	7.86000E-03	3.87000E-02	1.95000E-02	1.00000E+00
84	2.82500E+02	1.00	2.40000E-02	3.87000E-02	5.30000E-03	1.00000E+00
85	2.91800E+02	1.00	1.40000E-02	3.87000E-02	3.04000E-01	1.00000E+00
86	2.96000E+02	1.00	3.07000E-03	3.87000E-02	8.67000E-02	1.00000E+00
87	2.98100E+02	1.00	1.00000E-02	3.87000E-02	4.63000E-02	1.00000E+00

** PU2+U ** ATOMIC MASS = 2.40054E+02 SCATTERING LENGTH = 8.92062E-01 NUCLEAR SPIN = 0.

MEAN LEVEL SPACING D = 1.60000E+01 CORRECTION POINTS FOR CAPTURE = 0 FOR FISSION = 0

41 RESOLVED PEAKS:

PEAK	ENERGY	J	GAMMA-N	GAMMA-G	GAMMA-F	ABUNDANCE
1	1.05600E+00	.50	2.35000E-03	3.10000E-02	5.70000E-06	1.00000E+00
2	2.04400E+01	.50	2.30000E-03	2.10000E-02	1.82000E-04	1.00000E+00
3	3.83100E+01	.50	1.80500E-02	2.46000E-02	9.10000E-05	1.00000E+00
4	4.16900E+01	.50	1.61400E-02	3.40000E-02	0.	1.00000E+00
5	6.65900E+01	.50	4.93400E-02	3.00000E-02	0.	1.00000E+00
6	7.27500E+01	.50	2.15400E-02	2.50000E-02	0.	1.00000E+00
7	9.07000E+01	.50	1.18400E-02	3.10000E-02	0.	1.00000E+00
8	9.25000E+01	.50	2.70000E-03	3.00000E-02	0.	1.00000E+00
9	1.04900E+02	.50	4.45900E-02	2.85000E-02	0.	1.00000E+00
10	1.21500E+02	.50	1.27500E-02	4.00000E-02	0.	1.00000E+00
11	1.35300E+02	.50	1.63300E-02	3.90000E-02	0.	1.00000E+00
12	1.51800E+02	.50	1.34000E-02	3.60000E-02	0.	1.00000E+00
13	1.62800E+02	.50	8.70000E-03	4.80000E-02	0.	1.00000E+00
14	1.70200E+02	.50	1.42000E-02	3.90000E-02	0.	1.00000E+00
15	1.86100E+02	.50	1.66000E-02	4.60000E-02	0.	1.00000E+00
16	2.40000E+02	.50	1.20000E-02	3.00000E-02	0.	1.00000E+00
17	2.60900E+02	.50	2.23000E-02	3.00000E-02	0.	1.00000E+00
18	2.87900E+02	.50	1.27600E-01	6.40000E-02	0.	1.00000E+00
19	3.05300E+02	.50	6.95000E-03	3.00000E-02	0.	1.00000E+00
20	3.20900E+02	.50	1.65000E-02	3.00000E-02	0.	1.00000E+00
21	3.38400E+02	.50	5.70000E-03	3.00000E-02	0.	1.00000E+00

PEAK	ENERGY	J	GAMMA-N	GAMMA-G	GAMMA-F	ABUNDANCE
22	3.46000E+02	.50	1.54500E-02	3.00000E-02	0.	1.00000E+00
23	3.64300E+02	.50	3.04500E-02	3.00000E-02	0.	1.00000E+00
24	3.72500E+02	.50	1.23500E-02	3.00000E-02	0.	1.00000E+00
25	4.05300E+02	.50	1.02250E-01	3.00000E-02	0.	1.00000E+00
26	4.18000E+02	.50	2.45000E-03	3.00000E-02	0.	1.00000E+00
27	4.49700E+02	.50	1.39000E-02	3.00000E-02	0.	1.00000E+00
28	4.65700E+02	.50	2.59000E-03	3.00000E-02	0.	1.00000E+00
29	4.73100E+02	.50	2.61000E-03	3.00000E-02	0.	1.00000E+00
30	4.93000E+02	.50	5.10000E-03	3.00000E-02	0.	1.00000E+00
31	5.00200E+02	.50	2.13000E-02	3.00000E-02	0.	1.00000E+00
32	5.13500E+02	.50	2.42000E-02	3.00000E-02	0.	1.00000E+00
33	5.47300E+02	.50	3.30000E-02	3.00000E-02	0.	1.00000E+00
34	5.53000E+02	.50	2.09000E-02	3.00000E-02	0.	1.00000E+00
35	5.67200E+02	.50	2.75000E-02	3.00000E-02	0.	1.00000E+00
36	5.97700E+02	.50	4.95000E-02	3.00000E-02	0.	1.00000E+00
37	6.03300E+02	.50	1.77500E-02	3.00000E-02	0.	1.00000E+00
38	6.31800E+02	.50	1.23000E-02	3.00000E-02	0.	1.00000E+00
39	6.37900E+02	.50	3.03000E-03	3.00000E-02	0.	1.00000E+00
40	6.66200E+02	.50	1.89000E-01	3.00000E-02	0.	1.00000E+00
41	6.79400E+02	.50	2.50000E-02	3.00000E-02	0.	1.00000E+00
** PU241 **	ATOMIC MASS =	2.41000E+02	SCATTERING LENGTH =	8.99060E-01	NO RESOLVED PEAKS	
** PU242 **	ATOMIC MASS =	2.42059E+02	SCATTERING LENGTH =	7.97884E-01	NO RESOLVED PEAKS	
** FP25R **	ATOMIC MASS =	1.50600E+02	SCATTERING LENGTH =	1.00000E-10	NO RESOLVED PEAKS	
** FP39R **	ATOMIC MASS =	1.50200E+02	SCATTERING LENGTH =	1.00000E-10	NO RESOLVED PEAKS	
** FP25S **	ATOMIC MASS =	1.22600E+02	SCATTERING LENGTH =	1.00000E-10	NO RESOLVED PEAKS	
** FP39S **	ATOMIC MASS =	1.22200E+02	SCATTERING LENGTH =	1.00000E-10	NO RESOLVED PEAKS	
** FP25U **	ATOMIC MASS =	1.13400E+02	SCATTERING LENGTH =	1.00000E-10	NO RESOLVED PEAKS	
** FP39U **	ATOMIC MASS =	1.15200E+02	SCATTERING LENGTH =	1.00000E-10	NO RESOLVED PEAKS	

*** FILE FOUR ***

UNRESOLVED RESONANCE DATA

** B10 ** SCATTERING LENGTH = 5.64189E-01, NO J-STATES

** 016 ** SCATTERING LENGTH = 5.47300E-01, NO J-STATES

** NA23 ** SCATTERING LENGTH = 5.27800E-01, NO J-STATES

** SS304 ** SCATTERING LENGTH = 9.35000E-01, NO J-STATES

** U238 ** SCATTERING LENGTH = 9.18430E-01 PENETRATION CONST. = 1.91000E-03
 UPPER ENERGY BOUND = 5.26000E+04 LOWER ENERGY BOUND = 7.47000E+02

1) STATE L=0 J= .50 ENTRY CHANNELS MU = 1 CALCULATION AT 10 POINTS
 MEAN CAPTURE WIDTH= 2.46000E-02 MEAN LEVEL SPACING = 1.85000E+01

REDUCED NEUTRON WIDTH

ENERGY	WIDTH	ENERGY	WIDTH
7.47000E+02	1.73900E-03	5.26000E+04	1.73900E-03

2) STATE L=1 J= .50 ENTRY CHANNELS MU = 1 CALCULATION AT 10 POINTS
 MEAN CAPTURE WIDTH= 2.46000E-02 MEAN LEVEL SPACING = 1.85000E+01

REDUCED NEUTRON WIDTH

ENERGY	WIDTH	ENERGY	WIDTH
7.47000E+02	2.92300E-03	5.26000E+04	2.92300E-03

3) STATE L=1 J=1.50

ENTRY CHANNELS MU = 1
MEAN CAPTURE WIDTH= 2.46000E-02

REDUCED NEUTRON WIDTH

ENERGY	WIDTH
7.47000E+02	1.46200E-03

CALCULATION AT 10 POINTS
MEAN LEVEL SPACING = 9.25000E+00

ENERGY	WIDTH
5.26000E+04	1.46200E-03

** PU239 **

SCATTERING LENGTH = 9.03445E-01
UPPER ENERGY BOUND = 1.12000E+05PENETRATION CONST. = 1.91000E-03
LOWER ENERGY BOUND = 3.00000E+02

1) STATE L=0 J=0.00

ENTRY CHANNELS MU = 2
MEAN CAPTURE WIDTH= 3.87000E-02

REDUCED NEUTRON WIDTH

ENERGY	WIDTH
2.75000E+02	9.40300E-04

CALCULATION AT 10 POINTS
MEAN LEVEL SPACING = 8.78000E+00

ENERGY	WIDTH
1.12000E+05	9.40300E-04

MEAN FISSION WIDTH

ENERGY	WIDTH
2.75000E+02	2.80000E+00

ENERGY	WIDTH
1.12000E+05	2.80000E+00

2) STATE L=0 J=1.00

ENTRY CHANNELS MU = 1
MEAN CAPTURE WIDTH= 3.87000E-02

REDUCED NEUTRON WIDTH

ENERGY	WIDTH
2.75000E+02	3.34200E-04

CALCULATION AT 10 POINTS
MEAN LEVEL SPACING = 3.12000E+00

ENERGY	WIDTH
1.12000E+05	3.34200E-04

MEAN FISSION WIDTH

ENERGY	WIDTH
2.75000E+02	5.52000E-02
1.00000E+03	5.68000E-02
2.50000E+03	5.93200E-02
5.00000E+03	6.57000E-02
1.00000E+04	8.72000E-02
3.00000E+04	1.50200E-01
5.00000E+04	2.48000E-01
8.00000E+04	3.86000E-01

ENERGY	WIDTH
6.00000E+02	5.59000E-02
1.50000E+03	5.78000E-02
3.50000E+03	6.28000E-02
8.00000E+03	7.35000E-02
2.00000E+04	1.10200E-01
4.00000E+04	1.97500E-01
6.00000E+04	3.00000E-01
1.12000E+05	5.10000E-01

** PU240 **

1) STATE L=0 J= .50

SCATTERING LENGTH = 8.92062E-01
 UPPER ENERGY BOUND = 4.09100E+04

ENTRY CHANNELS MU = 1
 MEAN CAPTURE WIDTH = 3.80000E-02

REDUCED NEUTRON WIDTH

ENERGY	WIDTH
5.82900E+02	1.60000E-03

MEAN FISSION WIDTH

ENERGY	WIDTH
5.82900E+02	1.90000E-04

2) STATE L=1 J= .50

ENTRY CHANNELS MU = 1
 MEAN CAPTURE WIDTH = 3.00000E-02

REDUCED NEUTRON WIDTH

ENERGY	WIDTH
5.82900E+02	2.80000E-03

PENETRATION CONST. = 1.91000E-03
 LOWER ENERGY BOUND = 5.82900E+02

CALCULATION AT 10 POINTS
 MEAN LEVEL SPACING = 1.60000E+01

ENERGY	WIDTH
4.09100E+04	1.68000E-03

ENERGY	WIDTH
4.09100E+04	1.90000E-04

CALCULATION AT 10 POINTS
 MEAN LEVEL SPACING = 1.60000E+01

ENERGY	WIDTH
4.09100E+04	2.80000E-03

MEAN FISSION WIDTH

ENERGY	WIDTH
5.82000E+02	1.00000E-02
2.00000E+03	1.02000E-02
6.00000E+03	1.06200E-02
1.00000E+04	1.10000E-02
2.00000E+04	1.20400E-02
3.00000E+04	1.32100E-02
4.00000E+04	1.47400E-02

ENERGY	WIDTH
1.00000E+03	1.00000E-02
4.00000E+03	1.03900E-02
8.00000E+03	1.09300E-02
1.50000E+04	1.15800E-02
2.50000E+04	1.28900E-02
3.50000E+04	1.37900E-02

S) STATE L=1 J=1.50

ENTRY CHANNELS MU = 1
MEAN CAPTURE WIDTH = 3.00000E-02CALCULATION AT 10 POINTS
MEAN LEVEL SPACING = 9.65000E+00

REDUCED NEUTRON WIDTH

ENERGY	WIDTH
5.82000E+02	1.69000E-03

ENERGY	WIDTH
4.09100E+04	1.69000E-03

MEAN FISSION WIDTH

ENERGY	WIDTH
5.82000E+02	6.03000E-03
2.00000E+03	6.15000E-03
6.00000E+03	6.40000E-03
1.00000E+04	6.65000E-03
2.00000E+04	7.26000E-03
3.00000E+04	7.97000E-03
4.00000E+04	8.72500E-03

ENERGY	WIDTH
1.00000E+03	6.03000E-03
4.00000E+03	6.27000E-03
8.00000E+03	6.59000E-03
1.50000E+04	6.96000E-03
2.50000E+04	7.77000E-03
3.50000E+04	8.31500E-03

** PU241 **

SCATTERING LENGTH = 8.99060E-01, NO J-STATES

** PU242 **

SCATTERING LENGTH = 7.97884E-01, NO J-STATES

** FP25R **

SCATTERING LENGTH = 1.00000E-10, NO J-STATES

** FP39R **

SCATTERING LENGTH = 1.00000E-10, NO J-STATES

** FP25S **

SCATTERING LENGTH = 1.00000E-10, NO J-STATES

** FP39S **

SCATTERING LENGTH = 1.00000E-10, NO J-STATES

** FP25U **

SCATTERING LENGTH = 1.00000E-10, NO J-STATES

** FP39U **

SCATTERING LENGTH = 1.00000E-10, NO J-STATES

*** FILE FIVE ***
SMOOTH DATA AND TRANSFER MATRICES

B1U CAPTURE CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	2.60000E-02	15	1.83000E-01	29	1.34000E+00	43	7.80000E+00	57	4.45000E+01
2	3.30000E-02	16	2.21000E-01	30	1.54000E+00	44	8.79000E+00	58	4.94000E+01
3	3.50000E-02	17	2.74000E-01	31	1.71000E+00	45	1.00000E+01	59	5.63000E+01
4	2.00000E-02	18	3.43000E-01	32	1.99000E+00	46	1.10000E+01	60	6.32000E+01
5	2.60000E-02	19	4.04000E-01	33	2.23000E+00	47	1.28000E+01	61	7.11000E+01
6	3.90000E-02	20	4.65000E-01	34	2.54000E+00	48	1.46000E+01	62	8.00000E+01
7	7.10000E-02	21	5.32000E-01	35	2.86000E+00	49	1.65000E+01	63	9.08000E+01
8	5.30000E-02	22	6.21000E-01	36	3.25000E+00	50	1.85000E+01	64	1.04000E+02
9	3.90000E-02	23	6.90000E-01	37	3.43000E+00	51	2.09000E+01	65	1.15000E+02
10	4.70000E-02	24	7.58000E-01	38	4.41000E+00	52	2.38000E+01	66	1.35000E+02
11	7.30000E-02	25	8.56000E-01	39	4.73000E+00	53	2.68000E+01	67	1.55000E+02
12	1.14000E-01	26	9.50000E-01	40	5.32000E+00	54	3.07000E+01	68	1.75000E+02
13	1.24000E-01	27	1.04000E+00	41	5.89000E+00	55	3.47000E+01		
14	1.54000E-01	28	1.14000E+00	42	6.99000E+00	56	3.86000E+01		

B1U ISOTROPIC MATRIX
2 DOWNSCATTERS

GROUP		GROUP		DOWNSCATTER	
I	J	J	J+1	J+2	
1	1	8.3735E-01	5.7485E-01	7.2988E-03	
2	2	8.5063E-01	6.3260E-01	1.6765E-02	
3	3	5.2498E-01	9.2052E-01	1.2450E-01	
4	4	5.1510E-01	8.7958E-01	1.2032E-01	
5	5	5.3774E-01	9.3318E-01	1.1909E-01	
6	6	6.2513E-01	1.0905E+00	1.4939E-01	
7	7	7.3516E-01	9.9264E-01	1.0220E-01	
8	8	8.2617E-01	1.1915E+00	1.3236E-01	
9	9	1.5374E+00	1.2605E+00	6.2671E-02	
10	10	8.9523E-01	3.0602E-01	4.8756E-02	
11	11	1.0061E+00	1.1229E+00	1.0106E-01	
12	12	1.1696E+00	1.4762E+00	1.5420E-01	
13	13	1.9887E+00	2.2164E+00	1.9489E-01	
14	14	1.2792E+00	1.8160E+00	2.0481E-01	
15	15	1.3355E+00	1.3388E+00	2.2578E-01	

GROUP			DOWNSCATTER	
I * J	J	J+1	J+2	
16*16	1.54270E+00	1.86130E+00	1.96040E-01	
17*17	1.78510E+00	1.92880E+00	1.86110E-01	
18*18	1.84290E+00	1.98940E+00	1.67650E-01	
19*19	1.55270E+00	2.23670E+00	2.60680E-01	
20*20	1.57340E+00	2.26390E+00	2.65700E-01	
21*21	1.64540E+00	2.37520E+00	2.79370E-01	
22*22	1.68450E+00	2.43920E+00	2.76340E-01	
23*23	1.67490E+00	2.43400E+00	2.91030E-01	
24*24	1.80960E+00	2.42960E+00	2.80770E-01	
25*25	1.89150E+00	2.52050E+00	2.87940E-01	
26*26	1.62450E+00	2.46950E+00	3.05970E-01	
27*27	1.89340E+00	2.42100E+00	2.88600E-01	
28*28	1.83720E+00	2.43030E+00	2.82520E-01	
29*29	1.64290E+00	2.37880E+00	2.78310E-01	
30*30	1.58270E+00	2.33540E+00	2.81910E-01	
31*31	1.52690E+00	2.29060E+00	2.82560E-01	
32*32	1.41620E+00	2.13740E+00	2.46360E-01	
33*33	1.50380E+00	2.17000E+00	2.66220E-01	
34*34	1.51510E+00	1.94460E+00	2.40330E-01	
35*35	1.19180E+00	1.81530E+00	1.92940E-01	
36*36	1.09220E+00	1.89330E+00	2.14460E-01	
37*37	1.00820E+00	1.81710E+00	1.94630E-01	
38*38	7.68850E-01	1.17700E+00	1.44200E-01	
39*39	7.44860E-01	1.11980E+00	1.35330E-01	
40*40	5.94280E-01	8.95860E-01	1.18630E-01	
41*41	5.22490E-01	7.87040E-01	9.88630E-02	
42*42	5.88880E-01	5.59050E-01	7.22680E-02	
43*43	5.70030E-01	5.59200E-01	6.47700E-02	
44*44	7.37090E-01	1.12640E+00	1.34480E-01	
45*45	1.11300E+00	1.69190E+00	1.95890E-01	
46*46	1.47520E+00	2.23950E+00	2.85270E-01	
47*47	1.53030E+00	2.23210E+00	2.87540E-01	
48*48	1.48260E+00	2.23840E+00	2.78930E-01	
49*49	1.49400E+00	2.23550E+00	2.70500E-01	
50*50	1.48560E+00	2.25110E+00	2.63340E-01	
51*51	1.47840E+00	2.24750E+00	2.74060E-01	
52*52	1.48910E+00	2.24000E+00	2.70830E-01	
53*53	1.48590E+00	2.24530E+00	2.68760E-01	
54*54	1.48380E+00	2.23920E+00	2.76980E-01	
55*55	1.49210E+00	2.23700E+00	2.79970E-01	
56*56	1.48000E+00	2.24000E+00	2.73680E-01	
57*57	1.48880E+00	2.24850E+00	2.82750E-01	
58*58	1.47780E+00	2.24540E+00	2.76740E-01	
59*59	1.49180E+00	2.23810E+00	2.70030E-01	
60*60	1.48510E+00	2.24980E+00	2.85070E-01	
61*61	1.48010E+00	2.23260E+00	2.87240E-01	
62*62	1.53230E+00	2.25310E+00	2.44580E-01	
63*63	1.45370E+00	2.25470E+00	2.85640E-01	
64*64	1.50070E+00	2.22900E+00	2.70270E-01	
65*65	1.48530E+00	2.23840E+00	2.76250E-01	

GROUP			DOWNSCATTER	
I * J	J	J+1	J+2	
66*66	1.49130E+00	2.2369JE+00	2.71740E-01	
67*67	1.48680E+00	2.2457JE+00	2.67510E-01	
68*68	1.48260E+00	2.5174JE+00		

B10 ANISOTROPIC MATRIX
2 DOWNSCATTERS

GROUP			DOWNSCATTER	
I * J	J	J+1	J+2	
1* 1	5.40150E-J1	8.8016JE-02	-3.36600E-03	
2* 2	5.43580E-01	6.7382JE-02	-1.10790E-02	
3* 3	2.90840E-J1	-1.9381JE-01	-9.76320E-02	
4* 4	2.76250E-J1	-1.8253JE-01	-9.37210E-02	
5* 5	2.90460E-J1	-1.9691JE-01	-9.35420E-02	
6* 6	3.45770E-J1	-2.2956JE-01	-1.16220E-01	
7* 7	4.24090E-J1	-1.4288JE-01	-7.99170E-02	
8* 8	4.87580E-01	-1.91010E-01	-1.03060E-01	
9* 9	9.73980E-J1	7.0879JE-02	-4.38540E-02	
10*10	5.53870E-J1	7.4197JE-03	-3.62840E-02	
11*11	6.10020E-J1	-8.68450E-02	-7.71750E-02	
12*12	6.88770E-01	-1.7785JE-01	-1.18930E-01	
13*13	1.20130E+00	-1.71920E-01	-1.49350E-01	
14*14	7.40900E-01	-2.84600E-01	-1.59300E-01	
15*15	7.70880E-J1	-3.1542JE-01	-1.75450E-01	
16*16	9.19530E-01	-1.9389JE-01	-1.49630E-J1	
17*17	1.01430E+00	-1.6390JE-01	-1.28460E-01	
18*18	1.13500E+00	-1.2749JE-01	-1.27520E-01	
19*19	3.76720E-J1	-3.5447JE-01	-2.02260E-01	
20*20	8.99030E-J1	-3.6466JE-01	-2.06330E-01	
21*21	9.43880E-01	-3.83050E-01	-2.16860E-01	
22*22	9.65360E-J1	-3.9782JE-01	-2.15540E-01	
23*23	9.71750E-01	-3.9439JE-01	-2.25330E-01	
24*24	9.61960E-J1	-3.9145JE-01	-2.18510E-01	
25*25	9.70720E-01	-4.3073JE-01	-2.24980E-01	
26*26	9.55970E-J1	-4.3036JE-01	-2.37190E-01	
27*27	9.61450E-J1	-3.8570JE-01	-2.23720E-01	
28*28	9.63580E-J1	-3.9186JE-01	-2.19680E-01	
29*29	9.43610E-J1	-3.8546JE-01	-2.16150E-01	
30*30	9.03420E-J1	-3.3064JE-01	-2.18780E-01	
31*31	8.63360E-J1	-3.9394JE-01	-2.19340E-01	
32*32	7.99470E-J1	-3.7478JE-01	-1.92890E-01	
33*33	7.83530E-J1	-3.5748JE-01	-2.05360E-01	
34*34	7.29320E-J1	-3.2915JE-01	-1.86650E-01	
35*35	6.73760E-J1	-3.2600JE-01	-1.52550E-01	
36*36	6.48620E-01	-3.0002JE-01	-1.65580E-01	
37*37	6.05190E-01	-2.7664JE-01	-1.51650E-01	
38*38	4.44330E-J1	-2.0424JE-01	-1.1199JE-01	
39*39	4.21110E-J1	-1.9379JE-01	-1.05320E-01	

GROUP		DOWNSCATTER	
I J	J	J+1	J+2
40+0	3.37950E-01	-1.54520E-01	-8.58360E-02
41+1	2.94330E-01	-1.37790E-01	-7.11280E-02
42+2	2.13070E-01	-9.83590E-02	-5.57080E-02
43+3	2.08170E-01	-9.64500E-02	-5.07190E-02
44+4	4.28310E-01	-1.39560E-01	-1.04750E-01
45+5	0.34510E-01	-2.98830E-01	-1.52680E-01
46+6	8.51340E-01	-3.87600E-01	-2.28330E-01
47+7	0.35180E-01	-3.82640E-01	-2.08560E-01
48+8	0.40980E-01	-3.86810E-01	-2.16150E-01
49+9	8.39370E-01	-3.84830E-01	-2.10530E-01
50+0	8.44960E-01	-3.95230E-01	-2.05740E-01
51+1	8.49740E-01	-3.92840E-01	-2.12900E-01
52+2	8.42080E-01	-3.87840E-01	-2.10750E-01
53+3	8.44740E-01	-3.91370E-01	-2.09390E-01
54+4	8.46140E-01	-3.87270E-01	-2.14850E-01
55+5	8.40620E-01	-3.95790E-01	-2.10840E-01
56+6	8.44670E-01	-3.88000E-01	-2.12670E-01
57+7	8.42820E-01	-3.93500E-01	-2.05330E-01
58+8	3.50180E-01	-3.91470E-01	-2.14700E-01
59+9	8.40810E-01	-3.86610E-01	-2.10220E-01
60+0	8.45270E-01	-3.94370E-01	-2.06890E-01
61+1	3.48810E-01	-3.83010E-01	-2.21630E-01
62+2	8.33900E-01	-3.96670E-01	-1.93020E-01
63+3	8.82490E-01	-3.97900E-01	-2.20580E-01
64+4	8.34910E-01	-3.80540E-01	-2.19370E-01
65+5	8.45140E-01	-3.96770E-01	-2.14580E-01
66+6	8.41150E-01	-3.85770E-01	-2.11350E-01
67+7	8.44130E-01	-3.91600E-01	-2.08530E-01
68+8	8.47000E-01	-0.03000E-01	

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CAPTURE CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	9.24900E-02	15	0.	29	0.	43	0.
2	8.07000E-02	16	0.	30	0.	44	0.
3	4.27400E-02	17	0.	31	0.	45	0.
4	5.13000E-02	18	0.	32	0.	46	0.
5	9.09300E-02	19	0.	33	0.	47	0.
6	0.	20	0.	34	0.	48	0.
7	0.	21	0.	35	0.	49	0.
8	0.	22	0.	36	0.	50	0.
9	0.	23	0.	37	0.	51	0.
10	0.	24	0.	38	0.	52	0.
11	0.	25	0.	39	0.	53	0.
12	0.	26	0.	40	0.	54	0.
13	0.	27	0.	41	0.	55	0.
14	0.	28	0.	42	0.	56	0.
						57	0.
						58	0.
						59	0.
						60	0.
						61	0.
						62	0.
						63	0.
						64	0.
						65	0.
						66	0.
						67	0.
						68	0.

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ISOTROPIC MATRIX
17 DOWNSCATTERS

GROUP I + J	J	J+1	DOWNSCATTER J+2	J+3	J+4
1+1	4.82220E-01	1.33160E-01	3.83290E-06	1.69020E-02	8.58930E-02
1+3	1.04730E-01	8.74740E-02	9.45220E-03	6.23000E-03	4.38140E-03
1+11	1.02290E-03	2.44760E-04	1.50390E-04	8.76460E-05	4.76880E-05
1+13	2.32750E-05	9.01560E-06	1.36000E-06		
2+2	9.88450E-01	2.67800E-01	0.	0.	0.
2+7	1.11890E-05	2.24910E-02	1.87030E-02	7.86950E-03	9.25520E-03
2+12	2.27370E-03	2.60160E-04	3.90450E-05	1.21860E-06	0.
2+19	0.				
3+3	9.49110E-01	4.10790E-01	5.89920E-06	0.	0.
3+21	0.				
4+4	1.07650E+00	8.45980E-01	4.56460E-05	0.	0.
4+21	0.				
5+5	1.50280E+00	7.82560E-01	0.	0.	0.
5+22	0.				
6+6	0.23670E-01	2.95070E-01	3.42230E-05	0.	0.
6+23	0.				
7+7	8.85950E-01	8.73410E-01	0.	0.	0.
7+24	0.				
8+8	1.46700E+00	1.15730E+00	0.	0.	0.
8+25	0.				
9+9	2.03790E+00	1.84770E+00	2.21240E-03	0.	0.
9+26	0.				
10+10	2.69940E+00	2.21060E+00	0.	0.	0.
10+27	0.				
11+11	1.69740E+00	1.23650E+00	6.21840E-06	0.	0.
11+28	0.				
12+12	2.21510E+00	1.36270E+00	2.21140E-06	0.	0.
12+29	0.				
13+13	9.75960E+00	3.77670E+00	0.	0.	0.
13+30	0.				
14+14	1.71020E+00	2.22860E+00	0.	0.	0.
14+31	0.				
15+15	1.61110E+00	1.92610E+00	1.69140E-06	0.	0.
15+32	0.				
16+16	1.67540E+00	1.82100E+00	4.01990E-04	0.	0.
16+33	0.				
17+17	1.70300E+00	1.79290E+00	0.	0.	0.
17+34	0.				
18+18	1.77930E+00	1.71600E+00	2.33060E-05	0.	0.
18+35	0.				
19+19	1.77440E+00	1.72050E+00	1.76800E-05	0.	0.
19+36	0.				

GROUP	DOWNSCATTER				
I + J	J	J+1	J+2	J+3	J+4
20+20	1.74960E+JJ	1.69500E+0J	6.14770E-06	0.	0.
21+37	0.				
21+21	1.82120E+JJ	1.87310E+0J	1.01650E-05	0.	0.
21+38	0.				
22+22	1.89850E+JJ	1.81200E+0J	0.	0.	0.
22+39	0.				
23+23	1.90300E+JJ	1.81050E+0J	7.70800E-05	0.	0.
23+40	0.				
24+24	1.90090E+JJ	1.83270E+0J	0.	0.	0.
24+41	0.				
25+25	1.97630E+JJ	1.31730E+0J	0.	0.	0.
25+42	0.				
26+26	1.93580E+JJ	1.30770E+0J	9.22260E-05	0.	0.
26+43	0.				
27+27	1.95970E+JJ	1.63380E+0J	3.91980E-05	0.	0.
27+44	0.				
28+28	1.90450E+0J	1.82910E+0J	0.	0.	0.
28+45	0.				
29+29	1.97060E+JJ	1.81990E+0J	4.69150E-06	0.	0.
29+46	0.				
30+30	1.97020E+JJ	1.32330E+0J	3.09790E-05	0.	0.
30+47	0.				
31+31	1.96550E+JJ	1.82810E+0J	4.73800E-05	0.	0.
31+48	0.				
32+32	1.96060E+JJ	1.63000E+0J	0.	0.	0.
32+49	0.				
33+33	1.93960E+JJ	1.30360E+0J	4.08110E-04	0.	0.
33+50	0.				
34+34	1.94470E+JJ	1.34890E+0J	3.34430E-05	0.	0.
34+51	0.				
35+35	1.96520E+JJ	1.82840E+0J	0.	0.	0.
35+52	0.				
36+36	2.01800E+JJ	1.77470E+0J	3.24830E-04	0.	0.
36+53	0.				
37+37	1.94760E+JJ	1.34600E+0J	0.	0.	0.
37+54	0.				
38+38	1.97010E+JJ	1.31850E+0J	3.28860E-05	0.	0.
38+55	0.				
39+39	1.90020E+JJ	1.02040E+0J	1.49670E-06	0.	0.
39+56	0.				
40+40	1.97160E+JJ	1.82200E+0J	6.22290E-05	0.	0.
40+57	0.				
41+41	1.90220E+JJ	1.33140E+0J	0.	0.	0.
41+58	0.				
42+42	1.93920E+JJ	1.30400E+0J	4.65750E-04	0.	0.
42+59	0.				
43+43	1.94280E+JJ	1.85080E+0J	0.	0.	0.
43+60	0.				
44+44	1.99000E+JJ	1.80360E+0J	0.	0.	0.
44+61	0.				

GROUP	DOWNSCATTER				
I + J	J	J+1	J+2	J+3	J+4
45+45	1.9742JE+00	1.8193JE+00	0.	0.	0.
45+02	J.				
46+46	1.98840E+00	1.8050JE+00	3.03920E-04	0.	0.
46+03	J.				
47+47	1.94870E+00	1.8450JE+00	0.	0.	0.
47+04	J.				
48+48	1.97650E+00	1.8170JE+00	1.10050E-04	0.	0.
48+05	J.				
49+49	1.95850E+00	1.83510E+00	1.12080E-06	0.	0.
49+06	J.				
50+50	1.97180E+00	1.8218JE+00	0.	0.	0.
50+07	J.				
51+51	1.98320E+00	1.8104JE+00	2.55150E-05	0.	0.
51+08	J.				
52+52	1.96620E+00	1.8274JE+00	2.03020E-06	0.	0.
52+09	J.				
53+53	1.97130E+00	1.8223JE+00	0.	0.	0.
53+09	J.				
54+54	1.97460E+00	1.8190JE+00	4.53120E-05	0.	0.
54+09	J.				
55+55	1.96380E+00	1.8298JE+00	1.01710E-05	0.	0.
55+09	J.				
56+56	1.96880E+00	1.8248JE+00	3.95610E-06	0.	0.
56+09	J.				
57+57	1.97050E+00	1.8231JE+00	0.	0.	0.
57+09	J.				
58+58	1.98050E+00	1.8131JE+00	6.46860E-05	0.	0.
58+09	J.				
59+59	1.98190E+00	1.8316JE+00	2.78130E-07	0.	0.
59+09	J.				
60+60	1.97250E+00	1.8210JE+00	0.	0.	0.
60+09	J.				
61+61	1.98050E+00	1.8128JE+00	3.84750E-04	0.	0.
61+09	J.				
62+62	1.94560E+00	1.8480JE+00	0.	0.	0.
62+09	J.				
63+63	2.01030E+00	1.7801JE+00	3.13930E-04	0.	0.
63+09	J.				
64+64	1.94010E+00	1.8455JE+00	6.42340E-07	0.	0.
64+09	J.				
65+65	1.97220E+00	1.8214JE+00	5.65570E-05	0.	0.
66+66	1.98270E+00	1.8309JE+00	6.05460E-06	0.	
67+67	1.96980E+00	1.8237JE+00	0.		
68+68	1.97660E+00	1.8170JE+00			

ANISOTROPIC MATRIX
2 DOWNSCATTERS

GROUP	J	J+1	J+2
1# 1	5.00070E-J1	1.7296JE-02	-5.82439E-06
2# 2	6.7737JE-J1	-1.4166JE-02	0.
3# 3	6.61230E-J1	-6.0670JE-02	-5.87670E-06
4# 4	7.63970E-J1	-1.2399JE-01	-4.54370E-05
5# 5	8.09270E-J1	-3.3523JE-01	0.
6# 6	3.00200E-J1	-5.7433JE-02	-3.4020JE-05
7# 7	4.50230E-J1	-2.8496JE-01	0.
8# 8	5.48030E-J1	-2.3344JE-01	0.
9# 9	5.84870E-01	-3.4320JE-01	-2.18730E-03
10# 10	1.10520E+00	-9.5527JE-01	0.
11# 11	6.84300E-J1	-2.1141JE-01	-6.20130E-06
12# 12	1.13000E+00	3.8490JE-02	-2.20710E-06
13# 13	3.26010E+00	-1.8379JE+00	0.
14# 14	1.70080E-J1	-9.1730JE-01	0.
15# 15	3.54900E-J1	-7.1190JE-01	-1.69040E-06
16# 16	4.70200E-01	-6.2340JE-01	-3.98030E-04
17# 17	5.45900E-01	-5.8910JE-01	0.
18# 18	5.68430E-01	-5.5037JE-01	-2.32480E-05
19# 19	6.64270E-J1	-5.4033JE-01	-1.76410E-05
20# 20	6.33000E-01	-5.2017JE-01	-6.13970E-06
21# 21	6.50100E-J1	-5.0367JE-01	-1.01470E-05
22# 22	7.02430E-01	-5.4380JE-01	0.
23# 23	7.02200E-01	-5.4967JE-01	-7.67300E-05
24# 24	7.60900E-01	-5.5640JE-01	0.
25# 25	7.64200E-01	-5.5170JE-01	0.
26# 26	7.61370E-J1	-5.4883JE-01	-9.17670E-05
27# 27	7.63230E-J1	-5.5677JE-01	-3.98700E-05
28# 28	7.67800E-J1	-5.5530JE-01	0.
29# 29	7.65000E-J1	-5.5253JE-01	-4.68630E-06
30# 30	7.60300E-J1	-5.5357JE-01	-3.08900E-05
31# 31	7.67500E-J1	-5.5503JE-01	-4.72130E-05
32# 32	7.68070E-J1	-5.5560JE-01	0.
33# 33	7.60200E-J1	-5.4740JE-01	-4.03830E-04
34# 34	7.13070E-J1	-5.6113JE-01	-3.03430E-05
35# 35	7.67570E-J1	-5.5510JE-01	0.
36# 36	5.91500E-J1	-5.3867JE-01	-3.21770E-04
37# 37	7.12830E-J1	-5.6030JE-01	0.
38# 38	7.64570E-J1	-5.5210JE-01	-3.27890E-05
39# 39	7.67570E-J1	-5.5510JE-01	-1.49570E-06
40# 40	7.60030E-J1	-5.5317JE-01	-6.19730E-05
41# 41	7.68000E-J1	-5.5600JE-01	0.
42# 42	7.60030E-J1	-5.4750JE-01	-4.60530E-04

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	1.18000E-01	15	6.88800E-04	29	2.08400E-03	43	6.54900E-03	57	3.18700E-02
2	4.73500E-02	16	7.82400E-04	30	2.83300E-03	44	7.10700E-03	58	3.62400E-02
3	1.08700E-02	17	6.86900E-04	31	3.91100E-03	45	7.79800E-03	59	4.12400E-02
4	1.66700E-04	18	8.13300E-04	32	1.45300E-02	46	8.62200E-03	60	4.69900E-02
5	1.09000E-04	19	2.92200E-04	33	1.76500E-01	47	9.58400E-03	61	5.37300E-02
6	1.06500E-04	20	2.69500E-04	34	5.49400E-02	48	1.07000E-02	62	6.97300E-02
7	1.92700E-04	21	1.55400E-03	35	1.52500E-02	49	1.19900E-02	63	8.16100E-02
8	2.05700E-04	22	6.22800E-04	36	3.93500E-03	50	1.34600E-02	64	1.56300E-01
9	2.19000E-04	23	2.86700E-03	37	5.85500E-03	51	1.51600E-02	65	1.81000E-01
10	2.38000E-04	24	4.90800E-04	38	6.01600E-03	52	1.71100E-02	66	2.05500E-01
11	3.19200E-04	25	6.21100E-04	39	5.71200E-03	53	1.93200E-02	67	2.33200E-01
12	3.27000E-04	26	3.27800E-04	40	5.63500E-03	54	2.18700E-02	68	2.64500E-01
13	2.58000E-04	27	1.12000E-03	41	5.80800E-03	55	2.47500E-02		
14	4.74000E-04	28	1.51300E-03	42	6.11300E-03	56	2.88600E-02		

NA23

ISOTROPIC MATRIX
31 JOHNSCATTERS

GROUP	J	J+1	DOWNSCATTER	J+3	J+4
1 # J			J+2		
1# 1	1.26710E+J0	2.28291E-01	8.95282E-J2	1.13176E-01	1.21914E-01
1# 6	1.15830E-01	9.37381E-02	7.95201E-02	5.96989E-02	4.27615E-02
1# 11	2.95266E-02	1.98131E-02	1.30018E-02	8.38493E-03	5.33470E-03
1# 16	3.35841E-03	2.96935E-03	1.30091E-03	8.33050E-04	4.93797E-04
1# 21	3.02717E-04	1.85140E-04	1.13023E-04	6.88983E-05	4.19534E-05
1# 26	2.55240E-05	1.55185E-05	9.42964E-06	5.72765E-06	3.47791E-06
1# 31	2.11130E-06	1.28145E-06			
2# 2	1.28999E+J0	3.89014E-01	1.09702E-01	1.27067E-01	1.27789E-01
2# 7	1.15043E-01	9.49685E-02	7.32600E-02	5.35997E-02	3.76277E-02
2# 12	2.55769E-02	1.09538E-02	1.10197E-02	7.55396E-03	4.46194E-03
2# 17	2.79030E-03	1.73982E-03	1.07641E-03	6.63044E-04	4.07028E-04
2# 22	2.49201E-04	1.52250E-04	9.28749E-05	5.65916E-05	3.44371E-05
2# 27	2.00345E-05	1.27294E-05	7.73336E-06	4.69653E-06	2.85139E-06
2# 32	1.73079E-06	1.05038E-06			
3# 3	1.49925E+J0	3.48459E-01	1.20318E-01	1.28423E-01	1.21140E-01
3# 8	1.00370E-01	8.23380E-02	6.16033E-02	4.40080E-02	3.03242E-02
3# 13	2.00153E-02	1.33145E-02	8.57819E-03	5.45348E-03	3.43113E-03
3# 18	2.14134E-03	1.02798E-03	8.19530E-04	5.33819E-04	3.08808E-04
3# 23	1.88840E-04	1.15270E-04	7.02624E-05	4.27813E-05	2.60264E-05
3# 28	1.53229E-05	9.01453E-06	5.83986E-06	3.54599E-06	2.15260E-06
3# 33	1.00050E-06	0.			
4# 4	1.37621E+00	5.32444E-01	7.35616E-02	1.11252E-01	1.16617E-01
4# 9	1.02072E-01	7.32973E-02	4.75195E-02	2.27898E-02	1.55362E-02
4# 14	1.07096E-02	7.99611E-03	4.98134E-03	2.83218E-03	1.71195E-03
4# 19	1.00088E-03	6.09807E-04	4.06599E-04	2.49684E-04	1.52907E-04
4# 24	9.34413E-05	5.70072E-05	3.47343E-05	2.11422E-05	1.26589E-05
4# 29	7.81010E-06	4.74363E-06	2.88397E-06	1.75098E-06	1.06288E-06
4# 35	0.				
5# 5	1.47055E+J0	6.66872E-01	0.	3.36913E-02	4.56659E-02
5# 10	9.07949E-02	3.02764E-02	4.64049E-02	2.75377E-02	1.82877E-02
5# 15	1.01079E-02	9.51633E-03	3.98317E-03	6.63683E-04	0.
5# 20	0.				
6# 6	1.97306E+J0	8.70086E-01	0.	0.	0.
6# 11	2.30036E-02	1.93025E-02	1.57249E-02	1.25113E-02	7.79526E-03
6# 16	3.10791E-03	3.33970E-03	5.07055E-04	6.73142E-04	0.
6# 21	0.				
7# 7	1.94714E+J0	1.23997E+00	7.89957E-02	0.	0.
7# 12	8.13138E-04	1.33961E-03	4.23943E-04	9.71572E-05	0.
7# 18	0.				
8# 8	2.12940E+J0	8.01342E-01	1.07175E-01	0.	0.
8# 13	0.				
9# 9	2.29770E+J0	7.75687E-01	3.93187E-01	5.68229E-02	0.

GROUP	J	J+1	DOWNSCATTER J+2	J+3	J+4
1#J					
9#40	0.				
10#10	2.48490E+00	1.38010E+00	1.91148E-01	1.66993E-01	9.47131E-03
10#41	0.				
11#11	4.26910E+00	1.47590E+00	0.	1.60017E-01	1.22091E-01
11#16	4.92070E-02	0.	0.	0.	0.
11#42	0.				
12#12	2.20270E+00	1.27230E+00	0.	0.	2.53444E-02
12#17	4.46984E-02	1.99400E-02	9.38666E-03	5.84432E-03	2.18743E-03
12#43	0.				
13#13	2.59850E+00	1.06750E+00	0.	0.	0.
13#21	2.02017E-03	3.17956E-03	2.03314E-03	1.30064E-03	4.19502E-04
13#26	1.16351E-06	0.	0.	0.	0.
13#44	0.				
14#14	1.81360E+00	1.51140E+00	0.	0.	0.
14#45	0.				
15#15	2.95450E+00	1.21650E+00	0.	0.	0.
15#46	0.				
16#16	3.12340E+00	1.83960E+00	0.	0.	0.
16#47	0.				
17#17	2.01080E+00	1.35620E+00	0.	0.	0.
17#48	0.				
18#18	2.32510E+00	9.10930E-01	0.	0.	0.
18#49	0.				
19#19	2.16670E+00	1.12930E+00	0.	0.	0.
19#50	0.				
20#20	2.45170E+00	1.34230E+00	0.	0.	0.
20#51	0.				
21#21	3.17070E+00	2.53730E+00	0.	0.	0.
21#52	0.				
22#22	0.11870E+00	1.32230E+00	0.	0.	0.
22#53	0.				
23#23	2.55710E+00	1.36290E+00	0.	0.	0.
23#54	0.				
24#24	2.66970E+00	1.41730E+00	0.	0.	0.
24#55	0.				
25#25	2.73460E+00	1.44840E+00	0.	0.	0.
25#56	0.				
26#26	2.81990E+00	1.53010E+00	0.	0.	0.
26#57	0.				
27#27	3.07590E+00	1.71210E+00	0.	0.	0.
27#58	0.				
28#28	3.68550E+00	2.00550E+00	0.	0.	0.
28#59	0.				
29#29	4.31550E+00	2.42950E+00	0.	0.	0.
29#60	0.				
30#30	5.60640E+00	3.35760E+00	0.	0.	0.
30#61	0.				
31#31	8.66730E+00	5.59270E+00	0.	0.	0.
31#62	0.				
32#32	2.22040E+01	2.20860E+01	0.	0.	0.

GROUP I * J	J	J+1	DOWNSCATTER J+2	J+3	J+4
32*03	u.				
33*03	1.41010E+J2	9.7093JE+01	0.	0.	0.
33*04	u.				
34*04	3.47140E+01	7.1156JE+0J	0.	0.	0.
34*05	u.				
35*05	5.9176JE+J0	2.2204JE+0J	0.	0.	0.
35*06	u.				
36*06	3.30960E+0J	1.5114JE+0J	0.	0.	0.
36*07	u.				
37*07	2.65000E+0J	1.2874JE+0J	0.	0.	0.
37*08	u.				
38*08	2.28570E+0J	1.14030E+0J	0.	0.	0.
38*09	u.				
39*09	2.15160E+0J	1.0774JE+0J	0.	0.	0.
39*09	u.				
40*09	2.07140E+0J	1.0486JE+0J	0.	0.	0.
40*09	u.				
41*09	2.04870E+0J	1.04630E+0J	0.	0.	0.
41*09	u.				
42*09	2.04070E+0J	1.04630E+0J	0.	0.	0.
42*09	u.				
43*09	2.04010E+0J	1.04590E+0J	0.	0.	0.
43*09	u.				
44*09	2.03280E+0J	1.04920E+0J	0.	0.	0.
44*09	u.				
45*09	2.03410E+0J	1.04890E+0J	0.	0.	0.
45*09	u.				
46*09	2.03810E+0J	1.05190E+0J	0.	0.	0.
46*09	u.				
47*09	2.03920E+0J	1.05180E+0J	0.	0.	0.
47*09	u.				
48*09	2.06040E+0J	1.05460E+0J	0.	0.	0.
48*09	u.				
49*09	2.06080E+0J	1.05420E+0J	0.	0.	0.
49*09	u.				
50*09	2.05340E+0J	1.05360E+0J	0.	0.	0.
50*09	u.				
51*09	2.06010E+0J	1.05490E+0J	0.	0.	0.
51*09	u.				
52*09	2.06010E+0J	1.05590E+0J	0.	0.	0.
52*09	u.				
53*09	2.060390E+0J	1.05810E+0J	0.	0.	0.
53*09	u.				
54*09	2.07140E+0J	1.05760E+0J	0.	0.	0.
54*09	u.				
55*09	2.06040E+0J	1.05660E+0J	0.	0.	0.
55*09	u.				
56*09	2.07220E+0J	1.05880E+0J	0.	0.	0.
56*09	u.				
57*09	2.07150E+0J	1.05750E+0J	0.	0.	0.

GROUP	DOWNSCATTER				
I → J	J	J+1	J+2	J+3	J+4
57→57	0.				
58→58	2.07370E+00	1.05933E+00	0.	0.	0.
58→59	0.				
59→59	2.07370E+00	1.05933E+00	0.	0.	0.
59→60	0.				
60→60	2.07370E+00	1.05933E+00	0.	0.	0.
60→61	0.				
61→61	2.07370E+00	1.05933E+00	0.	0.	0.
61→62	0.				
62→62	2.07370E+00	1.05933E+00	0.	0.	0.
62→63	0.				
63→63	2.07370E+00	1.05933E+00	0.	0.	0.
63→64	0.				
64→64	2.07370E+00	1.05933E+00	0.	0.	0.
64→65	0.				
65→65	2.07370E+00	1.05933E+00	0.	0.	0.
66→66	2.07370E+00	1.05933E+00	0.	0.	
67→67	2.07370E+00	1.05933E+00	0.		
68→68	2.07370E+00	1.05933E+00			

NA25 ANISOTROPIC MATRIX
1 DOWNSCATTER

GROUP	DOWNSCATTER	
I → J	J	J+1
1→1	8.91520E-01	-2.24513E-02
2→2	9.30570E-01	-4.84983E-02
3→3	9.18460E-01	-2.49393E-02
4→4	8.73290E-01	-4.13653E-02
5→5	9.18440E-01	-9.65710E-02
6→6	9.76280E-01	-3.36870E-02
7→7	9.56410E-01	-6.70420E-02
8→8	9.30680E-01	-6.54640E-02
9→9	9.15390E-01	-6.34120E-02
10→10	1.23510E+00	-4.15530E-01
11→11	1.73700E+00	-2.85890E-01
12→12	4.97470E-01	-5.44873E-01
13→13	-3.69370E-02	2.06820E-01
14→14	3.01500E-01	-3.61763E-01
15→15	4.80320E-01	-2.67243E-01
16→16	1.22100E+00	-5.52613E-01
17→17	0.95880E-01	-2.97950E-01
18→18	4.42580E-01	-3.53443E-01
19→19	4.51970E-01	-3.57073E-01
20→20	5.35150E-01	-4.26143E-01
21→21	5.62910E-01	-7.08103E-01
22→22	5.43150E-01	-4.37913E-01
23→23	5.16290E-01	-4.47420E-01

GROUP	DOWNSLATTER	
1 + J	J	J+1
24024	5.25050E-J1	-4.0982JE-U1
25025	5.18770E-J1	-4.8164JE-U1
26026	5.39080E-J1	-5.3059JE-U1
27027	0.00440E-J1	-5.4388JE-U1
28028	7.55320E-U1	-6.2454JE-U1
29029	9.31000E-J1	-7.3587JE-U1
30030	1.20240E+U1	-1.1012JE+U1
31031	2.00200E+U1	-1.0127JE+U1
32032	0.02980E+U1	-5.3464JE+U1
33033	3.92910E+U1	-3.2392JE+U1
34034	4.02730E+U1	-2.8154JE+U1
35035	5.00070E-U1	-7.4826JE-U1
36036	0.3145JE-U1	-4.9001JE-U1
37037	5.27190E-J1	-4.1284JE-U1
38038	4.00200E-U1	-3.0099JE-U1
39039	4.32930E-J1	-3.3937JE-U1
40040	4.19730E-U1	-3.2932JE-U1
41041	4.17700E-J1	-3.2802JE-U1
42042	4.17700E-U1	-3.2802JE-U1
43043	4.17550E-U1	-3.2790JE-U1
44044	4.10840E-U1	-3.2895JE-U1
45045	4.13770E-J1	-3.2885JE-U1
46046	4.13090E-J1	-3.2979JE-U1
47047	4.14800E-U1	-3.2967JE-U1
48048	4.21090E-J1	-3.3069JE-U1
49049	4.20920E-J1	-3.3054JE-U1
50050	4.20030E-J1	-3.3032JE-U1
51051	4.20750E-J1	-3.3042JE-U1
52052	4.21590E-U1	-3.3107JE-U1
53053	4.22330E-U1	-3.3172JE-U1
54054	4.22260E-J1	-3.3158JE-U1
55055	4.21030E-U1	-3.3126JE-U1
56056	4.22710E-U1	-3.3199JE-U1
57057	4.22200E-U1	-3.3156JE-U1
58058	4.22970E-U1	-3.3218JE-U1
59059	4.22370E-U1	-3.3218JE-U1
60060	4.22970E-U1	-3.3218JE-U1
61061	4.22970E-U1	-3.3218JE-U1
62062	4.22970E-U1	-3.3218JE-U1
63063	4.22970E-U1	-3.3218JE-U1
64064	4.22970E-U1	-3.3218JE-U1
65065	4.22970E-U1	-3.3218JE-U1
66066	4.22970E-U1	-3.3218JE-U1
67067	4.22970E-U1	-3.3218JE-U1
68068	4.22970E-U1	-3.3218JE-U1

SS304 CAPTURE CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	1.63470E-01	15	7.09633E-03	29	5.79131E-02	43	3.36356E-02	57	1.84491E-01
2	1.67443E-01	16	7.47948E-03	30	5.80873E-02	44	4.27730E-02	58	2.08641E-01
3	7.88304E-02	17	8.24345E-03	31	3.03963E-02	45	6.35442E-02	59	2.37202E-01
4	5.30832E-02	18	9.23150E-03	32	3.27300E-02	46	5.92599E-02	60	2.68435E-01
5	3.21030E-02	19	1.62547E-02	33	1.83446E-02	47	5.73558E-02	61	3.04195E-01
6	1.88206E-02	20	1.79614E-02	34	2.89798E-02	48	6.05603E-02	62	3.44251E-01
7	9.52292E-03	21	1.38629E-02	35	2.85386E-02	49	6.80723E-02	63	3.90461E-01
8	5.18489E-03	22	1.58599E-02	36	5.47086E-02	50	7.68498E-02	64	4.42360E-01
9	4.00794E-03	23	1.80543E-02	37	1.08477E-01	51	8.73689E-02	65	5.01225E-01
10	4.76146E-03	24	4.67787E-02	38	4.52925E-02	52	9.84337E-02	66	5.68217E-01
11	6.07113E-03	25	1.71023E-02	39	2.44865E-02	53	1.11565E-01	67	6.43453E-01
12	6.13266E-03	26	1.24581E-02	40	2.64487E-02	54	1.26903E-01	68	7.28907E-01
13	6.32388E-03	27	2.34416E-02	41	5.10746E-02	55	1.43738E-01		
14	6.02011E-03	28	2.56127E-02	42	5.02618E-01	56	1.62895E-01		

SS304 ISOTROPIC MATRIX
47 DOWNSCATTERS

GROUP						
I	J	J	J+1	J+2	J+3	J+4
1	1	1.79206E+00	8.30615E-02	6.54367E-02	1.12424E-01	1.54071E-01
1	6	1.76828E-01	1.76479E-01	1.57903E-01	1.29689E-01	9.96993E-02
1	11	7.27165E-02	5.09236E-02	3.45528E-02	2.28727E-02	1.48498E-02
1	16	9.49622E-03	6.00262E-03	3.75948E-03	2.33835E-03	1.44667E-03
1	21	8.90641E-04	5.46622E-04	3.34614E-04	2.04461E-04	1.24697E-04
1	26	1.31199E-06	7.97409E-07	4.85319E-07	2.94442E-07	1.78685E-07
1	31	1.08779E-07	6.66674E-08	3.95569E-08	2.41730E-08	1.50124E-08
1	36	8.79030E-09	5.85981E-09	3.29622E-09	1.46524E-09	1.46524E-09
1	41	7.32506E-10	0.	0.	0.	0.
1	48	0.				
2	2	2.09041E+00	1.06108E-01	8.04143E-02	1.28180E-01	1.65450E-01
2	7	1.81240E-01	1.74506E-01	1.51749E-01	1.21910E-01	9.20944E-02
2	12	6.62843E-02	4.59311E-02	3.09071E-02	2.03300E-02	1.31315E-02
2	17	8.36652E-03	5.27232E-03	3.29390E-03	2.04577E-03	1.26322E-03
2	22	7.70974E-04	4.76495E-04	2.91423E-04	1.77989E-04	1.08512E-04
2	27	1.03043E-06	6.26850E-07	3.81405E-07	2.31281E-07	1.40951E-07
2	32	8.48959E-08	5.18525E-08	3.13599E-08	1.92386E-08	1.12912E-08
2	37	7.52708E-09	3.76412E-09	2.50903E-09	1.67307E-09	8.36420E-10
2	42	8.36420E-10	4.18210E-10	0.	0.	0.
2	49	0.				
3	3	2.23544E+00	1.50553E-01	1.01511E-01	1.46176E-01	1.74390E-01
3	8	1.79382E-01	1.64405E-01	1.37584E-01	1.07339E-01	7.91952E-02

GROUP I n J	J	J+1	DOWNSCATTER J+2	J+3	J+4
3n13	5.59026E-J2	3.82333E-U2	2.54502E-U2	1.65914E-U2	1.06480E-U2
3n18	6.74802E-U3	4.23435E-U3	2.63790E-U3	1.63364E-U3	1.06663E-U3
3n23	8.18491E-U4	3.78734E-U4	2.31513E-U4	1.41300E-U4	8.60802E-U5
3n28	3.21442E-U7	4.99948E-U7	3.03266E-U7	1.84375E-U7	1.11914E-U7
3n33	8.85600E-U8	4.09386E-U8	2.49509E-U8	1.52562E-U8	8.96330E-U9
3n38	6.29869E-U9	3.14877E-U9	1.45363E-U9	1.93779E-U9	7.26701E-10
3n50	0.				
4n 4	2.21092E+U0	2.93745E-U1	1.15594E-U1	1.41067E-U1	1.53375E-U1
4n 9	1.70558E-U1	1.30038E-U1	1.15780E-U1	7.91719E-U2	6.04907E-U2
4n14	4.19255E-U2	2.83877E-U2	1.56509E-U2	1.01499E-U2	6.57154E-U3
4n19	4.13450E-U3	2.57965E-U3	1.59993E-U3	9.42075E-U4	5.79364E-U4
4n24	3.55281E-U4	2.17348E-U4	1.32708E-U4	5.12719E-U4	1.10973E-U6
4n29	6.75382E-U7	4.10315E-U7	2.48929E-U7	1.52097E-U7	9.13630E-U8
4n34	5.58000E-U8	3.41232E-U8	2.05273E-U8	1.21446E-U8	8.09600E-U9
4n39	4.64742E-U9	2.89101E-U9	1.73461E-U9	8.67420E-10	8.67420E-10
4n44	2.89101E-10	2.89101E-10	2.89101E-10	0.	0.
4n51	0.				
5n 5	2.05803E+U0	5.57304E-U1	2.54734E-U1	1.22839E-U1	5.97128E-U2
5n10	9.72011E-U2	5.88884E-U2	5.35708E-U2	4.54667E-U2	3.41465E-U2
5n15	2.30004E-U2	1.31779E-U2	8.61382E-U3	5.42790E-U3	3.32408E-U3
5n20	1.94824E-U3	1.19588E-U3	7.32390E-U4	3.99285E-U4	2.43820E-U4
5n25	5.45925E-U5	1.93663E-U5	1.18079E-U5	1.45596E-U6	8.85648E-U7
5n30	5.38378E-U7	3.27184E-U7	1.98772E-U7	1.20285E-U7	7.40749E-U8
5n35	4.39109E-U8	2.68202E-U8	1.64288E-U8	1.00553E-U8	6.70390E-U9
5n40	3.01757E-U9	2.01094E-U9	1.67655E-U9	1.00558E-U9	0.
5n52	0.				
6n 6	2.04015E+U0	4.79165E-U1	4.15656E-U1	1.25742E-U1	9.63206E-U2
6n11	2.67041E-U2	1.57903E-U2	1.33172E-U2	1.11031E-U2	9.36038E-U3
6n16	1.12273E-U2	7.52824E-U3	4.61865E-U3	3.36472E-U3	2.43240E-U3
6n21	1.42925E-U3	8.12386E-U4	4.58731E-U4	2.79813E-U4	1.62199E-U4
6n26	9.87821E-U5	2.93049E-U6	1.78569E-U6	1.08628E-U6	6.60521E-U7
6n31	4.01339E-U7	2.44169E-U7	1.47453E-U7	9.00974E-U8	5.44996E-U8
6n36	3.30551E-U8	2.00341E-U8	1.19936E-U8	7.99266E-U9	3.63292E-U9
6n41	2.90011E-U9	1.81704E-U9	1.08988E-U9	7.26585E-10	0.
6n53	0.				
7n 7	1.97220E+U0	2.71093E-U1	3.59925E-U1	2.24431E-U1	7.19038E-U2
7n12	5.70435E-U2	3.85933E-U2	2.24547E-U2	2.65068E-U3	9.13165E-U4
7n17	6.69858E-U4	1.25045E-U3	7.84637E-U4	5.22704E-U4	3.89996E-U4
7n22	2.42059E-U4	1.32011E-U4	3.42742E-U5	2.09453E-U5	5.69727E-U6
7n27	3.47018E-U6	2.11891E-U6	1.29109E-U6	7.84056E-U7	4.77423E-U7
7n32	2.69798E-U7	1.75783E-U7	1.06782E-U7	6.55993E-U8	3.80951E-U8
7n37	2.43221E-U8	1.44894E-U8	8.77173E-U9	5.72043E-U9	3.05124E-U9
7n42	1.52502E-U9	1.90644E-U9	7.62693E-10	0.	0.
7n54	0.				
8n 8	2.04015E+U0	2.47002E-U1	9.49738E-U2	2.41730E-U1	1.85562E-U1
8n13	7.31809E-U3	1.92618E-U2	4.58731E-U2	3.13832E-U2	2.06435E-U2
8n18	1.34082E-U2	8.01731E-U3	5.48131E-U3	3.25558E-U3	1.04959E-U3
8n23	8.49259E-U4	3.97311E-U4	2.12472E-U4	1.22258E-U4	7.45277E-U5
8n28	2.94674E-U5	1.79266E-U5	1.09046E-U5	5.55214E-U7	3.37401E-U7
8n33	2.04112E-U7	1.25045E-U7	7.52244E-U8	4.06382E-U8	2.76187E-U8

GROUP I + J	J	J+1	DOWNSCATTER J+2	J+3	J+4
0038	1.72416E-00	1.01870E-08	6.26850E-09	3.52611E-09	2.35112E-09
0043	1.56742E-09	7.83592E-10	3.91854E-10	0.	0.
0055	0.	0.	0.	0.	0.
0099	2.05585E+00	2.57682E-01	9.43935E-03	1.63708E-02	1.41300E-01
0014	1.04367E-01	7.41910E-02	3.17663E-02	1.22375E-03	7.75465E-04
0019	4.83345E-04	2.96648E-04	7.52592E-04	4.65813E-04	1.83910E-04
0024	2.03184E-05	5.25491E-05	4.18674E-05	2.55547E-05	2.65618E-06
0029	1.74041E-06	1.06004E-06	6.44498E-07	3.92202E-07	2.38015E-07
0034	1.44783E-07	8.74967E-08	5.41049E-08	3.17779E-08	1.97146E-08
0039	1.18659E-08	7.24146E-09	4.82764E-09	2.41382E-09	1.40835E-09
0044	1.20633E-09	6.03397E-10	0.	0.	0.
0056	0.	0.	0.	0.	0.
10010	2.09032E+00	3.14780E-01	2.60191E-03	6.98139E-03	5.26884E-03
10015	2.76794E-03	1.94824E-02	3.33453E-02	2.17116E-02	1.37700E-02
10020	8.65446E-03	5.22000E-03	3.34963E-03	2.09453E-03	1.27251E-03
10025	7.80573E-04	4.77772E-04	2.92004E-04	1.78221E-04	1.08651E-04
10030	1.22839E-06	7.47251E-07	4.54783E-07	2.76330E-07	1.67539E-07
10035	1.02010E-07	6.20232E-08	3.73045E-08	2.28727E-08	1.40139E-08
10040	6.24229E-09	5.35824E-09	2.67854E-09	2.06086E-09	0.
10057	0.	0.	0.	0.	0.
11011	2.54038E+00	2.92584E-01	0.	0.	9.21176E-04
11016	1.68120E-03	1.10288E-03	7.15090E-04	4.62678E-04	1.18891E-04
11058	0.	0.	0.	0.	0.
12012	2.09757E+00	3.53423E-01	0.	0.	0.
12020	1.77060E-04	1.37393E-04	1.17846E-04	7.36105E-05	4.57802E-05
12025	2.83993E-05	0.	0.	0.	0.
12059	0.	0.	0.	0.	0.
13013	3.25442E+00	5.28510E-01	0.	0.	0.
13060	0.	0.	0.	0.	0.
14014	2.72150E+00	3.86281E-01	0.	0.	0.
14001	0.	0.	0.	0.	0.
15015	2.71453E+00	4.42360E-01	0.	0.	0.
15062	0.	0.	0.	0.	0.
16016	3.75599E+00	4.45727E-01	0.	0.	0.
16003	0.	0.	0.	0.	0.
17017	3.37053E+00	6.52045E-01	0.	0.	0.
17064	0.	0.	0.	0.	0.
18018	3.10097E+00	4.74521E-01	0.	0.	0.
18065	0.	0.	0.	0.	0.
19019	4.16584E+00	7.52940E-01	0.	0.	0.
19066	0.	0.	0.	0.	0.
20020	4.60026E+00	7.41678E-01	0.	0.	0.
20067	0.	0.	0.	0.	0.
21021	3.82101E+00	6.21853E-01	0.	0.	0.
21068	0.	0.	0.	0.	0.
22022	3.94176E+00	6.46472E-01	0.	0.	0.
22069	0.	0.	0.	0.	0.
23023	5.88071E+00	9.58330E-01	0.	0.	0.
23069	0.	0.	0.	0.	0.
24024	1.90995E+01	3.11161E+00	0.	0.	0.

GROUP I R J	J	J+1	DOWNSCATTER J+2	J+3	J+4
24r09	J.				
25r25	3.35472E+00	5.+7314E-01	0.	0.	0.
25r09	J.				
26r20	7.28558E+00	1.16093E+00	0.	0.	0.
26r09	J.				
27r27	0.07487E+00	1.18337E+00	0.	0.	0.
27r09	J.				
28r28	0.03184E+00	1.11521E+00	0.	0.	0.
28r09	J.				
29r29	1.41048E+01	2.37202E+00	0.	0.	0.
29r09	J.				
30r30	1.30088E+01	2.29191E+00	0.	0.	0.
30r09	J.				
31r31	9.77487E+00	1.04288E+00	0.	0.	0.
31r09	J.				
32r32	9.37431E+00	1.56974E+00	0.	0.	0.
32r09	J.				
33r33	7.75581E+00	1.28644E+00	0.	0.	0.
33r09	J.				
34r34	1.31895E+01	2.19670E+00	0.	0.	0.
34r09	J.				
35r35	7.26004E+00	1.19436E+00	0.	0.	0.
35r09	J.				
36r36	6.77820E+00	1.11728E+00	0.	0.	0.
36r09	J.				
37r37	7.71285E+00	1.27367E+00	0.	0.	0.
37r09	J.				
38r38	7.78483E+00	1.28296E+00	0.	0.	0.
38r09	J.				
39r39	8.14592E+00	1.34217E+00	0.	0.	0.
39r09	J.				
40r40	8.70303E+00	1.43500E+00	0.	0.	0.
40r09	J.				
41r41	1.00964E+01	1.80193E+00	0.	0.	0.
41r09	J.				
42r42	1.88554E+01	3.13832E+00	0.	0.	0.
42r09	J.				
43r43	9.32555E+00	1.53723E+00	0.	0.	0.
43r09	J.				
44r44	8.98552E+00	1.47918E+00	0.	0.	0.
44r09	J.				
45r45	8.80577E+00	1.45944E+00	0.	0.	0.
45r09	J.				
46r46	8.61433E+00	1.45131E+00	0.	0.	0.
46r09	J.				
47r47	8.80008E+00	1.45015E+00	0.	0.	0.
47r09	J.				
48r48	8.00540E+00	1.44899E+00	0.	0.	0.
48r09	J.				
49r49	8.81004E+00	1.45015E+00	0.	0.	0.

GROUP I J	J	J+1	DOWNSCATTER J+2	J+3	J+4
49#03	J.				
50#55	8.81468E+00	1.45015E+00	0.	0.	0.
50#69	J.				
51#51	8.81236E+00	1.45015E+00	0.	0.	0.
51#69	J.				
52#52	8.80888E+00	1.44893E+00	0.	0.	0.
52#69	J.				
53#53	8.80656E+00	1.44893E+00	0.	0.	0.
53#69	J.				
54#54	8.80656E+00	1.44893E+00	0.	0.	0.
54#69	J.				
55#55	8.80540E+00	1.44893E+00	0.	0.	0.
55#69	J.				
56#56	8.80307E+00	1.44899E+00	0.	0.	0.
56#69	J.				
57#57	8.80307E+00	1.44899E+00	0.	0.	0.
57#69	J.				
58#58	8.80307E+00	1.44899E+00	0.	0.	0.
58#69	J.				
59#59	8.80307E+00	1.44899E+00	0.	0.	0.
59#69	J.				
60#60	8.80307E+00	1.44899E+00	0.	0.	0.
60#69	J.				
61#61	8.80307E+00	1.44899E+00	0.	0.	0.
61#69	J.				
62#62	8.80307E+00	1.44899E+00	0.	0.	0.
62#69	J.				
63#63	8.80307E+00	1.44899E+00	0.	0.	0.
63#69	J.				
64#64	8.80307E+00	1.44899E+00	0.	0.	0.
64#69	J.				
65#65	8.80307E+00	1.44899E+00	0.	0.	0.
66#66	8.80307E+00	1.44899E+00	0.	0.	0.
67#67	8.80307E+00	1.44899E+00	0.		
68#68	8.80307E+00	1.44899E+00			

SS304

ANISOTROPIC MATRIX
1 DOWNSCATTER

GROUP I J	J	J+1
1# 1	1.44783E+00	4.50493E-02
2# 2	1.60530E+00	5.60322E-02
3# 3	1.60494E+00	4.67690E-02
4# 4	1.55232E+00	3.28224E-02
5# 5	1.60097E+00	-1.57352E-02
6# 6	8.77753E-01	-4.47468E-02
7# 7	6.70970E-01	-5.91671E-02

GROUP		DOWNSCATTER	
I	J	J	J+1
8# 8	0.68184E-J1	-0.23832E-J2	
9# 9	5.21775E-J1	-0.31379E-J2	
10# 10	0.11176E-J1	-7.25191E-J2	
11# 11	5.31044E-J1	-7.75923E-J2	
12# 12	0.11176E-J1	-7.31023E-J2	
13# 13	6.54135E-J1	-1.45131E-J1	
14# 14	3.66059E-J1	-1.10427E-J1	
15# 15	3.90712E-J1	-1.22607E-J1	
16# 16	4.33304E-J1	-1.34449E-J1	
17# 17	4.27498E-J1	-1.34011E-J1	
18# 18	3.00558E-J1	-1.45015E-J1	
19# 19	4.27963E-J1	-2.28494E-J1	
20# 20	4.16236E-J1	-2.29772E-J1	
21# 21	3.29854E-J1	-1.94476E-J1	
22# 22	3.03614E-J1	-2.16080E-J1	
23# 23	4.49674E-J1	-3.05704E-J1	
24# 24	1.46176E-J0	-9.92097E-J1	
25# 25	2.30468E-J1	-1.77292E-J1	
26# 26	4.87060E-J1	-3.75948E-J1	
27# 27	4.43521E-J1	-3.52146E-J1	
28# 28	4.55712E-J1	-3.81763E-J1	
29# 29	9.71334E-J1	-7.70472E-J1	
30# 30	9.38012E-J1	-7.44000E-J1	
31# 31	0.72480E-J1	-5.33966E-J1	
32# 32	0.42292E-J1	-5.10049E-J1	
33# 33	5.26187E-J1	-4.18210E-J1	
34# 34	8.98420E-J1	-7.14511E-J1	
35# 35	4.90195E-J1	-3.89416E-J1	
36# 36	4.56989E-J1	-3.62944E-J1	
37# 37	5.21195E-J1	-4.14030E-J1	
38# 38	5.25259E-J1	-4.17049E-J1	
39# 39	5.43408E-J1	-4.36260E-J1	
40# 40	5.87507E-J1	-4.66626E-J1	
41# 41	7.06086E-J1	-5.85053E-J1	
42# 42	1.28296E-J0	-1.02033E-J0	
43# 43	6.28476E-J1	-4.98900E-J1	
44# 44	6.05139E-J1	-4.30442E-J1	
45# 45	5.97360E-J1	-4.74289E-J1	
46# 46	5.93044E-J1	-4.71270E-J1	
47# 47	5.93028E-J1	-4.71270E-J1	
48# 48	5.92032E-J1	-4.70570E-J1	
49# 49	5.90528E-J1	-4.71270E-J1	
50# 50	5.90044E-J1	-4.71270E-J1	
51# 51	5.90064E-J1	-4.70800E-J1	
52# 52	5.90296E-J1	-4.71154E-J1	
53# 53	5.90180E-J1	-4.70922E-J1	
54# 54	5.90180E-J1	-4.71038E-J1	
55# 55	5.90599E-J1	-4.70457E-J1	
56# 56	5.90340E-J1	-4.70800E-J1	
57# 57	5.90599E-J1	-4.70457E-J1	

GROUP		DOWNSCATTER	
I	J	J	J+1
58	58	5.92948E-01	-4.70805E-01
59	59	5.92367E-01	-4.70225E-01
60	60	5.92832E-01	-4.70689E-01
61	61	5.92599E-01	-4.70457E-01
62	62	5.92832E-01	-4.70689E-01
63	63	5.92948E-01	-4.70805E-01
64	64	5.92948E-01	-4.70805E-01
65	65	5.92948E-01	-4.70805E-01
66	66	5.92367E-01	-4.70341E-01
67	67	5.92948E-01	-4.70805E-01
68	68	5.92832E-01	-4.70689E-01

U238 CAPTURE CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	6.40000E-03	15	1.37000E-01	29	0.	43	0.	57	0.
2	7.20000E-03	16	2.48000E-01	30	0.	44	0.	58	0.
3	1.00000E-02	17	1.62000E-01	31	0.	45	0.	59	0.
4	1.50000E-02	18	1.83000E-01	32	0.	46	0.	60	0.
5	2.00000E-02	19	2.13000E-01	33	0.	47	0.	61	0.
6	3.60000E-02	20	2.50000E-01	34	0.	48	0.	62	0.
7	5.50000E-02	21	2.98000E-01	35	0.	49	0.	63	0.
8	9.20000E-02	22	0.	36	0.	50	0.	64	0.
9	1.40000E-01	23	0.	37	0.	51	0.	65	0.
10	1.50000E-01	24	0.	38	0.	52	0.	66	0.
11	1.46000E-01	25	0.	39	0.	53	0.	67	0.
12	1.36000E-01	26	0.	40	0.	54	0.	68	0.
13	1.32000E-01	27	0.	41	0.	55	0.		
14	1.32000E-01	28	0.	42	0.	56	0.		

U238 FISSION CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	1.02000E+00	15	0.	29	0.	43	0.	57	0.
2	9.00000E-01	16	0.	30	0.	44	0.	58	0.
3	5.78000E-01	17	0.	31	0.	45	0.	59	0.
4	5.65000E-01	18	0.	32	0.	46	0.	60	0.
5	5.47000E-01	19	0.	33	0.	47	0.	61	0.
6	5.58000E-01	20	0.	34	0.	48	0.	62	0.
7	5.41000E-01	21	0.	35	0.	49	0.	63	0.
8	3.08000E-01	22	0.	36	0.	50	0.	64	0.
9	3.90000E-02	23	0.	37	0.	51	0.	65	0.
10	0.	24	0.	38	0.	52	0.	66	0.
11	0.	25	0.	39	0.	53	0.	67	0.
12	0.	26	0.	40	0.	54	0.	68	0.
13	0.	27	0.	41	0.	55	0.		
14	0.	28	0.	42	0.	56	0.		

U238 NO. NEUTRONS/FISSION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	3.74551E+00	15	2.39991E+00	29	2.35930E+00	43	2.35800E+00	57	2.35800E+00
2	3.43361E+00	16	2.39360E+00	30	2.35900E+00	44	2.35800E+00	58	2.35800E+00
3	3.19351E+00	17	2.38340E+00	31	2.35880E+00	45	2.35800E+00	59	2.35800E+00
4	3.01340E+00	18	2.37780E+00	32	2.35860E+00	46	2.35800E+00	60	2.35800E+00
5	2.88340E+00	19	2.37340E+00	33	2.35850E+00	47	2.35800E+00	61	2.35800E+00
6	2.75350E+00	20	2.37300E+00	34	2.35840E+00	48	2.35800E+00	62	2.35800E+00
7	2.60760E+00	21	2.36730E+00	35	2.35830E+00	49	2.35800E+00	63	2.35800E+00
8	2.59910E+00	22	2.36530E+00	36	2.35820E+00	50	2.35800E+00	64	2.35800E+00
9	2.54530E+00	23	2.36370E+00	37	2.35820E+00	51	2.35800E+00	65	2.35800E+00
10	2.50420E+00	24	2.36240E+00	38	2.35810E+00	52	2.35800E+00	66	2.35800E+00
11	2.47190E+00	25	2.36140E+00	39	2.35810E+00	53	2.35800E+00	67	2.35800E+00
12	2.44670E+00	26	2.36070E+00	40	2.35810E+00	54	2.35800E+00	68	2.35800E+00
13	2.42710E+00	27	2.36010E+00	41	2.35810E+00	55	2.35800E+00		
14	2.41180E+00	28	2.35960E+00	42	2.35800E+00	56	2.35800E+00		

U238 N2N CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	1.23200E+00	15	0.	29	0.	43	0.	57	0.
2	3.38700E-01	16	0.	30	0.	44	0.	58	0.
3	0.	17	0.	31	0.	45	0.	59	0.
4	0.	18	0.	32	0.	46	0.	60	0.
5	0.	19	0.	33	0.	47	0.	61	0.
6	0.	20	0.	34	0.	48	0.	62	0.
7	0.	21	0.	35	0.	49	0.	63	0.
8	0.	22	0.	36	0.	50	0.	64	0.
9	0.	23	0.	37	0.	51	0.	65	0.
10	0.	24	0.	38	0.	52	0.	66	0.
11	0.	25	0.	39	0.	53	0.	67	0.
12	0.	26	0.	40	0.	54	0.	68	0.
13	0.	27	0.	41	0.	55	0.		
14	0.	28	0.	42	0.	56	0.		

U238 ISOTROPIC MATRIX
59 DOWNSCATTERS

GROUP						
I → J	J	J+1	J+2	J+3	J+4	
1 → 1	2.59040E+00	9.74518E-03	9.87524E-04	5.02728E-05	1.69955E-02	
1 → 6	4.18292E-02	8.29427E-02	1.41151E-01	2.13378E-01	2.88282E-01	

GROUP

I P J

J

J+1

J+2

J+3

J+4

J+5

J+6

J+7

J+8

J+9

J+10

J+11

J+12

J+13

J+14

J+15

J+16

J+17

J+18

J+19

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J+21

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DOWNSCATTER

J+1

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J+6

J+7

J+8

J+9

J+10

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J+50

J+51

J+52

J+53

J+54

J+55

J+56

J+57

J+58

J+59

J+60

GROUP I * J	J	J+1	DOWNSCATTER J+2	J+3	J+4
7*27	7.05509E-04	4.32080E-04	2.64004E-04	1.61109E-04	9.81677E-05
7*32	5.97552E-05	3.03445E-05	2.20920E-05	1.34221E-05	7.32965E-06
7*37	4.45064E-06	2.70181E-06	1.63985E-06	0.	0.
7*46	0.	0.	0.	0.	0.
8*8	4.30723E+00	2.81884E-01	1.87550E-01	4.69832E-01	6.14083E-01
8*13	6.09327E-01	3.93401E-01	2.27914E-01	1.62487E-01	7.99278E-02
8*18	3.95191E-02	1.96275E-02	9.51178E-03	5.00580E-03	2.81191E-03
8*23	1.51933E-03	9.08651E-04	5.56649E-04	3.41837E-04	2.10161E-04
8*28	1.27993E-04	7.77110E-05	4.71716E-05	2.66287E-05	1.73726E-05
8*33	1.05409E-05	6.39527E-06	3.87981E-06	2.35364E-06	1.42775E-06
8*47	0.	0.	0.	0.	0.
9*9	5.10987E+00	4.96348E-01	5.87331E-02	2.18852E-01	2.72871E-01
9*14	2.64879E-01	2.42693E-01	2.14089E-01	1.55413E-01	1.01502E-01
9*19	5.37374E-02	2.75373E-02	1.68636E-02	9.50476E-03	5.68541E-03
9*24	3.43604E-03	2.15253E-03	1.32139E-03	8.12994E-04	5.01923E-04
9*29	3.12308E-04	1.47044E-04	9.18042E-05	5.94994E-05	3.90561E-05
9*34	2.59378E-05	1.75657E-05	1.20533E-05	8.40008E-06	5.94522E-06
9*39	4.26535E-06	3.10153E-06	2.28182E-06	1.69601E-06	1.27168E-06
9*48	0.	0.	0.	0.	0.
10*10	5.74291E+00	7.14693E-01	8.15315E-02	0.	1.22312E-01
10*15	1.59644E-01	1.20685E-01	8.27576E-02	2.99854E-02	3.09003E-02
10*20	1.86458E-02	1.17242E-02	7.93700E-03	5.18374E-03	3.13934E-03
10*25	1.04901E-03	1.09723E-03	6.49948E-04	3.89352E-04	2.36301E-04
10*30	2.00021E-04	1.24653E-04	7.56319E-05	4.58839E-05	2.78352E-05
10*35	1.68853E-05	1.02420E-05	6.21299E-06	3.76862E-06	2.28591E-06
10*40	1.08653E-06	0.	0.	0.	0.
10*49	0.	0.	0.	0.	0.
11*11	6.19064E+00	7.61320E-01	1.00340E-01	3.99336E-02	0.
11*18	3.26702E-02	2.34122E-02	2.66072E-02	1.69213E-02	1.08832E-02
11*23	0.95065E-03	4.42973E-03	2.73640E-03	1.68483E-03	1.04228E-03
11*28	0.47386E-04	4.04244E-04	2.46573E-04	1.49574E-04	9.07298E-05
11*33	5.50345E-05	3.33820E-05	2.02481E-05	1.22815E-05	7.44931E-06
11*38	4.01033E-06	2.74053E-06	1.66225E-06	1.0821E-06	0.
11*50	0.	0.	0.	0.	0.
12*12	7.02605E+00	8.28691E-01	9.41033E-02	4.39318E-02	2.44911E-02
12*21	0.	0.	0.	0.	0.
13*13	7.46741E+00	7.75665E-01	1.23035E-01	2.78857E-03	2.10648E-02
13*18	1.20240E-02	7.48703E-03	2.16924E-03	0.	0.
13*32	0.	0.	0.	0.	0.
14*14	3.00791E+00	7.82306E-01	1.11502E-01	5.15421E-02	0.
14*20	3.02223E-03	3.02003E-03	2.22573E-03	1.33466E-03	7.93630E-04
14*25	4.00146E-04	2.62966E-04	1.47290E-04	8.06203E-05	4.74014E-05
14*30	2.87195E-05	1.70937E-05	1.05405E-05	6.38673E-06	3.87287E-06
14*35	2.00480E-06	1.42363E-06	0.	0.	0.
14*53	0.	0.	0.	0.	0.
15*15	3.70528E+00	9.44604E-01	2.44566E-02	5.87826E-02	3.58324E-02
15*34	0.	0.	0.	0.	0.
16*16	9.29179E+00	1.06492E+00	7.70712E-02	1.21962E-03	3.11461E-02
16*21	1.87476E-02	1.13382E-02	4.54631E-03	0.	0.
16*55	0.	0.	0.	0.	0.

GROUP	DOWNSCATTER				
I J	J	J+1	J+2	J+3	J+4
17#17	1.00350E+01	9.49873E-01	2.78311E-01	0.	0.
17#23	3.29517E-03	5.82635E-03	3.45379E-03	2.04643E-03	1.21051E-03
17#28	7.22808E-04	4.35985E-04	2.63280E-04	1.59135E-04	9.62574E-05
17#33	5.82581E-05	3.52760E-05	2.13679E-05	1.29469E-05	7.84641E-06
17#38	4.75611E-06	2.88331E-06	1.74815E-06	1.05999E-06	0.
17#56	0.				
18#18	1.06770E+01	6.42855E-01	4.27793E-01	1.85549E-02	0.
18#57	0.				
19#19	1.12520E+01	3.48150E-01	3.30374E-01	1.90362E-01	0.
19#58	0.				
20#20	1.16390E+01	3.60690E-01	2.05796E-02	1.67978E-01	9.73115E-02
20#25	2.37258E-02	0.	0.	0.	0.
20#59	0.				
21#21	1.21210E+01	3.78680E-01	0.	0.	4.69029E-02
21#26	4.72585E-02	2.78510E-02	1.64944E-02	6.82486E-03	0.
21#60	0.				
22#22	1.23060E+01	3.93880E-01	0.	0.	0.
22#29	4.21041E-03	8.25860E-03	4.94523E-03	2.96878E-03	1.78599E-03
22#34	1.07627E-03	6.49458E-04	3.92334E-04	2.37211E-04	1.43520E-04
22#39	8.68803E-05	5.26156E-05	3.18752E-05	1.93154E-05	1.17069E-05
22#44	7.09661E-06	4.30242E-06	2.60866E-06	1.58181E-06	0.
22#61	0.				
23#23	1.24890E+01	4.11390E-01	0.	0.	0.
23#62	0.				
24#24	1.26770E+01	4.22870E-01	0.	0.	0.
24#63	0.				
25#25	1.27740E+01	4.26080E-01	0.	0.	0.
25#64	0.				
26#26	1.29630E+01	4.36990E-01	0.	0.	0.
26#65	0.				
27#27	1.30600E+01	4.39860E-01	0.	0.	0.
27#66	0.				
28#28	1.31520E+01	4.47850E-01	0.	0.	0.
28#67	0.				
29#29	1.38290E+01	4.71110E-01	0.	0.	0.
29#68	0.				
30#30	1.37270E+01	4.72530E-01	0.	0.	0.
30#69	0.				
31#31	1.37270E+01	4.72540E-01	0.	0.	0.
31#69	0.				
32#32	1.49800E+01	5.19660E-01	0.	0.	0.
32#69	0.				
33#33	1.44000E+01	4.99530E-01	0.	0.	0.
33#69	0.				
34#34	1.42070E+01	4.92720E-01	0.	0.	0.
34#69	0.				
35#35	1.29510E+01	4.49150E-01	0.	0.	0.
35#69	0.				
36#36	1.20010E+01	4.18980E-01	0.	0.	0.
36#69	0.				

GROUP	DOWNSCATTER				
I J	J	J+1	J+2	J+3	J+4
37#37	1.33470E+01	4.5260JE-01	0.	0.	0.
37#69	0.				
38#38	1.00510E+01	3.4859JE-01	0.	0.	0.
38#69	0.				
39#39	1.00510E+01	3.4859JE-01	0.	0.	0.
39#69	0.				
40#40	1.00510E+01	3.4866JE-01	0.	0.	0.
40#69	0.				
41#41	1.00510E+01	3.4859JE-01	0.	0.	0.
41#69	0.				
42#42	1.00510E+01	3.4866JE-01	0.	0.	0.
42#69	0.				
43#43	1.00510E+01	3.4866JE-01	0.	0.	0.
43#69	0.				
44#44	1.00510E+01	3.4858JE-01	0.	0.	0.
44#69	0.				
45#45	1.00510E+01	3.4866JE-01	0.	0.	0.
45#69	0.				
46#46	1.00510E+01	3.4866JE-01	0.	0.	0.
46#69	0.				
47#47	1.00510E+01	3.4866JE-01	0.	0.	0.
47#69	0.				
48#48	1.00510E+01	3.4867JE-01	0.	0.	0.
48#69	0.				
49#49	1.00510E+01	3.4866JE-01	0.	0.	0.
49#69	0.				
50#50	1.00510E+01	3.4859JE-01	0.	0.	0.
50#69	0.				
51#51	1.00510E+01	3.4858JE-01	0.	0.	0.
51#69	0.				
52#52	1.00510E+01	3.4866JE-01	0.	0.	0.
52#69	0.				
53#53	1.00510E+01	3.4858JE-01	0.	0.	0.
53#69	0.				
54#54	1.00510E+01	3.4859JE-01	0.	0.	0.
54#69	0.				
55#55	1.00510E+01	3.4859JE-01	0.	0.	0.
55#69	0.				
56#56	1.00510E+01	3.4866JE-01	0.	0.	0.
56#69	0.				
57#57	1.00510E+01	3.4868JE-01	0.	0.	0.
57#69	0.				
58#58	8.69830E+00	3.0167JE-01	0.	0.	0.
58#69	0.				
59#59	8.69830E+00	3.0173JE-01	0.	0.	0.
59#69	0.				
60#60	8.69830E+00	3.0172JE-01	0.	0.	0.
60#69	0.				
61#61	8.69830E+00	3.0172JE-01	0.	0.	0.
61#69	0.				

GROUP	DOWNSCATTER				
I J	J	J+1	J+2	J+3	J+4
02#02	8.69830E+00	3.01670E-01	0.	0.	0.
62#69	0.				
63#63	8.69830E+00	3.01660E-01	0.	0.	0.
63#69	0.				
64#04	8.69830E+00	3.01730E-01	0.	0.	0.
64#69	0.				
65#65	8.69830E+00	3.01660E-01	0.	0.	0.
66#66	8.69830E+00	3.01660E-01	0.	0.	0.
67#07	8.69830E+00	3.01660E-01	0.		
68#08	8.69830E+00	3.01660E-01			

U238 ANISOTROPIC MATRIX
1 DOWNSCATTER

GROUP	DOWNSCATTER	
I J	J	J+1
1# 1	1.99780E+00	2.48560E-01
2# 2	3.65710E+00	-3.52940E-01
3# 3	4.73100E+00	-8.14960E-01
4# 4	5.61980E+00	-1.95820E+00
5# 5	3.57300E+00	-2.60870E-01
6# 6	4.12080E+00	-1.56870E+00
7# 7	2.68090E+00	-6.67640E-01
8# 8	2.48750E+00	-6.21270E-01
9# 9	1.48030E+00	1.71080E-01
10#10	2.00380E+00	-3.27960E-01
11#11	1.58670E+00	1.78240E-01
12#12	1.61000E+00	1.69430E-01
13#13	2.87410E+00	-9.93350E-01
14#14	2.13150E+00	-4.14390E-01
15#15	2.72460E+00	-1.06480E+00
16#16	2.66200E+00	-1.04520E+00
17#17	1.43370E+00	6.27700E-02
18#18	1.32570E+00	3.82810E-02
19#19	2.00420E+00	-7.51390E-01
20#20	1.21060E+00	2.54360E-02
21#21	1.62000E+00	-3.82400E-01
22#22	1.58960E+00	-5.98960E-01
23#23	9.44750E-01	-2.99730E-01
24#24	7.56760E-01	-2.32750E-01
25#25	7.14430E-01	-1.86450E-01
26#26	7.12600E-01	-3.10600E-01
27#27	5.51410E-01	-1.46420E-01
28#28	4.00750E-01	-1.28750E-01
29#29	4.86790E-01	-2.00790E-01
30#30	3.03350E-01	-1.61350E-01
31#31	3.11030E-01	-1.69640E-01
32#32	2.25550E-01	-1.32130E-01

GROUP		DOWNSCATTER	
I	J	J	J+1
33	33	2.14095E-01	-1.72955E-01
34	34	1.90710E-01	-1.55545E-01
35	35	1.66050E-01	-1.28525E-01
36	36	1.50080E-01	-1.21665E-01
37	37	1.94520E-01	-1.56715E-01
38	38	1.37690E-01	-1.08565E-01
39	39	1.37690E-01	-1.08565E-01
40	40	1.51330E-01	-1.22215E-01
41	41	1.27390E-01	-9.82615E-02
42	42	1.49850E-01	-1.20725E-01
43	43	1.39550E-01	-1.10425E-01
44	44	1.28870E-01	-9.97400E-02
45	45	1.49850E-01	-1.20725E-01
46	46	1.41030E-01	-1.11915E-01
47	47	1.49850E-01	-1.20725E-01
48	48	1.41030E-01	-1.11915E-01
49	49	1.49850E-01	-1.20725E-01
50	50	1.36210E-01	-1.07075E-01
51	51	1.28070E-01	-9.97395E-02
52	52	1.49850E-01	-1.20725E-01
53	53	1.37690E-01	-1.08565E-01
54	54	1.37690E-01	-1.08565E-01
55	55	1.28870E-01	-9.97430E-02
56	56	1.37690E-01	-1.08565E-01
57	57	1.42520E-01	-1.13395E-01
58	58	1.19160E-01	-9.39460E-02
59	59	1.22050E-01	-9.08405E-02
60	60	1.28400E-01	-1.033195E-01
61	61	1.23330E-01	-9.81235E-02
62	62	1.17870E-01	-9.26605E-02
63	63	1.17870E-01	-9.26605E-02
64	64	1.00965E-01	-1.05755E-01
65	65	1.17870E-01	-9.26605E-02
66	66	1.1240E-01	-8.50345E-02
67	67	1.19150E-01	-9.39455E-02
68	68	1.17870E-01	-9.26605E-02

PU239 CAPTURE CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	J.	15	1.72365E-01	29	1.29360E-01	43	4.38650E-01	57	1.98205E-01
2	J.	16	1.88655E-01	30	5.25900E-02	44	1.11650E-01	58	3.28805E-01
3	J.	17	2.04435E-01	31	-3.92260E-02	45	0.	59	4.53235E-01
4	J.	18	2.14275E-01	32	-1.15760E-01	46	0.	60	4.47540E-01
5	J.	19	1.57220E-01	33	-1.76295E-01	47	0.	61	1.19710E+00
6	J.	20	2.99280E-02	34	-2.42800E-01	48	0.	62	2.80420E+00
7	J.	21	1.20845E-01	35	-3.12000E-01	49	0.	63	4.06080E+00
8	3.98375E-03	22	1.10215E-01	36	-3.73530E-01	50	0.	64	5.03940E+00
9	3.32655E-02	23	1.66695E-01	37	-2.22540E-01	51	0.	65	1.09500E+01
10	5.03335E-02	24	2.06490E-01	38	-9.39205E-01	52	0.	66	2.39400E+01
11	7.78515E-02	25	2.25850E-01	39	-1.78710E+00	53	0.	67	4.77300E+01
12	1.00505E-01	26	2.30005E-01	40	2.77620E+00	54	0.	68	1.43900E+02
13	1.22055E-01	27	2.17215E-01	41	-1.99310E+00	55	0.		
14	1.48175E-01	28	1.89555E-01	42	-3.80580E-01	56	4.80540E-02		

PU239 FISSION CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	2.40970E+00	15	1.48000E+00	29	2.30610E-01	43	3.79580E+00	57	3.03910E+00
2	2.08090E+00	16	1.48000E+00	30	1.13610E-01	44	8.65250E-01	58	4.72260E+00
3	1.87200E+00	17	1.50900E+00	31	-5.74630E-02	45	0.	59	5.63100E+00
4	1.91840E+00	18	1.52430E+00	32	-2.10450E-01	46	0.	60	6.57710E+00
5	1.98170E+00	19	1.11920E+00	33	-3.07880E-01	47	0.	61	7.65930E+00
6	2.03390E+00	20	7.06030E-01	34	-3.88860E-01	48	0.	62	8.80680E+00
7	1.98420E+00	21	5.91810E-01	35	-5.10030E-01	49	0.	63	9.87440E+00
8	1.86070E+00	22	5.37570E-01	36	-6.07950E-01	50	0.	64	1.07600E+01
9	1.79320E+00	23	5.26390E-01	37	-3.47020E-01	51	0.	65	2.69210E+01
10	1.71940E+00	24	5.16220E-01	38	-1.38020E+00	52	0.	66	5.84520E+00
11	1.65390E+00	25	4.91790E-01	39	-2.58260E+00	53	0.	67	1.09300E+02
12	1.59200E+00	26	4.51620E-01	40	3.98220E+00	54	0.	68	2.88000E+02
13	1.51270E+00	27	3.93760E-01	41	-2.80590E+00	55	0.		
14	1.48910E+00	28	3.25420E-01	42	9.16520E-01	56	7.36840E-01		

PU239 NO. NEUTRONS/FISSION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	4.07070E+00	15	2.90630E+00	29	2.87110E+00	43	2.87000E+00	57	2.87000E+00
2	3.80510E+00	16	2.89820E+00	30	2.87090E+00	44	2.87000E+00	58	2.87000E+00
3	3.59830E+00	17	2.89200E+00	31	2.87070E+00	45	2.87000E+00	59	2.87000E+00
4	3.43720E+00	18	2.88710E+00	32	2.87050E+00	46	2.87000E+00	60	2.87000E+00
5	3.31170E+00	19	2.88330E+00	33	2.87040E+00	47	2.87000E+00	61	2.87000E+00
6	3.21400E+00	20	2.88040E+00	34	2.87030E+00	48	2.87000E+00	62	2.87000E+00
7	3.13790E+00	21	2.87810E+00	35	2.87020E+00	49	2.87000E+00	63	2.87000E+00
8	3.07860E+00	22	2.87630E+00	36	2.87020E+00	50	2.87000E+00	64	2.87000E+00
9	3.03250E+00	23	2.87490E+00	37	2.87010E+00	51	2.87000E+00	65	2.87000E+00
10	2.99660E+00	24	2.87380E+00	38	2.87010E+00	52	2.87000E+00	66	2.87000E+00
11	2.96860E+00	25	2.87330E+00	39	2.87010E+00	53	2.87000E+00	67	2.87000E+00
12	2.94680E+00	26	2.87230E+00	40	2.87010E+00	54	2.87000E+00	68	2.87000E+00
13	2.92980E+00	27	2.87180E+00	41	2.87010E+00	55	2.87000E+00		
14	2.91060E+00	28	2.87140E+00	42	2.87000E+00	56	2.87000E+00		

PU239 N2N CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	1.36000E-01	15	J.	29	J.	43	J.	57	J.
2	0.01300E-02	16	J.	30	J.	44	0.	58	0.
3	1.03000E-03	17	J.	31	J.	45	0.	59	0.
4	0.	18	J.	32	J.	46	0.	60	0.
5	0.	19	J.	33	J.	47	0.	61	0.
6	0.	20	J.	34	J.	48	0.	62	0.
7	J.	21	J.	35	J.	49	0.	63	0.
8	J.	22	J.	36	J.	50	0.	64	0.
9	J.	23	J.	37	0.	51	0.	65	J.
10	J.	24	J.	38	0.	52	0.	66	0.
11	J.	25	0.	39	J.	53	0.	67	0.
12	J.	26	J.	40	J.	54	0.	68	0.
13	J.	27	J.	41	J.	55	J.		
14	J.	28	J.	42	0.	56	0.		

PU239 ISOTROPIC MATRIX
35 DOWNSCATTERS

GROUP I → J	J	J+1	DOWNSCATTER J+2	J+3	J+4
1 → 1	3.13032E+00	1.21206E-02	2.79621E-03	1.18346E-02	3.50150E-02
1 → 6	7.57004E-02	1.15420E-01	1.43989E-01	1.53508E-01	1.44670E-01
1 → 11	1.23787E-01	9.82077E-02	7.34452E-02	5.24500E-02	3.61319E-02
1 → 16	2.42012E-02	1.58588E-02	1.02161E-02	6.49415E-03	4.08558E-03
1 → 21	2.54962E-03	1.58111E-03	9.75710E-04	5.99817E-04	3.67641E-04
1 → 26	2.24813E-04	1.37226E-04	8.36450E-05	5.39293E-05	3.09831E-05
1 → 31	1.80362E-05	1.14456E-05	5.15641E-06	3.13093E-06	1.90067E-06
1 → 36	1.15354E-06				
2 → 2	4.03401E+00	1.78937E-02	9.11924E-03	2.94494E-02	6.65055E-02
2 → 7	1.16548E-01	1.02245E-01	1.90049E-01	1.91709E-01	1.73780E-01
2 → 12	1.44858E-01	1.11223E-01	8.10778E-02	5.67560E-02	3.84938E-02
2 → 17	2.54718E-02	1.05340E-02	1.05727E-02	6.68228E-03	4.16513E-03
2 → 22	2.60264E-03	1.00960E-03	9.91186E-04	6.08325E-04	3.72376E-04
2 → 27	2.27481E-04	1.38748E-04	8.45202E-05	5.14379E-05	3.12810E-05
2 → 32	1.90118E-05	1.01562E-05	6.16771E-06	3.74453E-06	2.27286E-06
2 → 37	1.07935E-06				
3 → 3	4.40763E+00	1.78680E-02	2.04459E-02	5.40645E-02	1.04190E-01
3 → 8	1.56393E-01	1.92800E-01	2.03629E-01	1.90487E-01	1.62040E-01
3 → 13	1.27966E-01	9.55865E-02	6.02455E-02	4.69830E-02	3.15490E-02
3 → 18	2.00456E-02	1.33290E-02	8.51508E-03	5.35352E-03	3.30919E-03
3 → 23	2.07787E-03	1.28186E-03	7.87835E-04	4.82791E-04	2.95185E-04
3 → 28	1.80161E-04	1.09806E-04	6.68534E-05	3.97216E-05	2.41478E-05

GROUP I J	J	J+1	DOWNSCATTER J+2	J+3	J+4
3a33	1.46726E-05	8.91180E-05	5.41114E-06	3.28488E-06	1.99362E-06
3a38	1.20983E-06				
4a 4	4.47317E+00	3.77273E-02	3.28011E-02	7.22624E-02	1.26538E-01
4a 9	1.01461E-01	1.82005E-01	1.79177E-01	1.58632E-01	1.29252E-01
4a14	9.86935E-02	7.16340E-02	4.99760E-02	3.38060E-02	2.23238E-02
4a19	1.44073E-02	9.23960E-03	5.83399E-03	3.69106E-03	2.26916E-03
4a24	1.40272E-03	8.03475E-04	5.29796E-04	3.24235E-04	1.96038E-04
4a29	1.20172E-04	7.35634E-05	4.47661E-05	2.72219E-05	1.65441E-05
4a34	1.00502E-05	6.10311E-06	3.70526E-06	2.24897E-06	1.56490E-06
4a39	0.				
5a 5	4.56010E+00	5.50800E-02	4.80367E-02	8.99340E-02	1.31937E-01
5a10	1.59743E-01	1.66329E-01	1.53868E-01	1.29751E-01	1.01770E-01
5a15	7.54312E-02	5.34930E-02	3.66497E-02	2.44436E-02	1.59645E-02
5a20	1.02576E-02	6.50734E-03	4.08744E-03	2.54765E-03	1.57838E-03
5a25	9.73297E-04	5.97986E-04	3.66353E-04	2.23947E-04	1.36660E-04
5a30	8.32819E-05	5.16999E-05	3.08395E-05	1.87470E-05	1.13906E-05
5a35	6.91805E-06	4.20045E-06	2.54981E-06	1.54755E-06	0.
5a40	0.				
6a 6	4.43560E+00	7.97882E-02	6.42989E-02	1.06388E-01	1.41660E-01
6a11	1.58979E-01	1.55992E-01	1.37762E-01	1.12036E-01	8.54246E-02
6a16	6.19349E-02	4.31728E-02	2.91850E-02	1.92626E-02	1.24786E-02
6a21	7.96711E-03	5.12935E-03	3.14693E-03	1.95556E-03	1.20873E-03
6a26	7.43398E-04	4.56459E-04	2.79338E-04	1.70609E-04	1.04042E-04
6a31	6.33711E-05	3.85630E-05	2.34495E-05	1.42513E-05	8.65721E-06
6a36	5.25719E-06	3.19171E-06	1.93722E-06	1.17569E-06	0.
6a41	0.				
7a 7	4.20990E+00	9.80720E-02	8.42901E-02	2.55660E-01	2.11747E-01
7a12	6.95393E-02	1.12657E-01	1.00794E-01	7.50986E-02	4.30933E-02
7a17	3.64350E-02	2.48087E-02	1.60131E-02	1.02048E-02	6.43630E-03
7a22	4.02095E-03	2.50170E-03	1.54643E-03	9.52002E-04	5.84167E-04
7a27	3.57547E-04	2.18406E-04	1.33204E-04	8.11418E-05	4.93808E-05
7a32	3.00296E-05	1.32511E-05	1.10875E-05	6.73323E-06	4.68786E-06
7a37	1.60407E-06	1.02225E-06	0.	0.	0.
7a42	0.				
8a 8	4.15260E+00	1.60199E-01	5.76510E-02	2.06987E-01	3.11683E-01
8a13	1.59064E-01	1.14080E-01	0.	1.04337E-02	1.45594E-02
8a18	8.98787E-03	5.52591E-03	3.38690E-03	2.07094E-03	1.26398E-03
8a23	7.70369E-04	4.09014E-04	2.85303E-04	1.73438E-04	1.05381E-04
8a28	0.40047E-05	3.88623E-05	2.35907E-05	1.43177E-05	8.68852E-06
8a33	5.27191E-06	3.19855E-06	1.94048E-06	1.17718E-06	0.
8a43	0.				
9a 9	4.35613E+00	3.07094E-01	6.07060E-02	5.19013E-03	1.02005E-01
9a14	7.40562E-02	1.38501E-01	7.72501E-02	3.60200E-02	2.21358E-02
9a19	1.35616E-02	8.28838E-03	5.05639E-03	3.08048E-03	1.87477E-03
9a24	1.14000E-03	6.32894E-04	4.20917E-04	2.55608E-04	1.55179E-04
9a29	9.41092E-05	5.71609E-05	3.46850E-05	7.54006E-06	0.
9a44	0.				
10a10	4.80082E+00	3.53433E-01	1.31891E-01	1.93999E-03	0.
10a15	1.34451E-02	2.22049E-02	1.36072E-02	8.31562E-03	5.07181E-03
10a21	3.08097E-03	1.37937E-03	1.14256E-03	6.94227E-04	4.21639E-04

GROUP 1 2 3	J	J+1	DOWNSCATTER J+2	J+3	J+4
10020	2.56000E-J4	1.355390E-04	9.45190E-J5	5.72289E-05	3.47238E-05
10031	2.10670E-J5	2.87370E-05	2.28393E-J5	1.38553E-05	8.40482E-06
10030	5.09334E-J6	3.09256E-J6	1.87586E-J6	1.13782E-06	0.
10045	0.	0.	0.	0.	0.
11011	5.05725E-J4	3.43936E-01	1.27233E-01	8.29400E-02	0.
11046	0.	0.	0.	0.	0.
12012	5.05022E-J0	4.31002E-01	1.70248E-J2	8.05601E-02	6.27818E-J2
12017	9.57566E-J5	0.	1.00890E-04	0.	0.
12047	0.	0.	0.	0.	0.
13010	0.91545E+00	3.24204E-01	4.08929E-03	2.45118E-02	3.51345E-02
13018	2.57131E-J2	1.14987E-02	4.67840E-J3	2.46746E-03	5.50017E-J4
13023	0.07172E-J4	2.03860E-04	1.23327E-J4	7.46450E-05	4.51983E-J5
13028	2.73773E-05	1.05075E-05	1.00524E-05	6.09304E-06	3.69369E-J6
13033	2.23343E-J0	1.35785E-06	0.	0.	0.
13048	0.	0.	0.	0.	0.
14014	7.52879E+00	3.66842E-01	8.69663E-03	2.69072E-03	2.53816E-J4
14019	9.55148E-J3	1.00849E-02	7.13453E-03	5.00399E-03	3.53363E-J3
14024	2.13372E-J3	1.28619E-03	6.68304E-04	1.38303E-04	8.37178E-05
14029	5.00971E-J5	3.07110E-05	1.86089E-05	1.12782E-05	6.83642E-06
14034	4.14453E-J6	2.01206E-06	1.52369E-06	0.	0.
14049	0.	0.	0.	0.	0.
15015	7.98342E+00	3.80839E-01	2.34571E-02	1.69271E-03	1.26187E-J3
15020	0.75178E-J4	0.	0.	0.	0.
15026	1.49124E-J4	4.54454E-04	2.74911E-04	1.66392E-04	1.00755E-J4
15031	0.10312E-J5	3.09794E-05	2.24112E-05	1.35845E-05	8.23539E-06
15036	4.99310E-J6	3.02756E-06	1.83588E-06	1.11332E-06	0.
15050	0.	0.	0.	0.	0.
16016	0.73987E+03	3.75300E-01	5.07409E-J2	2.12530E-03	2.13682E-J4
16021	7.73446E-J4	5.25390E-04	3.58697E-J4	2.19588E-04	1.31643E-04
16026	3.08048E-J6	0.	0.	0.	0.
16031	0.	0.	0.	0.	0.
17017	9.14204E+00	3.46714E-01	5.79582E-02	1.09990E-02	3.15511E-04
17026	1.00006E-J4	6.07727E-05	4.22531E-J5	2.42964E-05	1.46800E-J5
17031	0.87687E-06	5.37125E-06	3.25173E-J6	1.96938E-06	1.19312E-06
17032	0.	0.	0.	0.	0.
18018	9.45420E+00	3.42752E-01	5.53840E-02	2.76121E-02	4.69066E-J3
18023	1.00070E-J3	0.	0.	0.	0.
18030	0.	0.	0.	0.	0.
19019	9.41556E+00	3.04167E-01	3.03442E-03	1.90017E-02	1.24505E-J2
19024	4.68000E-J3	1.43009E-03	8.48960E-04	5.05800E-04	1.48965E-J4
19034	0.	0.	0.	0.	0.
20020	9.61385E+00	3.94140E-01	0.	0.	5.79287E-03
20025	5.17270E-J3	2.98290E-03	1.76729E-03	7.94049E-04	2.59263E-04
20030	1.55779E-J4	9.37792E-J5	5.65431E-J5	3.41346E-05	2.06274E-J5
20035	1.24749E-J5	7.54920E-06	4.57067E-J6	2.76839E-06	1.67729E-J6
20040	1.01046E-J6	0.	0.	0.	0.
20055	0.	0.	0.	0.	0.
21021	1.000123E+01	4.34900E-01	0.	0.	0.
21025	0.84503E-04	9.01280E-04	5.09807E-04	3.24120E-04	1.95014E-J4
21030	1.17030E-J4	7.09270E-05	4.28495E-05	2.59087E-05	1.56761E-J5

GROUP	J	J+1	DOWNSCATTER	J+3	J+4
21#38	9.48986E-00	5.74729E-06	3.48184E-06	2.10992E-06	1.27882E-06
21#56	0.				
22#22	1.04473E+01	4.92251E-01	0.	0.	0.
22#57	0.				
23#23	1.60726E+01	5.35422E-01	2.26461E-02	0.	0.
23#58	0.				
24#24	1.13240E+01	5.21428E-01	7.44308E-02	0.	0.
24#59	0.				
25#25	1.14210E+01	4.49843E-01	1.25444E-01	1.42954E-02	0.
25#60	0.				
26#26	1.16110E+01	3.89371E-01	1.04935E-01	8.64121E-02	2.71625E-03
26#01	0.				
27#27	1.18140E+01	3.95851E-01	0.	7.99668E-02	5.37543E-02
27#32	2.27875E-02	0.	0.	0.	0.
27#62	0.				
28#28	1.17030E+01	3.96980E-01	0.	0.	1.80286E-02
28#33	3.42086E-02	2.34076E-02	1.52624E-02	9.07293E-03	2.45955E-03
28#63	0.				
29#29	1.10970E+01	4.03330E-01	0.	0.	0.
29#37	4.32602E-03	4.74553E-03	2.84771E-03	1.71261E-03	1.03179E-03
29#42	0.22503E-04	3.75994E-04	2.27305E-04	1.37513E-04	8.32371E-05
29#47	5.64056E-05	3.05342E-05	1.85015E-05	1.12128E-05	6.79649E-06
29#52	4.12006E-06	2.49778E-06	1.51435E-06	0.	0.
29#64	0.				
30#30	1.19930E+01	4.06630E-01	0.	0.	0.
30#65	0.				
31#31	1.20860E+01	4.14240E-01	0.	0.	0.
31#66	0.				
32#32	1.19890E+01	4.10920E-01	0.	0.	0.
32#67	0.				
33#33	1.20830E+01	4.17310E-01	0.	0.	0.
33#68	0.				
34#34	1.37260E+01	4.74070E-01	0.	0.	0.
34#69	0.				
35#35	1.44490E+01	5.00770E-01	0.	0.	0.
35#69	0.				
36#36	1.34360E+01	4.64040E-01	0.	0.	0.
36#69	0.				
37#37	1.34360E+01	4.64040E-01	0.	0.	0.
37#69	0.				
38#38	1.35330E+01	4.67460E-01	0.	0.	0.
38#69	0.				
39#39	1.30230E+01	4.77400E-01	0.	0.	0.
39#69	0.				
40#40	1.40160E+01	4.84060E-01	0.	0.	0.
40#69	0.				
41#41	1.42090E+01	4.90770E-01	0.	0.	0.
41#69	0.				
42#42	1.44030E+01	4.97450E-01	0.	0.	0.
42#69	0.				

GROUP	J	J+1	DOWNSCATTER J+2	J+3	J+4
43r43	1.45960E+01	5.34100E-01	0.	0.	0.
43r69	0.				
44r44	1.47890E+01	5.10780E-01	0.	0.	0.
44r09	0.				
45r45	1.49830E+01	5.17470E-01	0.	0.	0.
45r09	0.				
46r46	1.51760E+01	5.24140E-01	0.	0.	0.
46r69	0.				
47r47	1.53690E+01	5.30830E-01	0.	0.	0.
47r09	0.				
48r48	1.55630E+01	5.37500E-01	0.	0.	0.
48r09	0.				
49r49	1.42090E+01	4.90750E-01	0.	0.	0.
49r69	0.				
50r50	1.37260E+01	4.74040E-01	0.	0.	0.
50r09	0.				
51r51	9.76280E+00	3.37180E-01	0.	0.	0.
51r69	0.				
52r52	1.20830E+01	4.17290E-01	0.	0.	0.
52r69	0.				
53r53	1.45960E+01	5.33970E-01	0.	0.	0.
53r69	0.				
54r54	1.97190E+01	6.81050E-01	0.	0.	0.
54r09	0.				
55r55	1.46930E+01	5.07410E-01	0.	0.	0.
55r69	0.				
56r56	8.75750E+00	3.02470E-01	0.	0.	0.
56r69	0.				
57r57	1.06330E+01	3.07250E-01	0.	0.	0.
57r69	0.				
58r58	9.65650E+00	3.33510E-01	0.	0.	0.
58r09	0.				
59r59	1.00530E+01	3.47210E-01	0.	0.	0.
59r09	0.				
60r60	1.01490E+01	3.50530E-01	0.	0.	0.
60r09	0.				
61r61	1.03430E+01	3.57120E-01	0.	0.	0.
61r09	0.				
62r62	1.00330E+01	3.67220E-01	0.	0.	0.
62r09	0.				
63r63	1.10190E+01	3.80580E-01	0.	0.	0.
63r69	0.				
64r64	1.13090E+01	3.90600E-01	0.	0.	0.
64r09	0.				
65r65	1.15990E+01	4.00620E-01	0.	0.	0.
65r66	1.15990E+01	4.00620E-01	0.	0.	
67r67	1.25000E+01	4.34000E-01	0.		
68r68	1.44490E+01	5.00760E-01			

PU239

ANISOTROPIC MATRIX
1 DOWNSCATTER

GROUP		DOWNSCATTER	
I	J	J	J+1
1	1	2.29320E+00	4.28400E-01
2	2	3.95250E+00	-3.35770E-01
3	3	5.32268E+00	6.82520E-01
4	4	4.15410E+00	-5.72100E-01
5	5	3.42600E+00	-1.14100E-01
6	6	4.19410E+00	-1.58420E+00
7	7	2.01550E+00	9.45020E-02
8	8	1.75530E+00	7.81590E-02
9	9	1.51770E+00	2.33160E-01
10	10	1.82930E+00	-2.42410E-01
11	11	1.46170E+00	2.53310E-01
12	12	1.43020E+00	2.32520E-01
13	13	2.13860E+00	-2.95030E-01
14	14	1.43210E+00	2.13630E-01
15	15	1.94950E+00	-4.22820E-01
16	16	2.46270E+00	-9.59420E-01
17	17	1.21360E+00	1.17470E-01
18	18	1.09410E+00	8.76580E-02
19	19	1.27720E+00	-2.49030E-01
20	20	9.30260E-01	6.70120E-02
21	21	9.59660E-01	5.01250E-02
22	22	1.35060E+00	-4.95980E-01
23	23	7.97610E-01	-2.37620E-01
24	24	6.60090E-01	-2.00760E-01
25	25	4.84250E-01	-1.22430E-02
26	26	5.28000E-01	-1.68590E-01
27	27	4.82740E-01	-1.16740E-01
28	28	4.07580E-01	-1.05570E-01
29	29	3.52050E-01	-1.06070E-01
30	30	3.86850E-01	-1.38830E-01
31	31	2.54240E-01	-1.29220E-01
32	32	2.44770E-01	-1.20760E-01
33	33	1.79520E-01	-1.44660E-01
34	34	2.05980E-01	-1.06380E-01
35	35	2.02000E-01	-1.60760E-01
36	36	1.09740E-01	-1.50980E-01
37	37	1.99020E-01	-1.60850E-01
38	38	2.01070E-01	-1.62620E-01
39	39	2.05370E-01	-1.05490E-01
40	40	2.10320E-01	-1.69890E-01
41	41	1.90440E-01	-1.55450E-01
42	42	2.13990E-01	-1.72430E-01

GROUP	DOWNSCATTER	
I R J	J	J+1
43r+3	2.01780E-01	-1.5967JE-01
44r+4	2.06050E-01	-1.6398JE-01
45r+5	2.2200JE-01	-1.7937JE-01
46r+6	2.12060E-01	-1.6827JE-01
47r+7	2.20050E-01	-1.8401JE-01
48r+8	2.17460E-01	-1.7256JE-01
49r+9	2.11110E-01	-1.7012JE-01
50r+0	2.01890E-01	-1.6228JE-01
51r+1	1.96420E-01	-1.5825JE-01
52r+2	1.79520E-01	-1.4466JE-01
53r+3	1.97510E-01	-1.5540JE-01
54r+4	2.92980E-01	-2.3609JE-01
55r+5	2.00290E-01	-1.6290JE-01
56r+6	1.00110E-01	-1.0485JE-01
57r+7	1.50160E-01	-1.1948JE-01
58r+8	1.43470E-01	-1.1561JE-01
59r+9	1.40480E-01	-1.1148JE-01
60r+0	1.49280E-01	-1.2000JE-01
61r+1	1.32340E-01	-1.0250JE-01
62r+2	1.50390E-01	-1.2572JE-01
63r+3	1.62090E-01	-1.3029JE-01
64r+4	1.69720E-01	-1.3708JE-01
65r+5	1.70620E-01	-1.3716JE-01
66r+6	1.60070E-01	-1.2689JE-01
67r+7	1.60700E-01	-1.5645JE-01
68r+8	2.13270E-01	-1.7143JE-01

PU240 CAPTURE CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	6.13000E-03	15	1.80300E-01	29	J.	43	2.80000E+00	57	1.65000E+01
2	8.08500E-03	16	1.9610JE-01	30	J.	44	3.20000E+00	58	1.85000E+01
3	1.08700E-02	17	2.1570JE-01	31	J.	45	3.70000E+00	59	2.10000E+01
4	1.68000E-02	18	2.4020JE-01	32	J.	46	4.20000E+00	60	2.40000E+01
5	2.69000E-02	19	2.7060JE-01	33	J.	47	4.70000E+00	61	2.70000E+01
6	3.95000E-02	20	3.1850JE-01	34	J.	48	5.30000E+00	62	3.10000E+01
7	5.35700E-02	21	3.74000E-01	35	J.	49	6.00000E+00	63	3.50000E+01
8	1.03200E-01	22	4.36500E-01	36	J.	50	6.80000E+00	64	3.90000E+01
9	1.58100E-01	23	J.	37	J.	51	7.80000E+00	65	4.40000E+01
10	1.73600E-01	24	J.	38	J.	52	8.80000E+00	66	5.00000E+01
11	1.68900E-01	25	J.	39	1.75000E+00	53	1.00000E+01	67	5.70000E+01
12	1.01400E-01	26	J.	40	2.00000E+00	54	1.13000E+01	68	6.50000E+01
13	1.01200E-01	27	J.	41	2.20000E+00	55	1.27000E+01		
14	1.06000E-01	28	J.	42	2.50000E+00	56	1.45000E+01		

PU24J FISSION CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	2.14400E+00	15	1.24400E-01	29	0.	43	5.22000E-02	57	0.
2	1.66500E+00	16	9.90500E-02	30	0.	44	5.16900E-02	58	0.
3	1.53200E+00	17	8.73200E-02	31	0.	45	5.45000E-02	59	0.
4	1.54100E+00	18	8.21500E-02	32	0.	46	5.98700E-02	60	0.
5	1.65800E+00	19	8.07300E-02	33	0.	47	6.89300E-02	61	0.
6	1.71500E+00	20	8.34200E-02	34	0.	48	8.21400E-02	62	0.
7	1.62100E+00	21	8.66400E-02	35	0.	49	9.77700E-02	63	0.
8	1.50300E+00	22	9.45400E-02	36	0.	50	5.33300E-02	64	0.
9	1.49300E+00	23	8.12800E-03	37	0.	51	0.	65	0.
10	1.36600E+00	24	0.	38	0.	52	0.	66	0.
11	9.33000E-01	25	0.	39	3.67600E-02	53	0.	67	0.
12	5.78500E-01	26	0.	40	5.81800E-02	54	0.	68	0.
13	2.93200E-01	27	0.	41	5.67700E-02	55	0.		
14	1.70000E-01	28	0.	42	5.46700E-02	56	0.		

PU24J NO. NEUTRONS/FISSION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	3.90350E+00	15	2.96610E+00	29	2.87110E+00	43	2.87000E+00	57	2.87000E+00
2	3.70670E+00	16	2.89810E+00	30	2.87090E+00	44	2.87000E+00	58	2.87000E+00
3	3.53860E+00	17	2.89190E+00	31	2.87070E+00	45	2.87000E+00	59	2.87000E+00
4	3.40100E+00	18	2.88710E+00	32	2.87050E+00	46	2.87000E+00	60	2.87000E+00
5	3.28980E+00	19	2.88330E+00	33	2.87040E+00	47	2.87000E+00	61	2.87000E+00
6	3.20070E+00	20	2.88040E+00	34	2.87030E+00	48	2.87000E+00	62	2.87000E+00
7	3.12980E+00	21	2.87810E+00	35	2.87020E+00	49	2.87000E+00	63	2.87000E+00
8	3.07300E+00	22	2.87630E+00	36	2.87020E+00	50	2.87000E+00	64	2.87000E+00
9	3.02950E+00	23	2.87490E+00	37	2.87010E+00	51	2.87000E+00	65	2.87000E+00
10	2.99470E+00	24	2.87380E+00	38	2.87010E+00	52	2.87000E+00	66	2.87000E+00
11	2.96750E+00	25	2.87300E+00	39	2.87010E+00	53	2.87000E+00	67	2.87000E+00
12	2.94010E+00	26	2.87230E+00	40	2.87010E+00	54	2.87000E+00	68	2.87000E+00
13	2.92940E+00	27	2.87180E+00	41	2.87010E+00	55	2.87000E+00		
14	2.91630E+00	28	2.87140E+00	42	2.87000E+00	56	2.87000E+00		

PU24J N2N CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	4.80000E-01	15	J.	29	J.	43	0.	57	0.
2	9.00000E-02	16	J.	30	J.	44	0.	58	0.
3	J.	17	J.	31	J.	45	0.	59	0.
4	J.	18	J.	32	J.	46	0.	60	0.
5	J.	19	J.	33	J.	47	0.	61	0.
6	J.	20	J.	34	J.	48	0.	62	0.
7	0.	21	J.	35	J.	49	0.	63	0.
8	J.	22	J.	36	J.	50	0.	64	0.
9	0.	23	J.	37	J.	51	0.	65	0.
10	J.	24	J.	38	0.	52	0.	66	0.
11	J.	25	J.	39	J.	53	0.	67	0.
12	J.	26	J.	40	0.	54	0.	68	0.
13	J.	27	J.	41	0.	55	0.		
14	0.	28	J.	42	J.	56	0.		

PU24J ISOTROPIC MATRIX
37 DOWNSCATTERS

GROUP I → J	J	J+1	J+2	J+3	J+4
1 → 1	3.20982E+00	1.42916E-02	2.25881E-03	9.46821E-03	2.83767E-02
1 → 6	0.32893E-02	1.18467E-01	1.71218E-01	2.10317E-01	2.25418E-01
1 → 11	2.15734E-01	1.88139E-01	1.52151E-01	1.15806E-01	8.39778E-02
1 → 16	5.86024E-02	3.96721E-02	2.62226E-02	1.70104E-02	1.08733E-02
1 → 21	8.87075E-03	4.30260E-03	2.67555E-03	1.65464E-03	1.01890E-03
1 → 26	6.25333E-04	3.82787E-04	2.33841E-04	1.42626E-04	8.68839E-05
1 → 31	5.28765E-05	3.21559E-05	1.95436E-05	1.18729E-05	7.21023E-06
1 → 36	4.37746E-06	1.98553E-06	0.		
2 → 2	3.85578E+00	1.50720E-02	9.85683E-03	3.26038E-02	7.50229E-02
2 → 7	1.29536E-01	1.80169E-01	2.10659E-01	2.15189E-01	1.98621E-01
2 → 12	1.69780E-01	1.38939E-01	1.05698E-01	7.89433E-02	5.74963E-02
2 → 17	4.10524E-02	2.88271E-02	1.99386E-02	1.35957E-02	9.15575E-03
2 → 22	6.11027E-03	4.06983E-03	2.71452E-03	1.81672E-03	1.21735E-03
2 → 27	8.13292E-04	5.39519E-04	3.54405E-04	2.30258E-04	1.47971E-04
2 → 32	5.41054E-05	5.93567E-05	3.71452E-05	2.30997E-05	1.42914E-05
2 → 37	0.80526E-06	5.40711E-06	2.69917E-06		
3 → 3	4.46759E+00	2.36250E-02	2.50820E-02	6.24733E-02	1.22679E-01
3 → 8	1.88938E-01	2.33236E-01	2.48675E-01	2.34373E-01	2.00549E-01
3 → 13	1.59113E-01	1.18496E-01	8.49808E-02	5.85424E-02	3.92121E-02
3 → 18	2.58954E-02	1.05529E-02	1.05224E-02	6.61982E-03	4.13113E-03
3 → 23	2.50187E-03	1.58094E-03	9.71881E-04	5.95688E-04	3.64265E-04
3 → 28	2.22348E-04	1.35535E-04	8.25209E-05	5.02021E-05	3.05204E-05

GROUP	J	J+1	DOWNSCATTER	J+3	J+4
1 r J			J+2		
3r33	1.85453E-J5	1.12645E-05	6.83969E-06	4.15208E-06	2.52006E-06
3r38	1.52923E-00	0.	0.		
4r 4	4.64011E+00	4.92044E-02	3.83868E-02	8.71583E-02	1.48915E-01
4r 9	2.33298E-J1	2.32625E-01	2.31727E-01	2.37366E-01	1.69944E-01
4r14	1.33504E-01	9.51441E-02	6.66086E-02	4.51791E-02	2.98971E-02
4r19	1.94073E-J2	1.24104E-02	7.84394E-03	4.91277E-03	3.65518E-03
4r24	1.88950E-J3	1.16356E-03	7.14119E-04	4.37139E-04	2.67045E-04
4r29	1.62077E-J4	9.92207E-05	6.03844E-05	3.67217E-05	2.23186E-05
4r34	1.35586E-05	8.23402E-06	4.99894E-06	3.03444E-06	1.84147E-06
4r39	1.11744E-06	0.	0.		
5r 5	4.71254E+00	6.89739E-02	5.72561E-02	1.11322E-01	1.68282E-01
5r10	2.08028E-01	2.21319E-01	2.07759E-01	1.77219E-01	1.40258E-01
5r15	1.04692E-01	7.46531E-02	5.13671E-02	3.43743E-02	2.25091E-02
5r20	1.44921E-02	9.20831E-03	5.79115E-03	3.61303E-03	2.24011E-03
5r25	1.38216E-J3	8.49574E-04	5.20672E-04	3.18369E-04	1.94321E-04
5r30	1.18441E-J4	7.21132E-05	4.38692E-05	2.66698E-05	1.62054E-05
5r35	9.84271E-06	5.97654E-06	3.62805E-06	2.20199E-06	1.33627E-06
5r42	0.				
6r 6	4.53506E+00	9.83279E-02	7.70037E-02	1.31233E-01	1.78829E-01
6r11	2.04347E-01	2.03352E-01	1.81572E-01	1.48934E-01	1.14520E-01
6r16	8.33176E-02	5.83141E-02	3.95454E-02	2.61650E-02	1.69827E-02
6r21	1.00090E-J2	6.86287E-03	4.29807E-03	2.67280E-03	1.65296E-03
6r26	1.01787E-03	6.24692E-04	3.82391E-04	2.33597E-04	1.42476E-04
6r31	8.67916E-05	5.28200E-05	3.21213E-05	1.95226E-05	1.18000E-05
6r36	7.20238E-J6	4.37272E-06	2.65418E-06	1.61078E-06	0.
6r43	0.				
7r 7	4.26520E+00	1.03579E-01	5.03586E-02	4.04147E-01	3.00421E-01
7r12	9.30277E-J2	1.92943E-01	1.84314E-01	1.19463E-01	7.47891E-02
7r17	2.98082E-02	2.04360E-02	1.36268E-02	8.89803E-03	5.71629E-03
7r22	3.62591E-J3	2.27730E-03	1.41930E-03	8.79254E-04	5.42166E-04
7r27	3.33090E-04	2.04060E-04	1.24736E-04	7.61166E-05	4.63857E-05
7r32	2.82381E-J5	1.71764E-05	1.04413E-05	6.34400E-06	3.85302E-06
7r37	2.33943E-J6	1.42014E-06	0.	0.	0.
7r44	0.				
8r 8	4.24199E+00	1.62011E-01	1.01689E-01	3.27535E-01	4.16902E-01
8r13	2.83299E-J1	7.02100E-02	0.	2.84059E-03	2.28981E-02
8r18	1.34533E-J2	7.13139E-03	3.47340E-03	1.41897E-03	5.11800E-04
8r23	3.47025E-J4	2.46454E-04	1.77110E-04	1.28891E-04	9.48731E-05
8r28	7.03359E-05	5.28995E-05	3.99566E-05	3.03659E-05	2.31922E-05
8r33	1.77847E-J5	1.36824E-05	1.05537E-05	8.15726E-06	6.31527E-06
8r38	4.89052E-J6	3.79879E-06	2.95010E-06	2.29245E-06	1.78227E-06
8r43	1.33016E-J6	1.07841E-06	0.		
9r 9	4.58613E+00	2.54710E-01	9.67043E-02	1.25116E-01	4.11383E-02
9r14	1.13724E-J1	1.22710E-01	7.65289E-02	4.67764E-02	2.80443E-02
9r19	1.06050E-J2	9.73207E-03	5.10999E-03	0.	0.
9r40	0.				
10r10	3.13007E+00	3.41534E-01	2.51966E-02	7.20899E-02	8.57148E-02
10r15	5.61177E-J2	1.03601E-02	0.	0.	0.
10r21	3.79325E-J4	3.82183E-03	2.32093E-03	1.41115E-03	8.57513E-04
10r26	3.20361E-J4	3.16272E-J4	1.91995E-04	1.16529E-04	7.07154E-05

GROUP	J	J+1	DOWNSCATTER	J+3	J+4
I R J			J+2		
10031	4.29304E-00	2.60033E-05	1.57940E-05	9.58134E-06	5.81224E-06
10036	3.52571E-00	2.13064E-06	1.29724E-06	0.	0.
10047	0.				
11011	5.93040E+00	4.01264E-01	3.30870E-02	1.26519E-02	0.
11016	3.01715E-02	2.71282E-02	1.67600E-02	9.92688E-03	5.02022E-03
11021	2.13701E-03	8.74561E-04	1.00931E-04	0.	0.
11040	0.				
12012	0.65995E+00	6.24313E-01	6.37777E-02	2.69844E-02	1.05516E-02
12020	5.37072E-04	4.34645E-04	2.45409E-04	1.48833E-04	9.02623E-05
12028	5.47410E-05	3.31993E-05	2.01354E-05	1.22120E-05	7.40664E-06
12033	4.49219E-06	2.72457E-06	1.65250E-06	1.33227E-06	0.
12049	0.				
13013	7.75196E+00	0.30093E-01	8.86354E-02	9.06734E-03	1.42838E-02
13010	0.57962E-03	3.27000E-03	0.	0.	0.
13050	0.				
14014	8.34962E+00	7.51867E-01	9.26218E-02	3.47043E-02	0.
14019	2.27968E-03	3.87180E-03	2.17292E-03	1.13720E-03	5.20574E-04
14024	1.90005E-04	9.58774E-05	4.05510E-05	2.20801E-05	6.07947E-06
14051	0.				
15015	9.60452E+00	8.36109E-01	3.15589E-02	4.06377E-02	2.24190E-02
15028	2.20230E-00	1.05596E-00	0.	0.	0.
15032	0.				
16016	9.60605E+00	9.06493E-01	3.87567E-02	1.00883E-02	2.45473E-02
16021	1.40780E-02	0.03420E-03	0.	0.	0.
16030	0.				
17017	1.01240E+01	8.90617E-01	2.02150E-01	0.	0.
17022	2.09099E-04	7.41819E-03	4.42453E-03	2.64673E-03	1.58730E-03
17027	9.54006E-04	5.74418E-04	3.46377E-04	2.09120E-04	1.26375E-04
17032	7.64305E-05	4.02523E-05	2.80041E-05	1.69618E-05	1.02767E-05
17037	0.22786E-06	3.77483E-06	1.53311E-06	0.	0.
17034	0.				
18018	1.03050E+01	6.00253E-01	3.11407E-01	0.	0.
18039	1.04649E-00	1.92232E-00	1.16558E-06	0.	0.
18035	0.				
19019	1.00000E+01	3.44562E-01	2.55334E-01	1.07559E-01	0.
19030	0.				
20020	1.11980E+01	3.42360E-01	3.54841E-02	9.12390E-02	4.13482E-02
20025	1.64093E-03	0.	0.	0.	0.
20037	0.				
21021	1.10050E+01	3.05300E-01	0.	0.	2.01000E-02
21026	7.21595E-03	2.84332E-03	1.16245E-03	0.	0.
21038	0.				
22022	1.22050E+01	5.94810E-01	0.	0.	0.
22028	1.50070E-04	0.07307E-04	2.78438E-04	9.07240E-05	4.86578E-05
22030	2.92027E-05	1.76295E-05	1.06361E-05	6.42412E-06	3.88362E-06
22038	2.04946E-00	1.42214E-00	8.01209E-07	0.	0.
22059	0.				
23023	1.20270E+01	4.12900E-01	0.	0.	0.
23030	0.				
24024	1.00000E+01	4.31060E-01	0.	0.	0.

GROUP I + J	J	J+1	DOWNSCATTER J+2	J+3	J+4
24+61	J.				
25+25	1.32230E+01	4.37120E-01	0.	0.	J.
25+62	J.				
26+26	1.33730E+01	4.46650E-01	0.	0.	J.
26+63	J.				
27+27	1.34890E+01	4.50750E-01	0.	0.	J.
27+64	J.				
28+28	1.35720E+01	4.58320E-01	0.	0.	J.
28+65	J.				
29+29	1.37260E+01	4.63540E-01	0.	0.	J.
29+66	J.				
30+30	1.40840E+01	4.75630E-01	0.	0.	J.
30+67	J.				
31+31	1.44370E+01	4.92720E-01	0.	0.	J.
31+68	J.				
32+32	1.48490E+01	5.10590E-01	0.	0.	J.
32+69	J.				
33+33	1.52940E+01	5.25890E-01	0.	0.	J.
33+69	J.				
34+34	1.41030E+01	4.87000E-01	0.	0.	J.
34+69	J.				
35+35	1.57870E+01	5.42840E-01	0.	0.	J.
35+69	J.				
36+36	1.75760E+01	6.14320E-01	0.	0.	J.
36+69	J.				
37+37	1.95380E+01	6.71800E-01	0.	0.	J.
37+69	J.				
38+38	2.16840E+01	7.45620E-01	0.	0.	J.
38+69	J.				
39+39	2.40240E+01	8.26040E-01	0.	0.	J.
39+69	J.				
40+40	2.65760E+01	9.13790E-01	0.	0.	J.
40+69	J.				
41+41	2.93310E+01	1.10860E+00	0.	0.	J.
41+69	J.				
42+42	3.22990E+01	1.11060E+00	0.	0.	J.
42+69	J.				
43+43	3.54990E+01	1.22070E+00	0.	0.	J.
43+69	J.				
44+44	3.89310E+01	1.33870E+00	0.	0.	J.
44+69	J.				
45+45	4.25360E+01	1.46430E+00	0.	0.	J.
45+69	J.				
46+46	1.11060E+02	3.83600E+00	0.	0.	J.
46+69	J.				
47+47	2.62480E+01	9.12490E-01	0.	0.	J.
47+69	J.				
48+48	1.62810E+02	5.59820E+00	0.	0.	J.
48+69	J.				
49+49	0.13040E+02	2.79560E-01	0.	0.	J.

GROUP	DOWNSCATTER				
I n J	J	J+1	J+2	J+3	J+4
49n59	0.				
50n50	0.63590E+01	2.28113E+03	0.	0.	0.
51n51	0.				
52n52	7.75340E+00	2.66593E-01	0.	0.	0.
53n53	0.				
54n54	8.92220E+00	3.07810E-01	0.	0.	0.
55n55	0.				
56n56	1.53620E+01	5.28210E-01	0.	0.	0.
57n57	0.				
58n58	3.94250E+00	3.07490E-01	0.	0.	0.
59n59	0.				
60n60	9.29050E+00	3.19463E-01	0.	0.	0.
61n61	0.				
62n62	9.50060E+00	3.29433E-01	0.	0.	0.
63n63	0.				
64n64	9.91090E+00	3.41060E-01	0.	0.	0.
65n65	0.				
66n66	1.03040E+01	3.56350E-01	0.	0.	0.
67n67	0.				
68n68	1.10400E+01	3.79620E-01	0.	0.	0.
69n69	0.				
70n70	1.21230E+01	4.16850E-01	0.	0.	0.
71n71	0.				
72n72	1.41240E+01	4.85670E-01	0.	0.	0.
73n73	0.				
74n74	1.65710E+01	6.36570E-01	0.	0.	0.
75n75	0.				
76n76	3.30920E+01	1.13790E+00	0.	0.	0.
77n77	0.				
78n78	2.49770E+02	6.58610E+00	0.	0.	0.
79n79	0.				
80n80	2.29090E+03	7.37750E+01	0.	0.	0.
81n81	3.35850E+01	1.15480E+00	0.	0.	0.
82n82	1.29040E+01	4.46430E-01	0.		
83n83	9.03750E+00	3.12470E-01			

PU24J

ANISOTROPIC MATRIX
1 DOWNSCATTER

GROUP	DOWNSCATTER	
I n J	J	J+1
1n 1	2.00000E+00	1.17890E-01
2n 2	2.89680E+00	5.47290E-01
3n 3	3.72390E+00	2.16840E-01
4n 4	4.55060E+00	-9.97120E-01
5n 5	5.38570E+00	-5.17540E-01
6n 6	6.22320E+00	-9.65510E-01
7n 7	7.05370E+00	-1.63730E-01

GROUP	DOWNSCATTER	
I * J	J	J+1
8* 8	2.18570E+00	-1.46310E-01
9* 9	1.41030E+00	4.93350E-02
10*10	1.86010E+00	-4.01480E-01
11*11	1.52310E+00	4.34890E-02
12*12	1.62390E+00	4.11140E-02
13*13	1.43100E+00	-3.34940E-01
14*14	1.74470E+00	2.99710E-02
15*15	2.25460E+00	-6.40680E-01
16*16	2.16780E+00	-6.28660E-01
17*17	1.39720E+00	-4.17060E-02
18*18	1.34790E+00	-4.92240E-02
19*19	1.65700E+00	-4.32700E-01
20*20	1.31240E+00	-4.29720E-02
21*21	1.15910E+00	-7.46260E-02
22*22	1.05840E+00	-3.02380E-01
23*23	9.95610E-01	-3.43620E-01
24*24	6.52730E-01	-1.13930E-01
25*25	0.10070E-01	-6.44720E-02
26*26	0.45660E-01	-2.31050E-01
27*27	5.87950E-01	-1.69750E-01
28*28	4.21300E-01	-1.40730E-01
29*29	4.26110E-01	-1.42330E-01
30*30	4.75220E-01	-1.84040E-01
31*31	3.07250E-01	-1.57950E-01
32*32	2.13460E-01	-1.70800E-01
33*33	2.17060E-01	-1.73630E-01
34*34	2.03590E-01	-1.62910E-01
35*35	2.10500E-01	-1.65140E-01
36*36	2.36970E-01	-1.86480E-01
37*37	2.77920E-01	-2.21800E-01
38*38	3.08460E-01	-2.46170E-01
39*39	3.41730E-01	-2.72720E-01
40*40	3.62020E-01	-3.05680E-01
41*41	3.86690E-01	-3.02430E-01
42*42	4.59460E-01	-3.66680E-01
43*43	4.63000E-01	-3.66030E-01
44*44	5.19080E-01	-4.07250E-01
45*45	0.00760E-01	-4.83450E-01
46*46	1.48750E+00	-1.16700E+00
47*47	3.73360E-01	-2.97960E-01
48*48	2.17070E+00	-1.70310E+00
49*49	1.10650E-01	-9.23000E-02
50*50	9.33700E-01	-7.43160E-01
51*51	1.03380E-01	-6.11040E-02
52*52	1.27040E-01	-1.01630E-01
53*53	2.18010E-01	-1.74390E-01
54*54	1.27210E-01	-1.01520E-01
55*55	1.23370E-01	-9.71850E-02
56*56	1.30280E-01	-1.08760E-01
57*57	1.33740E-01	-1.05250E-01

GROUP	DOWNSCATTER	
I P J	J	J+1
58#58	1.47429E-01	-1.17659E-01
59#59	1.47200E-01	-1.15499E-01
60#60	1.75030E-01	-1.35819E-01
61#61	1.95440E-01	-1.49879E-01
62#62	2.61390E-01	-2.08049E-01
63#63	4.65770E-01	-3.70719E-01
64#64	5.59340E+00	-2.87290E+00
65#65	3.22450E+01	-2.56659E+01
66#66	4.42750E-01	-3.46279E-01
67#67	1.84080E-01	-1.47399E-01
68#68	1.27910E-01	-1.31819E-01

PU241 CAPTURE CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	1.69300E-03	15	1.91200E-01	29	1.06300E+00	43	7.78500E+00	57	2.62900E+01
2	2.64400E-03	16	2.18100E-01	30	1.19500E+00	44	9.74200E+00	58	1.13600E+01
3	3.69300E-03	17	2.49300E-01	31	1.34400E+00	45	1.05000E+01	59	9.73500E+01
4	5.38200E-03	18	2.83700E-01	32	1.54300E+00	46	1.20000E+01	60	5.19500E+00
5	7.98100E-03	19	3.16800E-01	33	1.77800E+00	47	1.04500E+01	61	2.23800E+00
6	1.17000E-02	20	3.62700E-01	34	1.96000E+00	48	5.09700E+00	62	1.82400E+00
7	1.73100E-02	21	4.12600E-01	35	2.06600E+00	49	5.16100E+00	63	1.96200E+00
8	2.53400E-02	22	4.65700E-01	36	2.30000E+00	50	7.36300E+00	64	2.61000E+00
9	3.61000E-02	23	5.24500E-01	37	2.55700E+00	51	7.26100E+00	65	4.07100E+00
10	5.56500E-02	24	6.06300E-01	38	3.23800E+00	52	1.32700E+01	66	7.64400E+00
11	8.20700E-02	25	6.84900E-01	39	4.28700E+00	53	4.83200E+01	67	1.72800E+01
12	1.09300E-01	26	7.34600E-01	40	5.36000E+00	54	6.25500E+01	68	4.56900E+01
13	1.39600E-01	27	8.02700E-01	41	6.03600E+00	55	4.88400E+01		
14	1.66100E-01	28	9.29400E-01	42	6.69700E+00	56	3.02600E+01		

PU241 FISSION CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	2.32000E+00	15	1.74400E+00	29	4.23300E+00	43	3.21300E+01	57	2.45600E+02
2	2.00200E+00	16	1.86400E+00	30	4.61100E+00	44	3.44900E+01	58	2.97200E+02
3	1.61600E+00	17	1.98700E+00	31	5.07000E+00	45	3.90500E+01	59	2.99400E+02
4	1.57300E+00	18	2.11500E+00	32	5.61800E+00	46	2.33800E+01	60	4.55700E+01
5	1.63900E+00	19	2.23100E+00	33	6.30400E+00	47	6.34400E+01	61	2.36100E+01
6	1.71700E+00	20	2.34700E+00	34	7.34400E+00	48	5.63100E+01	62	1.83300E+01
7	1.80200E+00	21	2.49400E+00	35	9.30300E+00	49	4.49200E+01	63	1.71800E+01
8	1.77800E+00	22	2.65200E+00	36	9.60900E+00	50	3.67900E+01	64	1.71900E+01
9	1.67700E+00	23	2.82600E+00	37	1.19400E+01	51	6.19700E+01	65	1.79700E+01
10	1.57300E+00	24	3.00400E+00	38	1.04200E+01	52	1.14400E+02	66	2.10700E+01
11	1.53000E+00	25	3.20300E+00	39	1.26600E+01	53	4.63900E+01	67	3.16700E+01
12	1.51700E+00	26	3.42800E+00	40	2.00900E+01	54	2.56600E+02	68	7.29200E+01
13	1.50000E+00	27	3.66900E+00	41	2.47800E+01	55	9.79000E+01		
14	1.63300E+00	28	3.91400E+00	42	2.34200E+01	56	1.95500E+02		

PU241 NO. NEUTRONS/FISSION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	4.23200E+00	15	3.00700E+00	29	2.97000E+00	43	2.96900E+00	57	2.96900E+00
2	3.95300E+00	16	3.00000E+00	30	2.97000E+00	44	2.96900E+00	58	2.96900E+00
3	3.73500E+00	17	2.99200E+00	31	2.97000E+00	45	2.96900E+00	59	2.96900E+00
4	3.56500E+00	18	2.98700E+00	32	2.96900E+00	46	2.96900E+00	60	2.96900E+00
5	3.43400E+00	19	2.98300E+00	33	2.96900E+00	47	2.96900E+00	61	2.96900E+00
6	3.33100E+00	20	2.98000E+00	34	2.96900E+00	48	2.96900E+00	62	2.96900E+00
7	3.25100E+00	21	2.97600E+00	35	2.96900E+00	49	2.96900E+00	63	2.96900E+00
8	3.18900E+00	22	2.97600E+00	36	2.96900E+00	50	2.96900E+00	64	2.96900E+00
9	3.14000E+00	23	2.97400E+00	37	2.96900E+00	51	2.96900E+00	65	2.96900E+00
10	3.10200E+00	24	2.97300E+00	38	2.96900E+00	52	2.96900E+00	66	2.96900E+00
11	3.07300E+00	25	2.97200E+00	39	2.96900E+00	53	2.96900E+00	67	2.96900E+00
12	3.05000E+00	26	2.97100E+00	40	2.96900E+00	54	2.96900E+00	68	2.96900E+00
13	3.03200E+00	27	2.97100E+00	41	2.96900E+00	55	2.96900E+00		
14	3.01800E+00	28	2.97100E+00	42	2.96900E+00	56	2.96900E+00		

PU241 N2N CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	7.35327E-01	15	0.	29	0.	43	0.	57	0.
2	6.61974E-01	16	0.	30	0.	44	0.	58	0.
3	3.07232E-02	17	0.	31	0.	45	0.	59	0.
4	0.	18	0.	32	0.	46	0.	60	0.
5	0.	19	0.	33	0.	47	0.	61	0.
6	0.	20	0.	34	0.	48	0.	62	0.
7	0.	21	0.	35	0.	49	0.	63	0.
8	0.	22	0.	36	0.	50	0.	64	0.
9	0.	23	0.	37	0.	51	0.	65	0.
10	0.	24	0.	38	0.	52	0.	66	0.
11	0.	25	0.	39	0.	53	0.	67	0.
12	0.	26	0.	40	0.	54	0.	68	0.
13	0.	27	0.	41	0.	55	0.		
14	0.	28	0.	42	0.	56	0.		

PU241 ISOTROPIC MATRIX
41 DOWNSCATTERS

GROUP				DOWNSCATTER		
I = J	J	J+1	J+2	J+3	J+4	
1 = 1	3.13550E+00	1.23143E-02	3.98712E-05	2.65393E-04	1.13370E-03	
1 = 6	3.60459E-03	9.72769E-03	2.34336E-02	4.95632E-02	8.92936E-02	

GROUP I R J	J	J+1	DOWNSCATTER J+2	J+3	J+4
1r11	1.35549E-01	1.74855E-01	1.95318E-01	1.93138E-01	1.72721E-01
1r16	1.42386E-01	1.39953E-01	8.06173E-02	5.67317E-02	3.86530E-02
1r21	2.50750E-02	1.67162E-02	1.07177E-02	6.78772E-03	4.25807E-03
1r26	2.65140E-03	1.64142E-03	1.01158E-03	6.21232E-04	3.80464E-04
1r31	2.32511E-04	1.41056E-04	8.56775E-05	5.21527E-05	3.17207E-05
1r36	1.92314E-05	1.17146E-05	7.11466E-06	4.31969E-06	2.62211E-06
1r42	J.				
2r 2	3.77710E+03	1.11673E-02	7.12405E-04	3.78209E-03	1.26710E-02
2r 7	2.94668E-02	5.14683E-02	7.24622E-02	8.85174E-02	1.01736E-01
2r12	1.17767E-01	1.39773E-01	1.04796E-01	1.83661E-01	1.89453E-01
2r17	1.73750E-01	1.57576E-01	1.28829E-01	9.92809E-02	7.28024E-02
2r22	5.13923E-02	3.51103E-02	2.33842E-02	1.52635E-02	9.80555E-03
2r27	0.22009E-03	3.90800E-03	2.43630E-03	1.50967E-03	9.31077E-04
2r32	5.72128E-04	3.50553E-04	2.14310E-04	1.30783E-04	7.97096E-05
2r37	4.85275E-05	2.88423E-05	1.75343E-05	1.06543E-05	6.47123E-06
2r42	3.92928E-06	2.38527E-06			
3r 3	4.41126E+00	1.41473E-02	5.03334E-03	2.04882E-02	5.55873E-02
3r 8	1.03344E-01	1.06823E-01	2.08327E-01	2.22263E-01	2.09581E-01
3r13	1.79400E-01	1.42514E-01	1.07714E-01	7.91717E-02	5.78205E-02
3r18	4.23519E-02	3.11765E-02	2.28659E-02	1.65363E-02	1.18080E-02
3r23	0.25207E-03	5.71215E-03	3.77334E-03	2.51990E-03	1.69056E-03
3r28	1.07308E-03	6.74627E-04	4.33694E-04	2.89339E-04	1.66084E-04
3r33	1.02134E-04	6.26180E-05	3.83013E-05	2.33840E-05	1.42560E-05
3r38	3.60136E-06	5.28195E-06	2.38038E-06	0.	0.
3r44	J.				
4r 4	4.53575E+00	3.10542E-02	1.17597E-02	3.80917E-02	8.61812E-02
4r 9	1.40802E-01	1.39913E-01	2.28284E-01	2.27026E-01	2.02595E-01
4r14	1.66099E-01	1.27444E-01	9.28517E-02	6.49698E-02	4.40495E-02
4r19	2.91402E-02	1.89112E-02	1.20908E-02	7.64077E-03	4.76495E-03
4r24	2.97541E-03	1.84063E-03	1.13303E-03	6.95353E-04	4.25637E-04
4r29	2.63011E-04	1.58584E-04	9.66036E-05	5.87910E-05	3.57524E-05
4r34	2.17293E-05	1.32006E-05	8.01644E-06	4.86693E-06	2.95416E-06
4r39	1.73285E-06	1.08793E-06	0.	0.	0.
4r45	J.				
5r 5	4.66796E+00	4.76967E-02	2.42754E-02	6.30511E-02	1.19735E-01
5r10	1.77395E-01	2.16855E-01	2.27284E-01	2.11330E-01	1.78911E-01
5r15	1.43759E-01	1.04573E-01	7.43007E-02	5.09789E-02	3.40386E-02
5r20	2.22504E-02	1.43062E-02	9.08052E-03	5.70606E-03	3.55766E-03
5r25	2.20467E-03	1.35970E-03	8.35551E-04	5.11956E-04	3.12981E-04
5r30	1.91005E-04	1.16040E-04	7.08689E-05	4.31391E-05	2.62062E-05
5r35	1.53320E-05	9.07103E-06	5.87205E-06	3.56457E-06	2.16043E-06
5r40	1.01284E-06	J.	0.	0.	0.
5r46	J.				
6r 6	4.43015E+00	7.63113E-02	4.33455E-02	9.12294E-02	1.46711E-01
6r11	1.90081E-01	2.10260E-01	2.03258E-01	1.77392E-01	1.42919E-01
6r16	1.00171E-01	7.79701E-02	5.41057E-02	3.84450E-02	2.39877E-02
6r21	1.55058E-02	9.88300E-03	6.23052E-03	3.89448E-03	2.41816E-03
6r26	1.43372E-03	9.18962E-04	5.63588E-04	3.44795E-04	2.10539E-04
6r31	1.23068E-04	7.81774E-05	4.75678E-05	2.39228E-05	1.75763E-05
6r36	1.00766E-05	6.48320E-06	3.93587E-06	2.38893E-06	1.44977E-06

GROUP	J	J+1	DOWNSCATTER	J+3	J+4
I + J			J+2		
6+47	u.				
7+7	4.21930E+01	9.68645E-02	6.34583E-02	1.12714E-01	1.58838E-01
7+12	1.86479E-01	1.89630E-01	1.72260E-01	1.43236E-01	1.11135E-01
7+17	8.16852E-02	5.75529E-02	3.92330E-02	2.68644E-02	1.69714E-02
7+22	1.08788E-02	6.88877E-03	4.32085E-03	2.69014E-03	1.66522E-03
7+27	1.02615E-03	6.30130E-04	3.85888E-04	2.35814E-04	1.43866E-04
7+32	8.76565E-05	5.33550E-05	3.24507E-05	1.97247E-05	1.19837E-05
7+37	7.27795E-06	4.41878E-06	2.68225E-06	1.62785E-06	J.
7+48	u.				
8+8	4.05996E+00	1.03465E-01	6.24906E-02	1.08465E-01	1.50371E-01
8+13	1.74479E-01	1.75920E-01	1.58806E-01	1.31435E-01	1.01624E-01
8+18	7.44972E-02	5.23834E-02	3.56544E-02	2.36592E-02	1.55913E-02
8+23	9.85913E-03	6.23973E-03	3.91212E-03	2.43488E-03	1.50683E-03
8+28	9.20370E-04	5.69998E-04	3.49023E-04	2.13266E-04	1.30100E-04
8+33	7.92650E-05	4.82451E-05	2.93419E-05	1.78346E-05	1.08351E-05
8+38	6.58130E-06	3.99516E-06	2.42508E-06	1.47178E-06	u.
8+49	u.				
9+9	4.07743E+00	1.14359E-01	6.19800E-02	1.07526E-01	1.49010E-01
9+14	1.72844E-01	1.74227E-01	1.57246E-01	1.30123E-01	1.00596E-01
9+19	7.37369E-02	5.18448E-02	3.52857E-02	2.34134E-02	1.52309E-02
9+24	9.75608E-03	6.17437E-03	3.87107E-03	2.40939E-03	1.49099E-03
9+29	9.18600E-04	5.63996E-04	3.45346E-04	2.11019E-04	1.28729E-04
9+34	7.84293E-05	4.77363E-05	2.90325E-05	1.76465E-05	1.07208E-05
9+39	6.51088E-06	3.95301E-06	2.39950E-06	1.45625E-06	u.
9+50	u.				
10+10	4.34997E+00	1.22650E-01	6.13657E-02	1.06182E-01	1.46837E-01
10+15	1.70038E-01	1.71170E-01	1.54325E-01	1.27601E-01	9.85834E-02
10+20	7.22251E-02	5.07613E-02	3.45381E-02	2.29118E-02	1.49018E-02
10+25	9.54392E-03	6.03941E-03	3.78612E-03	2.35627E-03	1.45809E-03
10+30	8.96295E-04	5.51512E-04	3.37693E-04	2.06338E-04	1.25872E-04
10+35	7.66876E-05	4.66758E-05	2.83873E-05	1.72543E-05	1.04825E-05
10+40	6.36610E-06	3.86510E-06	2.34613E-06	1.42386E-06	u.
10+51	u.				
11+11	4.87267E+00	1.33756E-01	5.66505E-02	9.78912E-02	1.35227E-01
11+16	1.50461E-01	1.57399E-01	1.41836E-01	1.17227E-01	9.05400E-02
11+21	6.63159E-02	4.05998E-02	3.17015E-02	2.10277E-02	1.36751E-02
11+26	6.75765E-03	5.54156E-03	3.47387E-03	2.16187E-03	1.33776E-03
11+31	8.24144E-04	5.05978E-04	3.09809E-04	1.89299E-04	1.15476E-04
11+36	7.00337E-05	4.28265E-05	2.60425E-05	1.58290E-05	9.61655E-06
11+41	5.84022E-06	3.54582E-06	2.15232E-06	1.30624E-06	u.
11+52	u.				
12+12	5.54293E+00	1.55607E-01	5.15091E-02	8.89247E-02	1.22749E-01
12+17	1.41940E-01	1.42724E-01	1.28564E-01	1.06227E-01	8.20256E-02
12+22	6.01689E-02	4.22042E-02	2.87081E-02	1.90405E-02	1.23820E-02
12+27	7.92911E-03	5.01708E-03	3.14499E-03	1.95715E-03	1.21106E-03
12+32	7.46077E-04	4.58044E-04	2.80456E-04	1.71362E-04	1.04534E-04
12+37	6.30671E-05	3.87623E-05	2.35746E-05	1.43289E-05	8.70522E-06
12+42	5.20075E-06	3.20978E-06	1.94834E-06	1.18245E-06	u.
12+53	u.				
13+13	6.25847E+00	1.72760E-01	4.56837E-02	7.87730E-02	1.08631E-01

GROUP			DOWNSCATTER		
I + J	J	J+1	J+2	J+3	J+4
13r10	1.25518E-J1	1.26135E-J1	1.13567E-J1	9.58004E-02	7.24089E-02
13r23	5.30143E-J2	3.72410E-02	2.53285E-J2	1.57972E-02	1.09223E-02
13r28	0.99387E-J3	4.42509E-03	2.77378E-J3	1.72609E-03	1.06806E-03
13r33	5.57968E-J4	4.33945E-04	2.47329E-04	1.51120E-04	9.21854E-J5
13r38	5.61632E-J5	3.41833E-05	2.07894E-05	1.26360E-05	7.67671E-06
13r43	4.66212E-06	2.63054E-06	1.71814E-06	1.04274E-06	J.
13r54	0.				
14r14	6.82289E+00	1.97202E-01	4.01328E-02	6.85591E-02	9.37812E-02
14r19	1.07617E-J1	1.32993E-01	9.63662E-02	7.92943E-02	6.10265E-02
14r24	4.45735E-J2	3.12521E-02	2.22548E-J2	1.65069E-02	9.86798E-03
14r29	5.84378E-J3	3.69532E-03	2.31531E-03	1.44023E-03	8.90969E-J4
14r34	5.40760E-J4	3.36844E-04	2.06218E-04	1.25988E-04	7.68485E-05
14r39	4.68165E-J5	2.84931E-05	1.73281E-05	1.05319E-05	6.39828E-06
14r44	3.80066E-J6	2.35903E-06	1.43195E-06	0.	J.
14r55	J.				
15r15	7.42370E+00	2.03320E-01	1.07552E-J3	0.	1.16039E-J1
15r20	2.14183E-J1	2.05014E-01	9.34539E-02	4.51133E-02	2.30914E-02
15r25	1.20278E-J2	6.85693E-03	4.30087E-03	5.59905E-03	4.83764E-03
15r30	2.90220E-J3	1.43476E-03	7.88993E-J4	5.06211E-04	3.28723E-J4
15r35	2.10316E-J4	1.44412E-04	9.78875E-05	6.73958E-05	4.71288E-05
15r40	3.34545E-05	2.40840E-05	1.75618E-J5	1.29525E-05	9.64798E-06
15r45	7.24733E-06	5.48259E-06	4.17182E-06	3.18955E-06	2.44797E-06
15r50	1.88460E-J6	1.45447E-06	1.12469E-06	0.	0.
15r56	J.				
16r16	7.97810E+00	2.80068E-01	1.40660E-J1	4.63716E-02	0.
16r21	1.29079E-J1	1.18937E-01	7.46808E-02	4.21322E-02	2.24132E-02
16r26	1.16468E-J2	6.58712E-03	8.91579E-04	J.	0.
16r31	5.61415E-J4	4.96014E-04	3.00500E-04	1.82098E-04	1.10370E-04
16r36	0.63058E-J5	4.05629E-05	2.45944E-05	1.49133E-05	9.04354E-06
16r41	5.48431E-06	3.32599E-06	2.01712E-06	1.22335E-06	0.
16r57	0.				
17r17	0.07930E+00	4.42642E-01	2.42222E-01	1.05322E-01	1.82804E-02
17r28	3.92809E-J3	2.86343E-03	1.77448E-03	1.14273E-03	7.45566E-04
17r33	4.53050E-04	1.24631E-04	0.	0.	J.
17r38	0.				
18r18	0.31040E+00	4.08310E-01	2.55035E-01	4.72140E-02	3.34029E-J2
18r23	1.70384E-J2	1.09701E-03	0.	0.	0.
18r59	J.				
19r19	8.03460E+00	2.46390E-01	2.06181E-J1	1.69717E-01	0.
19r24	1.11874E-J2	0.38061E-03	3.73436E-03	1.90600E-03	9.10015E-04
19r29	5.00760E-J4	1.21205E-04	0.	0.	0.
19r30	0.				
20r20	8.05340E+00	2.46560E-01	3.03435E-02	1.98996E-01	1.38809E-J1
20r25	2.50323E-J2	0.	0.	0.	0.
20r30	2.50051E-04	2.55701E-04	1.54001E-04	9.29932E-05	5.62067E-J5
20r35	3.39978E-05	2.05764E-05	1.24593E-05	7.54700E-06	4.57279E-06
20r40	2.77131E-06	1.07903E-06	1.01837E-06	0.	0.
20r61	J.				
21r21	0.17570E+00	2.51320E-01	0.	0.	9.95011E-02
21r26	9.31822E-J2	6.17819E-02	4.08107E-02	9.17653E-03	0.

GROUP I * J	J	J+1	DOWNSCATTER J+2	J+3	J+4
21*22	0.				
22*22	8.76930E+00	5.9674JE-02	0.	0.	0.
22*29	2.64517E-02	2.70821E-02	1.68389E-02	1.01073E-02	6.07967E-03
22*34	3.66331E-03	2.21039E-03	1.33519E-03	8.07236E-04	4.00381E-04
22*39	2.95634E-04	1.79035E-04	1.08459E-04	6.57219E-05	3.98331E-05
22*44	2.41462E-05	1.46388E-05	8.87581E-06	5.38193E-06	3.26365E-06
22*49	1.97918E-06	1.20028E-06	0.	0.	0.
22*63	0.				
23*23	8.73870E+00	2.84260E-01	0.	0.	0.
23*64	0.				
24*24	8.81120E+00	2.89830E-01	0.	0.	0.
24*65	0.				
25*25	8.93700E+00	2.93960E-01	0.	0.	0.
25*66	0.				
26*26	9.12360E+00	3.03400E-01	0.	0.	0.
26*67	0.				
27*27	9.33650E+00	3.10470E-01	0.	0.	0.
27*68	0.				
28*28	9.53260E+00	3.20440E-01	0.	0.	0.
28*69	0.				
29*29	9.70380E+00	3.26190E-01	0.	0.	0.
29*69	0.				
30*30	9.84890E+00	3.31090E-01	0.	0.	0.
30*69	0.				
31*31	9.95190E+00	3.38140E-01	0.	0.	0.
31*69	0.				
32*32	1.00360E+01	3.43650E-01	0.	0.	0.
32*69	0.				
33*33	1.01620E+01	3.47940E-01	0.	0.	0.
33*69	0.				
34*34	1.03940E+01	3.55900E-01	0.	0.	0.
34*69	0.				
35*35	1.25410E+01	4.29380E-01	0.	0.	0.
35*69	0.				
36*36	1.40490E+01	4.81050E-01	0.	0.	0.
36*69	0.				
37*37	1.50720E+01	4.47610E-01	0.	0.	0.
37*69	0.				
38*38	1.25700E+01	4.30390E-01	0.	0.	0.
38*69	0.				
39*39	1.25700E+01	4.30300E-01	0.	0.	0.
39*69	0.				
40*40	1.25700E+01	4.30390E-01	0.	0.	0.
40*69	0.				
41*41	1.25700E+01	4.30390E-01	0.	0.	0.
41*69	0.				
42*42	1.25700E+01	4.30390E-01	0.	0.	0.
42*69	0.				
43*43	1.25700E+01	4.30390E-01	0.	0.	0.
43*69	0.				

GROUP	J	J+1	DOWNSCATTER	J+2	J+3	J+4
44r+4	1.25700E+01	4.30390E-01	0.	0.	0.	
44r09	J.					
45r+5	1.25700E+01	4.30390E-01	0.	0.	0.	
45r09	J.					
46r+6	1.25700E+01	4.30390E-01	0.	0.	0.	
46r09	J.					
47r+7	1.25700E+01	4.30390E-01	0.	0.	0.	
47r09	J.					
48r+8	1.25700E+01	4.30390E-01	0.	0.	0.	
48r09	J.					
49r+9	1.25500E+01	4.29720E-01	0.	0.	0.	
49r09	J.					
51r+1	1.02100E+01	3.49600E-01	0.	0.	0.	
51r09	J.					
51r51	1.10150E+01	4.04570E-01	0.	0.	0.	
51r09	J.					
52r+2	1.02000E+01	3.49270E-01	0.	0.	0.	
52r09	J.					
53r+3	1.48320E+01	5.07860E-01	0.	0.	0.	
53r09	J.					
54r+4	1.79040E+01	6.15800E-01	0.	0.	0.	
54r09	J.					
55r+5	1.31210E+01	4.49270E-01	0.	0.	0.	
55r09	J.					
56r+6	1.61130E+01	5.51560E-01	0.	0.	0.	
56r09	J.					
57r+7	1.49480E+01	5.11830E-01	0.	0.	0.	
57r09	J.					
58r+8	1.21540E+01	4.16160E-01	0.	0.	0.	
58r09	J.					
59r+9	1.32050E+01	4.54900E-01	0.	0.	0.	
59r09	J.					
60r+0	1.05390E+01	3.60050E-01	0.	0.	0.	
60r09	J.					
61r+1	1.10160E+01	3.94010E-01	0.	0.	0.	
61r09	J.					
62r+2	1.19310E+01	4.08540E-01	0.	0.	0.	
62r09	J.					
63r+3	1.21930E+01	4.17480E-01	0.	0.	0.	
63r09	J.					
64r+4	1.24730E+01	4.27000E-01	0.	0.	0.	
64r09	J.					
65r+5	1.27150E+01	4.35360E-01	0.	0.	0.	
65r09	J.					
66r+6	1.29270E+01	4.42640E-01	0.	0.	0.	
66r09	J.					
67r+7	1.32660E+01	4.54230E-01	0.	0.	0.	
67r09	J.					
68r+8	1.39720E+01	4.78400E-01	0.	0.	0.	
68r09	J.					

PU241

ANISOTROPIC MATRIX
1 DOWNSCATTER

GROUP		DOWNSCATTER	
I	J	J	J+1
1	1	2.56050E+00	1.59180E-01
2	2	2.78760E+00	5.95260E-01
3	3	3.65890E+00	2.78970E-01
4	4	4.66570E+00	-9.84770E-01
5	5	3.86120E+00	-4.71240E-01
6	6	3.57190E+00	-9.36170E-01
7	7	2.22960E+00	-1.18610E-01
8	8	1.89790E+00	-1.36130E-01
9	9	1.41530E+00	7.71750E-02
10	10	1.91110E+00	-3.93120E-01
11	11	1.57510E+00	8.15210E-02
12	12	1.55630E+00	7.16590E-02
13	13	2.23820E+00	-4.69980E-01
14	14	1.51050E+00	5.31820E-02
15	15	2.23780E+00	-5.65810E-01
16	16	1.96150E+00	-5.56630E-01
17	17	1.25960E+00	-9.18650E-03
18	18	1.08410E+00	-2.20410E-02
19	19	1.21180E+00	-3.10980E-01
20	20	8.78830E-01	-2.39250E-02
21	21	8.71090E-01	-3.68170E-02
22	22	8.55970E+00	-1.67360E+00
23	23	6.86940E-01	-2.35810E-01
24	24	4.38320E-01	-7.42710E-02
25	25	4.63630E-01	-4.33940E-02
26	26	4.40100E-01	-1.57290E-01
27	27	4.05690E-01	-1.16280E-01
28	28	2.95990E-01	-3.89440E-02
29	29	3.01310E-01	-1.00720E-01
30	30	3.32970E-01	-1.29370E-01
31	31	2.13620E-01	-1.10720E-01
32	32	1.47310E-01	-1.18600E-01
33	33	1.47820E-01	-1.18550E-01
34	34	1.52560E-01	-1.22830E-01
35	35	1.73900E-01	-1.35020E-01
36	36	1.93580E-01	-1.53390E-01
37	37	1.89900E-01	-1.52500E-01
38	38	1.82590E-01	-1.46640E-01
39	39	1.68290E-01	-1.32340E-01
40	40	1.64500E-01	-1.48540E-01
41	41	1.63400E-01	-1.33440E-01
42	42	1.82590E-01	-1.46640E-01

GROUP		DOWNSCATTER	
I	J	J	J+1
43	43	1.69400E-01	-1.33440E-01
44	44	1.71300E-01	-1.35340E-01
45	45	1.82590E-01	-1.46640E-01
46	46	1.71300E-01	-1.35340E-01
47	47	1.82590E-01	-1.46640E-01
48	48	1.71300E-01	-1.35340E-01
49	49	1.82320E-01	-1.46410E-01
50	50	1.46780E-01	-1.17570E-01
51	51	1.61020E-01	-1.27220E-01
52	52	1.48180E-01	-1.19000E-01
53	53	2.15460E-01	-1.73030E-01
54	54	2.61260E-01	-2.09810E-01
55	55	1.78810E-01	-1.41280E-01
56	56	2.34010E-01	-1.87920E-01
57	57	2.05960E-01	-1.63210E-01
58	58	1.76560E-01	-1.41790E-01
59	59	1.81050E-01	-1.43050E-01
60	60	1.51500E-01	-1.21350E-01
61	61	1.58670E-01	-1.25730E-01
62	62	1.71520E-01	-1.37390E-01
63	63	1.75280E-01	-1.40400E-01
64	64	1.83080E-01	-1.47400E-01
65	65	1.82780E-01	-1.46410E-01
66	66	1.74220E-01	-1.57240E-01
67	67	1.92710E-01	-1.54760E-01
68	68	2.00850E-01	-1.00880E-01

PU242 CAPTURE CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	3.85110E-03	15	1.20860E-01	29	6.98570E-01	43	3.02930E+00	57	3.66930E-01
2	4.99480E-03	16	1.26250E-01	30	8.17660E-01	44	7.56680E+00	58	9.51930E-01
3	6.65540E-03	17	1.34990E-01	31	9.65520E-01	45	1.27020E+01	59	3.18440E+01
4	9.78520E-03	18	1.47270E-01	32	1.15070E+00	46	1.57850E+01	60	2.08030E+01
5	1.75500E-02	19	1.60130E-01	33	1.38330E+00	47	1.64420E+00	61	4.05580E+03
6	3.05700E-02	20	2.01330E-01	34	1.67540E+00	48	8.57790E+00	62	6.14490E+01
7	4.43400E-02	21	2.63150E-01	35	2.04130E+00	49	9.31450E+01	63	1.68330E+01
8	5.60560E-02	22	3.39910E-01	36	2.49800E+00	50	4.74930E+00	64	1.02240E+01
9	4.79590E-02	23	3.93490E-01	37	3.06590E+00	51	5.85540E-02	65	8.26970E+00
10	6.97860E-02	24	4.35600E-01	38	3.76940E+00	52	6.65790E-01	66	7.28310E+00
11	9.01110E-02	25	4.80420E-01	39	4.63780E+00	53	8.37870E+00	67	6.92620E+00
12	1.16130E-01	26	5.27860E-01	40	5.70690E+00	54	4.68850E+00	68	6.91680E+00
13	1.17030E-01	27	5.86490E-01	41	5.49280E+00	55	1.06550E-01		
14	1.16570E-01	28	6.01190E-01	42	1.09430E+01	56	1.68550E-01

PUZ42 FISSION CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	1.94750E+00	15	5.77060E-02	29	0.	43	0.	57	0.
2	1.97550E+00	16	4.18310E-02	30	0.	44	0.	58	0.
3	1.81280E+00	17	3.38980E-02	31	0.	45	0.	59	0.
4	1.74390E+00	18	3.09140E-02	32	0.	46	0.	60	0.
5	1.69340E+00	19	2.87660E-02	33	0.	47	0.	61	0.
6	1.59990E+00	20	3.05450E-02	34	0.	48	0.	62	0.
7	1.36720E+00	21	3.46840E-02	35	0.	49	0.	63	0.
8	1.35190E+00	22	4.01380E-02	36	0.	50	0.	64	0.
9	1.50250E+00	23	4.36510E-02	37	0.	51	0.	65	0.
10	1.21370E+00	24	4.75210E-02	38	0.	52	0.	66	0.
11	7.12110E-01	25	5.15520E-02	39	0.	53	0.	67	0.
12	3.58490E-01	26	5.64710E-02	40	0.	54	0.	68	0.
13	1.70770E-01	27	6.28950E-02	41	0.	55	0.		
14	9.33780E-02	28	0.	42	0.	56	0.		

PUZ42 NO. NEUTRONS/FISSION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	4.07190E+00	15	2.84610E+00	29	2.80920E+00	43	2.80800E+00	57	2.80800E+00
2	4.19830E+00	16	2.83770E+00	30	2.80890E+00	44	2.80800E+00	58	2.80800E+00
3	3.95310E+00	17	2.83110E+00	31	2.80870E+00	45	2.80800E+00	59	2.80800E+00
4	3.76220E+00	18	2.82600E+00	32	2.80850E+00	46	2.80800E+00	60	2.80800E+00
5	3.27260E+00	19	2.82200E+00	33	2.80840E+00	47	2.80800E+00	61	2.80800E+00
6	3.16980E+00	20	2.81890E+00	34	2.80830E+00	48	2.80800E+00	62	2.80800E+00
7	3.00380E+00	21	2.81650E+00	35	2.80830E+00	49	2.80800E+00	63	2.80800E+00
8	3.02750E+00	22	2.81460E+00	36	2.80820E+00	50	2.80800E+00	64	2.80800E+00
9	2.97090E+00	23	2.81320E+00	37	2.80820E+00	51	2.80800E+00	65	2.80800E+00
10	2.94110E+00	24	2.81200E+00	38	2.80810E+00	52	2.80800E+00	66	2.80800E+00
11	2.91170E+00	25	2.81110E+00	39	2.80810E+00	53	2.80800E+00	67	2.80800E+00
12	2.88370E+00	26	2.81040E+00	40	2.80810E+00	54	2.80800E+00	68	2.80800E+00
13	2.86740E+00	27	2.80990E+00	41	2.80810E+00	55	2.80800E+00		
14	2.85700E+00	28	2.80950E+00	42	2.80800E+00	56	2.80800E+00		

FP25R CAPTURE CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	1.13510E-01	15	6.28920E-01	29	6.21030E+00	43	6.47610E+01	57	4.47200E+02
2	1.38120E-01	16	6.90690E-01	30	7.41210E+00	44	7.87680E+01	58	8.62710E+02
3	1.68920E-01	17	7.73500E-01	31	8.81230E+00	45	8.66870E+01	59	2.81024E+02
4	2.02730E-01	18	8.80940E-01	32	1.05080E+01	46	9.49540E+01	60	6.09650E-01
5	2.43050E-01	19	1.01340E+00	33	1.25100E+01	47	1.06030E+02	61	1.69820E+02
6	2.88730E-01	20	1.18490E+00	34	1.47670E+01	48	1.24020E+02	62	1.89330E+02
7	3.39160E-01	21	1.40650E+00	35	1.73590E+01	49	1.43160E+02	63	2.36500E+02
8	3.93920E-01	22	1.68780E+00	36	2.03300E+01	50	1.64320E+02	64	8.75100E+02
9	4.44990E-01	23	2.03880E+00	37	2.38070E+01	51	2.00060E+02	65	2.23290E+03
10	4.89040E-01	24	2.46170E+00	38	2.78620E+01	52	2.14330E+02	66	1.33710E+02
11	5.15510E-01	25	2.96860E+00	39	3.25300E+01	53	2.56290E+02	67	1.15100E+02
12	5.41570E-01	26	3.57550E+00	40	3.78110E+01	54	2.84330E+02	68	1.64240E+02
13	5.65700E-01	27	4.30370E+00	41	4.42040E+01	55	3.13100E+02		
14	5.92210E-01	28	5.17850E+00	42	5.26070E+01	56	3.53420E+02		

FP39R CAPTURE CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	1.04050E-01	15	6.15590E-01	29	6.09820E+00	43	5.54560E+01	57	4.53400E+02
2	1.29050E-01	16	6.73910E-01	30	7.21940E+00	44	6.44570E+01	58	7.12930E+02
3	1.58180E-01	17	7.59800E-01	31	8.51390E+00	45	7.48860E+01	59	2.31590E+02
4	1.91410E-01	18	8.73130E-01	32	9.98790E+00	46	8.70410E+01	60	1.55250E+00
5	2.30340E-01	19	1.01380E+00	33	1.16940E+01	47	9.82350E+01	61	4.34560E+02
6	2.73150E-01	20	1.19880E+00	34	1.36010E+01	48	1.15020E+02	62	2.24860E+02
7	3.20050E-01	21	1.42230E+00	35	1.58450E+01	49	1.31170E+02	63	2.04720E+02
8	3.60670E-01	22	1.69560E+00	36	1.85170E+01	50	1.53410E+02	64	7.30280E+02
9	4.12120E-01	23	2.03760E+00	37	2.16420E+01	51	1.99940E+02	65	1.85690E+03
10	4.54470E-01	24	2.45210E+00	38	2.53830E+01	52	1.86500E+02	66	1.33990E+02
11	4.89480E-01	25	2.95840E+00	39	2.97470E+01	53	2.49120E+02	67	1.43600E+02
12	5.18990E-01	26	3.55890E+00	40	3.46520E+01	54	2.61060E+02	68	2.34750E+02
13	5.47420E-01	27	4.27390E+00	41	4.06000E+01	55	2.66730E+02		
14	5.77860E-01	28	5.12820E+00	42	4.76110E+01	56	2.93710E+02		

FP25S CAPTURE CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	1.26370E-02	15	2.11850E-01	29	1.16470E+00	43	1.20670E+01	57	1.41870E+02
2	1.59340E-02	16	2.32620E-01	30	1.37180E+00	44	1.48950E+01	58	7.40330E+02
3	2.00680E-02	17	2.49210E-01	31	1.60730E+00	45	1.82700E+01	59	6.02550E+00
4	2.52130E-02	18	2.64560E-01	32	1.88100E+00	46	1.99330E+01	60	7.27700E+00
5	3.17000E-02	19	2.79810E-01	33	2.19880E+00	47	2.04780E+01	61	1.03230E+01
6	3.99610E-02	20	2.96100E-01	34	2.56120E+00	48	1.32020E+01	62	1.37530E+01
7	5.03200E-02	21	3.22020E-01	35	2.96410E+00	49	1.59670E+01	63	2.92810E+01
8	6.27140E-02	22	3.57210E-01	36	3.41960E+00	50	1.25590E+02	64	2.18670E+02
9	7.73950E-02	23	4.05590E-01	37	4.04310E+00	51	4.47230E+00	65	6.52520E+01
10	9.49210E-02	24	4.73020E-01	38	4.82590E+00	52	4.04540E-01	66	2.83670E+01
11	1.15190E-01	25	5.58550E-01	39	5.74060E+00	53	3.92900E+01	67	2.55570E+01
12	1.37970E-01	26	6.72000E-01	40	6.75430E+00	54	2.22360E+02	68	2.69330E+01
13	1.63060E-01	27	8.14060E-01	41	7.81650E+00	55	1.66690E+00		
14	1.87810E-01	28	9.77220E-01	42	9.63610E+00	56	1.61540E+00		

FP39S CAPTURE CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	1.31710E-02	15	2.21340E-01	29	1.23580E+00	43	1.23440E+01	57	2.43310E+02
2	1.66290E-02	16	2.43940E-01	30	1.46570E+00	44	1.56020E+01	58	6.96610E+02
3	2.10480E-02	17	2.61900E-01	31	1.71260E+00	45	1.92700E+01	59	1.01510E+01
4	2.65270E-02	18	2.76740E-01	32	1.99290E+00	46	1.99060E+01	60	1.21780E+01
5	3.33670E-02	19	2.92030E-01	33	2.32130E+00	47	2.04810E+01	61	2.00660E+01
6	4.18570E-02	20	3.13160E-01	34	2.70610E+00	48	1.43010E+01	62	1.96320E+01
7	5.24370E-02	21	3.41210E-01	35	3.15170E+00	49	1.64020E+01	63	4.53230E+01
8	6.54270E-02	22	3.79920E-01	36	3.66060E+00	50	1.15740E+02	64	3.81090E+02
9	8.08380E-02	23	4.31630E-01	37	4.21780E+00	51	5.62810E+00	65	1.04890E+02
10	9.89110E-02	24	4.99430E-01	38	4.95740E+00	52	6.78070E-01	66	3.90760E+01
11	1.19340E-01	25	5.86160E-01	39	5.93780E+00	53	3.72240E+01	67	3.24070E+01
12	1.44050E-01	26	7.00220E-01	40	6.94910E+00	54	2.28410E+02	68	3.33830E+01
13	1.70530E-01	27	8.47350E-01	41	8.09820E+00	55	3.10980E+00		
14	1.96370E-01	28	1.03250E+00	42	9.37290E+00	56	2.15990E+00		

FP250 CAPTURE CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	4.69900E-03	15	3.32800E-02	29	2.62310E-01	43	2.65150E+00	57	1.34720E-01
2	5.22700E-03	16	3.91380E-02	30	2.98500E-01	44	1.32780E+00	58	1.16740E+00
3	6.41200E-03	17	4.65250E-02	31	3.40460E-01	45	1.08150E+00	59	1.75480E-01
4	7.80850E-03	18	5.47550E-02	32	3.88580E-01	46	1.22710E+00	60	2.14000E-01
5	9.43120E-03	19	6.41440E-02	33	4.43010E-01	47	5.77650E+00	61	2.37090E-01
6	1.11470E-02	20	7.52460E-02	34	5.02910E-01	48	5.99340E+00	62	2.79090E-01
7	1.30590E-02	21	8.72350E-02	35	5.68760E-01	49	1.71600E+00	63	6.15630E-01
8	1.48310E-02	22	1.01030E-01	36	6.40940E-01	50	3.55680E+00	64	5.90450E-01
9	1.66030E-02	23	1.16580E-01	37	7.31860E-01	51	2.16280E+00	65	4.37050E-01
10	1.84760E-02	24	1.33830E-01	38	7.39120E-01	52	2.87400E+00	66	5.39050E-01
11	1.98080E-02	25	1.53420E-01	39	9.55240E-01	53	1.93420E-01	67	6.46710E-01
12	2.20670E-02	26	1.75680E-01	40	1.69780E+00	54	4.22000E+00	68	7.57300E-01
13	2.43740E-02	27	2.01050E-01	41	3.71000E+00	55	5.88140E-01		
14	2.85000E-02	28	2.30010E-01	42	1.92200E+00	56	1.30000E-01		

FP390 CAPTURE CROSS-SECTION

GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION	GROUP	X-SECTION
1	6.75700E-03	15	5.33380E-02	29	3.88610E-01	43	3.20360E+00	57	3.59900E-01
2	8.26200E-03	16	6.25750E-02	30	4.40560E-01	44	2.41730E+00	58	5.22080E+01
3	1.01390E-02	17	7.34600E-02	31	4.97780E-01	45	2.18570E+00	59	3.28000E-01
4	1.25030E-02	18	8.59230E-02	32	5.62040E-01	46	1.90240E+00	60	3.86000E-01
5	1.51490E-02	19	1.00030E-01	33	6.34060E-01	47	6.84850E+00	61	3.54460E-01
6	1.80380E-02	20	1.15150E-01	34	7.13230E-01	48	7.85300E+00	62	4.44800E-01
7	2.11160E-02	21	1.32840E-01	35	8.03600E-01	49	2.98710E+00	63	1.71350E+00
8	2.40170E-02	22	1.53530E-01	36	9.08090E-01	50	4.93080E+00	64	5.85970E-01
9	2.68360E-02	23	1.77050E-01	37	1.01990E+00	51	9.74920E+00	65	6.44770E-01
10	2.94380E-02	24	2.02610E-01	38	1.06020E+00	52	2.30560E+00	66	7.45300E-01
11	3.22120E-02	25	2.29660E-01	39	1.34250E+00	53	1.78560E-01	67	8.58250E-01
12	3.50310E-02	26	2.61390E-01	40	2.17920E+00	54	5.24890E+00	68	9.88470E-01
13	4.01380E-02	27	2.98250E-01	41	4.52990E+00	55	2.85310E+00		
14	4.59350E-02	28	3.40370E-01	42	2.71140E+00	56	1.74000E-01		

*** FILE SIX ***

SPECTRUM DATA

SPECTRUM 13

13 PU-239, NUCLEAR TEMP. T = 1.41 (15 MEV)

3-77

GROUP	SOURCE	GROUP	SOURCE	GROUP	SOURCE	GROUP	SOURCE	GROUP	SOURCE
1	1.13664E-02	15	1.92689E-02	29	1.21657E-04	43	0.	57	0.
2	2.35894E-02	16	1.38142E-02	30	8.37199E-05	44	0.	58	0.
3	4.70463E-02	17	9.81171E-03	31	0.	45	0.	59	0.
4	7.44316E-02	18	6.91841E-03	32	0.	46	0.	60	0.
5	9.81709E-02	19	4.85073E-03	33	0.	47	0.	61	0.
6	1.12268E-01	20	3.38604E-03	34	0.	48	0.	62	0.
7	1.14820E-01	21	2.35550E-03	35	0.	49	0.	63	0.
8	1.07003E-01	22	1.63422E-03	36	0.	50	0.	64	0.
9	9.41352E-02	23	1.13144E-03	37	0.	51	0.	65	0.
10	7.81749E-02	24	7.82071E-04	38	0.	52	0.	66	0.
11	6.22363E-02	25	5.39890E-04	39	0.	53	0.	67	0.
12	4.79002E-02	26	3.72345E-04	40	0.	54	0.	68	0.
13	3.60447E-02	27	2.56595E-04	41	0.	55	0.		
14	2.65574E-02	28	1.76722E-04	42	0.	56	0.		

*** FILE SEVEN ***

DEPLETION DATA

*B10 *	<p>DECAY CONSTANT = 0. ATOMIC MASS = 1.08110E+01 NON-FISSILE</p>	<p>CAPTURE Q-VALUE = 1.14560E+01 FISSION Q-VALUE = 0. NO FISSION PRODUCTS</p>
*C16 *	<p>DECAY CONSTANT = 0. ATOMIC MASS = 1.59994E+01 NON-FISSILE</p>	<p>CAPTURE Q-VALUE = 4.14300E+00 FISSION Q-VALUE = 0. NO FISSION PRODUCTS</p>
*N23 *	<p>DECAY CONSTANT = 0. ATOMIC MASS = 2.29898E+01 NON-FISSILE</p>	<p>CAPTURE Q-VALUE = 6.96200E+00 FISSION Q-VALUE = 0. NO FISSION PRODUCTS</p>
*S5304 *	<p>DECAY CONSTANT = 0. ATOMIC MASS = 5.70000E+01 NON-FISSILE</p>	<p>CAPTURE Q-VALUE = 7.64000E+00 FISSION Q-VALUE = 0. NO FISSION PRODUCTS</p>

*U238 *

DECAY CONSTANT = 0.
ATOMIC MASS = 2.38051E+02
NON-FISSILE

CAPTURE Q-VALUE = 6.80000E+00
FISSION Q-VALUE = 1.92700E+02

6 FISSON PRODUCTS			
PRODUCT	YIELD	PRODUCT	YIELD
SM149	1.13000E-02	FP25U	1.54320E+00
FP25R	5.00000E-03	XE135	6.45000E-02
FP25S	3.76000E-01	FP49T	1.31000E+00

NUMBER OF DELAYED NEUTRON PERCURSORS = 6	
DECAY CONSTANT	DELAYED NEUTRON FRACTION
1.32000E-02	1.92400E-04
3.21000E-02	2.02760E-03
1.39000E-01	2.39760E-03
3.58000E-01	5.74240E-03
1.41000E+00	3.33000E-03
4.02000E+00	1.11000E-03

DELAYED NEUTRON SPECTRUM - 68 GROUPS			
GROUP	SOURCE	GROUP	SOURCE
1	0.	24	0.
2	0.	25	0.
3	0.	26	0.
4	0.	27	0.
5	0.	28	0.
6	0.	29	0.
7	0.	30	0.
8	0.	31	0.
9	6.85000E-02	32	0.
10	6.85000E-02	33	0.
11	1.21450E-01	34	0.
12	1.21450E-01	35	0.
13	1.03850E-01	36	0.
14	1.03850E-01	37	0.
15	1.01810E-01	38	0.
16	1.01810E-01	39	0.
17	6.10000E-02	40	0.
18	6.10000E-02	41	0.
19	2.89000E-02	42	0.
20	2.89000E-02	43	0.
21	1.44500E-02	44	0.
22	1.44500E-02	45	0.
23	0.	46	0.
		47	0.
		48	0.
		49	0.
		50	0.
		51	0.
		52	0.
		53	0.
		54	0.
		55	0.
		56	0.
		57	0.
		58	0.
		59	0.
		60	0.
		61	0.
		62	0.
		63	0.
		64	0.
		65	0.
		66	0.
		67	0.
		68	0.

*PU239 *

DECAY CONSTANT = 9.02089E-13
 ATOMIC MASS = 2.39052E+02
 FISSILE

CAPTURE Q-VALUE = 7.08000E+00
 FISSION Q-VALUE = 2.00400E+02

6 FISSION PRODUCTS

PRODUCT	YIELD	PRODUCT	YIELD
FP39R	1.34000E-02	XE135	7.15000E-02
FP39S	4.01000E-01	FP49T	1.92800E+00
FP39U	1.51110E+00	SM149	1.30000E-02

NUMBER OF DELAYED NEUTRON PERCURSORS = 6

DECAY CONSTANT	DELAYED NEUTRON FRACTION
1.29000E-02	7.60000E-05
3.11000E-02	5.60000E-04
1.34000E-01	4.32000E-04
3.31000E-01	6.56000E-04
1.26000E+00	2.06000E-04
3.21000E+00	7.00000E-05

DELAYED NEUTRON SPECTRUM - 68 GROUPS			
GROUP	SOURCE	GROUP	SOURCE
1	0.	24	0.
2	0.	25	0.
3	0.	26	0.
4	0.	27	0.
5	0.	28	0.
6	0.	29	0.
7	0.	30	0.
8	0.	31	0.
9	6.23500E-02	32	0.
10	6.23500E-02	33	0.
11	1.22500E-01	34	0.
12	1.22500E-01	35	0.
13	1.14800E-01	36	0.
14	1.14800E-01	37	0.
15	9.50000E-02	38	0.
16	9.50000E-02	39	0.
17	9.80500E-02	40	0.
18	9.80500E-02	41	0.
19	3.08500E-02	42	0.
20	3.08500E-02	43	0.
21	1.64500E-02	44	0.
22	1.64500E-02	45	0.
23	0.	46	0.
		47	0.
		48	0.
		49	0.
		50	0.
		51	0.
		52	0.
		53	0.
		54	0.
		55	0.
		56	0.
		57	0.
		58	0.
		59	0.
		60	0.
		61	0.
		62	0.
		63	0.
		64	0.
		65	0.
		66	0.
		67	0.
		68	0.

*PU24. *

DECAY CONSTANT = 3.25072E-12
 ATOMIC MASS = 2.40054E+02
 NON-FISSILE

CAPTURE Q-VALUE = 5.23000E+00
 FISSION Q-VALUE = 1.98700E+02

6 FISSION PRODUCTS

PRODUCT	YIELD	PRODUCT	YIELD
FP39R	1.34000E-02	XE135	7.15000E-02
FP39S	4.01000E-01	FP49T	1.92800E+00
FP39U	1.50110E+00	SM149	1.30000E-02

NUMBER OF DELAYED NEUTRON PERCURSORS = 6

DECAY CONSTANT	DELAYED NEUTRON FRACTION
1.29000E-02	7.28000E-05
3.13000E-02	7.09800E-04
1.35000E-01	4.99200E-04
3.35000E-01	9.10000E-04
1.36000E+00	3.32800E-04
4.04000E+00	7.54000E-05

DELAYED NEUTRON SPECTRUM - 68 GROUPS

GROUP	SOURCE	GROUP	SOURCE	GROUP	SOURCE
1	0.	24	0.	47	0.
2	0.	25	0.	48	0.
3	0.	26	0.	49	0.
4	0.	27	0.	50	0.
5	0.	28	0.	51	0.
6	0.	29	0.	52	0.
7	0.	30	0.	53	0.
8	0.	31	0.	54	0.
9	6.38500E-02	32	0.	55	0.
10	6.38500E-02	33	0.	56	0.
11	1.22750E-01	34	0.	57	0.
12	1.22750E-01	35	0.	58	0.
13	1.13550E-01	36	0.	59	0.
14	1.13550E-01	37	0.	60	0.
15	9.59500E-02	38	0.	61	0.
16	9.59500E-02	39	0.	62	0.
17	5.79500E-02	40	0.	63	0.
18	5.79500E-02	41	0.	64	0.
19	3.00500E-02	42	0.	65	0.
20	3.00500E-02	43	0.	66	0.
21	1.58000E-02	44	0.	67	0.
22	1.58000E-02	45	0.	68	0.
23	0.	46	0.		

*PU241 *

DECAY CONSTANT = 1.69038E-09
 ATOMIC MASS = 2.41052E+02
 FISSION

CAPTURE Q-VALUE = 6.74000E+00
 FISSION Q-VALUE = 2.00500E+02

6 FISSION PRODUCTS

PRODUCT	YIELD	PRODUCT	YIELD
FP39R	1.34000E-02	XE135	7.15000E-02
FP39S	4.01000E-01	FP49T	1.92800E+00
FP39U	1.50110E+00	SM149	1.30000E-02

NUMBER OF DELAYED NEUTRON PERCURSORS = 6

DECAY CONSTANT

1.28000E-02
 2.99000E-02
 1.23800E-01
 3.51900E-01
 1.61200E+00
 4.62100E+00

DELAYED NEUTRON FRACTION

5.17000E-05
 1.22500E-03
 9.22800E-04
 2.08100E-03
 9.73200E-04
 8.39000E-05

DELAYED NEUTRON SPECTRUM - 68 GROUPS

GROUP	SOURCE	GROUP	SOURCE	GROUP	SOURCE
1	0.	24	0.	47	0.
2	0.	25	0.	48	0.
3	0.	26	0.	49	0.
4	0.	27	0.	50	0.
5	0.	28	0.	51	0.
6	0.	29	0.	52	0.
7	0.	30	0.	53	0.
8	0.	31	0.	54	0.
9	6.23500E-02	32	0.	55	0.
10	6.23500E-02	33	0.	56	0.
11	1.22500E-01	34	0.	57	0.
12	1.22500E-01	35	0.	58	0.
13	1.14800E-01	36	0.	59	0.
14	1.14800E-01	37	0.	60	0.
15	9.50000E-02	38	0.	61	0.
16	9.50000E-02	39	0.	62	0.
17	5.80500E-02	40	0.	63	0.
18	5.80500E-02	41	0.	64	0.
19	3.08500E-02	42	0.	65	0.
20	3.08500E-02	43	0.	66	0.
21	1.64500E-02	44	0.	67	0.
22	1.64500E-02	45	0.	68	0.
23	0.	46	0.		

*PUZ42 *

DECAY CONSTANT = 5.85997E-14
ATOMIC MASS = 2.42054E+02
NON-FISSILE

CAPTURE Q-VALUE = 5.73000E+03
FISSION Q-VALUE = 2.03400E+02

6 FISSION PRODUCTS

PRODUCT	YIELD	PRODUCT	YIELD
FP39R	1.34000E-02	XE135	7.15000E-02
FP39S	4.01000E-01	FP49T	1.92800E+00
FP39U	1.50110E+00	SM149	1.30000E-02

NUMBER OF DELAYED NEUTRON PERCURSORS = 6

DECAY CONSTANT	DELAYED NEUTRON FRACTION
1.28400E-02	3.03000E-05
3.15100E-02	1.63600E-03
1.15500E-01	1.06100E-03
3.46600E-01	3.33300E-03
1.38600E+00	1.81800E-03
3.46600E+00	1.21200E-04

DELAYED NEUTRON SPECTRUM - 68 GROUPS

GROUP	SOURCE	GROUP	SOURCE	GROUP	SOURCE
1	0.	24	0.	47	0.
2	0.	25	0.	48	0.
3	0.	26	0.	49	0.
4	0.	27	0.	50	0.
5	0.	28	0.	51	0.
6	0.	29	0.	52	0.
7	0.	30	0.	53	0.
8	0.	31	0.	54	0.
9	6.38500E-02	32	0.	55	0.
10	6.38500E-02	33	0.	56	0.
11	1.22750E-01	34	0.	57	0.
12	1.22750E-01	35	0.	58	0.
13	1.13550E-01	36	0.	59	0.
14	1.13550E-01	37	0.	60	0.
15	9.59500E-02	38	0.	61	0.
16	9.59500E-02	39	0.	62	0.
17	5.79500E-02	40	0.	63	0.
18	5.79500E-02	41	0.	64	0.
19	3.00500E-02	42	0.	65	0.
20	3.00500E-02	43	0.	66	0.
21	1.58000E-02	44	0.	67	0.
22	1.58000E-02	45	0.	68	0.
23	0.	46	0.		

*FP25R *

DECAY CONSTANT = 0.
ATOMIC MASS = 1.50600E+02
NON-FISSILE

CAPTURE Q-VALUE = 5.20800E+00
FISSION Q-VALUE = 0.
NO FISSION PRODUCTS

*FP39R *

DECAY CONSTANT = 0.
ATOMIC MASS = 1.50200E+02
NON-FISSILE

CAPTURE Q-VALUE = 5.51900E+00
FISSION Q-VALUE = 0.
NO FISSION PRODUCTS

*FP25S *

DECAY CONSTANT = 0.
ATOMIC MASS = 1.22600E+02
NON-FISSILE

CAPTURE Q-VALUE = 5.20800E+00
FISSION Q-VALUE = 0.
NO FISSION PRODUCTS

*FP39S *

DECAY CONSTANT = 0.
ATOMIC MASS = 1.22200E+02
NON-FISSILE

CAPTURE Q-VALUE = 5.51900E+00
FISSION Q-VALUE = 0.
NO FISSION PRODUCTS

*FP25U *

DECAY CONSTANT = 0.
ATOMIC MASS = 1.13400E+02
NON-FISSILE

CAPTURE Q-VALUE = 5.20600E+00
FISSION Q-VALUE = 0.
NO FISSION PRODUCTS

*FP39U *

DECAY CONSTANT = 0.
ATOMIC MASS = 1.15200E+02
NON-FISSILE

CAPTURE Q-VALUE = 5.51900E+00
FISSION Q-VALUE = 0.
NO FISSION PRODUCTS

FFFFFFF	A	RRRRRR	EEEEEEE	DDDDDD
F	A A	R R	E	D D
F	A A	R R	E	D D
FFFF	AAAAA	RRRRRR	EEEE	D D
F	A A	R R	E	D D
F	A A	R R	E	D D
F	A A	R R	EEEEEE	DDDDDD

A ONE-DIMENSIONAL MULTIGROUP FAST REACTOR PHYSICS ANALYSIS AND FUEL MANAGEMENT CODE

DEVELOPED FOR THE U. S. ATOMIC ENERGY COMMISSION

UNDER AEC CONTRACT NO. AT(30-1)-3867

DEVELOPED BY

THE BABCOCK AND WILCOX COMPANY

NUCLEAR POWER GENERATION DEPARTMENT

LYNCHBURG, VA.

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>> *** 1000-MW LMFBR SAMPLE PROBLEM ***
>> CONFIGURATION
>> GDATA CYL 17 5 2342.2 88.222 3 1 5 1 .1-3 40 .0 .2
>> BULK BM1 1 FUEL PU239 .2016-2 PU240 .7823-3
>> PU241 .1504-3
>> DILUENT U238 .1785-1
>> MIX O15 .4182-1
>> 0.5398 ZM1 ZM21 ZM24 ZM27
>> BM2 1 FUEL PU239 .2172-2 PU240 .8429-3
>> PU241 .1621-3
>> DILUENT U238 .1762-1
>> MIX O16 .4184-1
>> 0.5398 ZM2 ZM22 ZM25 ZM28
>> BM3 1 FUEL PU239 .2524-2 PU240 .9794-3
>> PU241 .1884-3
>> DILUENT U238 .1712-1
>> MIX O16 .4188-1
>> 0.5398 ZM3 ZM23 ZM25 ZM29
>> BM4 1 U238 .2195-1 O16 .4404-1
>> 0.7341 ZM4
>> BM5 NA23 .2159-1
>> 0.3510 ZM5
>> 0.1991 ZM6
>> 1.0 ZM7
>> BM6 SS304 .8613-1
>> 0.1092 ZM8
>> 0.0668 ZM9
>> 1.0 ZM10
>> BM7 FUEL B10 1.0-2
>> 1.0 ZM11 ZM12 ZM13
>> ZONE Z1 CORE 90.426 20 0.7836 ZM1 ZM5 ZM8 0.1393 ZM7
>> 0.0766 ZM10 0.0005 ZM11
>> Z2 CORE 122.282 10 0.8304 ZM2 ZM5 ZM8 0.0925 ZM7
>> 0.0766 ZM10 0.0005 ZM12
>> Z3 CORE 153.359 10 0.8429 ZM3 ZM5 ZM8 0.0800 ZM7
>> 0.0766 ZM10 0.0005 ZM13
>> Z4 BLANKET 184.088 10 0.8767 ZM4 ZM6 ZM9 0.0467 ZM7
>> 0.0766 ZM10
>> Z5 REFLECTOR 214.088 10 0.5 ZM7 0.5 ZM10
>> BLOCK B1 Z1 Z2 Z3 0.950-3 13 C1
>> B2 Z4 0.950-3 13 C2
>> B3 Z5 0.950-3 13
>> CELL C1 1 HEX 0.66040 0.85598 1643.3 0.2657
>> C2 1 HEX 1.45796 1.62052 1366.4 0.2774
>> POLYG 5 9 13 17 23 31 38 41 44 47 50 53 56 59
>> 62 65 68
>> ZSOURCE 1.0 1.0 1.0 0.1 0.0
>> BUCK 0.6435-3
>> REGA REGRES REGMICRO

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78 *** DATA CARD NO. 1 ***
*** DATA CARD NO. 2 ***
*** DATA CARD NO. 3 ***
*** DATA CARD NO. 4 ***
*** DATA CARD NO. 5 ***
*** DATA CARD NO. 6 ***
*** DATA CARD NO. 7 ***
*** DATA CARD NO. 8 ***
*** DATA CARD NO. 9 ***
*** DATA CARD NO. 10 ***
*** DATA CARD NO. 11 ***
*** DATA CARD NO. 12 ***
*** DATA CARD NO. 13 ***
*** DATA CARD NO. 14 ***
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*** DATA CARD NO. 20 ***
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*** DATA CARD NO. 41 ***
*** DATA CARD NO. 42 ***
*** DATA CARD NO. 43 ***
*** DATA CARD NO. 44 ***
*** DATA CARD NO. 45 ***
*** DATA CARD NO. 46 ***
*** DATA CARD NO. 47 ***
*** DATA CARD NO. 48 ***
*** DATA CARD NO. 49 ***

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***** SUMMARY OF REACTOR SPECIFICATIONS FOLLOWING *****

INPUT

GENERAL PARAMETERS -

GEOMETRIC SHAPE OF REACTOR.....	CYLINDER
NUMBER OF MULTIGROUPS.....	68
NUMBER OF POLYGROUPS.....	17
NUMBER OF DOWNSCATTERING POLYGROUPS..	5
DEPLETION CHAIN ID.....	3
INNER BOUNDARY CONDITION OPTION.....	1
OUTER BOUNDARY CONDITION OPTION.....	5
CONVERGENCE OPTION.....	1
CONVERGENCE CRITERION.....	1.00000E-04
MAX NUMBER OF ITERATION.....	40
REACTOR DIMENSION.....	8.82220E+01 (CM)
INNER RADIUS OF REACTOR.....	0. (CM)
OUTER RADIUS OF REACTOR.....	2.14088E+02 (CM)
EXTRAPOLATION FACTOR.....	2.00000E-01
REACTOR POWER.....	2.34220E+03 (MEGA-WATTS)
NUMBER OF ACTIVE NUCLIDES.....	15
NUMBER OF BULK MATERIALS DESCRIBED...	7
NUMBER OF ZONE MATERIALS DESCRIBED...	22
NUMBER OF ZONES DESCRIBED.....	5
NUMBER OF BLOCKS DESCRIBED.....	3
NUMBER OF CELLS DESCRIBED.....	2
NUMBER OF MESH POINTS.....	61

NUCLIDES INCLUDED IN REACTOR SPECIFICATION

15

ALPHA-ID	NUMERIC-ID
810	5010
016	8016
NA23	11023
SS304	87304
U238	92238
PU239	94239
PU240	94240
PU241	94241
PU242	94242
FP25R	1899025
FP39R	1899039
FP25S	1999025
FP39S	1999039
FP25U	2199025
FP39U	2199039

*** CHAIN ID = 3 ***

CONTAINS 19 ISOTOPES

*B10 *	NON-FISSIONABLE	NO PARENTS	
*TH232 *	FISSIONABLE	NO PARENTS	
*U233 *	FISSILE	PARENT TH232	REACTION TYPE CAPTURE
*U234 *	FISSIONABLE	PARENT U233 U235	REACTION TYPE CAPTURE N,2N
*U235 *	FISSILE	PARENT U234	REACTION TYPE CAPTURE
*U238 *	FISSIONABLE	NO PARENTS	
*PU239 *	FISSILE	PARENT U238 PU240	REACTION TYPE CAPTURE N,2N
*PU240 *	FISSIONABLE	PARENT PU239 PU241	REACTION TYPE CAPTURE N,2N
*PU241 *	FISSILE	PARENT PU240	REACTION TYPE CAPTURE
*PU242 *	FISSIONABLE	PARENT PU241	REACTION TYPE CAPTURE
*FP23R *	NON-FISSIONABLE	PARENT TH232 U233 U234	REACTION TYPE FISSION FISSION FISSION
*FP23S *	NON-FISSIONABLE	PARENT TH232 U233 U234	REACTION TYPE FISSION FISSION FISSION
*FP23U *	NON-FISSIONABLE	PARENT TH232	REACTION TYPE FISSION

		U233 U234	FISSION FISSION
*FP25R *	NON-FISSIONABLE	PARENT U235 U238	REACTION TYPE FISSION FISSION
*FP25S *	NON-FISSIONABLE	PARENT U235 U238	REACTION TYPE FISSION FISSION
*FP25U *	NON-FISSIONABLE	PARENT U235 U238	REACTION TYPE FISSION FISSION
*FP39R *	NON-FISSIONABLE	PARENT PU239 PU240 PU241 PU242	REACTION TYPE FISSION FISSION FISSION FISSION
*FP39S *	NON-FISSIONABLE	PARENT PU239 PU240 PU241 PU242	REACTION TYPE FISSION FISSION FISSION FISSION
*FP39U *	NON-FISSIONABLE	PARENT PU239 PU240 PU241 PU242	REACTION TYPE FISSION FISSION FISSION FISSION

BULK MATERIALS INCLUDED IN REACTOR SPECIFICATION

7

BULK MATERIAL 1 WITH DESIGNATED CELL INDEX OF 1 CONTAINS 12 NUCLIDES

NUCLIDE ID	LUMP DENSITY (ATOMS/BARN-CM)	NUCLIDE TYPE	CHAIN INDEX
O15	4.18200E-02	MIX	0
U238	1.78500E-02	DILUENT	7
PU239	2.01600E-03	FUEL	9
PU240	7.82300E-04	FUEL	11
PU241	1.50400E-04	FUEL	12
PU242	0.	MIX	13
FP25R	0.	MIX	17
FP25S	0.	MIX	18
FP25U	0.	MIX	19
FP39R	0.	MIX	20
FP39S	0.	MIX	21
FP39U	0.	MIX	22

BULK MATERIAL 2 WITH DESIGNATED CELL INDEX OF 1 CONTAINS 12 NUCLIDES

NUCLIDE ID	LUMP DENSITY (ATOMS/BARN-CM)	NUCLIDE TYPE	CHAIN INDEX
O15	4.18400E-02	MIX	0
U238	1.76200E-02	DILUENT	7
PU239	2.17200E-03	FUEL	9
PU240	8.42900E-04	FUEL	11
PU241	1.62100E-04	FUEL	12
PU242	0.	MIX	13
FP25R	0.	MIX	17
FP25S	0.	MIX	18
FP25U	0.	MIX	19
FP39R	0.	MIX	20
FP39S	0.	MIX	21
FP39U	0.	MIX	22

BULK MATERIAL 3 WITH DESIGNATED CELL INDEX OF 1 CONTAINS 12 NUCLIDES

NUCLIDE ID	LUMP DENSITY (ATOMS/BARN-CM)	NUCLIDE TYPE	CHAIN INDEX
O16	4.18800E-02	MIX	0
U238	1.71200E-02	DILUENT	7
PU239	2.52400E-03	FUEL	9
PU240	9.79400E-04	FUEL	11
PU241	1.88400E-04	FUEL	12
PU242	0.	MIX	13
FP25R	0.	MIX	17
FP25S	0.	MIX	18
FP25U	0.	MIX	19
FP39R	0.	MIX	20
FP39S	0.	MIX	21
FP39U	0.	MIX	22

BULK MATERIAL 4 WITH DESIGNATED CELL INDEX OF 1 CONTAINS 12 NUCLIDES

NUCLIDE ID	LUMP DENSITY (ATOMS/BARN-CM)	NUCLIDE TYPE	CHAIN INDEX
O16	4.40400E-02	MIX	0
U238	2.19600E-02	MIX	7
PU239	0.	MIX	9
PU240	0.	MIX	11
PU241	0.	MIX	12
PU242	0.	MIX	13
FP25R	0.	MIX	17
FP25S	0.	MIX	18
FP25U	0.	MIX	19
FP39R	0.	MIX	20
FP39S	0.	MIX	21
FP39U	0.	MIX	22

BULK MATERIAL 5 WITH DESIGNATED CELL INDEX OF 0 CONTAINS 1 NUCLIDES

NUCLIDE ID	LUMP DENSITY (ATOMS/BARN-CM)	NUCLIDE TYPE	CHAIN INDEX
NA23	2.15900E-02	MIX	0

BULK MATERIAL 6 WITH DESIGNATED CELL INDEX OF 0 CONTAINS 1 NUCLIDES

NUCLIDE ID	LUMP DENSITY (ATOMS/BARN-CM)	NUCLIDE TYPE	CHAIN INDEX
SS304	8.61300E-02	MIX	0

BULK MATERIAL 7 WITH DESIGNATED CELL INDEX OF 0 CONTAINS 1 NUCLIDES

NUCLIDE ID	LUMP DENSITY (ATOMS/BARN-CM)	NUCLIDE TYPE	CHAIN INDEX
B10	1.00000E-02	FUEL	1

ZONE MATERIALS INCLUDED IN REACTOR SPECIFICATION

22

ZONE MAT ID	IDENT OF BM	BM FRACTION
1	1	.53980
21	1	.53980
24	1	.53980
27	1	.53980
2	2	.53980
22	2	.53980
25	2	.53980
28	2	.53980
3	3	.53980
23	3	.53980
26	3	.53980
29	3	.53980
4	4	.73410
5	5	.35100
6	5	.19910
7	5	1.00000
8	6	.10920
9	6	.06680
10	6	1.00000
11	7	1.00000
12	7	1.00000
13	7	1.00000

4-10

CELLS INCLUDED IN REACTOR SPECIFICATION

2

CELL ID	CELL INDEX	LATTICE TYPE	LUMP SIZE (CM)	PITCH (CM)	FUEL TEMP (DEG K)	MACRO X-SECT (1/CM)
1	1	HEX	6.60400E-01	8.55980E-01	1.64330E+03	2.65700E-01
2	1	HEX	1.45796E+00	1.62052E+00	1.36640E+03	2.77400E-01

4-11

ZONES INCLUDED IN REACTOR SPECIFICATION

5

ZONE ID 1
 OUTER RADIUS 9.04260E+01 (CM)
 NUMBER OF MESH INTERVALS 20
 ZONE TYPE CORE

ZONE MATERIALS INCLUDED

ZONE MAT ID	ZM FRAC	BULK MAT ID	BM FRAC	ZM VOLUME (CM**3)
1	.78360	1	.53980	9.58606E+05
5	.78360	5	.35100	6.23325E+05
8	.78360	6	.10920	1.93923E+05
7	.13930	5	1.00000	3.15692E+05
10	.07660	6	1.00000	1.73597E+05
11	.00050	7	1.00000	1.13314E+03

ZONE ID 2
 OUTER RADIUS 1.22282E+02 (CM)
 NUMBER OF MESH INTERVALS 10
 ZONE TYPE CORE

ZONE MATERIALS INCLUDED

ZONE MAT ID	ZM FRAC	BULK MAT ID	BM FRAC	ZM VOLUME (CM**3)
2	.83040	2	.53980	8.41825E+05
5	.83040	5	.35100	5.47389E+05
8	.83040	6	.10920	1.70299E+05
7	.09250	5	1.00000	1.73717E+05
10	.07660	6	1.00000	1.43857E+05
12	.00050	7	1.00000	9.39013E+02

ZONE ID
 OUTER RADIUS
 NUMBER OF MESH INTERVALS
 ZONE TYPE

3
 1.53359E+02 (CM)
 10
 CORE

ZONE MATERIALS INCLUDED

ZONE MAT ID	ZM FRAC	BULK MAT ID	BM FRAC	ZM VOLUME (CM**3)
3	.84290	3	.53990	1.08023E+06
5	.84290	5	.35130	7.02413E+05
8	.84290	6	.10920	2.18520E+05
7	.08000	5	1.00000	1.89933E+05
10	.07660	6	1.00000	1.81860E+05
13	.00050	7	1.00000	1.18708E+03

ZONE ID
 OUTER RADIUS
 NUMBER OF MESH INTERVALS
 ZONE TYPE

4
 1.84088E+02 (CM)
 10
 BLANKET

ZONE MATERIALS INCLUDED

ZONE MAT ID	ZM FRAC	BULK MAT ID	BM FRAC	ZM VOLUME (CM**3)
4	.97670	4	.73410	1.84964E+06
6	.87670	5	.19910	5.01652E+05
9	.37670	6	.06680	1.68309E+05
7	.04670	5	1.00000	1.34214E+05
10	.07660	6	1.00000	2.20145E+05

ZONE ID
OUTER RADIUS
NUMBER OF MESH INTERVALS
ZONE TYPE

5
2.14088E+02 (CM)
10
REFLECT

ZONE MATERIALS INCLUDED

ZONE MAT ID	ZM FRAC	BULK MAT ID	BM FRAC	ZM VOLUME (CM**3)
7	.50000	5	1.00000	1.65536E+06
10	.50000	6	1.00000	1.65536E+06

BLOCKS INCLUDED IN REACTOR SPECIFICATION

3

BLOCK IDENTIFICATION

BLOCK BUCKLING
FISSION SPECTRUM ID
HOMOGENOUS TEMP
ZONES INCLUDED
CELLS INCLUDED

1

9.50000E-04 (1/CM**2)
13
0. (DEG K)
1 2 3
1

BLOCK IDENTIFICATION

BLOCK BUCKLING
FISSION SPECTRUM ID
HOMOGENOUS TEMP
ZONES INCLUDED
CELLS INCLUDED

2

9.50000E-04 (1/CM**2)
13
0. (DEG K)
4
2

BLOCK IDENTIFICATION

BLOCK BUCKLING
FISSION SPECTRUM ID
HOMOGENOUS TEMP
ZONES INCLUDED

3

9.50000E-04 (1/CM**2)
13
0. (DEG K)
5

SUMMARY OF ZONE DEPENDENT PARAMETERS

ZONE NUMBER	1
ZONE TYPE	CORE
ZONE IDENTIFICATION	1
BLOCK IDENTIFICATION	1
NO OF MESH INTERVALS	20
NO OF NUCLIDES INCLUDED	17
OUTER RADIUS	9.04260E+01 (CM)
VOLUME	2.26628E+06 (CM**3)

NUCLIDE ID	ZONE MAT ID	BULK MAT ID	CELL INDEX	NUCLIDE TYPE	CHAIN INDEX	CURRENT DENSITY (ATOMS/BARN-CM)	INITIAL DENSITY	ZONE MAT V.F.	BULK MAT V.F.
B10	11	7	0	FUEL	1	5.00000E-06	5.00000E-06	.00050	1.00000
O16	1	1	1	MIX	0	1.76893E-02	1.76893E-02	.78360	.53980
NA23	5	5	0	MIX	0	5.93819E-03	5.93819E-03	.78360	.35100
NA23	7	5	0	MIX	0	3.00749E-03	3.00749E-03	.13930	1.00000
SS304	8	6	0	MIX	0	7.37007E-03	7.37007E-03	.78360	.10920
SS304	10	6	0	MIX	0	6.59756E-03	6.59756E-03	.07660	1.00000
U238	1	1	1	DILUENT	7	7.55032E-03	7.55032E-03	.78360	.53980
PU239	1	1	1	FUEL	9	8.52742E-04	8.52742E-04	.78360	.53980
PU240	1	1	1	FUEL	11	3.30903E-04	3.30903E-04	.78360	.53980
PU241	1	1	1	FUEL	12	6.36173E-05	6.36173E-05	.78360	.53980
PU242	1	1	1	MIX	13	0.	0.	.78360	.53980
FP25R	1	1	1	MIX	17	0.	0.	.78360	.53980
FP39R	1	1	1	MIX	20	0.	0.	.78360	.53980
FP25S	1	1	1	MIX	18	0.	0.	.78360	.53980
FP39S	1	1	1	MIX	21	0.	0.	.78360	.53980
FP25U	1	1	1	MIX	19	0.	0.	.78360	.53980
FP39U	1	1	1	MIX	22	0.	0.	.78360	.53980

ZONE NUMBER	2
ZONE TYPE	CORE
ZONE IDENTIFICATION	2
BLOCK IDENTIFICATION	1
NO OF MESH INTERVALS	10
NO OF NUCLIDES INCLUDED	17
OUTER RADIUS	1.22282E+02 (CM)
VOLUME	1.87803E+06 (CM**3)

NUCLIDE ID	ZONE MAT ID	BULK MAT ID	CELL INDEX	NUCLIDE TYPE	CHAIN INDEX	CURRENT DENSITY (ATOMS/BARN-CM)	INITIAL DENSITY	ZONE MAT V.F.	BULK MAT V.F.
B10	12	7	0	FUEL	1	5.00000E-06	5.00000E-06	.00050	1.00000
O16	2	2	1	MIX	0	1.87548E-02	1.87548E-02	.83040	.53980
NA23	5	5	0	MIX	0	6.29285E-03	6.29285E-03	.83040	.35100
NA23	7	5	0	MIX	0	1.99787E-03	1.99707E-03	.09250	1.00000
SS304	8	6	0	MIX	0	7.81024E-03	7.81024E-03	.83040	.10920
SS304	10	6	0	MIX	0	6.59756E-03	6.59756E-03	.07660	1.00000
U238	2	2	1	DILUENT	7	7.89815E-03	7.89816E-03	.83040	.53980
PU239	2	2	1	FUEL	9	9.73599E-04	9.73599E-04	.83040	.53980
PU240	2	2	1	FUEL	11	3.77830E-04	3.77830E-04	.83040	.53980
PU241	2	2	1	FUEL	12	7.26613E-05	7.26613E-05	.83040	.53980
PU242	2	2	1	MIX	13	0.	0.	.83040	.53980
FP25R	2	2	1	MIX	17	0.	0.	.83040	.53980
FP39R	2	2	1	MIX	20	0.	0.	.83040	.53980
FP25S	2	2	1	MIX	18	0.	0.	.83040	.53980
FP39S	2	2	1	MIX	21	0.	0.	.83040	.53980
FP25U	2	2	1	MIX	19	0.	0.	.83040	.53980
FP39U	2	2	1	MIX	22	0.	0.	.83040	.53980

ZONE NUMBER	3
ZONE TYPE	CORE
ZONE IDENTIFICATION	3
BLOCK IDENTIFICATION	1
NO OF MESH INTERVALS	10
NO OF NUCLIDES INCLUDED	17
OUTER RADIUS	1.53359E+02 (CM)
VOLUME	2.37416E+06 (CM**3)

NUCLIDE ID	ZONE MAT ID	BULK MAT ID	CELL INDEX	NUCLIDE TYPE	CHAIN INDEX	CURRENT DENSITY (ATOMS/BARN-CM)	INITIAL CENSITY	ZONE MAT V.F.	BULK MAT V.F.
B10	13	7	0	FUEL	1	5.00000E-06	5.00000E-06	.00050	1.00000
O16	3	3	1	MIX	0	1.90553E-02	1.90553E-02	.84290	.53980
NA23	5	5	0	MIX	0	6.38757E-03	6.38757E-03	.84290	.35100
NA23	7	5	0	MIX	0	1.72720E-03	1.72720E-03	.08000	1.00000
SS304	8	5	0	MIX	0	7.92781E-03	7.92781E-03	.84290	.10920
SS304	10	6	0	MIX	0	6.59756E-03	6.59756E-03	.07660	1.00000
U238	3	3	1	DILUENT	7	7.78956E-03	7.78956E-03	.84290	.53980
PU239	3	3	1	FUEL	9	1.14841E-03	1.14841E-03	.84290	.53980
PU240	3	3	1	FUEL	11	4.45624E-04	4.45624E-04	.84290	.53980
PU241	3	3	1	FUEL	12	8.57215E-05	8.57215E-05	.84290	.53980
PU242	3	3	1	MIX	13	0.	0.	.84290	.53980
FP25R	3	3	1	MIX	17	0.	0.	.84290	.53980
FP39R	3	3	1	MIX	20	0.	0.	.84290	.53980
FP25S	3	3	1	MIX	18	0.	0.	.84290	.53980
FP39S	3	3	1	MIX	21	0.	0.	.84290	.53980
FP25U	3	3	1	MIX	19	0.	0.	.84290	.53980
FP39U	3	3	1	MIX	22	0.	0.	.84290	.53980

ZONE NUMBER 4
 ZONE TYPE BLANKET
 ZONE IDENTIFICATION 4
 BLOCK IDENTIFICATION 2
 NO OF MESH INTERVALS 10
 NO OF NUCLIDES INCLUDED 16
 OUTER RADIUS 1.84088E+02 (CM)
 VOLUME 2.87395E+06 (CM**3)

NUCLIDE ID	ZONE MAT ID	BULK MAT ID	CELL INDEX	NUCLIDE TYPE	CHAIN INDEX	CURRENT DENSITY (ATOMS/BARN-CM)	INITIAL DENSITY	ZONE MAT V.F.	BULK MAT V.F.
O16	4	4	1	MIX	0	2.83435E-02	2.83435E-02	.87670	.73410
NA23	6	5	0	MIX	0	3.76856E-03	3.76856E-03	.87670	.19910
NA23	7	5	0	MIX	0	1.00825E-03	1.00825E-03	.04670	1.00000
SS304	9	6	0	MIX	0	5.04408E-03	5.04408E-03	.87670	.06680
SS304	10	6	0	MIX	0	6.59756E-03	6.59756E-03	.07660	1.00000
U238	4	4	1	MIX	7	1.41331E-02	1.41331E-02	.87670	.73410
PU239	4	4	1	MIX	9	0.	0.	.87670	.73410
PU240	4	4	1	MIX	11	0.	0.	.87670	.73410
PU241	4	4	1	MIX	12	0.	0.	.87670	.73410
PU242	4	4	1	MIX	13	0.	0.	.87670	.73410
FP25R	4	4	1	MIX	17	0.	0.	.87670	.73410
FP39R	4	4	1	MIX	20	0.	0.	.87670	.73410
FP25S	4	4	1	MIX	18	0.	0.	.87670	.73410
FP39S	4	4	1	MIX	21	0.	0.	.87670	.73410
FP25U	4	4	1	MIX	19	0.	0.	.87670	.73410
FP39U	4	4	1	MIX	22	0.	0.	.87670	.73410

ZONE NUMBER 5
 ZONE TYPE REFLECT
 ZONE IDENTIFICATION 5
 BLOCK IDENTIFICATION 3
 NO OF MESH INTERVALS 10
 NO OF NUCLIDES INCLUDED 2
 OUTER RADIUS 2.14088E+02 (CM)
 VOLUME 3.31072E+06 (CM**3)

NUCLIDE ID	ZONE MAT ID	BULK MAT ID	CELL INDEX	NUCLIDE TYPE	CHAIN INDEX	CURRENT DENSITY (ATOMS/BARN-CM)	INITIAL DENSITY	ZONE MAT V.F.	BULK MAT V.F.
NA23	7	5	0	MIX	0	1.07950E-02	1.07950E-02	.50000	1.00000
SS304	10	6	0	MIX	0	4.30650E-02	4.30650E-02	.50000	1.00000

POLYGROUP STRUCTURE INCLUDED IN REACTOR SPECIFICATION

17 GROUPS

POLYGROUP	UPPER MICROGROUP	LOWER MICROGROUP	UPPER ENERGY BOUND (EV)	LOWER ENERGY BOUND (EV)
1	1	5	1.00000E+07	3.68000E+06
2	5	9	3.68000E+06	1.35000E+06
3	9	13	1.35000E+06	4.98000E+05
4	13	17	4.98000E+05	1.83000E+05
5	17	23	1.83000E+05	4.09000E+04
6	23	31	4.09000E+04	5.53000E+03
7	31	38	5.53000E+03	9.61000E+02
8	38	41	9.61000E+02	4.54000E+02
9	41	44	4.54000E+02	2.15000E+02
10	44	47	2.15000E+02	1.01000E+02
11	47	50	1.01000E+02	4.79000E+01
12	50	53	4.79000E+01	2.26000E+01
13	53	56	2.26000E+01	1.07000E+01
14	56	59	1.07000E+01	5.04000E+00
15	59	62	5.04000E+00	2.38000E+00
16	62	65	2.38000E+00	1.13000E+00
17	65	68	1.13000E+00	5.32000E-01

STARTING SOURCE OPTION CHOSEN IS ZSOURCE

ZONE	SOURCE
1	1.00000E+00
2	1.00000E+00
3	1.00000E+00
4	1.00000E-01
5	0.

TRANSVERSE BUCKLING OPTION CHOSEN IS BUCK

6.43500E-04 IS THE BUCKLING VALUE FOR ALL ZONES IN EVERY GROUP

INNER BOUNDARY CONDITION OPTION 1

OUTER BOUNDARY CONDITION OPTION 5

CELL I.D.	CELL INDEX	LATTICE TYPE	ROD DIAMETER OR SLAB THICKNESS	LATTICE PITCH	FUEL TEMP.	MODERATOR X-SECTION
1	1	HEX	6.504000E-01	8.559800E-01	1.643300E+03	2.657000E-01

CELL COMPOSITION 1

NUCLIDE I.D.	LUMP NO.	DENSITY
015		4.184834E-02
U238		1.750904E-02
PU239		2.252086E-03
PU240		8.739208E-04
PU241		1.680689E-04
PU242		0.
FP25R		0.
FP39R		0.
FP25S		0.
FP39S		0.
FP25U		0.
FP39U		0.

RESOLVED RESONANCE RESULTS FOR BLOCK 1 CELL 1

ELEMENT	NUMBER DENSITY FUEL	SIGMA P (BARN)	MASS (AMU)	NUMBER OF RESONANCES
O16	4.184834E-02	3.764097E+00	1.600000E+01	0
U238	1.750904E-02	1.050571E+01	2.380508E+02	208
PU239	2.252086E-03	1.030000E+01	2.390520E+02	87
PU240	8.739208E-04	9.999999E+00	2.400540E+02	41
PU241	1.680689E-04	1.015751E+01	2.410000E+02	0
PU242	0.	7.999981E+00	2.420587E+02	0
FP25R	0.	1.256637E-19	1.506000E+02	0
FP39R	0.	1.256637E-19	1.502000E+02	0
FP25S	0.	1.256637E-19	1.226000E+02	0
FP39S	0.	1.256637E-19	1.222000E+02	0
FP25U	0.	1.256637E-19	1.134000E+02	0
FP39U	0.	1.256637E-19	1.152000E+02	0

RESULTS OF NARROW GROUPS STARTING AT 3.91365E+03 EV.

BROAD GROUP 32

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1	3.909530E+03	4.119625E+00	2.521932E-04	2.556505E-04	2.556505E-04
2	3.905411E+03	4.119625E+00	1.735314E-04	2.559201E-04	2.559201E-04
3	3.901291E+03	4.119625E+00	1.232424E-04	2.561902E-04	2.561902E-04
4	3.897269E+03	4.021777E+00	2.401693E-04	2.564576E-04	2.564576E-04
5	3.893248E+03	4.021777E+00	2.562621E-04	2.567224E-04	2.567224E-04
6	3.889226E+03	4.021777E+00	2.629354E-04	2.569877E-04	2.569877E-04
7	3.885204E+03	4.021777E+00	2.651101E-04	2.572536E-04	2.572536E-04
8	3.881182E+03	4.021777E+00	2.653175E-04	2.575201E-04	2.575201E-04
9	3.877071E+03	4.111716E+00	2.539196E-04	2.577900E-04	2.577900E-04
10	3.872959E+03	4.111716E+00	1.989978E-04	2.580636E-04	2.580636E-04
11	3.868847E+03	4.111716E+00	1.147870E-04	2.583377E-04	2.583377E-04
12	3.864735E+03	4.111716E+00	2.316864E-04	2.586124E-04	2.586124E-04
13	3.860624E+03	4.111716E+00	2.230072E-04	2.588877E-04	2.588877E-04
14	3.856512E+03	4.111716E+00	9.961435E-05	2.591635E-04	2.591635E-04
15	3.852368E+03	4.144059E+00	1.929968E-04	2.594411E-04	2.594411E-04
16	3.848224E+03	4.144059E+00	2.879731E-04	2.597203E-04	2.597203E-04
17	3.844236E+03	3.987776E+00	2.927512E-04	2.599949E-04	2.599949E-04
18	3.840248E+03	3.987776E+00	2.934653E-04	2.602647E-04	2.602647E-04
19	3.836260E+03	3.987776E+00	2.912531E-04	2.605351E-04	2.605351E-04
20	3.832273E+03	3.987776E+00	2.833321E-04	2.608061E-04	2.608061E-04
21	3.828285E+03	3.987776E+00	2.821095E-04	2.610776E-04	2.610776E-04
22	3.824297E+03	3.987776E+00	2.901504E-04	2.613497E-04	2.613497E-04
23	3.820309E+03	3.987776E+00	2.912901E-04	2.616224E-04	2.616224E-04
24	3.816322E+03	3.987776E+00	2.920865E-04	2.618956E-04	2.618956E-04
25	3.812353E+03	3.968662E+00	2.928351E-04	2.621688E-04	2.621688E-04
26	3.808384E+03	3.968662E+00	2.926491E-04	2.624418E-04	2.624418E-04
27	3.804416E+03	3.968662E+00	2.898560E-04	2.627155E-04	2.627155E-04
28	3.800447E+03	3.968662E+00	2.840532E-04	2.629897E-04	2.629897E-04
29	3.796478E+03	3.968662E+00	2.803911E-04	2.632644E-04	2.632644E-04
30	3.792510E+03	3.968662E+00	2.807665E-04	2.635398E-04	2.635398E-04
31	3.788541E+03	3.968662E+00	2.704156E-04	2.638157E-04	2.638157E-04
32	3.784572E+03	3.968662E+00	1.636079E-04	2.640922E-04	2.640922E-04
33	3.780497E+03	4.075310E+00	1.174301E-04	2.643730E-04	2.643730E-04
34	3.776535E+03	3.962344E+00	2.551042E-04	2.646542E-04	2.646542E-04
35	3.772572E+03	3.962344E+00	2.820620E-04	2.649320E-04	2.649320E-04
36	3.768610E+03	3.962344E+00	2.818416E-04	2.652104E-04	2.652104E-04
37	3.764648E+03	3.962344E+00	2.493568E-04	2.654894E-04	2.654894E-04
38	3.760685E+03	3.962344E+00	2.512732E-04	2.657690E-04	2.657690E-04
39	3.756723E+03	3.962344E+00	2.837211E-04	2.660492E-04	2.660492E-04
40	3.752761E+03	3.962344E+00	2.850126E-04	2.663299E-04	2.663299E-04
41	3.748798E+03	3.962344E+00	2.850456E-04	2.666113E-04	2.666113E-04
42	3.744804E+03	3.994623E+00	2.849909E-04	2.668944E-04	2.668944E-04
43	3.740809E+03	3.994623E+00	2.847462E-04	2.671792E-04	2.671792E-04
44	3.736814E+03	3.994623E+00	2.747343E-04	2.674647E-04	2.674647E-04
45	3.732820E+03	3.994623E+00	1.675946E-04	2.677508E-04	2.677508E-04
46	3.728872E+03	3.947273E+00	1.966674E-04	2.680357E-04	2.680357E-04
47	3.724925E+03	3.947273E+00	2.886923E-04	2.683196E-04	2.683196E-04
48	3.720978E+03	3.947273E+00	2.860812E-04	2.686041E-04	2.686041E-04
49	3.717031E+03	3.947273E+00	2.198347E-04	2.688892E-04	2.688892E-04
50	3.713083E+03	3.947273E+00	2.438405E-04	2.691749E-04	2.691749E-04
51	3.709136E+03	3.947273E+00	2.852989E-04	2.694612E-04	2.694612E-04
52	3.705189E+03	3.947273E+00	2.863848E-04	2.697481E-04	2.697481E-04
53	3.701242E+03	3.947273E+00	2.858990E-04	2.700356E-04	2.700356E-04
54	3.697231E+03	4.010278E+00	2.777395E-04	2.703261E-04	2.703261E-04
55	3.693221E+03	4.010278E+00	1.554666E-04	2.706195E-04	2.706195E-04

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RESULTS OF NARROW GROUPS STARTING AT 4.31000E+03 EV.

BROAD GROUP 32

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
56	3.689211E+03	4.010278E+00	1.442876E-04	2.709135E-04	2.709135E-04
57	3.685312E+03	3.898489E+00	2.825057E-04	2.712040E-04	2.712040E-04
58	3.681414E+03	3.898489E+00	2.972139E-04	2.714911E-04	2.714911E-04
59	3.677515E+03	3.898489E+00	2.982831E-04	2.717787E-04	2.717787E-04
50	3.673617E+03	3.898489E+00	2.946998E-04	2.720670E-04	2.720670E-04
51	3.669718E+03	3.898489E+00	2.941654E-04	2.723558E-04	2.723558E-04
52	3.665820E+03	3.898489E+00	2.943256E-04	2.726453E-04	2.726453E-04
53	3.661921E+03	3.898489E+00	2.933767E-04	2.729354E-04	2.729354E-04
64	3.658038E+03	3.883219E+00	2.934823E-04	2.732256E-04	2.732256E-04
55	3.654155E+03	3.883219E+00	2.928411E-04	2.735158E-04	2.735158E-04
56	3.650272E+03	3.883219E+00	2.917276E-04	2.738066E-04	2.738066E-04
57	3.646388E+03	3.883219E+00	2.872678E-04	2.740980E-04	2.740980E-04
68	3.642505E+03	3.883219E+00	2.892330E-04	2.743901E-04	2.743901E-04
59	3.638622E+03	3.883219E+00	2.917204E-04	2.746828E-04	2.746828E-04
70	3.634739E+03	3.883219E+00	2.876153E-04	2.749761E-04	2.749761E-04
71	3.630856E+03	3.883219E+00	1.855688E-04	2.752700E-04	2.752700E-04
72	3.626892E+03	3.963543E+00	1.341016E-04	2.755676E-04	2.755676E-04
73	3.623021E+03	3.870740E+00	2.627713E-04	2.758654E-04	2.758654E-04
74	3.619159E+03	3.862776E+00	2.900204E-04	2.761600E-04	2.761600E-04
75	3.615296E+03	3.862776E+00	2.917444E-04	2.764549E-04	2.764549E-04
76	3.611433E+03	3.862776E+00	2.891387E-04	2.767504E-04	2.767504E-04
77	3.607570E+03	3.862776E+00	2.879340E-04	2.770466E-04	2.770466E-04
78	3.603714E+03	3.856507E+00	2.920619E-04	2.773432E-04	2.773432E-04
79	3.599857E+03	3.856507E+00	2.886385E-04	2.776401E-04	2.776401E-04
80	3.596001E+03	3.856507E+00	2.874062E-04	2.779377E-04	2.779377E-04
81	3.592144E+03	3.856507E+00	2.687121E-04	2.782359E-04	2.782359E-04
82	3.588286E+03	3.857766E+00	2.811187E-04	2.785349E-04	2.785349E-04
83	3.584429E+03	3.857766E+00	2.926145E-04	2.788345E-04	2.788345E-04
84	3.580571E+03	3.857766E+00	2.919659E-04	2.791347E-04	2.791347E-04
95	3.576713E+03	3.857766E+00	2.561393E-04	2.794356E-04	2.794356E-04
86	3.572772E+03	3.941003E+00	1.232049E-04	2.797405E-04	2.797405E-04
87	3.568879E+03	3.893274E+00	2.002439E-04	2.800473E-04	2.800473E-04
88	3.564986E+03	3.893274E+00	2.837236E-04	2.803530E-04	2.803530E-04
89	3.561092E+03	3.893274E+00	1.746393E-04	2.806593E-04	2.806593E-04
90	3.557199E+03	3.893274E+00	2.020358E-04	2.809663E-04	2.809663E-04
91	3.553306E+03	3.893274E+00	2.997422E-04	2.812740E-04	2.812740E-04
92	3.549412E+03	3.893274E+00	3.045952E-04	2.815824E-04	2.815824E-04
93	3.545519E+03	3.893274E+00	3.055011E-04	2.818914E-04	2.818914E-04
94	3.539128E+03	6.391608E+00	3.064300E-04	2.823007E-04	2.823007E-04
95	3.535310E+03	3.817258E+00	3.073180E-04	2.827080E-04	2.827080E-04
96	3.531493E+03	3.817258E+00	3.078887E-04	2.830134E-04	2.830134E-04
97	3.527676E+03	3.817258E+00	3.036432E-04	2.833195E-04	2.833195E-04
98	3.523859E+03	3.817258E+00	2.883288E-04	2.836262E-04	2.836262E-04
99	3.520053E+03	3.805946E+00	3.061724E-04	2.839332E-04	2.839332E-04
100	3.516247E+03	3.805946E+00	3.090748E-04	2.842404E-04	2.842404E-04
101	3.512441E+03	3.805946E+00	3.023742E-04	2.845482E-04	2.845482E-04
102	3.508635E+03	3.805946E+00	2.965449E-04	2.848567E-04	2.848567E-04
103	3.504837E+03	3.797803E+00	2.993134E-04	2.851655E-04	2.851655E-04
104	3.501039E+03	3.797803E+00	2.973708E-04	2.854747E-04	2.854747E-04
105	3.497241E+03	3.797803E+00	2.938652E-04	2.857845E-04	2.857845E-04
106	3.493444E+03	3.797803E+00	2.863498E-04	2.860950E-04	2.860950E-04
107	3.489646E+03	3.797803E+00	2.708181E-04	2.864062E-04	2.864062E-04
108	3.485848E+03	3.797803E+00	2.417908E-04	2.867181E-04	2.867181E-04
109	3.482050E+03	3.797803E+00	1.656460E-04	2.870306E-04	2.870306E-04
110	3.478269E+03	3.780820E+00	2.673858E-04	2.873432E-04	2.873432E-04

RESULTS OF NARROW GROUPS STARTING AT 4.31000E+03 EV.

BROAD GROUP 32

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
111	3.474488E+03	3.780820E+00	2.963747E-04	2.876557E-04	2.876557E-04
112	3.470708E+03	3.780820E+00	2.952060E-04	2.879689E-04	2.879689E-04
113	3.466927E+03	3.780820E+00	2.927088E-04	2.882827E-04	2.882827E-04
114	3.463146E+03	3.780820E+00	2.767534E-04	2.885973E-04	2.885973E-04
115	3.459365E+03	3.780820E+00	1.219072E-04	2.889125E-04	2.889125E-04
116	3.455584E+03	3.780820E+00	1.086342E-04	2.892285E-04	2.892285E-04
117	3.451649E+03	3.935502E+00	2.805764E-04	2.895516E-04	2.895516E-04
118	3.447808E+03	3.840913E+00	3.107272E-04	2.898779E-04	2.898779E-04
119	3.443967E+03	3.840913E+00	3.128750E-04	2.902010E-04	2.902010E-04
120	3.440126E+03	3.840913E+00	2.957421E-04	2.905249E-04	2.905249E-04
121	3.436285E+03	3.840913E+00	1.557746E-04	2.908494E-04	2.908494E-04
122	3.432444E+03	3.840913E+00	2.022032E-04	2.911747E-04	2.911747E-04
123	3.428693E+03	3.751708E+00	3.228324E-04	2.914969E-04	2.914969E-04
124	3.424941E+03	3.751708E+00	3.277416E-04	2.918160E-04	2.918160E-04
125	3.421189E+03	3.751708E+00	3.252251E-04	2.921359E-04	2.921359E-04
126	3.417437E+03	3.751708E+00	3.196518E-04	2.924564E-04	2.924564E-04
127	3.413686E+03	3.751708E+00	3.235989E-04	2.927776E-04	2.927776E-04
128	3.409934E+03	3.751708E+00	2.560584E-04	2.930996E-04	2.930996E-04
129	3.406182E+03	3.751708E+00	2.009620E-04	2.934222E-04	2.934222E-04
130	3.402394E+03	3.788543E+00	3.168792E-04	2.937472E-04	2.937472E-04
131	3.398658E+03	3.735502E+00	3.283833E-04	2.940722E-04	2.940722E-04
132	3.394923E+03	3.735502E+00	3.234181E-04	2.943956E-04	2.943956E-04
133	3.391187E+03	3.735502E+00	3.220250E-04	2.947197E-04	2.947197E-04
134	3.387452E+03	3.735502E+00	3.093056E-04	2.950445E-04	2.950445E-04
135	3.383728E+03	3.723378E+00	3.129570E-04	2.953695E-04	2.953695E-04
136	3.380005E+03	3.723378E+00	3.215003E-04	2.956947E-04	2.956947E-04
137	3.376282E+03	3.723378E+00	3.170001E-04	2.960206E-04	2.960206E-04
138	3.372558E+03	3.723378E+00	3.117727E-04	2.963473E-04	2.963473E-04
139	3.368835E+03	3.723378E+00	3.062287E-04	2.966746E-04	2.966746E-04
140	3.365112E+03	3.723378E+00	3.113396E-04	2.970027E-04	2.970027E-04
141	3.361388E+03	3.723378E+00	3.117423E-04	2.973315E-04	2.973315E-04
142	3.360000E+03	1.388181E+00	3.038187E-04	2.975576E-04	2.975576E-04

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	5.507099E-01	0.	8.242160E-02	0.	8.242160E-02	0.
1	PU239	0.	0.	0.	0.	0.	0.
1	PU240	0.	0.	0.	0.	0.	0.

*** AVG. FOR U238

APPLIES ONLY FROM 3.913650E+03

TO LOWER BROAD GROUP 30JND****

RESULTS OF NARROW GROUPS STARTING AT 3.36000E+03 EV. BROAD GROUP 33

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
143	3.356277E+03	3.723378E+00	2.479807E-04	2.977841E-04	2.977841E-04
144	3.352532E+03	3.744520E+00	2.178251E-04	2.981156E-04	2.981156E-04
145	3.348788E+03	3.744520E+00	3.036581E-04	2.984487E-04	2.984487E-04
146	3.345063E+03	3.724253E+00	3.089897E-04	2.987817E-04	2.987817E-04
147	3.341339E+03	3.724253E+00	3.084695E-04	2.991145E-04	2.991145E-04
148	3.337615E+03	3.724253E+00	3.049015E-04	2.994481E-04	2.994481E-04
149	3.333891E+03	3.724253E+00	2.400958E-04	2.997824E-04	2.997824E-04
150	3.330166E+03	3.724253E+00	2.462762E-04	3.001175E-04	3.001175E-04
151	3.326442E+03	3.724253E+00	3.075667E-04	3.004533E-04	3.004533E-04
152	3.322718E+03	3.724253E+00	2.686059E-04	3.007899E-04	3.007899E-04
153	3.318994E+03	3.724253E+00	1.984759E-04	3.011272E-04	3.011272E-04
154	3.315268E+03	3.726007E+00	2.923691E-04	3.014654E-04	3.014654E-04
155	3.311542E+03	3.726007E+00	2.402411E-04	3.018044E-04	3.018044E-04
156	3.307816E+03	3.726007E+00	2.034449E-04	3.021442E-04	3.021442E-04
157	3.304135E+03	3.680424E+00	3.110309E-04	3.024826E-04	3.024826E-04
158	3.300455E+03	3.680424E+00	3.223578E-04	3.028197E-04	3.028197E-04
159	3.296774E+03	3.680424E+00	3.172111E-04	3.031576E-04	3.031576E-04
160	3.293094E+03	3.680424E+00	3.006076E-04	3.034962E-04	3.034962E-04
161	3.289413E+03	3.680424E+00	3.165291E-04	3.038356E-04	3.038356E-04
162	3.285733E+03	3.680424E+00	3.199789E-04	3.041758E-04	3.041758E-04
163	3.282053E+03	3.680424E+00	2.875380E-04	3.045167E-04	3.045167E-04
164	3.278342E+03	3.710855E+00	1.846367E-04	3.048598E-04	3.048598E-04
165	3.274631E+03	3.710855E+00	2.793668E-04	3.052050E-04	3.052050E-04
166	3.270920E+03	3.710855E+00	3.253584E-04	3.055511E-04	3.055511E-04
167	3.267209E+03	3.710855E+00	3.262651E-04	3.058979E-04	3.058979E-04
168	3.263498E+03	3.710855E+00	3.250306E-04	3.062456E-04	3.062456E-04
169	3.259844E+03	3.653971E+00	3.235016E-04	3.065913E-04	3.065913E-04
170	3.256190E+03	3.653971E+00	3.226478E-04	3.069352E-04	3.069352E-04
171	3.252536E+03	3.653971E+00	3.193760E-04	3.072798E-04	3.072798E-04
172	3.248882E+03	3.653971E+00	2.989855E-04	3.076252E-04	3.076252E-04
173	3.245228E+03	3.653971E+00	3.035409E-04	3.079714E-04	3.079714E-04
174	3.241574E+03	3.653971E+00	3.179060E-04	3.083183E-04	3.083183E-04
175	3.237930E+03	3.644606E+00	3.185527E-04	3.086656E-04	3.086656E-04
176	3.234285E+03	3.644606E+00	3.188219E-04	3.090132E-04	3.090132E-04
177	3.230641E+03	3.644606E+00	3.187053E-04	3.093617E-04	3.093617E-04
178	3.226996E+03	3.644606E+00	2.998355E-04	3.097109E-04	3.097109E-04
179	3.223351E+03	3.644606E+00	2.730194E-04	3.100608E-04	3.100608E-04
180	3.219707E+03	3.644606E+00	3.096694E-04	3.104116E-04	3.104116E-04
181	3.216062E+03	3.644606E+00	3.130146E-04	3.107632E-04	3.107632E-04
182	3.212418E+03	3.644606E+00	3.128016E-04	3.111156E-04	3.111156E-04
183	3.208771E+03	3.646549E+00	3.037057E-04	3.114688E-04	3.114688E-04
184	3.205125E+03	3.646549E+00	2.261226E-04	3.118230E-04	3.118230E-04
185	3.201494E+03	3.630678E+00	2.687758E-04	3.121772E-04	3.121772E-04
186	3.197863E+03	3.630678E+00	3.147369E-04	3.125314E-04	3.125314E-04
187	3.194232E+03	3.630678E+00	3.156586E-04	3.128865E-04	3.128865E-04
188	3.190602E+03	3.630678E+00	2.941862E-04	3.132423E-04	3.132423E-04
189	3.186971E+03	3.630678E+00	2.376193E-04	3.135990E-04	3.135990E-04
190	3.183340E+03	3.630678E+00	3.009013E-04	3.139564E-04	3.139564E-04
191	3.179710E+03	3.630678E+00	2.516707E-04	3.143147E-04	3.143147E-04
192	3.176079E+03	3.630678E+00	2.364444E-04	3.146738E-04	3.146738E-04
193	3.172475E+03	3.604534E+00	3.166841E-04	3.150324E-04	3.150324E-04
194	3.168870E+03	3.604534E+00	3.059758E-04	3.153906E-04	3.153906E-04
195	3.165265E+03	3.604534E+00	3.080820E-04	3.157495E-04	3.157495E-04
196	3.161661E+03	3.604534E+00	3.231798E-04	3.161093E-04	3.161093E-04
197	3.158056E+03	3.604534E+00	3.241475E-04	3.164699E-04	3.164699E-04

RESULTS OF NARROW GROUPS STARTING AT 3.36000E+03 EV. BROAD GROUP 33

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
198	3.154452E+03	3.604534E+00	3.242339E-04	3.168313E-04	3.168313E-04
199	3.150838E+03	3.613701E+00	2.980739E-04	3.171940E-04	3.171940E-04
200	3.147224E+03	3.613701E+00	2.183889E-04	3.175580E-04	3.175580E-04
201	3.143644E+03	3.580583E+00	2.982224E-04	3.179212E-04	3.179212E-04
202	3.140063E+03	3.580583E+00	3.266737E-04	3.182835E-04	3.182835E-04
203	3.136483E+03	3.580583E+00	3.268050E-04	3.186466E-04	3.186466E-04
204	3.132902E+03	3.580583E+00	3.161235E-04	3.190106E-04	3.190106E-04
205	3.129322E+03	3.580583E+00	3.182204E-04	3.193754E-04	3.193754E-04
206	3.125741E+03	3.580583E+00	3.252647E-04	3.197410E-04	3.197410E-04
207	3.122160E+03	3.580583E+00	3.239398E-04	3.201075E-04	3.201075E-04
208	3.118580E+03	3.580583E+00	3.232886E-04	3.204748E-04	3.204748E-04
209	3.114975E+03	3.605312E+00	3.229904E-04	3.208443E-04	3.208443E-04
210	3.111369E+03	3.605312E+00	2.878605E-04	3.212158E-04	3.212158E-04
211	3.107764E+03	3.605312E+00	1.821532E-04	3.215883E-04	3.215883E-04
212	3.104159E+03	3.605312E+00	2.818544E-04	3.219616E-04	3.219616E-04
213	3.100553E+03	3.605312E+00	3.307432E-04	3.223357E-04	3.223357E-04
214	3.096948E+03	3.605312E+00	3.315292E-04	3.227107E-04	3.227107E-04
215	3.093366E+03	3.582156E+00	3.301422E-04	3.230854E-04	3.230854E-04
216	3.089818E+03	3.547721E+00	3.293853E-04	3.234580E-04	3.234580E-04
217	3.086270E+03	3.547721E+00	3.295099E-04	3.238296E-04	3.238296E-04
218	3.082723E+03	3.547721E+00	3.272852E-04	3.242021E-04	3.242021E-04
219	3.079175E+03	3.547721E+00	3.185155E-04	3.245754E-04	3.245754E-04
220	3.075627E+03	3.547721E+00	3.285647E-04	3.249496E-04	3.249496E-04
221	3.072083E+03	3.544279E+00	3.308430E-04	3.253244E-04	3.253244E-04
222	3.068539E+03	3.544279E+00	3.312532E-04	3.257000E-04	3.257000E-04
223	3.064994E+03	3.544279E+00	3.314021E-04	3.260764E-04	3.260764E-04
224	3.061450E+03	3.544279E+00	3.112526E-04	3.264537E-04	3.264537E-04
225	3.057906E+03	3.544279E+00	2.718631E-04	3.268318E-04	3.268318E-04
226	3.054362E+03	3.544279E+00	3.211580E-04	3.272109E-04	3.272109E-04
227	3.050840E+03	3.521879E+00	3.272871E-04	3.275896E-04	3.275896E-04
228	3.047318E+03	3.521879E+00	3.270919E-04	3.279680E-04	3.279680E-04
229	3.043796E+03	3.521879E+00	3.267031E-04	3.283472E-04	3.283472E-04
230	3.040274E+03	3.521879E+00	3.207091E-04	3.287274E-04	3.287274E-04
231	3.036752E+03	3.521879E+00	3.236947E-04	3.291084E-04	3.291084E-04
232	3.033230E+03	3.521879E+00	3.230192E-04	3.294903E-04	3.294903E-04
233	3.029708E+03	3.521879E+00	2.191931E-04	3.298731E-04	3.298731E-04
234	3.026186E+03	3.521879E+00	1.692666E-04	3.302568E-04	3.302568E-04
235	3.022679E+03	3.507287E+00	3.142797E-04	3.306405E-04	3.306405E-04
236	3.019172E+03	3.507287E+00	3.380313E-04	3.310244E-04	3.310244E-04
237	3.015665E+03	3.507287E+00	3.301920E-04	3.314092E-04	3.314092E-04
238	3.012157E+03	3.507287E+00	3.228838E-04	3.317948E-04	3.317948E-04
239	3.008650E+03	3.507287E+00	3.381334E-04	3.321814E-04	3.321814E-04
240	3.005143E+03	3.507287E+00	3.057227E-04	3.325689E-04	3.325689E-04
241	3.001635E+03	3.507287E+00	1.936185E-04	3.329572E-04	3.329572E-04
242	2.998146E+03	3.489084E+00	2.903286E-04	3.333455E-04	3.333455E-04
243	2.994657E+03	3.489084E+00	3.478452E-04	3.337336E-04	3.337336E-04
244	2.991168E+03	3.489084E+00	3.496543E-04	3.341227E-04	3.341227E-04
245	2.987679E+03	3.489084E+00	3.417758E-04	3.345127E-04	3.345127E-04
246	2.984190E+03	3.489084E+00	3.397866E-04	3.349036E-04	3.349036E-04
247	2.980711E+03	3.479413E+00	3.514610E-04	3.352948E-04	3.352948E-04
248	2.977231E+03	3.479413E+00	3.492443E-04	3.356864E-04	3.356864E-04
249	2.973752E+03	3.479413E+00	3.393793E-04	3.360790E-04	3.360790E-04
250	2.970274E+03	3.477456E+00	3.382410E-04	3.364723E-04	3.364723E-04
251	2.966797E+03	3.477456E+00	3.247655E-04	3.368665E-04	3.368665E-04
252	2.963324E+03	3.473280E+00	3.333843E-04	3.372613E-04	3.372613E-04

RESULTS OF NARROW GROUPS STARTING AT: 3.36000E+03 EV. ---BROAD GROUP 33

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
253	2.959850E+03	3.473280E+00	3.436753E-04	3.376568E-04	3.376568E-04
254	2.956377E+03	3.473280E+00	3.183123E-04	3.380533E-04	3.380533E-04
255	2.952904E+03	3.473280E+00	3.153696E-04	3.384507E-04	3.384507E-04
256	2.949430E+03	3.473280E+00	3.393383E-04	3.388490E-04	3.388490E-04
257	2.945957E+03	3.473280E+00	3.387137E-04	3.392483E-04	3.392483E-04
258	2.942495E+03	3.461892E+00	3.384399E-04	3.396478E-04	3.396478E-04
259	2.939033E+03	3.461892E+00	3.384554E-04	3.400477E-04	3.400477E-04
260	2.935572E+03	3.461892E+00	3.363898E-04	3.404485E-04	3.404485E-04
261	2.932110E+03	3.461892E+00	2.927944E-04	3.408502E-04	3.408502E-04
262	2.928662E+03	3.447764E+00	2.997255E-04	3.412520E-04	3.412520E-04
263	2.925214E+03	3.447764E+00	3.352390E-04	3.416540E-04	3.416540E-04
264	2.921766E+03	3.447764E+00	3.267471E-04	3.420569E-04	3.420569E-04
265	2.918329E+03	3.437345E+00	3.372232E-04	3.424602E-04	3.424602E-04
266	2.914892E+03	3.437345E+00	3.395499E-04	3.428638E-04	3.428638E-04
267	2.911454E+03	3.437345E+00	3.392656E-04	3.432684E-04	3.432684E-04
268	2.908017E+03	3.437345E+00	3.330266E-04	3.436739E-04	3.436739E-04
269	2.904580E+03	3.437345E+00	3.351387E-04	3.440803E-04	3.440803E-04
270	2.901142E+03	3.437345E+00	3.365953E-04	3.444878E-04	3.444878E-04
271	2.897705E+03	3.437345E+00	2.907526E-04	3.448962E-04	3.448962E-04
272	2.894264E+03	3.440450E+00	2.940499E-04	3.453057E-04	3.453057E-04
273	2.890824E+03	3.440450E+00	3.332877E-04	3.457164E-04	3.457164E-04
274	2.887384E+03	3.440450E+00	3.145824E-04	3.461281E-04	3.461281E-04
275	2.883943E+03	3.440450E+00	1.318111E-04	3.465408E-04	3.465408E-04
276	2.880301E+03	3.641867E+00	7.208798E-05	3.469666E-04	3.469666E-04
277	2.876860E+03	3.441561E+00	2.517623E-04	3.473935E-04	3.473935E-04
278	2.873418E+03	3.441561E+00	3.578741E-04	3.478093E-04	3.478093E-04
279	2.869977E+03	3.441561E+00	3.648713E-04	3.482262E-04	3.482262E-04
280	2.866535E+03	3.441561E+00	2.738191E-04	3.486440E-04	3.486440E-04
281	2.863093E+03	3.441561E+00	2.432565E-04	3.490628E-04	3.490628E-04
282	2.859652E+03	3.441561E+00	3.726295E-04	3.494827E-04	3.494827E-04
283	2.856256E+03	3.396150E+00	3.864448E-04	3.499007E-04	3.499007E-04
284	2.852860E+03	3.396150E+00	3.885526E-04	3.503170E-04	3.503170E-04
285	2.849463E+03	3.396150E+00	3.901210E-04	3.507343E-04	3.507343E-04
286	2.846067E+03	3.396150E+00	3.876585E-04	3.511526E-04	3.511526E-04
287	2.842671E+03	3.396150E+00	3.838391E-04	3.515718E-04	3.515718E-04
288	2.839283E+03	3.387894E+00	3.926494E-04	3.519916E-04	3.519916E-04
289	2.835895E+03	3.387894E+00	3.908308E-04	3.524119E-04	3.524119E-04
290	2.832507E+03	3.387894E+00	3.816926E-04	3.528331E-04	3.528331E-04
291	2.829120E+03	3.387894E+00	3.583231E-04	3.532554E-04	3.532554E-04
292	2.825732E+03	3.387894E+00	3.457790E-04	3.536787E-04	3.536787E-04
293	2.822344E+03	3.387894E+00	3.676779E-04	3.541030E-04	3.541030E-04
294	2.818956E+03	3.387894E+00	3.681886E-04	3.545283E-04	3.545283E-04
295	2.815584E+03	3.372247E+00	3.651156E-04	3.549536E-04	3.549536E-04
296	2.812211E+03	3.372247E+00	3.521539E-04	3.553790E-04	3.553790E-04
297	2.808839E+03	3.372247E+00	3.599023E-04	3.558054E-04	3.558054E-04
298	2.805467E+03	3.372247E+00	3.412843E-04	3.562328E-04	3.562328E-04
299	2.802102E+03	3.365075E+00	3.502818E-04	3.566609E-04	3.566609E-04
300	2.798737E+03	3.365075E+00	3.553995E-04	3.570894E-04	3.570894E-04
301	2.795372E+03	3.365075E+00	3.510199E-04	3.575190E-04	3.575190E-04
302	2.792010E+03	3.361656E+00	3.572528E-04	3.579495E-04	3.579495E-04
303	2.788648E+03	3.361656E+00	3.429385E-04	3.583807E-04	3.583807E-04
304	2.785287E+03	3.361656E+00	3.275792E-04	3.588130E-04	3.588130E-04
305	2.781925E+03	3.361656E+00	3.539194E-04	3.592463E-04	3.592463E-04
306	2.778563E+03	3.361656E+00	3.562211E-04	3.596807E-04	3.596807E-04
307	2.775202E+03	3.361656E+00	3.563676E-04	3.601161E-04	3.601161E-04

RESULTS OF NARROW GROUPS STARTING AT 3.36000E+03 EV.

BROAD GROUP 33

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
308	2.771855E+03	3.346520E+00	3.564530E-04	3.605516E-04	3.605516E-04
309	2.768509E+03	3.346520E+00	3.564516E-04	3.609872E-04	3.609872E-04
310	2.765162E+03	3.346520E+00	3.551459E-04	3.614238E-04	3.614238E-04
311	2.761816E+03	3.346520E+00	3.230156E-04	3.618615E-04	3.618615E-04
312	2.758469E+03	3.346520E+00	3.256892E-04	3.623002E-04	3.623002E-04
313	2.755123E+03	3.346520E+00	3.559229E-04	3.627400E-04	3.627400E-04
314	2.751776E+03	3.346520E+00	3.337882E-04	3.631809E-04	3.631809E-04
315	2.748430E+03	3.346520E+00	2.599589E-04	3.636228E-04	3.636228E-04
316	2.745081E+03	3.348385E+00	3.362358E-04	3.640660E-04	3.640660E-04
317	2.741733E+03	3.348385E+00	3.607957E-04	3.645103E-04	3.645103E-04
318	2.738413E+03	3.319749E+00	3.615587E-04	3.649538E-04	3.649538E-04
319	2.735093E+03	3.319749E+00	3.520424E-04	3.653965E-04	3.653965E-04
320	2.731774E+03	3.319749E+00	3.608753E-04	3.658403E-04	3.658403E-04
321	2.728454E+03	3.319749E+00	3.535934E-04	3.662852E-04	3.662852E-04
322	2.725134E+03	3.319749E+00	3.609702E-04	3.667311E-04	3.667311E-04
323	2.721814E+03	3.319749E+00	3.627137E-04	3.671781E-04	3.671781E-04
324	2.718495E+03	3.319749E+00	3.225037E-04	3.676262E-04	3.676262E-04
325	2.715175E+03	3.319749E+00	2.166991E-04	3.680754E-04	3.680754E-04
326	2.711836E+03	3.339105E+00	3.256187E-04	3.685271E-04	3.685271E-04
327	2.708497E+03	3.339105E+00	3.709410E-04	3.689811E-04	3.689811E-04
328	2.705191E+03	3.305128E+00	3.721375E-04	3.694340E-04	3.694340E-04
329	2.701886E+03	3.305128E+00	3.717490E-04	3.698856E-04	3.698856E-04
330	2.698581E+03	3.305128E+00	3.680835E-04	3.703383E-04	3.703383E-04
331	2.695276E+03	3.305128E+00	3.155351E-04	3.707922E-04	3.707922E-04
332	2.691971E+03	3.305128E+00	3.302376E-04	3.712472E-04	3.712472E-04
333	2.688666E+03	3.305128E+00	3.722216E-04	3.717033E-04	3.717033E-04
334	2.685361E+03	3.305128E+00	3.742282E-04	3.721605E-04	3.721605E-04
335	2.682056E+03	3.305128E+00	3.748514E-04	3.726188E-04	3.726188E-04
336	2.678703E+03	3.352963E+00	3.743522E-04	3.730816E-04	3.730816E-04
337	2.675350E+03	3.352963E+00	3.336724E-04	3.735489E-04	3.735489E-04
338	2.671997E+03	3.352963E+00	1.505503E-04	3.740173E-04	3.740173E-04
339	2.668644E+03	3.352963E+00	2.285873E-04	3.744870E-04	3.744870E-04
340	2.665291E+03	3.352963E+00	3.818703E-04	3.749578E-04	3.749578E-04
341	2.661938E+03	3.352963E+00	3.889471E-04	3.754298E-04	3.754298E-04
342	2.658585E+03	3.352963E+00	3.904224E-04	3.759030E-04	3.759030E-04
343	2.642934E+03	1.565077E+01	3.929661E-04	3.772515E-04	3.772515E-04
344	2.639682E+03	3.252310E+00	3.949909E-04	3.786004E-04	3.786004E-04
345	2.636429E+03	3.252310E+00	3.957214E-04	3.790671E-04	3.790671E-04
346	2.633177E+03	3.252310E+00	3.955299E-04	3.795350E-04	3.795350E-04
347	2.629925E+03	3.252310E+00	3.916271E-04	3.800041E-04	3.800041E-04
348	2.626673E+03	3.252310E+00	3.893863E-04	3.804743E-04	3.804743E-04
349	2.623420E+03	3.252310E+00	3.759012E-04	3.809457E-04	3.809457E-04
350	2.620168E+03	3.252310E+00	2.848247E-04	3.814183E-04	3.814183E-04
351	2.616907E+03	3.261206E+00	3.139106E-04	3.818926E-04	3.818926E-04
352	2.613673E+03	3.233936E+00	3.798032E-04	3.823669E-04	3.823669E-04
353	2.610439E+03	3.233936E+00	3.801636E-04	3.828403E-04	3.828403E-04
354	2.610000E+03	4.388265E-01	3.782921E-04	3.831096E-04	3.831096E-04

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	7.146110E-01	0.	1.757014E-01	0.	2.581230E-01	0.
1	PU239	0.	0.	0.	0.	0.	0.
1	PU240	0.	0.	0.	0.	0.	0.

RESULTS OF NARROW GROUPS STARTING AT 2.61000E+03 EV.

BROAD GROUP 34

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
355	2.606766E+03	3.233936E+00	3.746948E-04	3.833793E-04	3.833793E-04
356	2.603532E+03	3.233936E+00	3.483252E-04	3.838552E-04	3.838552E-04
357	2.600298E+03	3.233936E+00	1.687350E-04	3.843323E-04	3.843323E-04
358	2.597064E+03	3.233936E+00	6.417763E-05	3.848106E-04	3.848106E-04
359	2.593599E+03	3.465365E+00	1.937000E-04	3.853073E-04	3.853073E-04
350	2.590281E+03	3.318032E+00	3.931371E-04	3.858115E-04	3.858115E-04
361	2.586963E+03	3.318032E+00	4.117854E-04	3.863060E-04	3.863060E-04
362	2.583645E+03	3.318032E+00	3.775364E-04	3.868018E-04	3.868018E-04
363	2.580327E+03	3.318032E+00	1.487118E-04	3.872989E-04	3.872989E-04
364	2.577009E+03	3.318032E+00	1.923893E-04	3.877972E-04	3.877972E-04
365	2.573691E+03	3.318032E+00	4.311116E-04	3.882968E-04	3.882968E-04
366	2.570399E+03	3.292065E+00	4.523120E-04	3.887958E-04	3.887958E-04
367	2.567107E+03	3.292065E+00	4.556396E-04	3.892941E-04	3.892941E-04
368	2.563815E+03	3.292065E+00	4.518883E-04	3.897936E-04	3.897936E-04
369	2.560522E+03	3.292065E+00	2.839311E-04	3.902945E-04	3.902945E-04
370	2.557230E+03	3.292065E+00	1.492533E-04	3.907966E-04	3.907966E-04
371	2.553938E+03	3.292065E+00	3.640667E-04	3.913000E-04	3.913000E-04
372	2.550646E+03	3.292065E+00	3.050609E-04	3.918047E-04	3.918047E-04
373	2.547354E+03	3.292065E+00	1.078381E-04	3.923107E-04	3.923107E-04
374	2.544017E+03	3.337555E+00	2.568698E-04	3.928216E-04	3.928216E-04
375	2.540679E+03	3.337555E+00	4.811157E-04	3.933373E-04	3.933373E-04
376	2.537342E+03	3.337555E+00	4.913953E-04	3.938543E-04	3.938543E-04
377	2.534004E+03	3.337555E+00	4.849116E-04	3.943727E-04	3.943727E-04
378	2.530825E+03	3.178914E+00	4.807560E-04	3.948801E-04	3.948801E-04
379	2.527646E+03	3.178914E+00	4.817921E-04	3.953764E-04	3.953764E-04
380	2.524467E+03	3.178914E+00	4.825377E-04	3.958740E-04	3.958740E-04
381	2.521288E+03	3.178914E+00	4.604275E-04	3.963728E-04	3.963728E-04
382	2.518109E+03	3.178914E+00	4.404599E-04	3.968729E-04	3.968729E-04
383	2.514930E+03	3.178914E+00	4.706235E-04	3.973742E-04	3.973742E-04
384	2.511752E+03	3.178914E+00	4.635068E-04	3.978768E-04	3.978768E-04
385	2.508573E+03	3.178914E+00	4.580119E-04	3.983807E-04	3.983807E-04
386	2.500903E+03	7.669726E+00	4.382793E-04	3.992437E-04	3.992437E-04
387	2.497727E+03	3.175513E+00	4.226731E-04	4.001097E-04	4.001097E-04
388	2.494552E+03	3.175513E+00	4.197480E-04	4.006187E-04	4.006187E-04
389	2.491376E+03	3.175513E+00	3.742151E-04	4.011290E-04	4.011290E-04
390	2.488201E+03	3.175513E+00	2.600220E-04	4.016406E-04	4.016406E-04
391	2.485025E+03	3.175513E+00	3.767923E-04	4.021535E-04	4.021535E-04
392	2.481850E+03	3.175513E+00	4.192508E-04	4.026677E-04	4.026677E-04
393	2.478674E+03	3.175513E+00	4.184337E-04	4.031833E-04	4.031833E-04
394	2.464948E+03	1.372605E+01	4.154043E-04	4.045627E-04	4.045627E-04
395	2.461820E+03	3.128445E+00	4.133389E-04	4.059457E-04	4.059457E-04
396	2.458591E+03	3.128445E+00	4.128605E-04	4.064619E-04	4.064619E-04
397	2.455563E+03	3.128445E+00	4.102554E-04	4.069794E-04	4.069794E-04
398	2.452435E+03	3.128445E+00	4.004226E-04	4.074982E-04	4.074982E-04
399	2.449306E+03	3.128445E+00	3.942136E-04	4.080184E-04	4.080184E-04
400	2.446178E+03	3.128445E+00	2.227975E-04	4.085399E-04	4.085399E-04
401	2.443010E+03	3.167659E+00	2.284165E-04	4.090660E-04	4.090660E-04
402	2.439842E+03	3.167659E+00	4.063357E-04	4.095967E-04	4.095967E-04
403	2.436701E+03	3.141082E+00	4.202740E-04	4.101266E-04	4.101266E-04
404	2.433560E+03	3.141082E+00	4.210861E-04	4.106556E-04	4.106556E-04
405	2.430419E+03	3.141082E+00	4.185414E-04	4.111860E-04	4.111860E-04
406	2.427278E+03	3.141082E+00	3.088202E-04	4.117178E-04	4.117178E-04
407	2.424137E+03	3.141082E+00	2.326644E-04	4.122509E-04	4.122509E-04
408	2.421039E+03	3.097714E+00	4.035176E-04	4.127818E-04	4.127818E-04
409	2.417941E+03	3.097714E+00	4.347664E-04	4.133102E-04	4.133102E-04

RESULTS OF NARROW GROUPS STARTING AT 2.61000E+03 EV.

BROAD GROUP 34

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
410	2.414844E+03	3.097714E+00	4.364204E-04	4.138401E-04	4.138401E-04
411	2.411746E+03	3.097714E+00	4.334734E-04	4.143713E-04	4.143713E-04
412	2.408648E+03	3.097714E+00	4.168886E-04	4.149039E-04	4.149039E-04
413	2.405551E+03	3.097714E+00	4.327655E-04	4.154378E-04	4.154378E-04
414	2.402463E+03	3.087672E+00	4.315846E-04	4.159723E-04	4.159723E-04
415	2.399375E+03	3.087672E+00	4.278570E-04	4.165072E-04	4.165072E-04
416	2.396288E+03	3.087672E+00	4.275086E-04	4.170436E-04	4.170436E-04
417	2.393200E+03	3.087672E+00	4.054111E-04	4.175813E-04	4.175813E-04
418	2.390112E+03	3.087672E+00	3.828831E-04	4.181204E-04	4.181204E-04
419	2.387025E+03	3.087672E+00	4.237644E-04	4.186609E-04	4.186609E-04
420	2.383937E+03	3.087672E+00	4.237620E-04	4.192028E-04	4.192028E-04
421	2.380849E+03	3.087672E+00	4.195499E-04	4.197461E-04	4.197461E-04
422	2.366815E+03	1.403379E+01	4.185124E-04	4.212610E-04	4.212610E-04
423	2.363733E+03	3.082274E+00	4.180976E-04	4.227840E-04	4.227840E-04
424	2.360651E+03	3.082274E+00	4.171723E-04	4.233357E-04	4.233357E-04
425	2.357569E+03	3.082274E+00	3.654478E-04	4.238888E-04	4.238888E-04
426	2.354486E+03	3.082274E+00	2.326105E-04	4.244433E-04	4.244433E-04
427	2.351407E+03	3.079313E+00	2.360710E-04	4.249991E-04	4.249991E-04
428	2.348328E+03	3.079313E+00	3.197189E-04	4.255560E-04	4.255560E-04
429	2.345283E+03	3.044705E+00	4.303727E-04	4.261112E-04	4.261112E-04
430	2.342238E+03	3.044705E+00	4.348318E-04	4.266648E-04	4.266648E-04
431	2.339194E+03	3.044705E+00	4.321471E-04	4.272198E-04	4.272198E-04
432	2.336149E+03	3.044705E+00	4.120829E-04	4.277762E-04	4.277762E-04
433	2.333104E+03	3.044705E+00	4.306549E-04	4.283341E-04	4.283341E-04
434	2.330059E+03	3.044705E+00	4.382984E-04	4.288934E-04	4.288934E-04
435	2.327015E+03	3.044705E+00	4.394011E-04	4.294542E-04	4.294542E-04
436	2.323982E+03	3.032732E+00	4.403667E-04	4.300154E-04	4.300154E-04
437	2.320949E+03	3.032732E+00	4.412776E-04	4.305769E-04	4.305769E-04
438	2.317917E+03	3.032732E+00	4.329972E-04	4.311399E-04	4.311399E-04
439	2.314884E+03	3.032732E+00	3.740469E-04	4.317044E-04	4.317044E-04
440	2.311867E+03	3.016901E+00	4.105714E-04	4.322689E-04	4.322689E-04
441	2.308850E+03	3.016901E+00	4.305012E-04	4.328333E-04	4.328333E-04
442	2.305833E+03	3.016901E+00	4.294851E-04	4.333993E-04	4.333993E-04
443	2.302816E+03	3.016901E+00	4.276470E-04	4.339667E-04	4.339667E-04
444	2.299799E+03	3.016901E+00	4.249321E-04	4.345356E-04	4.345356E-04
445	2.296792E+03	3.007571E+00	4.295365E-04	4.351051E-04	4.351051E-04
446	2.293784E+03	3.007571E+00	4.302857E-04	4.356752E-04	4.356752E-04
447	2.290777E+03	3.007571E+00	4.289658E-04	4.362469E-04	4.362469E-04
448	2.287769E+03	3.007571E+00	4.176115E-04	4.368200E-04	4.368200E-04
449	2.284761E+03	3.007571E+00	4.162717E-04	4.373946E-04	4.373946E-04
450	2.281754E+03	3.007571E+00	2.543837E-04	4.379708E-04	4.379708E-04
451	2.278746E+03	3.007571E+00	2.059356E-04	4.385484E-04	4.385484E-04
452	2.275700E+03	3.046090E+00	4.124757E-04	4.391314E-04	4.391314E-04
453	2.272654E+03	3.046090E+00	4.444339E-04	4.397195E-04	4.397195E-04
454	2.269608E+03	3.046090E+00	4.284038E-04	4.403093E-04	4.403093E-04
455	2.266559E+03	3.049480E+00	2.149768E-04	4.409010E-04	4.409010E-04
456	2.263509E+03	3.049480E+00	2.001947E-04	4.414946E-04	4.414946E-04
457	2.260498E+03	3.011217E+00	3.759716E-04	4.420860E-04	4.420860E-04
458	2.257487E+03	3.011217E+00	2.591359E-04	4.426753E-04	4.426753E-04
459	2.254475E+03	3.011217E+00	4.219254E-04	4.432662E-04	4.432662E-04
460	2.251504E+03	2.971704E+00	4.867581E-04	4.438548E-04	4.438548E-04
461	2.248532E+03	2.971704E+00	4.904229E-04	4.444410E-04	4.444410E-04
462	2.245560E+03	2.971704E+00	4.926359E-04	4.450287E-04	4.450287E-04
463	2.242589E+03	2.971704E+00	4.875509E-04	4.456181E-04	4.456181E-04
464	2.239617E+03	2.971704E+00	4.757528E-04	4.462090E-04	4.462090E-04

RESULTS OF NARROW GROUPS STARTING AT 2.61000E+03 EV. BROAD GROUP 34

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
455	2.236648E+03	2.968662E+00	4.723258E-04	4.468011E-04	4.468011E-04
456	2.233680E+03	2.968662E+00	4.568229E-04	4.473945E-04	4.473945E-04
457	2.230715E+03	2.964338E+00	4.694240E-04	4.479891E-04	4.479891E-04
458	2.227751E+03	2.964338E+00	4.530130E-04	4.485848E-04	4.485848E-04
459	2.224787E+03	2.964338E+00	4.673530E-04	4.491821E-04	4.491821E-04
470	2.221822E+03	2.964338E+00	4.546540E-04	4.497810E-04	4.497810E-04
471	2.218858E+03	2.964338E+00	4.593247E-04	4.503815E-04	4.503815E-04
472	2.211930E+03	6.927553E+00	4.547427E-04	4.513873E-04	4.513873E-04
473	2.208944E+03	2.986686E+00	4.525345E-04	4.523993E-04	4.523993E-04
474	2.205957E+03	2.986686E+00	4.493716E-04	4.530114E-04	4.530114E-04
475	2.202970E+03	2.986686E+00	3.555186E-04	4.536251E-04	4.536251E-04
476	2.199984E+03	2.986686E+00	1.842506E-04	4.542406E-04	4.542406E-04
477	2.197048E+03	2.935923E+00	3.487586E-04	4.548524E-04	4.548524E-04
478	2.194112E+03	2.935923E+00	4.506965E-04	4.554606E-04	4.554606E-04
479	2.191176E+03	2.935923E+00	4.432099E-04	4.560705E-04	4.560705E-04
480	2.188240E+03	2.935923E+00	3.177441E-04	4.566820E-04	4.566820E-04
481	2.185304E+03	2.935923E+00	9.429607E-05	4.572951E-04	4.572951E-04
482	2.182302E+03	3.001894E+00	1.668667E-04	4.579168E-04	4.579168E-04
483	2.179383E+03	2.919012E+00	4.671050E-04	4.585384E-04	4.585384E-04
484	2.176464E+03	2.919012E+00	5.078389E-04	4.591530E-04	4.591530E-04
485	2.173545E+03	2.919012E+00	5.132204E-04	4.597692E-04	4.597692E-04
486	2.170626E+03	2.919012E+00	5.045689E-04	4.603871E-04	4.603871E-04
487	2.167707E+03	2.919012E+00	5.202601E-04	4.610066E-04	4.610066E-04
488	2.164788E+03	2.919012E+00	5.235144E-04	4.616278E-04	4.616278E-04
489	2.161869E+03	2.919012E+00	5.175061E-04	4.622507E-04	4.622507E-04
490	2.158950E+03	2.919012E+00	5.131473E-04	4.628753E-04	4.628753E-04
491	2.155975E+03	2.975427E+00	4.884588E-04	4.635076E-04	4.635076E-04
492	2.152999E+03	2.975427E+00	2.178801E-04	4.641477E-04	4.641477E-04
493	2.150024E+03	2.975427E+00	1.933536E-04	4.647896E-04	4.647896E-04
494	2.147112E+03	2.912080E+00	4.237841E-04	4.654264E-04	4.654264E-04
495	2.144200E+03	2.912080E+00	3.483485E-04	4.660581E-04	4.660581E-04
496	2.141288E+03	2.912080E+00	4.828449E-04	4.666915E-04	4.666915E-04
497	2.138375E+03	2.912080E+00	5.145212E-04	4.673266E-04	4.673266E-04
498	2.135463E+03	2.912080E+00	5.155184E-04	4.679634E-04	4.679634E-04
499	2.132580E+03	2.882920E+00	5.163043E-04	4.685988E-04	4.685988E-04
500	2.129698E+03	2.882920E+00	5.166697E-04	4.692327E-04	4.692327E-04
501	2.126815E+03	2.882920E+00	5.152693E-04	4.698683E-04	4.698683E-04
502	2.123932E+03	2.882920E+00	4.909782E-04	4.705057E-04	4.705057E-04
503	2.121049E+03	2.882920E+00	4.992517E-04	4.711448E-04	4.711448E-04
504	2.118166E+03	2.882920E+00	5.137097E-04	4.717856E-04	4.717856E-04
505	2.115283E+03	2.882920E+00	5.025496E-04	4.724281E-04	4.724281E-04
506	2.112400E+03	2.882920E+00	4.895945E-04	4.730725E-04	4.730725E-04
507	2.106633E+03	5.765716E+00	4.831617E-04	4.740425E-04	4.740425E-04
508	2.103770E+03	2.863329E+00	4.801747E-04	4.750140E-04	4.750140E-04
509	2.100907E+03	2.863329E+00	4.792549E-04	4.756609E-04	4.756609E-04
510	2.098043E+03	2.863329E+00	4.664651E-04	4.763096E-04	4.763096E-04
511	2.095180E+03	2.863329E+00	4.162020E-04	4.769601E-04	4.769601E-04
512	2.092321E+03	2.858574E+00	4.604651E-04	4.776119E-04	4.776119E-04
513	2.089463E+03	2.858574E+00	4.436744E-04	4.782648E-04	4.782648E-04
514	2.086604E+03	2.858574E+00	3.993207E-04	4.789196E-04	4.789196E-04
515	2.083746E+03	2.858574E+00	4.649079E-04	4.795761E-04	4.795761E-04
516	2.080887E+03	2.858574E+00	4.733953E-04	4.802345E-04	4.802345E-04
517	2.078029E+03	2.858574E+00	4.730575E-04	4.808947E-04	4.808947E-04
518	2.041132E+03	3.689694E+01	4.755228E-04	4.855489E-04	4.855489E-04
519	2.040000E+03	1.131578E+00	4.775671E-04	4.900602E-04	4.900602E-04

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	7.629673E-01	0.	1.821341E-01	0.	4.402571E-01	0.
1	PU239	0.	0.	0.	0.	0.	0.
1	PU240	0.	0.	0.	0.	0.	0.

RESULTS OF NARROW GROUPS STARTING AT 2.04000E+03 EV.

BROAD GROUP 35

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
520	2.037173E+03	2.827339E+00	4.775629E-04	4.905361E-04	4.905361E-04
521	2.034345E+03	2.827339E+00	4.726161E-04	4.912174E-04	4.912174E-04
522	2.031518E+03	2.827339E+00	3.467669E-04	4.919005E-04	4.919005E-04
523	2.028691E+03	2.827339E+00	2.980834E-04	4.925856E-04	4.925856E-04
524	2.025863E+03	2.827339E+00	3.824755E-04	4.932726E-04	4.932726E-04
525	2.023036E+03	2.827339E+00	1.397419E-04	4.939615E-04	4.939615E-04
526	2.020152E+03	2.883843E+00	2.180814E-04	4.946592E-04	4.946592E-04
527	2.017268E+03	2.883843E+00	5.006955E-04	4.953659E-04	4.953659E-04
528	2.014384E+03	2.883843E+00	5.251444E-04	4.960746E-04	4.960746E-04
529	2.011501E+03	2.883843E+00	5.297860E-04	4.967853E-04	4.967853E-04
530	1.985106E+03	2.639460E+01	5.324656E-04	5.004318E-04	5.004318E-04
531	1.982152E+03	2.954037E+00	4.910942E-04	5.041266E-04	5.041266E-04
532	1.979198E+03	2.954037E+00	4.649490E-04	5.048785E-04	5.048785E-04
533	1.976244E+03	2.954037E+00	2.330067E-04	5.056326E-04	5.056326E-04
534	1.973290E+03	2.954037E+00	6.965746E-05	5.063890E-04	5.063890E-04
535	1.970336E+03	2.954037E+00	1.340660E-04	5.071476E-04	5.071476E-04
536	1.967382E+03	2.954037E+00	6.452000E-05	5.079085E-04	5.079085E-04
537	1.964386E+03	2.995906E+00	2.004990E-04	5.086772E-04	5.086772E-04
538	1.961390E+03	2.995906E+00	5.469527E-04	5.094535E-04	5.094535E-04
539	1.958394E+03	2.995906E+00	6.058911E-04	5.102323E-04	5.102323E-04
540	1.955398E+03	2.995906E+00	6.268581E-04	5.110134E-04	5.110134E-04
541	1.926809E+03	2.858897E+01	6.151987E-04	5.151801E-04	5.151801E-04
542	1.924086E+03	2.722964E+00	5.518686E-04	5.193598E-04	5.193598E-04
543	1.921363E+03	2.722964E+00	5.482845E-04	5.200953E-04	5.200953E-04
544	1.918640E+03	2.722964E+00	5.156537E-04	5.208329E-04	5.208329E-04
545	1.915917E+03	2.722964E+00	4.004160E-04	5.215726E-04	5.215726E-04
546	1.913194E+03	2.722964E+00	4.987465E-04	5.223144E-04	5.223144E-04
547	1.910484E+03	2.710245E+00	5.417560E-04	5.230566E-04	5.230566E-04
548	1.907774E+03	2.710245E+00	5.403595E-04	5.237992E-04	5.237992E-04
549	1.905064E+03	2.710245E+00	5.333212E-04	5.245438E-04	5.245438E-04
550	1.902353E+03	2.710245E+00	4.362970E-04	5.252906E-04	5.252906E-04
551	1.899643E+03	2.710245E+00	4.298709E-04	5.260395E-04	5.260395E-04
552	1.896933E+03	2.710245E+00	5.275292E-04	5.267905E-04	5.267905E-04
553	1.894223E+03	2.710245E+00	5.311555E-04	5.275437E-04	5.275437E-04
554	1.891512E+03	2.710245E+00	5.300717E-04	5.282991E-04	5.282991E-04
555	1.855115E+03	3.639706E+01	5.282040E-04	5.338302E-04	5.338302E-04
556	1.852456E+03	2.659396E+00	5.289376E-04	5.394368E-04	5.394368E-04
557	1.849797E+03	2.659396E+00	5.292094E-04	5.402118E-04	5.402118E-04
558	1.847137E+03	2.659396E+00	5.105598E-04	5.409890E-04	5.409890E-04
559	1.844478E+03	2.659396E+00	4.298509E-04	5.417684E-04	5.417684E-04
560	1.841818E+03	2.659396E+00	4.996810E-04	5.425501E-04	5.425501E-04
561	1.839159E+03	2.659396E+00	5.305155E-04	5.433341E-04	5.433341E-04
562	1.836500E+03	2.659396E+00	5.315137E-04	5.441203E-04	5.441203E-04
563	1.833840E+03	2.659396E+00	5.321070E-04	5.449088E-04	5.449088E-04
564	1.817725E+03	1.611562E+01	5.349813E-04	5.477140E-04	5.477140E-04
565	1.815096E+03	2.528965E+00	5.372841E-04	5.505366E-04	5.505366E-04
566	1.812467E+03	2.628965E+00	5.377305E-04	5.513345E-04	5.513345E-04
567	1.809838E+03	2.628965E+00	5.135111E-04	5.521348E-04	5.521348E-04

RESULTS OF NARROW GROUPS STARTING AT 2.04000E+03 EV. BROAD GROUP 35

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
568	1.807209E+03	2.628965E+00	4.130177E-04	5.529374E-04	5.529374E-04
569	1.804595E+03	2.613864E+00	4.980591E-04	5.537401E-04	5.537401E-04
570	1.801981E+03	2.613864E+00	5.391165E-04	5.545427E-04	5.545427E-04
571	1.799367E+03	2.613864E+00	5.368411E-04	5.553477E-04	5.553477E-04
572	1.796753E+03	2.613864E+00	5.192113E-04	5.561550E-04	5.561550E-04
573	1.794139E+03	2.613864E+00	5.302984E-04	5.569647E-04	5.569647E-04
574	1.791526E+03	2.613864E+00	5.324227E-04	5.577767E-04	5.577767E-04
575	1.788912E+03	2.613864E+00	5.220837E-04	5.585911E-04	5.585911E-04
576	1.786298E+03	2.613864E+00	4.783106E-04	5.594079E-04	5.594079E-04
577	1.783493E+03	2.804694E+00	1.755482E-04	5.602570E-04	5.602570E-04
578	1.780688E+03	2.804694E+00	6.427408E-05	5.611388E-04	5.611388E-04
579	1.777884E+03	2.804694E+00	2.513775E-04	5.620233E-04	5.620233E-04
580	1.775079E+03	2.804694E+00	5.673569E-04	5.629106E-04	5.629106E-04
581	1.772274E+03	2.804694E+00	6.119149E-04	5.638007E-04	5.638007E-04
582	1.769470E+03	2.804694E+00	6.287368E-04	5.646937E-04	5.646937E-04
583	1.765164E+03	4.305636E+00	6.410623E-04	5.658298E-04	5.658298E-04
584	1.762559E+03	2.604624E+00	6.492151E-04	5.669380E-04	5.669380E-04
585	1.759955E+03	2.604624E+00	6.524408E-04	5.677764E-04	5.677764E-04
586	1.757350E+03	2.604624E+00	5.490134E-04	5.686173E-04	5.686173E-04
587	1.754745E+03	2.604624E+00	2.912670E-04	5.694607E-04	5.694607E-04
588	1.752141E+03	2.604624E+00	4.842354E-04	5.703066E-04	5.703066E-04
589	1.749536E+03	2.604624E+00	6.373161E-04	5.711550E-04	5.711550E-04
590	1.746932E+03	2.604624E+00	6.247166E-04	5.720059E-04	5.720059E-04
591	1.744327E+03	2.604624E+00	6.198910E-04	5.728594E-04	5.728594E-04
592	1.732197E+03	1.213030E+01	6.170874E-04	5.752897E-04	5.752897E-04
593	1.729643E+03	2.553293E+00	6.144339E-04	5.777275E-04	5.777275E-04
594	1.727090E+03	2.553293E+00	6.099668E-04	5.785810E-04	5.785810E-04
595	1.724537E+03	2.553293E+00	5.749725E-04	5.794370E-04	5.794370E-04
596	1.721984E+03	2.553293E+00	4.642934E-04	5.802955E-04	5.802955E-04
597	1.719430E+03	2.553293E+00	5.437614E-04	5.811566E-04	5.811566E-04
598	1.716877E+03	2.553293E+00	5.843391E-04	5.820203E-04	5.820203E-04
599	1.714324E+03	2.553293E+00	5.838269E-04	5.828865E-04	5.828865E-04
600	1.711770E+03	2.553293E+00	5.595841E-04	5.837553E-04	5.837553E-04
601	1.709215E+03	2.555599E+00	3.378474E-04	5.846270E-04	5.846270E-04
602	1.706659E+03	2.555599E+00	3.730741E-04	5.855018E-04	5.855018E-04
603	1.704104E+03	2.555599E+00	5.823410E-04	5.863792E-04	5.863792E-04
604	1.701548E+03	2.555599E+00	5.954572E-04	5.872593E-04	5.872593E-04
605	1.698992E+03	2.555599E+00	5.959345E-04	5.881419E-04	5.881419E-04
606	1.696448E+03	2.544744E+00	5.966003E-04	5.890254E-04	5.890254E-04
607	1.693903E+03	2.544744E+00	5.971689E-04	5.899096E-04	5.899096E-04
608	1.691358E+03	2.544744E+00	5.873835E-04	5.907965E-04	5.907965E-04
609	1.688813E+03	2.544744E+00	3.663424E-04	5.916861E-04	5.916861E-04
610	1.686269E+03	2.544744E+00	2.774411E-04	5.925783E-04	5.925783E-04
611	1.683724E+03	2.544744E+00	5.622189E-04	5.934732E-04	5.934732E-04
612	1.681179E+03	2.544744E+00	6.207348E-04	5.943709E-04	5.943709E-04
613	1.678634E+03	2.544744E+00	6.171915E-04	5.952712E-04	5.952712E-04
614	1.671345E+03	7.289267E+00	6.149288E-04	5.970195E-04	5.970195E-04
615	1.668788E+03	2.557287E+00	6.157549E-04	5.987787E-04	5.987787E-04
616	1.666231E+03	2.557287E+00	6.102422E-04	5.996970E-04	5.996970E-04
617	1.663673E+03	2.557287E+00	4.230817E-04	6.006181E-04	6.006181E-04
618	1.661116E+03	2.557287E+00	1.556494E-04	6.015420E-04	6.015420E-04
619	1.658559E+03	2.557287E+00	3.336036E-04	6.024688E-04	6.024688E-04
620	1.656001E+03	2.557287E+00	6.333490E-04	6.033984E-04	6.033984E-04
621	1.653444E+03	2.557287E+00	6.491441E-04	6.043310E-04	6.043310E-04

RESULTS OF NARROW GROUPS STARTING AT 2.04000E+03 EV.

BROAD GROUP 35

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
622	1.650887E+03	2.557287E+00	6.531245E-04	6.052664E-04	6.052654E-04
623	1.647207E+03	3.679941E+00	6.565383E-04	6.064112E-04	6.064112E-04
624	1.644719E+03	2.487592E+00	6.592899E-04	6.075472E-04	6.075472E-04
625	1.642232E+03	2.487592E+00	6.504430E-04	6.084667E-04	6.084667E-04
626	1.639744E+03	2.487592E+00	5.913520E-04	6.093891E-04	6.093891E-04
627	1.637257E+03	2.487592E+00	3.661402E-04	6.103143E-04	6.103143E-04
628	1.634769E+03	2.487592E+00	5.309633E-04	6.112423E-04	6.112423E-04
629	1.632281E+03	2.487592E+00	6.484614E-04	6.121731E-04	6.121731E-04
630	1.629794E+03	2.487592E+00	6.365856E-04	6.131068E-04	6.131068E-04
631	1.627306E+03	2.487592E+00	6.311734E-04	6.140433E-04	6.140433E-04
632	1.624813E+03	2.493370E+00	5.445531E-04	6.149838E-04	6.149838E-04
633	1.622319E+03	2.493370E+00	2.394349E-04	6.159282E-04	6.159282E-04
634	1.619826E+03	2.493370E+00	3.600123E-04	6.168756E-04	6.168756E-04
635	1.617333E+03	2.493370E+00	6.478008E-04	6.178259E-04	6.178259E-04
636	1.614839E+03	2.493370E+00	6.640600E-04	6.187791E-04	6.187791E-04
637	1.612346E+03	2.493370E+00	6.652372E-04	6.197352E-04	6.197352E-04
638	1.590000E+03	2.234593E+01	6.513847E-04	6.245523E-04	6.245523E-04

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	7.381617E-01	0.	1.779944E-01	0.	6.182515E-01	0.
1	PU239	0.	0.	0.	0.	0.	0.
1	PU240	0.	0.	0.	0.	0.	0.

RESULTS OF NARROW GROUPS STARTING AT 1.59000E+03 EV.

BROAD GROUP 36

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
639	1.573751E+03	1.624918E+01	6.292486E-04	6.321666E-04	6.321666E-04
640	1.571346E+03	2.404908E+00	6.294298E-04	6.359106E-04	6.359106E-04
641	1.568941E+03	2.404908E+00	6.297854E-04	6.368846E-04	6.368846E-04
642	1.566536E+03	2.404908E+00	6.250374E-04	6.378616E-04	6.378616E-04
643	1.564131E+03	2.404908E+00	5.974153E-04	6.388416E-04	6.388416E-04
644	1.561726E+03	2.404908E+00	6.175150E-04	6.398246E-04	6.398246E-04
645	1.559321E+03	2.404908E+00	6.284717E-04	6.408106E-04	6.408106E-04
646	1.556931E+03	2.390680E+00	6.291519E-04	6.417967E-04	6.417967E-04
647	1.554540E+03	2.390680E+00	6.296499E-04	6.427830E-04	6.427830E-04
648	1.552149E+03	2.390680E+00	6.286553E-04	6.437722E-04	6.437722E-04
649	1.549759E+03	2.390680E+00	6.082873E-04	6.447646E-04	6.447646E-04
650	1.547372E+03	2.386915E+00	6.091064E-04	6.457592E-04	6.457592E-04
651	1.544985E+03	2.386915E+00	6.017888E-04	6.467561E-04	6.467561E-04
652	1.542598E+03	2.386915E+00	6.220502E-04	6.477560E-04	6.477560E-04
653	1.540211E+03	2.386915E+00	6.300857E-04	6.487591E-04	6.487591E-04
654	1.537824E+03	2.386915E+00	6.310615E-04	6.497653E-04	6.497653E-04
655	1.535437E+03	2.386915E+00	6.320477E-04	6.507746E-04	6.507746E-04
656	1.532035E+03	3.402308E+00	6.326897E-04	6.520030E-04	6.520030E-04
657	1.529587E+03	2.448006E+00	6.312264E-04	6.532487E-04	6.532487E-04
658	1.527139E+03	2.448006E+00	6.206480E-04	6.542950E-04	6.542950E-04
659	1.524691E+03	2.448006E+00	3.897054E-04	6.553447E-04	6.553447E-04
660	1.522243E+03	2.448006E+00	1.210736E-04	6.563978E-04	6.563978E-04
661	1.519795E+03	2.448006E+00	2.704978E-04	6.574542E-04	6.574542E-04
662	1.517347E+03	2.448006E+00	6.700536E-04	6.585140E-04	6.585140E-04
663	1.514899E+03	2.448006E+00	7.073656E-04	6.595773E-04	6.595773E-04
664	1.512451E+03	2.448006E+00	7.164957E-04	6.606440E-04	6.606440E-04
665	1.482406E+03	3.004504E+01	7.043663E-04	6.678340E-04	6.678340E-04
666	1.480057E+03	2.348898E+00	6.772239E-04	6.751141E-04	6.751141E-04
667	1.477708E+03	2.348898E+00	6.738020E-04	6.761864E-04	6.761864E-04
668	1.475359E+03	2.348898E+00	5.937679E-04	6.772621E-04	6.772621E-04
669	1.473010E+03	2.348898E+00	2.400803E-04	6.783412E-04	6.783412E-04
670	1.470661E+03	2.348898E+00	4.185250E-04	6.794238E-04	6.794238E-04
671	1.468312E+03	2.348898E+00	6.978024E-04	6.805098E-04	6.805098E-04
672	1.465963E+03	2.348898E+00	7.106659E-04	6.815993E-04	6.815993E-04
673	1.463615E+03	2.348898E+00	7.127619E-04	6.826923E-04	6.826923E-04
674	1.452537E+03	1.107744E+01	7.172172E-04	6.858387E-04	6.858387E-04
675	1.450240E+03	2.297340E+00	7.190094E-04	6.889956E-04	6.889956E-04
676	1.447942E+03	2.297340E+00	7.076430E-04	6.900879E-04	6.900879E-04
677	1.445645E+03	2.297340E+00	6.475647E-04	6.911836E-04	6.911836E-04
678	1.443348E+03	2.297340E+00	4.445352E-04	6.922829E-04	6.922829E-04
679	1.441050E+03	2.297340E+00	5.742988E-04	6.933857E-04	6.933857E-04
680	1.438753E+03	2.297340E+00	6.922618E-04	6.944920E-04	6.944920E-04
681	1.436456E+03	2.297340E+00	6.953152E-04	6.956018E-04	6.956018E-04
682	1.434170E+03	2.285647E+00	6.952583E-04	6.967123E-04	6.967123E-04
683	1.431884E+03	2.285647E+00	6.946352E-04	6.978236E-04	6.978236E-04
684	1.429599E+03	2.285647E+00	6.469363E-04	6.989384E-04	6.989384E-04
685	1.427313E+03	2.285647E+00	3.937100E-04	7.000567E-04	7.000567E-04
686	1.425045E+03	2.268664E+00	4.977302E-04	7.011745E-04	7.011745E-04
687	1.422776E+03	2.268664E+00	6.955493E-04	7.022916E-04	7.022916E-04
688	1.420507E+03	2.268664E+00	6.437925E-04	7.034124E-04	7.034124E-04
689	1.418239E+03	2.268664E+00	5.505432E-04	7.045367E-04	7.045367E-04
690	1.415970E+03	2.268664E+00	6.754169E-04	7.056646E-04	7.056646E-04
691	1.413701E+03	2.268664E+00	7.030671E-04	7.067961E-04	7.067961E-04
692	1.411433E+03	2.268664E+00	7.036536E-04	7.079312E-04	7.079312E-04
693	1.409164E+03	2.268664E+00	7.017868E-04	7.090700E-04	7.090700E-04

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
694	1.406882E+03	2.282015E+00	5.935353E-04	7.102159E-04	7.102159E-04
695	1.404600E+03	2.282015E+00	2.484024E-04	7.113688E-04	7.113688E-04
696	1.402318E+03	2.282015E+00	3.677110E-04	7.125255E-04	7.125255E-04
697	1.400036E+03	2.282015E+00	7.089834E-04	7.136860E-04	7.136860E-04
698	1.397754E+03	2.282015E+00	7.271101E-04	7.148502E-04	7.148502E-04
699	1.395472E+03	2.282015E+00	6.477447E-04	7.160182E-04	7.160182E-04
700	1.393167E+03	2.304693E+00	2.074304E-04	7.171959E-04	7.171959E-04
701	1.390862E+03	2.304693E+00	1.836282E-04	7.183834E-04	7.183834E-04
702	1.388558E+03	2.304693E+00	6.572260E-04	7.195747E-04	7.195747E-04
703	1.386253E+03	2.304693E+00	8.145644E-04	7.207701E-04	7.207701E-04
704	1.383948E+03	2.304693E+00	8.288525E-04	7.219694E-04	7.219694E-04
705	1.343786E+03	4.015229E+01	7.574986E-04	7.332622E-04	7.332622E-04
706	1.341605E+03	2.180723E+00	7.433029E-04	7.447706E-04	7.447706E-04
707	1.339425E+03	2.180723E+00	7.431112E-04	7.459821E-04	7.459821E-04
708	1.337244E+03	2.180723E+00	7.393164E-04	7.471977E-04	7.471977E-04
709	1.335063E+03	2.180723E+00	7.134987E-04	7.484172E-04	7.484172E-04
710	1.332882E+03	2.180723E+00	7.290570E-04	7.496407E-04	7.496407E-04
711	1.330702E+03	2.180723E+00	7.408720E-04	7.508681E-04	7.508681E-04
712	1.328521E+03	2.180723E+00	7.410603E-04	7.520997E-04	7.520997E-04
713	1.326340E+03	2.180723E+00	7.412722E-04	7.533352E-04	7.533352E-04
714	1.324177E+03	2.163041E+00	7.413470E-04	7.545698E-04	7.545698E-04
715	1.322014E+03	2.163041E+00	7.411052E-04	7.558034E-04	7.558034E-04
716	1.319851E+03	2.163041E+00	7.396295E-04	7.570410E-04	7.570410E-04
717	1.317688E+03	2.163041E+00	6.966114E-04	7.582827E-04	7.582827E-04
718	1.315525E+03	2.163041E+00	6.587908E-04	7.595285E-04	7.595285E-04
719	1.313362E+03	2.163041E+00	7.308478E-04	7.607784E-04	7.607784E-04
720	1.311199E+03	2.163041E+00	7.418393E-04	7.620324E-04	7.620324E-04
721	1.309036E+03	2.163041E+00	7.435834E-04	7.632905E-04	7.632905E-04
722	1.306476E+03	2.559744E+00	7.446883E-04	7.646689E-04	7.646689E-04
723	1.304333E+03	2.143354E+00	7.456096E-04	7.660463E-04	7.660463E-04
724	1.302189E+03	2.143354E+00	7.463847E-04	7.673061E-04	7.673061E-04
725	1.300046E+03	2.143354E+00	7.381370E-04	7.685701E-04	7.685701E-04
726	1.297903E+03	2.143354E+00	6.788634E-04	7.698383E-04	7.698383E-04
727	1.295759E+03	2.143354E+00	7.152840E-04	7.711106E-04	7.711106E-04
728	1.293616E+03	2.143354E+00	7.481931E-04	7.723872E-04	7.723872E-04
729	1.291473E+03	2.143354E+00	7.515246E-04	7.736680E-04	7.736680E-04
730	1.289329E+03	2.143354E+00	7.535836E-04	7.749531E-04	7.749531E-04
731	1.281135E+03	8.194328E+00	7.568441E-04	7.780722E-04	7.780722E-04
732	1.279008E+03	2.126862E+00	7.591704E-04	7.812065E-04	7.812065E-04
733	1.276881E+03	2.126862E+00	7.596491E-04	7.825066E-04	7.825066E-04
734	1.274754E+03	2.125862E+00	6.942915E-04	7.838111E-04	7.838111E-04
735	1.272628E+03	2.126862E+00	4.219767E-04	7.851200E-04	7.851200E-04
736	1.270508E+03	2.119603E+00	5.517822E-04	7.864309E-04	7.864309E-04
737	1.258388E+03	2.119603E+00	6.876548E-04	7.877440E-04	7.877440E-04
738	1.266269E+03	2.119603E+00	4.340792E-04	7.890615E-04	7.890615E-04
739	1.264149E+03	2.119603E+00	6.085842E-04	7.903835E-04	7.903835E-04
740	1.262030E+03	2.119603E+00	7.861928E-04	7.917098E-04	7.917098E-04
741	1.259910E+03	2.119603E+00	7.940009E-04	7.930406E-04	7.930406E-04
742	1.257790E+03	2.119603E+00	7.963852E-04	7.943759E-04	7.943759E-04
743	1.253241E+03	4.549375E+00	7.974294E-04	7.964864E-04	7.964864E-04
744	1.251065E+03	2.175681E+00	7.885692E-04	7.986246E-04	7.986246E-04
745	1.248890E+03	2.175681E+00	7.629061E-04	8.000146E-04	8.000146E-04
746	1.246714E+03	2.175681E+00	4.496742E-04	8.014095E-04	8.014095E-04
747	1.244538E+03	2.175681E+00	1.148404E-04	8.028093E-04	8.028093E-04
748	1.242363E+03	2.175681E+00	2.191255E-04	8.042140E-04	8.042140E-04

RESULTS OF NARROW GROUPS STARTING AT 1.59000E+03 EV.

BROAD GROUP 36

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
749	1.240187E+03	2.175681E+00	7.829106E-04	8.056236E-04	8.056236E-04
750	1.238011E+03	2.175681E+00	8.842941E-04	8.070382E-04	8.070382E-04
751	1.235836E+03	2.175681E+00	9.035619E-04	8.084577E-04	8.084577E-04
752	1.230000E+03	5.835524E+00	9.217632E-04	8.110856E-04	8.110856E-04

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	7.786628E-01	0.	1.927759E-01	0.	8.110274E-01	0.
1	PU239	0.	0.	0.	0.	0.	0.
1	PU240	0.	0.	0.	0.	0.	0.

RESULTS OF NARROW GROUPS STARTING AT 1.23000E+03 EV.

BROAD GROUP 37

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
753	1.218612E+03	1.138842E+01	8.916038E-04	8.167953E-04	8.167953E-04
754	1.216558E+03	2.053297E+00	8.418499E-04	8.212981E-04	8.212981E-04
755	1.214505E+03	2.053297E+00	8.390130E-04	8.226855E-04	8.226855E-04
756	1.212452E+03	2.053297E+00	8.109255E-04	8.240775E-04	8.240775E-04
757	1.210398E+03	2.053297E+00	6.542932E-04	8.254743E-04	8.254743E-04
758	1.208345E+03	2.053297E+00	7.292198E-04	8.268758E-04	8.268758E-04
759	1.206292E+03	2.053297E+00	8.218784E-04	8.282821E-04	8.282821E-04
760	1.204239E+03	2.053297E+00	8.231757E-04	8.296932E-04	8.296932E-04
761	1.202185E+03	2.053297E+00	8.208665E-04	8.311090E-04	8.311090E-04
762	1.200121E+03	2.064629E+00	8.174735E-04	8.325337E-04	8.325337E-04
763	1.198056E+03	2.064629E+00	8.023840E-04	8.339672E-04	8.339672E-04
764	1.195991E+03	2.064629E+00	4.843881E-04	8.354056E-04	8.354056E-04
765	1.193927E+03	2.064629E+00	2.250741E-04	8.368490E-04	8.368490E-04
766	1.191862E+03	2.064629E+00	5.309343E-04	8.382974E-04	8.382974E-04
767	1.189797E+03	2.064629E+00	8.596268E-04	8.397508E-04	8.397508E-04
768	1.187733E+03	2.064629E+00	8.763566E-04	8.412093E-04	8.412093E-04
769	1.185668E+03	2.064629E+00	8.814561E-04	8.426728E-04	8.426728E-04
770	1.183632E+03	2.035171E+00	8.853592E-04	8.441313E-04	8.441313E-04
771	1.181596E+03	2.036171E+00	8.879957E-04	8.455847E-04	8.455847E-04
772	1.179560E+03	2.036171E+00	8.140666E-04	8.470431E-04	8.470431E-04
773	1.177523E+03	2.036171E+00	3.705435E-04	8.485066E-04	8.485066E-04
774	1.175487E+03	2.036171E+00	3.990066E-04	8.499751E-04	8.499751E-04
775	1.173458E+03	2.029780E+00	8.486459E-04	8.514463E-04	8.514463E-04
776	1.171428E+03	2.029780E+00	8.935809E-04	8.529204E-04	8.529204E-04
777	1.169398E+03	2.029780E+00	7.891191E-04	8.543996E-04	8.543996E-04
778	1.167368E+03	2.029780E+00	3.222114E-04	8.558839E-04	8.558839E-04
779	1.165338E+03	2.029780E+00	3.707435E-04	8.573734E-04	8.573734E-04
780	1.163309E+03	2.029780E+00	8.789012E-04	8.588680E-04	8.588680E-04
781	1.161279E+03	2.029780E+00	9.534646E-04	8.603679E-04	8.603679E-04
782	1.159249E+03	2.029780E+00	9.570843E-04	8.618731E-04	8.618731E-04
783	1.148207E+03	1.104174E+01	9.281807E-04	8.667619E-04	8.667619E-04
784	1.146145E+03	2.061896E+00	8.823990E-04	8.717058E-04	8.717058E-04
785	1.144084E+03	2.061896E+00	8.380905E-04	8.732754E-04	8.732754E-04
786	1.142022E+03	2.061896E+00	4.882374E-04	8.748506E-04	8.748506E-04
787	1.139960E+03	2.061896E+00	1.169279E-04	8.764316E-04	8.764316E-04
788	1.137995E+03	1.964461E+00	1.350933E-04	8.779807E-04	8.779807E-04
789	1.136031E+03	1.964461E+00	7.933604E-04	8.794976E-04	8.794976E-04
790	1.134066E+03	1.964461E+00	9.717998E-04	8.810198E-04	8.810198E-04
791	1.132102E+03	1.964461E+00	9.662907E-04	8.825472E-04	8.825472E-04
792	1.130137E+03	1.964461E+00	9.353385E-04	8.840800E-04	8.840800E-04
793	1.128173E+03	1.964461E+00	1.005898E-03	8.856181E-04	8.856181E-04
794	1.126209E+03	1.964461E+00	1.024423E-03	8.871615E-04	8.871615E-04
795	1.124244E+03	1.964461E+00	1.029520E-03	8.887104E-04	8.887104E-04
796	1.122280E+03	1.964461E+00	1.018434E-03	8.902646E-04	8.902646E-04
797	1.116302E+03	5.977734E+00	9.501839E-04	8.934251E-04	8.934251E-04
798	1.114355E+03	1.947239E+00	9.170720E-04	8.965973E-04	8.965973E-04
799	1.112407E+03	1.947239E+00	9.128879E-04	8.981654E-04	8.981654E-04
800	1.110460E+03	1.947239E+00	8.428066E-04	8.997390E-04	8.997390E-04
801	1.108513E+03	1.947239E+00	5.171521E-04	9.013181E-04	9.013181E-04
802	1.106566E+03	1.947239E+00	6.342882E-04	9.029027E-04	9.029027E-04
803	1.104634E+03	1.931354E+00	8.949155E-04	9.044865E-04	9.044865E-04
804	1.102703E+03	1.931354E+00	9.064980E-04	9.060693E-04	9.060693E-04
805	1.100772E+03	1.931354E+00	8.989507E-04	9.076576E-04	9.076576E-04
806	1.098840E+03	1.931354E+00	7.415454E-04	9.092516E-04	9.092516E-04
807	1.096909E+03	1.931354E+00	6.372877E-04	9.108511E-04	9.108511E-04

RESULTS OF NARROW GROUPS STARTING AT 1.23000E+03 EV. BROAD GROUP 37

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
808	1.094978E+03	1.931354E+00	8.598260E-04	9.124563E-04	9.124563E-04
809	1.093046E+03	1.931354E+00	9.014810E-04	9.140671E-04	9.140671E-04
810	1.091115E+03	1.931354E+00	9.023329E-04	9.156836E-04	9.156836E-04
811	1.089183E+03	1.931354E+00	9.000950E-04	9.173059E-04	9.173059E-04
812	1.087276E+03	1.907680E+00	8.974721E-04	9.189239E-04	9.189239E-04
813	1.085368E+03	1.907680E+00	8.970574E-04	9.205376E-04	9.205376E-04
814	1.083460E+03	1.907680E+00	8.973022E-04	9.221570E-04	9.221570E-04
815	1.081553E+03	1.907680E+00	8.875359E-04	9.237821E-04	9.237821E-04
816	1.079645E+03	1.907680E+00	8.788029E-04	9.254130E-04	9.254130E-04
817	1.077741E+03	1.903914E+00	8.998963E-04	9.270480E-04	9.270480E-04
818	1.075846E+03	1.895583E+00	9.037106E-04	9.286835E-04	9.286835E-04
819	1.073950E+03	1.895583E+00	9.045826E-04	9.303212E-04	9.303212E-04
820	1.072054E+03	1.895583E+00	9.044432E-04	9.319648E-04	9.319648E-04
821	1.070159E+03	1.895583E+00	8.959732E-04	9.336141E-04	9.336141E-04
822	1.068263E+03	1.895583E+00	9.007591E-04	9.352693E-04	9.352693E-04
823	1.066368E+03	1.895583E+00	9.078031E-04	9.369304E-04	9.369304E-04
824	1.064472E+03	1.895583E+00	9.092505E-04	9.385973E-04	9.385973E-04
825	1.062577E+03	1.895583E+00	9.106904E-04	9.402703E-04	9.402703E-04
826	1.060675E+03	1.901118E+00	9.121374E-04	9.419516E-04	9.419516E-04
827	1.058774E+03	1.901118E+00	9.122705E-04	9.436414E-04	9.436414E-04
828	1.056873E+03	1.901118E+00	9.025078E-04	9.453374E-04	9.453374E-04
829	1.054972E+03	1.901118E+00	5.945985E-04	9.470394E-04	9.470394E-04
830	1.053071E+03	1.901118E+00	2.624316E-04	9.487475E-04	9.487475E-04
831	1.051170E+03	1.901118E+00	5.427450E-04	9.504619E-04	9.504619E-04
832	1.049269E+03	1.901118E+00	9.568079E-04	9.521824E-04	9.521824E-04
833	1.047368E+03	1.901118E+00	9.810041E-04	9.539092E-04	9.539092E-04
834	1.045466E+03	1.901118E+00	9.871584E-04	9.556422E-04	9.556422E-04
835	1.040315E+03	5.151383E+00	9.964520E-04	9.588752E-04	9.588752E-04
836	1.038462E+03	1.853249E+00	1.003936E-03	9.621045E-04	9.621045E-04
837	1.036609E+03	1.853249E+00	9.976760E-04	9.638230E-04	9.638230E-04
838	1.034755E+03	1.853249E+00	9.760773E-04	9.655477E-04	9.655477E-04
839	1.032902E+03	1.853249E+00	9.382805E-04	9.672785E-04	9.672785E-04
840	1.031049E+03	1.853249E+00	9.418458E-04	9.690156E-04	9.690156E-04
841	1.029203E+03	1.846124E+00	9.557706E-04	9.707555E-04	9.707555E-04
842	1.027357E+03	1.846124E+00	9.559059E-04	9.724984E-04	9.724984E-04
843	1.025510E+03	1.846124E+00	9.500570E-04	9.742475E-04	9.742475E-04
844	1.023664E+03	1.846124E+00	7.940200E-04	9.760029E-04	9.760029E-04
845	1.021818E+03	1.846124E+00	6.184221E-04	9.777647E-04	9.777647E-04
846	1.019972E+03	1.846124E+00	8.585401E-04	9.795328E-04	9.795328E-04
847	1.018144E+03	1.828245E+00	9.476227E-04	9.812987E-04	9.812987E-04
848	1.016316E+03	1.828245E+00	9.489433E-04	9.830624E-04	9.830624E-04
849	1.014487E+03	1.828245E+00	9.499505E-04	9.848324E-04	9.848324E-04
850	1.012659E+03	1.828245E+00	9.442602E-04	9.866088E-04	9.866088E-04
851	1.010831E+03	1.828245E+00	9.031303E-04	9.883916E-04	9.883916E-04
852	1.009003E+03	1.828245E+00	9.249455E-04	9.901809E-04	9.901809E-04
853	1.007174E+03	1.828245E+00	9.474284E-04	9.919767E-04	9.919767E-04
854	1.005346E+03	1.828245E+00	9.480041E-04	9.937790E-04	9.937790E-04
855	1.003518E+03	1.828245E+00	9.470508E-04	9.955878E-04	9.955878E-04
856	9.992856E+02	4.232283E+00	9.402271E-04	9.986017E-04	9.986017E-04
857	9.973472E+02	1.938425E+00	9.129265E-04	1.001687E-03	1.001687E-03
858	9.954087E+02	1.938425E+00	8.484504E-04	1.003636E-03	1.003636E-03
859	9.934703E+02	1.938425E+00	4.246244E-04	1.005592E-03	1.005592E-03
860	9.915319E+02	1.938425E+00	8.344323E-04	1.007556E-03	1.007556E-03
861	9.895935E+02	1.938425E+00	1.249046E-04	1.009528E-03	1.009528E-03
862	9.876550E+02	1.938425E+00	7.326009E-04	1.011507E-03	1.011507E-03

RESULTS OF NARROW GROUPS STARTING AT 1.23000E+03 EV.

BROAD GROUP 37

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
853	9.857166E+02	1.938425E+00	1.089813E-03	1.013494E-03	1.013494E-03
854	9.837782E+02	1.938425E+00	1.169728E-03	1.015489E-03	1.015489E-03
855	9.654780E+02	1.830016E+01	1.153326E-03	1.026063E-03	1.026063E-03
856	9.636541E+02	1.823912E+00	1.053238E-03	1.036736E-03	1.036736E-03
857	9.618302E+02	1.823912E+00	1.027399E-03	1.038700E-03	1.038700E-03
858	9.610000E+02	8.302021E-01	8.618790E-04	1.040134E-03	1.040134E-03

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	9.866899E-01	0.	2.337843E-01	0.	1.044812E+00	0.
1	PU239	0.	0.	0.	0.	0.	0.
1	PU240	0.	0.	0.	0.	0.	0.

RESULTS OF NARROW GROUPS STARTING AT 9.61000E+02 EV.

BROAD GROUP 38

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
869	9.591761E+02	1.823912E+00	3.392865E-04	1.041571E-03	1.041571E-03
870	9.573522E+02	1.823912E+00	1.436658E-04	1.043554E-03	1.043554E-03
871	9.555283E+02	1.823912E+00	4.714726E-04	1.045544E-03	1.045544E-03
872	9.537044E+02	1.823912E+00	1.124770E-03	1.047542E-03	1.047542E-03
873	9.518804E+02	1.823912E+00	1.185488E-03	1.049547E-03	1.049547E-03
874	9.500565E+02	1.823912E+00	1.200114E-03	1.051560E-03	1.051560E-03
875	9.438938E+02	6.162711E+00	1.214815E-03	1.055998E-03	1.055998E-03
876	9.420975E+02	1.796353E+00	1.173875E-03	1.060451E-03	1.060451E-03
877	9.403011E+02	1.796353E+00	1.102973E-03	1.062475E-03	1.062475E-03
878	9.385048E+02	1.796353E+00	7.092626E-04	1.064506E-03	1.064506E-03
879	9.367084E+02	1.796353E+00	1.726892E-04	1.066546E-03	1.066546E-03
880	9.349121E+02	1.796353E+00	2.281828E-04	1.068593E-03	1.068593E-03
881	9.331157E+02	1.796353E+00	9.613283E-04	1.070648E-03	1.070648E-03
882	9.313855E+02	1.730154E+00	1.207404E-03	1.072673E-03	1.072673E-03
883	9.296554E+02	1.730154E+00	1.230756E-03	1.074668E-03	1.074668E-03
884	9.279252E+02	1.730154E+00	1.239154E-03	1.076670E-03	1.076670E-03
885	9.261951E+02	1.730154E+00	1.128432E-03	1.078679E-03	1.078679E-03
886	9.244649E+02	1.730154E+00	8.396731E-04	1.080696E-03	1.080696E-03
887	9.227348E+02	1.730154E+00	1.073151E-03	1.082720E-03	1.082720E-03
888	9.210046E+02	1.730154E+00	1.206925E-03	1.084752E-03	1.084752E-03
889	9.192745E+02	1.730154E+00	1.161772E-03	1.086792E-03	1.086792E-03
890	9.175443E+02	1.730154E+00	1.125108E-03	1.088839E-03	1.088839E-03
891	9.118342E+02	5.710084E+00	1.106620E-03	1.093271E-03	1.093271E-03
892	9.101131E+02	1.721125E+00	1.095357E-03	1.097727E-03	1.097727E-03
893	9.083920E+02	1.721125E+00	1.088228E-03	1.099805E-03	1.099805E-03
894	9.066709E+02	1.721125E+00	9.170033E-04	1.101891E-03	1.101891E-03
895	9.049497E+02	1.721125E+00	3.522974E-04	1.103984E-03	1.103984E-03
896	9.032286E+02	1.721125E+00	4.288982E-04	1.106086E-03	1.106086E-03
897	9.015075E+02	1.721125E+00	1.039235E-03	1.108196E-03	1.108196E-03
898	8.997864E+02	1.721125E+00	1.144285E-03	1.110313E-03	1.110313E-03
899	8.980652E+02	1.721125E+00	1.151043E-03	1.112439E-03	1.112439E-03
900	8.963791E+02	1.686098E+00	1.155424E-03	1.114551E-03	1.114551E-03
901	8.946930E+02	1.686098E+00	1.159479E-03	1.116650E-03	1.116650E-03
902	8.930069E+02	1.686098E+00	1.159843E-03	1.118756E-03	1.118756E-03
903	8.913208E+02	1.686098E+00	1.113434E-03	1.120871E-03	1.120871E-03
904	8.896347E+02	1.686098E+00	1.097640E-03	1.122993E-03	1.122993E-03
905	8.879486E+02	1.686098E+00	1.121149E-03	1.125123E-03	1.125123E-03
906	8.862625E+02	1.686098E+00	1.113550E-03	1.127262E-03	1.127262E-03
907	8.845764E+02	1.686098E+00	1.113271E-03	1.129408E-03	1.129408E-03
908	8.730229E+02	1.155352E+01	1.112842E-03	1.137932E-03	1.137932E-03
909	8.713662E+02	1.656746E+00	1.113963E-03	1.146534E-03	1.146534E-03
910	8.697094E+02	1.656746E+00	1.114725E-03	1.148716E-03	1.148716E-03
911	8.680527E+02	1.656746E+00	1.101045E-03	1.150906E-03	1.150906E-03
912	8.663959E+02	1.656746E+00	9.691326E-04	1.153105E-03	1.153105E-03
913	8.647392E+02	1.656746E+00	9.853307E-04	1.155312E-03	1.155312E-03
914	8.630825E+02	1.656746E+00	1.099506E-03	1.157527E-03	1.157527E-03
915	8.614257E+02	1.656746E+00	1.107098E-03	1.159751E-03	1.159751E-03
916	8.597690E+02	1.656746E+00	1.101602E-03	1.161984E-03	1.161984E-03
917	8.580951E+02	1.672893E+00	9.612863E-04	1.164236E-03	1.164236E-03
918	8.564232E+02	1.672893E+00	3.141262E-04	1.166508E-03	1.166508E-03
919	8.547503E+02	1.672893E+00	2.498646E-04	1.168789E-03	1.168789E-03
920	8.530926E+02	1.657653E+00	8.192237E-04	1.171068E-03	1.171068E-03
921	8.514350E+02	1.657653E+00	4.965669E-04	1.173346E-03	1.173346E-03
922	8.497773E+02	1.657653E+00	3.253791E-04	1.175633E-03	1.175633E-03
923	8.481197E+02	1.657653E+00	9.193682E-04	1.177928E-03	1.177928E-03

RESULTS OF NARROW GROUPS STARTING AT 9.61000E+02 EV.

BROAD GROUP 38

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
924	8.464620E+02	1.657653E+00	1.333796E-03	1.180233E-03	1.180233E-03
925	8.448044E+02	1.657653E+00	1.361115E-03	1.182546E-03	1.182546E-03
926	8.431467E+02	1.657653E+00	1.370010E-03	1.184869E-03	1.184869E-03
927	8.280328E+02	1.511387E+01	1.252798E-03	1.196792E-03	1.196792E-03
928	8.264113E+02	1.621549E+00	1.195443E-03	1.208866E-03	1.208866E-03
929	8.247897E+02	1.621549E+00	1.187272E-03	1.211240E-03	1.211240E-03
930	8.231682E+02	1.621549E+00	9.755361E-04	1.213624E-03	1.213624E-03
931	8.215466E+02	1.621549E+00	3.398420E-04	1.216017E-03	1.216017E-03
932	8.199251E+02	1.621549E+00	3.706240E-04	1.218419E-03	1.218419E-03
933	8.183035E+02	1.621549E+00	1.081964E-03	1.220831E-03	1.220831E-03
934	8.166820E+02	1.621549E+00	1.276709E-03	1.223253E-03	1.223253E-03
935	8.150604E+02	1.621549E+00	1.287859E-03	1.225684E-03	1.225684E-03
936	7.971360E+02	1.792446E+01	1.256521E-03	1.240595E-03	1.240595E-03
937	7.955725E+02	1.563528E+00	1.229745E-03	1.255723E-03	1.255723E-03
938	7.940089E+02	1.563528E+00	1.230256E-03	1.258193E-03	1.258193E-03
939	7.924454E+02	1.563528E+00	1.207417E-03	1.260673E-03	1.260673E-03
940	7.908819E+02	1.563528E+00	9.929727E-04	1.263163E-03	1.263163E-03
941	7.893183E+02	1.563528E+00	9.935319E-04	1.265663E-03	1.265663E-03
942	7.877548E+02	1.563528E+00	1.197783E-03	1.268172E-03	1.268172E-03
943	7.861913E+02	1.563528E+00	1.218561E-03	1.270692E-03	1.270692E-03
944	7.846437E+02	1.547553E+00	1.218818E-03	1.273209E-03	1.273209E-03
945	7.830962E+02	1.547553E+00	1.218885E-03	1.275722E-03	1.275722E-03
946	7.815486E+02	1.547553E+00	1.218906E-03	1.278246E-03	1.278246E-03
947	7.800011E+02	1.547553E+00	1.185152E-03	1.280779E-03	1.280779E-03
948	7.784535E+02	1.547553E+00	1.098842E-03	1.283323E-03	1.283323E-03
949	7.769060E+02	1.547553E+00	1.183995E-03	1.285877E-03	1.285877E-03
950	7.753584E+02	1.547553E+00	1.227146E-03	1.288441E-03	1.288441E-03
951	7.738109E+02	1.547553E+00	1.231461E-03	1.291015E-03	1.291015E-03
952	7.722633E+02	1.547553E+00	1.234230E-03	1.293599E-03	1.293599E-03
953	7.707319E+02	1.531451E+00	1.237956E-03	1.296181E-03	1.296181E-03
954	7.692004E+02	1.531451E+00	1.242388E-03	1.298759E-03	1.298759E-03
955	7.676690E+02	1.531451E+00	1.245039E-03	1.301347E-03	1.301347E-03
956	7.661375E+02	1.531451E+00	1.161610E-03	1.303946E-03	1.303946E-03
957	7.646060E+02	1.531451E+00	8.820273E-04	1.306555E-03	1.306555E-03
958	7.630746E+02	1.531451E+00	1.053694E-03	1.309175E-03	1.309175E-03
959	7.615431E+02	1.531451E+00	1.241358E-03	1.311805E-03	1.311805E-03
960	7.600117E+02	1.531451E+00	1.252056E-03	1.314445E-03	1.314445E-03
961	7.584802E+02	1.531451E+00	1.254326E-03	1.317097E-03	1.317097E-03
962	7.480000E+02	1.048024E+01	1.268272E-03	1.327619E-03	1.327619E-03

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	1.218833E+00	0.	2.909037E-01	0.	1.335715E+00	0.
1	PU239	0.	0.	0.	0.	0.	0.
1	PU240	0.	0.	0.	0.	0.	0.

RESULTS OF NARROW GROUPS STARTING AT 7.48000E+02 EV.

BROAD GROUP 33

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
963	7.360881E+02	1.191186E+01	1.299337E-03	1.347658E-03	1.347658E-03
964	7.346032E+02	1.484927E+00	1.313044E-03	1.359905E-03	1.359905E-03
965	7.331183E+02	1.484927E+00	1.314930E-03	1.362657E-03	1.362657E-03
966	7.316334E+02	1.484927E+00	1.308660E-03	1.365420E-03	1.365420E-03
967	7.301484E+02	1.484927E+00	1.219611E-03	1.368194E-03	1.368194E-03
968	7.286635E+02	1.484927E+00	1.210822E-03	1.370979E-03	1.370979E-03
969	7.271894E+02	1.474094E+00	1.307301E-03	1.373766E-03	1.373766E-03
970	7.257153E+02	1.474094E+00	1.321875E-03	1.376553E-03	1.376553E-03
971	7.242412E+02	1.474094E+00	1.324816E-03	1.379352E-03	1.379352E-03
972	7.227671E+02	1.474094E+00	1.305545E-03	1.382163E-03	1.382163E-03
973	7.212930E+02	1.474094E+00	1.223533E-03	1.384984E-03	1.384984E-03
974	7.198189E+02	1.474094E+00	1.279293E-03	1.387818E-03	1.387818E-03
975	7.183448E+02	1.474094E+00	1.325622E-03	1.390663E-03	1.390663E-03
976	7.168708E+02	1.474094E+00	1.333474E-03	1.393519E-03	1.393519E-03
977	7.153967E+02	1.474094E+00	1.338852E-03	1.396388E-03	1.396388E-03
978	7.139327E+02	1.463935E+00	1.341369E-03	1.399258E-03	1.399258E-03
979	7.124688E+02	1.463935E+00	1.343021E-03	1.402130E-03	1.402130E-03
980	7.110049E+02	1.463935E+00	1.338217E-03	1.405014E-03	1.405014E-03
981	7.095409E+02	1.463935E+00	1.076055E-03	1.407910E-03	1.407910E-03
982	7.080770E+02	1.463935E+00	5.529136E-04	1.410818E-03	1.410818E-03
983	7.066130E+02	1.463935E+00	7.994173E-04	1.413738E-03	1.413738E-03
984	7.051491E+02	1.463935E+00	1.336383E-03	1.416670E-03	1.416670E-03
985	7.036852E+02	1.463935E+00	1.383536E-03	1.419614E-03	1.419614E-03
986	7.022212E+02	1.463935E+00	1.390469E-03	1.422570E-03	1.422570E-03
987	6.991873E+02	3.033981E+00	1.398524E-03	1.427138E-03	1.427138E-03
988	6.977374E+02	1.449849E+00	1.402135E-03	1.431717E-03	1.431717E-03
989	6.962876E+02	1.449849E+00	1.395260E-03	1.434695E-03	1.434695E-03
990	6.948377E+02	1.449849E+00	1.216606E-03	1.437686E-03	1.437686E-03
991	6.933879E+02	1.449849E+00	4.875403E-04	1.440689E-03	1.440689E-03
992	6.919380E+02	1.449849E+00	4.495450E-04	1.443704E-03	1.443704E-03
993	6.904882E+02	1.449849E+00	1.192015E-03	1.446732E-03	1.446732E-03
994	6.890383E+02	1.449849E+00	1.462951E-03	1.449773E-03	1.449773E-03
995	6.875885E+02	1.449849E+00	1.476629E-03	1.452827E-03	1.452827E-03
996	6.874000E+02	1.884726E-01	1.481112E-03	1.454558E-03	1.454558E-03
997	6.851953E+02	2.204692E+00	1.486879E-03	1.457095E-03	1.457095E-03
998	6.837719E+02	1.423418E+00	1.494117E-03	1.460956E-03	1.460956E-03
999	6.823562E+02	1.415729E+00	1.492304E-03	1.463992E-03	1.463992E-03
1000	6.809404E+02	1.415729E+00	1.465946E-03	1.467033E-03	1.467033E-03
1001	6.795247E+02	1.415729E+00	1.363601E-03	1.470086E-03	1.470086E-03
1002	6.781090E+02	1.415729E+00	1.325767E-03	1.473152E-03	1.473152E-03
1003	6.766932E+02	1.415729E+00	1.342459E-03	1.476231E-03	1.476231E-03
1004	6.752775E+02	1.415729E+00	1.384678E-03	1.479322E-03	1.479322E-03
1005	6.738618E+02	1.415729E+00	1.432573E-03	1.482427E-03	1.482427E-03
1006	6.724461E+02	1.415729E+00	1.433852E-03	1.485545E-03	1.485545E-03
1007	6.710303E+02	1.415729E+00	1.431251E-03	1.488676E-03	1.488676E-03
1008	6.695654E+02	1.464977E+00	1.426226E-03	1.491875E-03	1.491875E-03
1009	6.681004E+02	1.464977E+00	1.397436E-03	1.495142E-03	1.495142E-03
1010	6.666627E+02	1.437637E+00	1.089110E-03	1.498394E-03	1.498394E-03
1011	6.652251E+02	1.437637E+00	8.730663E-04	1.501629E-03	1.501629E-03
1012	6.637875E+02	1.437637E+00	1.253032E-03	1.504877E-03	1.504877E-03
1013	6.623498E+02	1.437637E+00	6.822781E-04	1.508140E-03	1.508140E-03
1014	6.609122E+02	1.437637E+00	1.732634E-04	1.511417E-03	1.511417E-03
1015	6.594745E+02	1.437637E+00	2.802661E-04	1.514708E-03	1.514708E-03
1016	6.580369E+02	1.437637E+00	1.333100E-03	1.518014E-03	1.518014E-03
1017	6.565993E+02	1.437637E+00	1.785071E-03	1.521334E-03	1.521334E-03

RESULTS OF NARROW GROUPS STARTING AT 7.48000E+02 EV.

BROAD GROUP 39

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1018	6.551616E+02	1.437637E+00	1.832057E-03	1.524669E-03	1.524669E-03
1019	6.434863E+02	1.167533E+01	1.700463E-03	1.540105E-03	1.540105E-03
1020	6.421252E+02	1.361083E+00	1.577772E-03	1.555680E-03	1.555680E-03
1021	6.407641E+02	1.361083E+00	1.573943E-03	1.558981E-03	1.558981E-03
1022	6.394031E+02	1.361083E+00	1.569129E-03	1.562297E-03	1.562297E-03
1023	6.380420E+02	1.361083E+00	1.553750E-03	1.565626E-03	1.565626E-03
1024	6.366809E+02	1.361083E+00	1.546951E-03	1.568969E-03	1.568969E-03
1025	6.353246E+02	1.355244E+00	1.557384E-03	1.572321E-03	1.572321E-03
1026	6.339717E+02	1.352942E+00	1.553505E-03	1.575677E-03	1.575677E-03
1027	6.326188E+02	1.352942E+00	1.528845E-03	1.579043E-03	1.579043E-03
1028	6.312658E+02	1.352942E+00	1.466108E-03	1.582424E-03	1.582424E-03
1029	6.299129E+02	1.352942E+00	1.462187E-03	1.585819E-03	1.585819E-03
1030	6.285599E+02	1.352942E+00	1.187545E-03	1.589228E-03	1.589228E-03
1031	6.272070E+02	1.352942E+00	1.242111E-03	1.592653E-03	1.592653E-03
1032	6.258541E+02	1.352942E+00	1.497129E-03	1.596092E-03	1.596092E-03
1033	6.245036E+02	1.350416E+00	1.520610E-03	1.599543E-03	1.599543E-03
1034	6.231532E+02	1.350416E+00	1.517995E-03	1.603005E-03	1.603005E-03
1035	6.218028E+02	1.350416E+00	1.444946E-03	1.606483E-03	1.606483E-03
1036	6.204524E+02	1.350416E+00	7.075726E-04	1.609976E-03	1.609976E-03
1037	6.191020E+02	1.350416E+00	4.326618E-04	1.613484E-03	1.613484E-03
1038	6.177516E+02	1.350416E+00	1.033210E-03	1.617007E-03	1.617007E-03
1039	6.164011E+02	1.350416E+00	1.582480E-03	1.620546E-03	1.620546E-03
1040	6.150507E+02	1.350416E+00	1.615204E-03	1.624100E-03	1.624100E-03
1041	6.137232E+02	1.327475E+00	1.625427E-03	1.627639E-03	1.627639E-03
1042	6.123958E+02	1.327475E+00	1.634151E-03	1.631164E-03	1.631164E-03
1043	6.110683E+02	1.327475E+00	1.640133E-03	1.634703E-03	1.634703E-03
1044	6.097408E+02	1.327475E+00	1.611026E-03	1.638258E-03	1.638258E-03
1045	6.084133E+02	1.327475E+00	1.500163E-03	1.641829E-03	1.641829E-03
1046	6.070859E+02	1.327475E+00	1.543315E-03	1.645415E-03	1.645415E-03
1047	6.057584E+02	1.327475E+00	1.597576E-03	1.649017E-03	1.649017E-03
1048	6.044309E+02	1.327475E+00	1.501428E-03	1.652635E-03	1.652635E-03
1049	6.031072E+02	1.323684E+00	1.601550E-03	1.656263E-03	1.656263E-03
1050	6.017836E+02	1.323684E+00	1.600155E-03	1.659902E-03	1.659902E-03
1051	6.004599E+02	1.323684E+00	1.596045E-03	1.663557E-03	1.663557E-03
1052	5.991362E+02	1.323684E+00	1.568894E-03	1.667229E-03	1.667229E-03
1053	5.978125E+02	1.323684E+00	1.357161E-03	1.670916E-03	1.670916E-03
1054	5.964888E+02	1.323684E+00	8.940365E-04	1.674620E-03	1.674620E-03
1055	5.951651E+02	1.323684E+00	2.511281E-04	1.678340E-03	1.678340E-03
1056	5.938414E+02	1.323684E+00	2.779016E-04	1.682077E-03	1.682077E-03
1057	5.925178E+02	1.323684E+00	1.197326E-03	1.685831E-03	1.685831E-03
1058	5.911941E+02	1.323684E+00	1.819854E-03	1.689601E-03	1.689601E-03
1059	5.898595E+02	1.334563E+00	1.876141E-03	1.693404E-03	1.693404E-03
1060	5.885250E+02	1.334563E+00	1.903232E-03	1.697240E-03	1.697240E-03
1061	5.855846E+02	2.940348E+00	1.903691E-03	1.703422E-03	1.703422E-03
1062	5.842876E+02	1.297033E+00	1.827745E-03	1.709589E-03	1.709589E-03
1063	5.830000E+02	1.287575E+00	1.758135E-03	1.713375E-03	1.713375E-03

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	1.213475E+00	0.	2.858606E-01	0.	1.621576E+00	0.
1	PU239	0.	0.	0.	0.	0.	0.
1	PU240	4.059278E+00	0.	6.342883E-01	0.	6.342883E-01	0.

*** AVG. FOR PU240 APPLIES ONLY FROM 6.874000E+02 TO LOWER BROAD GROUP BOUND***

RESULTS OF NARROW GROUPS STARTING AT 5.83000E+02 EV.

BROAD GROUP 40

GROJP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1064	5.817030E+02	1.297033E+00	1.535810E-03	1.717177E-03	1.717177E-03
1065	5.804059E+02	1.297033E+00	6.152157E-04	1.721010E-03	1.721010E-03
1066	5.791089E+02	1.297033E+00	4.808970E-04	1.724860E-03	1.724860E-03
1067	5.778119E+02	1.297033E+00	1.292611E-03	1.728728E-03	1.728728E-03
1068	5.765148E+02	1.297033E+00	1.762787E-03	1.732612E-03	1.732612E-03
1069	5.752178E+02	1.297033E+00	1.775975E-03	1.736515E-03	1.736515E-03
1070	5.739208E+02	1.297033E+00	1.778269E-03	1.740435E-03	1.740435E-03
1071	5.725057E+02	1.415104E+00	1.781718E-03	1.744552E-03	1.744552E-03
1072	5.712310E+02	1.274699E+00	1.779105E-03	1.748655E-03	1.748655E-03
1073	5.699563E+02	1.274699E+00	1.756860E-03	1.752562E-03	1.752562E-03
1074	5.686816E+02	1.274699E+00	1.720021E-03	1.756485E-03	1.756485E-03
1075	5.674069E+02	1.274699E+00	1.585245E-03	1.760427E-03	1.760427E-03
1076	5.661322E+02	1.274699E+00	1.530037E-03	1.764386E-03	1.764386E-03
1077	5.648575E+02	1.274699E+00	1.689232E-03	1.768364E-03	1.768364E-03
1078	5.635828E+02	1.274699E+00	1.717855E-03	1.772359E-03	1.772359E-03
1079	5.623081E+02	1.274699E+00	1.717889E-03	1.776372E-03	1.776372E-03
1080	5.610544E+02	1.253631E+00	1.717506E-03	1.780370E-03	1.780370E-03
1081	5.598008E+02	1.253631E+00	1.718153E-03	1.784352E-03	1.784352E-03
1082	5.585472E+02	1.253631E+00	1.719240E-03	1.788353E-03	1.788353E-03
1083	5.572935E+02	1.253631E+00	1.708172E-03	1.792371E-03	1.792371E-03
1084	5.560399E+02	1.253631E+00	1.621268E-03	1.796408E-03	1.796408E-03
1085	5.547863E+02	1.253631E+00	1.616652E-03	1.800462E-03	1.800462E-03
1086	5.535327E+02	1.253631E+00	1.579995E-03	1.804535E-03	1.804535E-03
1087	5.522790E+02	1.253631E+00	1.581467E-03	1.808627E-03	1.808627E-03
1088	5.510296E+02	1.249411E+00	1.704367E-03	1.812730E-03	1.812730E-03
1089	5.497802E+02	1.249411E+00	1.723291E-03	1.816845E-03	1.816845E-03
1090	5.485308E+02	1.249411E+00	1.704570E-03	1.820979E-03	1.820979E-03
1091	5.472814E+02	1.249411E+00	1.529540E-03	1.825131E-03	1.825131E-03
1092	5.460320E+02	1.249411E+00	1.545449E-03	1.829303E-03	1.829303E-03
1093	5.447826E+02	1.249411E+00	1.733944E-03	1.833493E-03	1.833493E-03
1094	5.435332E+02	1.249411E+00	1.760054E-03	1.837703E-03	1.837703E-03
1095	5.422837E+02	1.249411E+00	1.764438E-03	1.841932E-03	1.841932E-03
1096	5.410343E+02	1.249411E+00	1.768264E-03	1.846181E-03	1.846181E-03
1097	5.397955E+02	1.238821E+00	1.770696E-03	1.850431E-03	1.850431E-03
1098	5.385567E+02	1.238821E+00	1.768388E-03	1.854682E-03	1.854682E-03
1099	5.373179E+02	1.238821E+00	1.670027E-03	1.858954E-03	1.858954E-03
1100	5.360790E+02	1.238821E+00	7.194015E-04	1.863244E-03	1.863244E-03
1101	5.348402E+02	1.238821E+00	3.408784E-04	1.867555E-03	1.867555E-03
1102	5.336014E+02	1.238821E+00	8.262804E-04	1.871886E-03	1.871886E-03
1103	5.323626E+02	1.238821E+00	1.833099E-03	1.876237E-03	1.876237E-03
1104	5.311238E+02	1.238821E+00	1.932615E-03	1.880608E-03	1.880608E-03
1105	5.298849E+02	1.238821E+00	1.951805E-03	1.885000E-03	1.885000E-03
1106	5.237125E+02	6.172432E+00	1.924865E-03	1.898280E-03	1.898280E-03
1107	5.224961E+02	1.216378E+00	1.858893E-03	1.911665E-03	1.911665E-03
1108	5.212798E+02	1.216378E+00	1.843474E-03	1.916121E-03	1.916121E-03
1109	5.200634E+02	1.216378E+00	1.552308E-03	1.920597E-03	1.920597E-03
1110	5.188470E+02	1.216378E+00	4.955085E-04	1.925095E-03	1.925095E-03
1111	5.176473E+02	1.199689E+00	3.523399E-04	1.929582E-03	1.929582E-03
1112	5.164476E+02	1.199689E+00	1.120219E-03	1.934059E-03	1.934059E-03
1113	5.152479E+02	1.199689E+00	1.962317E-03	1.938557E-03	1.938557E-03
1114	5.140482E+02	1.199689E+00	1.930129E-03	1.943076E-03	1.943076E-03
1115	5.128486E+02	1.199689E+00	1.795090E-03	1.947616E-03	1.947616E-03
1116	5.116489E+02	1.199689E+00	1.986735E-03	1.952178E-03	1.952178E-03
1117	5.104492E+02	1.199689E+00	2.060165E-03	1.956760E-03	1.956760E-03
1118	5.092495E+02	1.199689E+00	2.021635E-03	1.961365E-03	1.961365E-03

RESULTS OF NARROW GROUPS STARTING AT 5.83000E+02 EV. BROAD GROUP 40

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1119	5.080498E+02	1.199689E+00	1.975114E-03	1.965991E-03	1.965991E-03
1120	5.051786E+02	2.871237E+00	1.947122E-03	1.973894E-03	1.973894E-03
1121	5.039984E+02	1.180150E+00	1.937548E-03	1.981814E-03	1.981814E-03
1122	5.028183E+02	1.180150E+00	1.931592E-03	1.986460E-03	1.986460E-03
1123	5.016381E+02	1.180150E+00	1.917310E-03	1.991128E-03	1.991128E-03
1124	5.004580E+02	1.180150E+00	1.792561E-03	1.995818E-03	1.995818E-03
1125	4.992778E+02	1.180150E+00	1.716461E-03	2.000530E-03	2.000530E-03
1126	4.981124E+02	1.165374E+00	1.885050E-03	2.005234E-03	2.005234E-03
1127	4.969471E+02	1.165374E+00	1.924957E-03	2.009931E-03	2.009931E-03
1128	4.957817E+02	1.165374E+00	1.927735E-03	2.014650E-03	2.014650E-03
1129	4.946163E+02	1.165374E+00	1.922799E-03	2.019391E-03	2.019391E-03
1130	4.934561E+02	1.160172E+00	1.880086E-03	2.024144E-03	2.024144E-03
1131	4.922960E+02	1.160172E+00	1.893302E-03	2.028909E-03	2.028909E-03
1132	4.911358E+02	1.160172E+00	1.930803E-03	2.033696E-03	2.033696E-03
1133	4.899756E+02	1.160172E+00	1.925811E-03	2.038505E-03	2.038505E-03
1134	4.888155E+02	1.160172E+00	1.852516E-03	2.043338E-03	2.043338E-03
1135	4.876553E+02	1.160172E+00	1.865109E-03	2.048193E-03	2.048193E-03
1136	4.864951E+02	1.160172E+00	1.933772E-03	2.053072E-03	2.053072E-03
1137	4.853349E+02	1.160172E+00	1.944636E-03	2.057974E-03	2.057974E-03
1138	4.841748E+02	1.160172E+00	1.949999E-03	2.062899E-03	2.062899E-03
1139	4.830281E+02	1.146668E+00	1.954887E-03	2.067820E-03	2.067820E-03
1140	4.818814E+02	1.146668E+00	1.960448E-03	2.072734E-03	2.072734E-03
1141	4.807348E+02	1.146668E+00	1.966485E-03	2.077672E-03	2.077672E-03
1142	4.795881E+02	1.146668E+00	1.853911E-03	2.082634E-03	2.082634E-03
1143	4.784414E+02	1.146668E+00	1.429429E-03	2.087619E-03	2.087619E-03
1144	4.773058E+02	1.135674E+00	1.591579E-03	2.092605E-03	2.092605E-03
1145	4.761701E+02	1.135674E+00	1.923555E-03	2.097590E-03	2.097590E-03
1146	4.750344E+02	1.135674E+00	1.955409E-03	2.102598E-03	2.102598E-03
1147	4.738987E+02	1.135674E+00	1.952023E-03	2.107631E-03	2.107631E-03
1148	4.727631E+02	1.135674E+00	1.928281E-03	2.112688E-03	2.112688E-03
1149	4.716274E+02	1.135674E+00	1.947456E-03	2.117769E-03	2.117769E-03
1150	4.704917E+02	1.135674E+00	1.976969E-03	2.122875E-03	2.122875E-03
1151	4.693665E+02	1.125185E+00	1.999291E-03	2.127982E-03	2.127982E-03
1152	4.682413E+02	1.125185E+00	2.012943E-03	2.133089E-03	2.133089E-03
1153	4.671162E+02	1.125185E+00	2.018435E-03	2.138221E-03	2.138221E-03
1154	4.659910E+02	1.125185E+00	2.006111E-03	2.143378E-03	2.143378E-03
1155	4.648658E+02	1.125185E+00	1.969772E-03	2.148559E-03	2.148559E-03
1156	4.637406E+02	1.125185E+00	1.560342E-03	2.153766E-03	2.153766E-03
1157	4.626154E+02	1.125185E+00	1.175352E-03	2.158998E-03	2.158998E-03
1158	4.614902E+02	1.125185E+00	1.597404E-03	2.164256E-03	2.164256E-03
1159	4.603650E+02	1.125185E+00	1.999747E-03	2.169539E-03	2.169539E-03
1160	4.592395E+02	1.125496E+00	2.014439E-03	2.174849E-03	2.174849E-03
1161	4.581286E+02	1.110900E+00	2.017514E-03	2.180151E-03	2.180151E-03
1162	4.570177E+02	1.110900E+00	2.021011E-03	2.185444E-03	2.185444E-03
1163	4.559068E+02	1.110900E+00	2.029816E-03	2.190763E-03	2.190763E-03
1164	4.547959E+02	1.110900E+00	2.008923E-03	2.196107E-03	2.196107E-03
1165	4.540000E+02	7.959430E-01	1.932883E-03	2.200715E-03	2.200715E-03

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	1.263938E+00	0.	2.973671E-01	0.	1.918943E+00	0.
1	PU239	0.	0.	0.	0.	0.	0.
1	PU240	4.357981E+00	0.	1.025304E+00	0.	1.659592E+00	0.

RESULTS OF NARROW GROUPS STARTING AT 4.54000E+02 EV.

BROAD GROUP #1

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1166	4.528938E+02	1.105224E+00	1.986895E-03	2.205331E-03	2.205331E-03
1167	4.517876E+02	1.105224E+00	2.070131E-03	2.210724E-03	2.210724E-03
1168	4.506813E+02	1.106224E+00	2.060913E-03	2.216144E-03	2.216144E-03
1169	4.495751E+02	1.106224E+00	1.930386E-03	2.221590E-03	2.221590E-03
1170	4.484689E+02	1.105224E+00	1.971613E-03	2.227064E-03	2.227064E-03
1171	4.473627E+02	1.106224E+00	2.097753E-03	2.232564E-03	2.232564E-03
1172	4.462564E+02	1.106224E+00	2.119451E-03	2.238091E-03	2.238091E-03
1173	4.451502E+02	1.106224E+00	2.131148E-03	2.243646E-03	2.243646E-03
1174	4.440440E+02	1.106224E+00	2.139437E-03	2.249229E-03	2.249229E-03
1175	4.388372E+02	5.206795E+00	2.160428E-03	2.265337E-03	2.265337E-03
1176	4.377522E+02	1.084973E+00	2.178477E-03	2.281571E-03	2.281571E-03
1177	4.366672E+02	1.084973E+00	2.181754E-03	2.287233E-03	2.287233E-03
1178	4.355823E+02	1.084973E+00	2.093260E-03	2.292923E-03	2.292923E-03
1179	4.344973E+02	1.084973E+00	1.275654E-03	2.298642E-03	2.298642E-03
1180	4.334123E+02	1.084973E+00	9.393206E-04	2.304389E-03	2.304389E-03
1181	4.323274E+02	1.084973E+00	1.707799E-03	2.310164E-03	2.310164E-03
1182	4.312424E+02	1.084973E+00	2.140468E-03	2.315969E-03	2.315969E-03
1183	4.301574E+02	1.084973E+00	2.158873E-03	2.321804E-03	2.321804E-03
1184	4.290724E+02	1.084973E+00	2.162889E-03	2.327667E-03	2.327667E-03
1185	4.230330E+02	6.039462E+00	2.207358E-03	2.347167E-03	2.347167E-03
1186	4.219756E+02	1.057370E+00	2.243933E-03	2.366841E-03	2.366841E-03
1187	4.209182E+02	1.057370E+00	2.251070E-03	2.372779E-03	2.372779E-03
1188	4.198609E+02	1.057370E+00	2.255715E-03	2.378747E-03	2.378747E-03
1189	4.188035E+02	1.057370E+00	2.240366E-03	2.384746E-03	2.384746E-03
1190	4.177461E+02	1.057370E+00	2.225843E-03	2.390774E-03	2.390774E-03
1191	4.166887E+02	1.057370E+00	2.265745E-03	2.396833E-03	2.396833E-03
1192	4.156314E+02	1.057370E+00	2.284704E-03	2.402923E-03	2.402923E-03
1193	4.145782E+02	1.053176E+00	2.294327E-03	2.409032E-03	2.409032E-03
1194	4.135250E+02	1.053176E+00	2.299608E-03	2.415159E-03	2.415159E-03
1195	4.124719E+02	1.053176E+00	2.292782E-03	2.421318E-03	2.421318E-03
1196	4.114187E+02	1.053176E+00	1.905588E-03	2.427508E-03	2.427508E-03
1197	4.103655E+02	1.053176E+00	7.475804E-04	2.433730E-03	2.433730E-03
1198	4.093123E+02	1.053176E+00	6.833787E-04	2.439984E-03	2.439984E-03
1199	4.082591E+02	1.053176E+00	1.788131E-03	2.446271E-03	2.446271E-03
1200	4.072060E+02	1.053176E+00	2.324098E-03	2.452589E-03	2.452589E-03
1201	4.061528E+02	1.053176E+00	2.088743E-03	2.458941E-03	2.458941E-03
1202	4.050996E+02	1.053176E+00	1.395671E-03	2.465325E-03	2.465325E-03
1203	4.040277E+02	1.071937E+00	1.676961E-03	2.471800E-03	2.471800E-03
1204	4.029557E+02	1.071937E+00	2.430691E-03	2.478367E-03	2.478367E-03
1205	4.019250E+02	1.030783E+00	2.539400E-03	2.484842E-03	2.484842E-03
1206	4.008942E+02	1.030783E+00	2.559502E-03	2.491222E-03	2.491222E-03
1207	3.998634E+02	1.030783E+00	2.569970E-03	2.497636E-03	2.497636E-03
1208	3.988326E+02	1.030783E+00	2.426671E-03	2.504083E-03	2.504083E-03
1209	3.978018E+02	1.030783E+00	1.450282E-03	2.510563E-03	2.510563E-03
1210	3.967710E+02	1.030783E+00	1.148214E-03	2.517077E-03	2.517077E-03
1211	3.957403E+02	1.030783E+00	2.001756E-03	2.523625E-03	2.523625E-03
1212	3.947095E+02	1.030783E+00	2.363158E-03	2.530207E-03	2.530207E-03
1213	3.936787E+02	1.030783E+00	2.367192E-03	2.536823E-03	2.536823E-03
1214	3.926479E+02	1.030783E+00	2.360264E-03	2.543474E-03	2.543474E-03
1215	3.812124E+02	1.143553E+01	2.439281E-03	2.584634E-03	2.584634E-03
1216	3.802143E+02	9.980416E-01	2.481857E-03	2.626649E-03	2.626649E-03
1217	3.792163E+02	9.980416E-01	2.488515E-03	2.633553E-03	2.633553E-03
1218	3.782183E+02	9.980416E-01	2.479838E-03	2.640494E-03	2.640494E-03
1219	3.772202E+02	9.980416E-01	2.257816E-03	2.647471E-03	2.647471E-03
1220	3.762274E+02	9.928703E-01	2.050125E-03	2.654466E-03	2.654466E-03

RESULTS OF NARROW GROUPS STARTING AT 4.54000E+02 EV.

BROAD GROUP 41

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1221	3.752345E+02	9.928703E-01	2.359266E-03	2.661481E-03	2.661481E-03
1222	3.742416E+02	9.928703E-01	2.473635E-03	2.668532E-03	2.668532E-03
1223	3.732487E+02	9.928703E-01	2.429700E-03	2.675621E-03	2.675621E-03
1224	3.722559E+02	9.928703E-01	2.237267E-03	2.682748E-03	2.682748E-03
1225	3.712630E+02	9.928703E-01	2.337796E-03	2.689913E-03	2.689913E-03
1226	3.702701E+02	9.928703E-01	2.496382E-03	2.697116E-03	2.697116E-03
1227	3.692773E+02	9.928703E-01	2.532837E-03	2.704358E-03	2.704358E-03
1228	3.682906E+02	9.866161E-01	2.547092E-03	2.711616E-03	2.711616E-03
1229	3.673040E+02	9.866161E-01	2.556074E-03	2.718890E-03	2.718890E-03
1230	3.663174E+02	9.866161E-01	2.564080E-03	2.726203E-03	2.726203E-03
1231	3.653308E+02	9.866161E-01	2.518563E-03	2.733556E-03	2.733556E-03
1232	3.643442E+02	9.866161E-01	2.133032E-03	2.740948E-03	2.740948E-03
1233	3.633576E+02	9.866161E-01	2.109843E-03	2.748380E-03	2.748380E-03
1234	3.623709E+02	9.866161E-01	2.550212E-03	2.755853E-03	2.755853E-03
1235	3.613843E+02	9.866161E-01	2.537797E-03	2.763367E-03	2.763367E-03
1236	3.603977E+02	9.866161E-01	2.650554E-03	2.770921E-03	2.770921E-03
1237	3.594111E+02	9.866161E-01	2.661829E-03	2.778517E-03	2.778517E-03
1238	3.540000E+02	5.411099E+00	2.570334E-03	2.803486E-03	2.803486E-03

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	1.150394E+00	0.	2.689751E-01	0.	2.187918E+00	0.
1	PU239	0.	0.	0.	0.	0.	0.
1	PU240	5.104255E+00	0.	1.193432E+00	0.	2.853024E+00	0.

RESULTS OF NARROW GROUPS STARTING AT 3.54000E+02 EV. BROAD GROUP 42

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1239	3.521519E+02	1.848142E+00	2.666667E-03	2.832258E-03	2.832258E-03
1240	3.511730E+02	9.788618E-01	2.638068E-03	2.843638E-03	2.843638E-03
1241	3.502187E+02	9.543244E-01	2.564501E-03	2.851476E-03	2.851476E-03
1242	3.492643E+02	9.543244E-01	1.871931E-03	2.859256E-03	2.859256E-03
1243	3.483100E+02	9.543244E-01	3.879490E-04	2.867080E-03	2.867080E-03
1244	3.473557E+02	9.543244E-01	1.858348E-04	2.874946E-03	2.874946E-03
1245	3.464014E+02	9.543244E-01	5.456359E-04	2.882855E-03	2.882855E-03
1246	3.454471E+02	9.543244E-01	2.332437E-03	2.890808E-03	2.890808E-03
1247	3.444927E+02	9.543244E-01	3.213326E-03	2.898806E-03	2.898806E-03
1248	3.435384E+02	9.543244E-01	3.400014E-03	2.906847E-03	2.906847E-03
1249	3.425841E+02	9.543244E-01	3.402821E-03	2.914933E-03	2.914933E-03
1250	3.416451E+02	9.389960E-01	3.300044E-03	2.922999E-03	2.922999E-03
1251	3.407061E+02	9.389960E-01	3.157359E-03	2.931044E-03	2.931044E-03
1252	3.397671E+02	9.389960E-01	3.036867E-03	2.939133E-03	2.939133E-03
1253	3.388281E+02	9.389960E-01	2.924192E-03	2.947267E-03	2.947267E-03
1254	3.378891E+02	9.389960E-01	2.783824E-03	2.955446E-03	2.955446E-03
1255	3.369501E+02	9.389960E-01	2.871692E-03	2.963671E-03	2.963671E-03
1256	3.360111E+02	9.389960E-01	2.902335E-03	2.971941E-03	2.971941E-03
1257	3.350721E+02	9.389960E-01	2.887465E-03	2.980258E-03	2.980258E-03
1258	3.341331E+02	9.389960E-01	2.877698E-03	2.988622E-03	2.988622E-03
1259	3.248955E+02	9.237640E+00	2.899226E-03	3.034969E-03	3.034969E-03
1260	3.239800E+02	9.155146E-01	2.930400E-03	3.082258E-03	3.082258E-03
1261	3.230644E+02	9.155146E-01	2.937256E-03	3.090980E-03	3.090980E-03
1262	3.221489E+02	9.155146E-01	2.929368E-03	3.099752E-03	3.099752E-03
1263	3.212334E+02	9.155146E-01	2.711101E-03	3.108574E-03	3.108574E-03
1264	3.203179E+02	9.155146E-01	2.479387E-03	3.117446E-03	3.117446E-03
1265	3.194024E+02	9.155146E-01	2.826476E-03	3.126369E-03	3.126369E-03
1266	3.184869E+02	9.155146E-01	2.976020E-03	3.135343E-03	3.135343E-03
1267	3.175714E+02	9.155146E-01	2.995995E-03	3.144368E-03	3.144368E-03
1268	3.166558E+02	9.155146E-01	3.007922E-03	3.153446E-03	3.153446E-03
1269	3.150211E+02	1.634767E+00	3.022444E-03	3.166183E-03	3.166183E-03
1270	3.141241E+02	8.969801E-01	3.041110E-03	3.178919E-03	3.178919E-03
1271	3.132271E+02	8.969801E-01	3.053066E-03	3.188009E-03	3.188009E-03
1272	3.123301E+02	8.969801E-01	3.042408E-03	3.197152E-03	3.197152E-03
1273	3.114332E+02	8.969801E-01	2.751959E-03	3.206347E-03	3.206347E-03
1274	3.105362E+02	8.969801E-01	2.438430E-03	3.215595E-03	3.215595E-03
1275	3.096392E+02	8.969801E-01	2.837516E-03	3.224897E-03	3.224897E-03
1276	3.087513E+02	8.878680E-01	3.017026E-03	3.234204E-03	3.234204E-03
1277	3.078635E+02	8.878680E-01	3.031821E-03	3.243518E-03	3.243518E-03
1278	3.069756E+02	8.878680E-01	3.037600E-03	3.252886E-03	3.252886E-03
1279	3.060877E+02	8.878680E-01	3.018175E-03	3.262308E-03	3.262308E-03
1280	3.051999E+02	8.878680E-01	2.864794E-03	3.271785E-03	3.271785E-03
1281	3.043120E+02	8.878680E-01	2.929840E-03	3.281317E-03	3.281317E-03
1282	3.034241E+02	8.878680E-01	3.101312E-03	3.290904E-03	3.290904E-03
1283	3.025363E+02	8.878680E-01	3.130754E-03	3.300548E-03	3.300548E-03
1284	3.016484E+02	8.878680E-01	3.143025E-03	3.310249E-03	3.310249E-03
1285	3.007605E+02	8.878680E-01	3.155060E-03	3.320006E-03	3.320006E-03
1286	2.998630E+02	8.975333E-01	3.167268E-03	3.329876E-03	3.329876E-03
1287	2.996600E+02	2.029814E-01	3.155073E-03	3.335986E-03	3.335986E-03
1288	2.987625E+02	8.975333E-01	3.033696E-03	3.342123E-03	3.342123E-03
1289	2.978649E+02	8.975333E-01	2.573832E-03	3.352178E-03	3.352178E-03
1290	2.969674E+02	8.975333E-01	2.768775E-03	3.362295E-03	3.362295E-03
1291	2.960699E+02	8.975333E-01	2.958702E-03	3.372472E-03	3.372472E-03
1292	2.951723E+02	8.975333E-01	2.951383E-03	3.382711E-03	3.382711E-03
1293	2.943023E+02	8.700382E-01	3.097012E-03	3.392854E-03	3.392854E-03

RESULTS OF NARROW GROUPS STARTING AT 3.54000E+02 EV.

BROAD GROUP 42

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1294	2.934323E+02	8.700382E-01	3.117621E-03	3.402899E-03	3.402899E-03
1295	2.925622E+02	8.700382E-01	2.972615E-03	3.413004E-03	3.413004E-03
1296	2.916922E+02	8.700382E-01	1.504785E-03	3.423169E-03	3.423169E-03
1297	2.908221E+02	8.700382E-01	5.991230E-04	3.433395E-03	3.433395E-03
1298	2.899521E+02	8.700382E-01	1.006238E-03	3.443681E-03	3.443681E-03
1299	2.890821E+02	8.700382E-01	2.630733E-03	3.454030E-03	3.454030E-03
1300	2.882120E+02	8.700382E-01	1.833076E-03	3.464441E-03	3.464441E-03
1301	2.873420E+02	8.700382E-01	1.321498E-03	3.474915E-03	3.474915E-03
1302	2.864720E+02	8.700382E-01	2.398089E-03	3.485453E-03	3.485453E-03
1303	2.856085E+02	8.634046E-01	3.448316E-03	3.496014E-03	3.496014E-03
1304	2.847451E+02	8.634046E-01	3.591709E-03	3.506599E-03	3.506599E-03
1305	2.838817E+02	8.634046E-01	3.595920E-03	3.517248E-03	3.517248E-03
1306	2.830183E+02	8.634046E-01	3.028975E-03	3.527961E-03	3.527961E-03
1307	2.821549E+02	8.634046E-01	2.119745E-03	3.538741E-03	3.538741E-03
1308	2.812977E+02	8.572282E-01	2.672265E-03	3.549547E-03	3.549547E-03
1309	2.804405E+02	8.572282E-01	3.328678E-03	3.560380E-03	3.560380E-03
1310	2.795832E+02	8.572282E-01	3.164282E-03	3.571280E-03	3.571280E-03
1311	2.787260E+02	8.572282E-01	2.744136E-03	3.582247E-03	3.582247E-03
1312	2.778688E+02	8.572282E-01	3.028432E-03	3.593281E-03	3.593281E-03
1313	2.770241E+02	8.446938E-01	3.220107E-03	3.604302E-03	3.604302E-03
1314	2.761794E+02	8.446938E-01	3.005373E-03	3.615309E-03	3.615309E-03
1315	2.753347E+02	8.446938E-01	2.179232E-03	3.626383E-03	3.626383E-03
1316	2.750000E+02	3.347056E-01	1.602118E-03	3.634153E-03	3.634153E-03

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	1.059957E+00	0.	2.465684E-01	0.	2.434487E+00	0.
1	PU239	9.390590E+00	9.825130E+00	7.053148E-01	7.379525E-01	7.053148E-01	7.379525E-01
1	PU240	8.547633E+00	0.	1.988360E+00	0.	4.841384E+00	0.

*** AVG. FOR PU239 APPLIES ONLY FROM 2.996600E+02 TO LOWER BROAD GROUP BOUND***

RESULTS OF NARROW GROUPS STARTING AT 2.75000E+02 EV. BROAD GROUP 43

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1317	2.741553E+02	8.446938E-01	8.390988E-04	3.641960E-03	3.641960E-03
1318	2.733106E+02	8.446938E-01	3.823172E-04	3.653198E-03	3.653198E-03
1319	2.724659E+02	8.446938E-01	7.833549E-04	3.664506E-03	3.664506E-03
1320	2.716212E+02	8.446938E-01	1.887490E-03	3.675885E-03	3.675885E-03
1321	2.707765E+02	8.446938E-01	2.987054E-03	3.687334E-03	3.687334E-03
1322	2.699318E+02	8.446938E-01	3.317788E-03	3.698855E-03	3.698855E-03
1323	2.690818E+02	8.500556E-01	3.062792E-03	3.710484E-03	3.710484E-03
1324	2.681294E+02	9.523778E-01	3.084570E-03	3.722935E-03	3.722935E-03
1325	2.673090E+02	8.203616E-01	3.247244E-03	3.735260E-03	3.735260E-03
1326	2.664887E+02	8.203616E-01	3.262002E-03	3.746741E-03	3.746741E-03
1327	2.656683E+02	8.203616E-01	3.235934E-03	3.758292E-03	3.758292E-03
1328	2.648480E+02	8.203616E-01	3.183049E-03	3.769916E-03	3.769916E-03
1329	2.640276E+02	8.203616E-01	3.016661E-03	3.781611E-03	3.781611E-03
1330	2.632072E+02	8.203616E-01	2.912605E-03	3.793379E-03	3.793379E-03
1331	2.623869E+02	8.203616E-01	2.989554E-03	3.805221E-03	3.805221E-03
1332	2.615665E+02	8.203616E-01	2.835572E-03	3.817137E-03	3.817137E-03
1333	2.607461E+02	8.203616E-01	2.321140E-03	3.829127E-03	3.829127E-03
1334	2.599258E+02	8.203616E-01	2.534596E-03	3.841193E-03	3.841193E-03
1335	2.591048E+02	8.210047E-01	3.052253E-03	3.853341E-03	3.853341E-03
1336	2.582838E+02	8.210047E-01	3.177356E-03	3.865570E-03	3.865570E-03
1337	2.574628E+02	8.210047E-01	3.242868E-03	3.877877E-03	3.877877E-03
1338	2.566418E+02	8.210047E-01	3.295736E-03	3.890263E-03	3.890263E-03
1339	2.544938E+02	2.147924E+00	3.371878E-03	3.912879E-03	3.912879E-03
1340	2.536794E+02	8.143979E-01	3.436191E-03	3.935669E-03	3.935669E-03
1341	2.528650E+02	8.143979E-01	3.462342E-03	3.948324E-03	3.948324E-03
1342	2.520507E+02	8.143979E-01	3.419435E-03	3.961061E-03	3.961061E-03
1343	2.512363E+02	8.143979E-01	2.651587E-03	3.973880E-03	3.973880E-03
1344	2.504219E+02	8.143979E-01	1.989585E-03	3.986782E-03	3.986782E-03
1345	2.496083E+02	8.135531E-01	2.826795E-03	3.999762E-03	3.999762E-03
1346	2.487947E+02	8.135531E-01	2.851048E-03	4.012820E-03	4.012820E-03
1347	2.479812E+02	8.135531E-01	2.375352E-03	4.025963E-03	4.025963E-03
1348	2.471676E+02	8.135531E-01	3.080329E-03	4.039193E-03	4.039193E-03
1349	2.463541E+02	8.135531E-01	3.452721E-03	4.052510E-03	4.052510E-03
1350	2.455475E+02	8.066315E-01	3.494752E-03	4.065858E-03	4.065858E-03
1351	2.447408E+02	8.066315E-01	3.518730E-03	4.079236E-03	4.079236E-03
1352	2.439342E+02	8.066315E-01	3.551471E-03	4.092703E-03	4.092703E-03
1353	2.431518E+02	7.823750E-01	3.441554E-03	4.106054E-03	4.106054E-03
1354	2.423694E+02	7.823750E-01	3.048464E-03	4.119288E-03	4.119288E-03
1355	2.415871E+02	7.823750E-01	3.252891E-03	4.132606E-03	4.132606E-03
1356	2.408047E+02	7.823750E-01	3.477710E-03	4.146011E-03	4.146011E-03
1357	2.400223E+02	7.823750E-01	3.060177E-03	4.159504E-03	4.159504E-03
1358	2.392399E+02	7.823750E-01	2.889141E-03	4.173084E-03	4.173084E-03
1359	2.384576E+02	7.823750E-01	2.308741E-03	4.186754E-03	4.186754E-03
1360	2.376752E+02	7.823750E-01	5.984281E-04	4.200513E-03	4.200513E-03
1361	2.368932E+02	7.820186E-01	3.314671E-04	4.214360E-03	4.214360E-03
1362	2.361112E+02	7.820186E-01	1.043947E-03	4.228295E-03	4.228295E-03
1363	2.353291E+02	7.820186E-01	3.543751E-03	4.242323E-03	4.242323E-03
1364	2.345471E+02	7.820186E-01	3.755350E-03	4.256444E-03	4.256444E-03
1365	2.337651E+02	7.820186E-01	3.095539E-03	4.270659E-03	4.270659E-03
1366	2.329903E+02	7.748227E-01	3.389974E-03	4.284904E-03	4.284904E-03
1367	2.322155E+02	7.748227E-01	3.776386E-03	4.299177E-03	4.299177E-03
1368	2.314406E+02	7.748227E-01	3.291986E-03	4.313546E-03	4.313546E-03
1369	2.306658E+02	7.748227E-01	2.723736E-03	4.328011E-03	4.328011E-03
1370	2.298910E+02	7.748227E-01	3.323897E-03	4.342574E-03	4.342574E-03
1371	2.291162E+02	7.748227E-01	3.704577E-03	4.357235E-03	4.357235E-03

RESULTS OF NARROW GROUPS STARTING AT 2.75000E+02 EV.

BROAD GROUP 43

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1372	2.283413E+02	7.748227E-01	3.735831E-03	4.371995E-03	4.371995E-03
1373	2.275665E+02	7.748227E-01	3.750416E-03	4.386856E-03	4.386856E-03
1374	2.262159E+02	1.350622E+00	3.812608E-03	4.407412E-03	4.407412E-03
1375	2.254448E+02	7.710548E-01	3.872957E-03	4.428107E-03	4.428107E-03
1376	2.246738E+02	7.710548E-01	3.900117E-03	4.443277E-03	4.443277E-03
1377	2.239027E+02	7.710548E-01	3.912329E-03	4.458552E-03	4.458552E-03
1378	2.231317E+02	7.710548E-01	3.765237E-03	4.473933E-03	4.473933E-03
1379	2.223606E+02	7.710548E-01	3.535553E-03	4.489420E-03	4.489420E-03
1380	2.215896E+02	7.710548E-01	3.805021E-03	4.505014E-03	4.505014E-03
1381	2.208185E+02	7.710548E-01	3.939206E-03	4.520718E-03	4.520718E-03
1382	2.200475E+02	7.710548E-01	3.956632E-03	4.536531E-03	4.536531E-03
1383	2.192967E+02	7.507182E-01	3.976814E-03	4.552244E-03	4.552244E-03
1384	2.185460E+02	7.507182E-01	4.012921E-03	4.567854E-03	4.567854E-03
1385	2.177953E+02	7.507182E-01	4.039969E-03	4.583572E-03	4.583572E-03
1386	2.170446E+02	7.507182E-01	3.951843E-03	4.599399E-03	4.599399E-03
1387	2.162939E+02	7.507182E-01	3.373471E-03	4.615335E-03	4.615335E-03
1388	2.155432E+02	7.507182E-01	3.357424E-03	4.631382E-03	4.631382E-03
1389	2.150000E+02	5.431505E-01	3.855278E-03	4.645298E-03	4.645298E-03

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	1.222573E+00	0.	2.602902E-01	0.	2.694777E+00	0.
1	PU239	7.833076E+00	9.864013E+00	1.667690E+00	2.100084E+00	2.373005E+00	2.838036E+00
1	PU240	4.408855E+00	0.	9.386609E-01	0.	5.780045E+00	0.

RESULTS OF NARROW GROUPS STARTING AT 2.15000E+02 EV.

BROAD GROUP 44

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1390	2.142493E+02	7.507182E-01	3.989969E-03	4.659302E-03	4.659302E-03
1391	2.134986E+02	7.507182E-01	4.000519E-03	4.675657E-03	4.675657E-03
1392	2.127478E+02	7.507182E-01	4.017758E-03	4.692126E-03	4.692126E-03
1393	2.118975E+02	8.503811E-01	4.048989E-03	4.709819E-03	4.709819E-03
1394	2.111545E+02	7.429552E-01	4.028221E-03	4.727556E-03	4.727556E-03
1395	2.104116E+02	7.429552E-01	3.868256E-03	4.744220E-03	4.744220E-03
1396	2.096807E+02	7.308734E-01	2.540897E-03	4.760864E-03	4.760864E-03
1397	2.089498E+02	7.308734E-01	4.357019E-04	4.777488E-03	4.777488E-03
1398	2.082189E+02	7.308734E-01	1.914087E-04	4.794228E-03	4.794228E-03
1399	2.074881E+02	7.308734E-01	5.348693E-04	4.811086E-03	4.811086E-03
1400	2.067572E+02	7.308734E-01	2.886622E-03	4.828063E-03	4.828063E-03
1401	2.060263E+02	7.308734E-01	4.575934E-03	4.845160E-03	4.845160E-03
1402	2.052954E+02	7.308734E-01	5.083547E-03	4.862379E-03	4.862379E-03
1403	2.045646E+02	7.308734E-01	4.735815E-03	4.879720E-03	4.879720E-03
1404	2.038337E+02	7.308734E-01	3.450850E-03	4.897186E-03	4.897186E-03
1405	2.030068E+02	8.268819E-01	2.753575E-03	4.915938E-03	4.915938E-03
1406	2.022575E+02	7.493466E-01	3.655735E-03	4.935057E-03	4.935057E-03
1407	2.015081E+02	7.493466E-01	4.056072E-03	4.953375E-03	4.953375E-03
1408	2.007588E+02	7.493466E-01	4.062645E-03	4.971829E-03	4.971829E-03
1409	2.000094E+02	7.493466E-01	3.990009E-03	4.990422E-03	4.990422E-03
1410	1.992601E+02	7.493466E-01	3.315156E-03	5.009154E-03	5.009154E-03
1411	1.985107E+02	7.493466E-01	3.173855E-03	5.028027E-03	5.028027E-03
1412	1.977743E+02	7.364140E-01	3.893736E-03	5.046878E-03	5.046878E-03
1413	1.970379E+02	7.364140E-01	3.914706E-03	5.065705E-03	5.065705E-03
1414	1.963015E+02	7.364140E-01	3.329775E-03	5.084673E-03	5.084673E-03
1415	1.955651E+02	7.364140E-01	2.994785E-03	5.103784E-03	5.103784E-03
1416	1.948287E+02	7.364140E-01	2.546846E-03	5.123039E-03	5.123039E-03
1417	1.939921E+02	8.365530E-01	3.030681E-03	5.143766E-03	5.143766E-03
1418	1.932580E+02	7.340591E-01	3.562545E-03	5.164626E-03	5.164626E-03
1419	1.925240E+02	7.340591E-01	3.518458E-03	5.184281E-03	5.184281E-03
1420	1.917899E+02	7.340591E-01	3.225008E-03	5.204085E-03	5.204085E-03
1421	1.910559E+02	7.340591E-01	2.387868E-03	5.224042E-03	5.224042E-03
1422	1.903218E+02	7.340591E-01	5.653004E-04	5.244152E-03	5.244152E-03
1423	1.895878E+02	7.340591E-01	1.103293E-04	5.264417E-03	5.264417E-03
1424	1.888952E+02	6.925771E-01	1.241128E-04	5.284260E-03	5.284260E-03
1425	1.882026E+02	6.925771E-01	7.124305E-04	5.303670E-03	5.303670E-03
1426	1.875100E+02	6.925771E-01	3.635301E-03	5.323223E-03	5.323223E-03
1427	1.868174E+02	6.925771E-01	5.354438E-03	5.342921E-03	5.342921E-03
1428	1.861249E+02	6.925771E-01	4.901234E-03	5.362766E-03	5.362766E-03
1429	1.854323E+02	6.925771E-01	4.686440E-03	5.382758E-03	5.382758E-03
1430	1.847397E+02	6.925771E-01	5.381562E-03	5.402900E-03	5.402900E-03
1431	1.840471E+02	6.925771E-01	5.363987E-03	5.423193E-03	5.423193E-03
1432	1.833546E+02	6.925771E-01	5.256825E-03	5.443639E-03	5.443639E-03
1433	1.826620E+02	6.925771E-01	5.171725E-03	5.464240E-03	5.464240E-03
1434	1.818174E+02	8.445556E-01	5.100531E-03	5.487288E-03	5.487288E-03
1435	1.811400E+02	6.774639E-01	5.045008E-03	5.510295E-03	5.510295E-03
1436	1.804625E+02	6.774639E-01	5.012821E-03	5.530942E-03	5.530942E-03
1437	1.797850E+02	6.774639E-01	4.984978E-03	5.551745E-03	5.551745E-03
1438	1.791076E+02	6.774639E-01	4.847670E-03	5.572704E-03	5.572704E-03
1439	1.784301E+02	6.774639E-01	4.633218E-03	5.593823E-03	5.593823E-03
1440	1.777526E+02	6.774639E-01	4.710254E-03	5.615102E-03	5.615102E-03
1441	1.770752E+02	6.774639E-01	4.190821E-03	5.636543E-03	5.636543E-03
1442	1.763955E+02	6.796629E-01	4.131862E-03	5.658185E-03	5.658185E-03
1443	1.757159E+02	6.796629E-01	4.298070E-03	5.680028E-03	5.680028E-03
1444	1.750362E+02	6.796629E-01	4.443903E-03	5.702041E-03	5.702041E-03

RESULTS OF NARROW GROUPS STARTING AT 2.15000E+02 EV.

BROAD GROUP 44

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1445	1.743565E+02	6.796629E-01	4.750379E-03	5.724225E-03	5.724225E-03
1446	1.736769E+02	6.796629E-01	4.837623E-03	5.746582E-03	5.746582E-03
1447	1.730179E+02	6.589879E-01	4.895971E-03	5.768770E-03	5.768770E-03
1448	1.723589E+02	6.589879E-01	4.937784E-03	5.790784E-03	5.790784E-03
1449	1.716999E+02	6.589879E-01	4.936439E-03	5.812967E-03	5.812967E-03
1450	1.710409E+02	6.589879E-01	4.761912E-03	5.835320E-03	5.835320E-03
1451	1.703819E+02	6.589879E-01	3.871977E-03	5.857846E-03	5.857846E-03
1452	1.697229E+02	6.589879E-01	3.409199E-03	5.880547E-03	5.880547E-03
1453	1.690640E+02	6.589879E-01	4.431900E-03	5.903424E-03	5.903424E-03
1454	1.684050E+02	6.589879E-01	4.892146E-03	5.926479E-03	5.926479E-03
1455	1.677611E+02	6.438767E-01	4.889319E-03	5.949448E-03	5.949448E-03
1456	1.671172E+02	6.438767E-01	4.279394E-03	5.972326E-03	5.972326E-03
1457	1.670000E+02	1.172101E-01	3.808807E-03	5.985924E-03	5.985924E-03

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	1.426115E+00	0.	3.045768E-01	0.	2.999354E+00	0.
1	PU239	4.786904E+00	1.277999E+01	1.022344E+00	2.729435E+00	3.395348E+00	5.567471E+00
1	PU240	1.053447E+01	0.	2.249856E+00	0.	8.029901E+00	0.

RESULTS OF NARROW GROUPS STARTING AT 1.67000E+02 EV.

BROAD GROUP 45

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1458	1.663561E+02	6.438767E-01	3.733213E-03	5.999597E-03	5.999597E-03
1459	1.657122E+02	6.438767E-01	2.739403E-03	6.022864E-03	6.022864E-03
1460	1.650684E+02	6.438767E-01	1.531748E-03	6.046311E-03	6.046311E-03
1461	1.644245E+02	6.438767E-01	1.528438E-03	6.069942E-03	6.069942E-03
1462	1.637806E+02	6.438767E-01	2.003624E-03	6.093758E-03	6.093758E-03
1463	1.631367E+02	6.438767E-01	3.548206E-03	6.117762E-03	6.117762E-03
1464	1.624929E+02	6.438767E-01	3.532933E-03	6.141956E-03	6.141956E-03
1465	1.618473E+02	6.455321E-01	4.331500E-03	6.166373E-03	6.166373E-03
1466	1.612018E+02	6.455321E-01	4.704423E-03	6.191017E-03	6.191017E-03
1467	1.605563E+02	6.455321E-01	4.622215E-03	6.215859E-03	6.215859E-03
1468	1.599107E+02	6.455321E-01	4.851092E-03	6.240901E-03	6.240901E-03
1469	1.590918E+02	8.189261E-01	5.063299E-03	6.269556E-03	6.269556E-03
1470	1.582729E+02	8.189261E-01	5.030032E-03	6.301912E-03	6.301912E-03
1471	1.574540E+02	8.189261E-01	4.484751E-03	6.334604E-03	6.334604E-03
1472	1.566350E+02	8.189261E-01	3.630252E-03	6.367637E-03	6.367637E-03
1473	1.557349E+02	9.001088E-01	4.286462E-03	6.402682E-03	6.402682E-03
1474	1.548348E+02	9.001088E-01	4.918590E-03	6.439796E-03	6.439796E-03
1475	1.542139E+02	6.209170E-01	5.133066E-03	6.471481E-03	6.471481E-03
1476	1.535930E+02	6.209170E-01	5.297276E-03	6.497590E-03	6.497590E-03
1477	1.529721E+02	6.209170E-01	5.406173E-03	6.523910E-03	6.523910E-03
1478	1.523511E+02	6.209170E-01	5.147752E-03	6.550445E-03	6.550445E-03
1479	1.517302E+02	6.209170E-01	3.933962E-03	6.577196E-03	6.577196E-03
1480	1.511093E+02	6.209170E-01	4.193608E-03	6.604167E-03	6.604167E-03
1481	1.504884E+02	6.209170E-01	5.396783E-03	6.631360E-03	6.631360E-03
1482	1.498675E+02	6.209170E-01	5.501847E-03	6.658777E-03	6.658777E-03
1483	1.492466E+02	6.209170E-01	5.163465E-03	6.686423E-03	6.686423E-03
1484	1.486323E+02	6.142397E-01	5.321300E-03	6.714148E-03	6.714148E-03
1485	1.480294E+02	6.029553E-01	5.295091E-03	6.741696E-03	6.741696E-03
1486	1.474264E+02	6.029553E-01	5.274725E-03	6.769212E-03	6.769212E-03
1487	1.468235E+02	6.029553E-01	5.173912E-03	6.796954E-03	6.796954E-03
1488	1.462205E+02	6.029553E-01	3.631853E-03	6.824924E-03	6.824924E-03
1489	1.456175E+02	6.029553E-01	3.010798E-03	6.853126E-03	6.853126E-03
1490	1.450146E+02	6.029553E-01	3.865864E-03	6.881561E-03	6.881561E-03
1491	1.444116E+02	6.029553E-01	5.159643E-03	6.910234E-03	6.910234E-03
1492	1.438087E+02	6.029553E-01	5.096513E-03	6.939146E-03	6.939146E-03
1493	1.432057E+02	6.029553E-01	3.914717E-03	6.968302E-03	6.968302E-03
1494	1.426028E+02	6.029553E-01	3.929026E-03	6.997703E-03	6.997703E-03
1495	1.419820E+02	6.207334E-01	5.261909E-03	7.027793E-03	7.027793E-03
1496	1.413613E+02	6.207334E-01	5.615418E-03	7.058586E-03	7.058586E-03
1497	1.407406E+02	6.207334E-01	5.745787E-03	7.089649E-03	7.089649E-03
1498	1.401198E+02	6.207334E-01	5.912907E-03	7.120987E-03	7.120987E-03
1499	1.394695E+02	6.503037E-01	6.025679E-03	7.153361E-03	7.153361E-03
1500	1.388727E+02	5.968614E-01	6.085176E-03	7.185411E-03	7.185411E-03
1501	1.382758E+02	5.968614E-01	6.125176E-03	7.216360E-03	7.216360E-03
1502	1.376875E+02	5.883169E-01	6.115395E-03	7.247352E-03	7.247352E-03
1503	1.370992E+02	5.883169E-01	5.625322E-03	7.278385E-03	7.278385E-03
1504	1.365109E+02	5.883169E-01	4.884784E-03	7.309685E-03	7.309685E-03
1505	1.359225E+02	5.883169E-01	5.133083E-03	7.341255E-03	7.341255E-03
1506	1.353342E+02	5.883169E-01	3.830917E-03	7.373100E-03	7.373100E-03
1507	1.347517E+02	5.825139E-01	3.634747E-03	7.405062E-03	7.405062E-03
1508	1.341692E+02	5.825139E-01	4.724317E-03	7.437143E-03	7.437143E-03
1509	1.335867E+02	5.825139E-01	3.942044E-03	7.469502E-03	7.469502E-03
1510	1.330042E+02	5.825139E-01	4.502746E-03	7.502145E-03	7.502145E-03
1511	1.324217E+02	5.825139E-01	5.122832E-03	7.535074E-03	7.535074E-03
1512	1.318391E+02	5.825139E-01	5.101266E-03	7.568294E-03	7.568294E-03

RESULTS OF NARROW GROUPS STARTING AT 1.67000E+02 EV.

BROAD GROUP 45

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1513	1.304643E+02	1.374852E+00	5.269292E-03	7.624827E-03	7.624827E-03
1514	1.300000E+02	4.642875E-01	5.573295E-03	7.678604E-03	7.678604E-03

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	9.329318E-01	0.	1.937083E-01	0.	3.193052E+00	0.
1	PU239	9.982148E+00	1.472837E+01	2.072632E+00	3.058109E+00	5.467981E+00	8.625581E+00
1	PU240	1.547841E+01	0.	3.213843E+00	0.	1.124374E+01	0.

RESULTS OF NARROW GROUPS STARTING AT 1.30000E+02 EV. BROAD GROUP 46

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1515	1.293601E+02	6.399075E-01	5.765050E-03	7.711302E-03	7.711302E-03
1516	1.287202E+02	6.399075E-01	5.962972E-03	7.749543E-03	7.749543E-03
1517	1.280803E+02	6.399075E-01	6.111115E-03	7.788164E-03	7.788164E-03
1518	1.274404E+02	6.399075E-01	6.095695E-03	7.827172E-03	7.827172E-03
1519	1.268613E+02	5.790283E-01	6.165635E-03	7.864687E-03	7.864687E-03
1520	1.262823E+02	5.790283E-01	5.723213E-03	7.900666E-03	7.900666E-03
1521	1.257129E+02	5.694175E-01	5.779689E-03	7.936672E-03	7.936672E-03
1522	1.251435E+02	5.694175E-01	6.414373E-03	7.972703E-03	7.972703E-03
1523	1.245741E+02	5.694175E-01	6.586894E-03	8.009063E-03	8.009063E-03
1524	1.240046E+02	5.694175E-01	6.668912E-03	8.045756E-03	8.045756E-03
1525	1.234478E+02	5.568228E-01	6.575445E-03	8.082374E-03	8.082374E-03
1526	1.228910E+02	5.568228E-01	6.577206E-03	8.118913E-03	8.118913E-03
1527	1.223342E+02	5.568228E-01	6.732551E-03	8.155784E-03	8.155784E-03
1528	1.217774E+02	5.568228E-01	5.566163E-03	8.192991E-03	8.192991E-03
1529	1.212205E+02	5.568228E-01	3.929264E-03	8.230539E-03	8.230539E-03
1530	1.206637E+02	5.568228E-01	4.527815E-03	8.268433E-03	8.268433E-03
1531	1.201069E+02	5.568228E-01	5.979599E-03	8.306677E-03	8.306677E-03
1532	1.195501E+02	5.568228E-01	5.833527E-03	8.345277E-03	8.345277E-03
1533	1.190022E+02	5.478365E-01	3.511286E-03	8.383921E-03	8.383921E-03
1534	1.184544E+02	5.478365E-01	2.876126E-03	8.422606E-03	8.422606E-03
1535	1.179066E+02	5.478365E-01	4.145223E-03	8.461650E-03	8.461650E-03
1536	1.173587E+02	5.478365E-01	1.163193E-03	8.501058E-03	8.501058E-03
1537	1.168109E+02	5.478365E-01	2.756976E-04	8.540834E-03	8.540834E-03
1538	1.162630E+02	5.478365E-01	4.028352E-04	8.580984E-03	8.580984E-03
1539	1.157152E+02	5.478365E-01	2.544335E-03	8.621514E-03	8.621514E-03
1540	1.151674E+02	5.478365E-01	6.511287E-03	8.662428E-03	8.662428E-03
1541	1.146195E+02	5.478365E-01	7.387860E-03	8.703733E-03	8.703733E-03
1542	1.140717E+02	5.478365E-01	7.449187E-03	8.745433E-03	8.745433E-03
1543	1.134703E+02	6.013952E-01	7.437499E-03	8.789607E-03	8.789607E-03
1544	1.128689E+02	6.013952E-01	7.490512E-03	8.836316E-03	8.836316E-03
1545	1.123400E+02	5.289559E-01	7.522398E-03	8.880662E-03	8.880662E-03
1546	1.118110E+02	5.289559E-01	7.550512E-03	8.922575E-03	8.922575E-03
1547	1.112820E+02	5.289559E-01	7.577374E-03	8.964887E-03	8.964887E-03
1548	1.107531E+02	5.289559E-01	7.422478E-03	9.007601E-03	9.007601E-03
1549	1.102241E+02	5.289559E-01	6.909313E-03	9.050724E-03	9.050724E-03
1550	1.096952E+02	5.289559E-01	7.189523E-03	9.094263E-03	9.094263E-03
1551	1.091662E+02	5.289559E-01	7.508751E-03	9.138222E-03	9.138222E-03
1552	1.086373E+02	5.289559E-01	7.547198E-03	9.182608E-03	9.182608E-03
1553	1.081083E+02	5.289559E-01	7.580730E-03	9.227428E-03	9.227428E-03
1554	1.075793E+02	5.289559E-01	7.424895E-03	9.272687E-03	9.272687E-03
1555	1.070547E+02	5.246456E-01	5.641091E-03	9.318205E-03	9.318205E-03
1556	1.065301E+02	5.246456E-01	3.902472E-03	9.363983E-03	9.363983E-03
1557	1.060054E+02	5.246456E-01	5.003068E-03	9.410213E-03	9.410213E-03
1558	1.054808E+02	5.246456E-01	4.111757E-03	9.456902E-03	9.456902E-03
1559	1.049561E+02	5.246456E-01	2.102699E-03	9.504057E-03	9.504057E-03
1560	1.044315E+02	5.246456E-01	2.162009E-03	9.551684E-03	9.551684E-03
1561	1.039068E+02	5.246456E-01	4.120467E-03	9.599791E-03	9.599791E-03
1562	1.033822E+02	5.246456E-01	1.598346E-03	9.648385E-03	9.648385E-03
1563	1.028575E+02	5.246456E-01	2.333743E-04	9.697474E-03	9.697474E-03
1564	1.023329E+02	5.246456E-01	1.433073E-04	9.747065E-03	9.747065E-03
1565	1.018051E+02	5.278202E-01	5.992069E-04	9.797318E-03	9.797318E-03
1566	1.012773E+02	5.278202E-01	4.957427E-03	9.848245E-03	9.848245E-03
1567	1.010000E+02	2.772514E-01	8.241071E-03	9.887425E-03	9.887425E-03

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	2.768733E+00	0.	5.469299E-01	0.	3.739992E+00	0.
1	PU239	8.659899E+00	1.256167E+01	1.710659E+00	2.481407E+00	7.178639E+00	1.110699E+01
1	PU240	1.580303E+01	0.	3.121698E+00	0.	1.436544E+01	0.

RESULTS OF NARROW GROUPS STARTING AT 1.01000E+02 EV.

BROAD GROUP 47

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1568	1.004722E+02	5.278202E-01	9.365644E-03	9.926952E-03	9.926952E-03
1569	9.994436E+01	5.278202E-01	9.471935E-03	9.979239E-03	9.979239E-03
1570	9.933109E+01	6.132734E-01	8.800184E-03	1.003639E-02	1.003639E-02
1571	9.871781E+01	6.132734E-01	8.121672E-03	1.009855E-02	1.009855E-02
1572	9.809466E+01	6.231505E-01	7.769764E-03	1.016199E-02	1.016199E-02
1573	9.747151E+01	6.231505E-01	7.427709E-03	1.022675E-02	1.022675E-02
1574	9.684836E+01	6.231505E-01	7.373774E-03	1.029234E-02	1.029234E-02
1575	9.622521E+01	6.231505E-01	7.165118E-03	1.035878E-02	1.035878E-02
1576	9.560206E+01	6.231505E-01	6.570982E-03	1.042608E-02	1.042608E-02
1577	9.503215E+01	5.699142E-01	6.712954E-03	1.049133E-02	1.049133E-02
1578	9.455159E+01	4.805531E-01	7.407054E-03	1.054945E-02	1.054945E-02
1579	9.407104E+01	4.805531E-01	7.809760E-03	1.060320E-02	1.060320E-02
1580	9.359049E+01	4.805531E-01	8.090416E-03	1.065751E-02	1.065751E-02
1581	9.310993E+01	4.805531E-01	8.245685E-03	1.071237E-02	1.071237E-02
1582	9.262938E+01	4.805531E-01	7.598195E-03	1.076780E-02	1.076780E-02
1583	9.214883E+01	4.805531E-01	7.089587E-03	1.082381E-02	1.082381E-02
1584	9.166964E+01	4.791870E-01	7.993024E-03	1.088032E-02	1.088032E-02
1585	9.119751E+01	4.721263E-01	7.077794E-03	1.093693E-02	1.093693E-02
1586	9.072539E+01	4.721263E-01	4.291951E-03	1.099369E-02	1.099369E-02
1587	9.025326E+01	4.721263E-01	4.407085E-03	1.105105E-02	1.105105E-02
1588	8.978114E+01	4.721263E-01	7.096968E-03	1.110901E-02	1.110901E-02
1589	8.930901E+01	4.721263E-01	7.402469E-03	1.116759E-02	1.116759E-02
1590	8.883688E+01	4.721263E-01	8.106801E-03	1.122678E-02	1.122678E-02
1591	8.836476E+01	4.721263E-01	8.723624E-03	1.128660E-02	1.128660E-02
1592	8.789263E+01	4.721263E-01	8.894730E-03	1.134707E-02	1.134707E-02
1593	8.742050E+01	4.721263E-01	9.016583E-03	1.140819E-02	1.140819E-02
1594	8.694838E+01	4.721263E-01	9.018674E-03	1.146996E-02	1.146996E-02
1595	8.640799E+01	5.403925E-01	8.798943E-03	1.153697E-02	1.153697E-02
1596	8.586759E+01	5.403925E-01	7.619859E-03	1.160934E-02	1.160934E-02
1597	8.532720E+01	5.403925E-01	6.040919E-03	1.168264E-02	1.168264E-02
1598	8.478681E+01	5.403925E-01	6.961267E-03	1.175686E-02	1.175686E-02
1599	8.382484E+01	9.619649E-01	8.137000E-03	1.186171E-02	1.186171E-02
1600	8.312156E+01	7.032809E-01	8.742666E-03	1.197996E-02	1.197996E-02
1601	8.267135E+01	4.502145E-01	8.796385E-03	1.206327E-02	1.206327E-02
1602	8.222113E+01	4.502145E-01	8.543630E-03	1.212915E-02	1.212915E-02
1603	8.177092E+01	4.502145E-01	7.969934E-03	1.219574E-02	1.219574E-02
1604	8.132070E+01	4.502145E-01	3.766701E-03	1.226308E-02	1.226308E-02
1605	8.087049E+01	4.502145E-01	1.842992E-03	1.233116E-02	1.233116E-02
1606	8.042028E+01	4.502145E-01	3.482196E-03	1.240000E-02	1.240000E-02
1607	7.997006E+01	4.502145E-01	7.479859E-03	1.246961E-02	1.246961E-02
1608	7.951985E+01	4.502145E-01	8.612740E-03	1.254001E-02	1.254001E-02
1609	7.906963E+01	4.502145E-01	9.401050E-03	1.261121E-02	1.261121E-02
1610	7.890000E+01	1.696318E-01	9.834526E-03	1.266067E-02	1.266067E-02

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	1.699029E+00	0.	3.456835E-01	0.	4.085675E+00	0.
1	PU239	1.633511E+00	1.836911E+01	3.323531E-01	3.737367E+00	7.510993E+00	1.484435E+01
1	PU240	1.329091E+01	4.933674E-06	2.704159E+00	1.003802E-06	1.706950E+01	1.003802E-06

RESULTS OF NARROW GROUPS STARTING AT 7.89000E+01 EV. BROAD GROUP 49

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1611	7.803288E+01	8.671230E-01	1.020912E-02	1.274443E-02	1.274443E-02
1612	7.735723E+01	6.756474E-01	1.049224E-02	1.287091E-02	1.287091E-02
1613	7.687917E+01	4.780568E-01	1.050973E-02	1.296715E-02	1.296715E-02
1614	7.640112E+01	4.780568E-01	1.034414E-02	1.304803E-02	1.304803E-02
1615	7.592306E+01	4.780568E-01	9.257312E-03	1.312994E-02	1.312994E-02
1616	7.544500E+01	4.780568E-01	4.362358E-03	1.321287E-02	1.321287E-02
1617	7.496695E+01	4.780568E-01	2.076359E-03	1.329686E-02	1.329686E-02
1618	7.453554E+01	4.314063E-01	3.373519E-03	1.337774E-02	1.337774E-02
1619	7.410413E+01	4.314063E-01	4.864319E-03	1.345540E-02	1.345540E-02
1620	7.367273E+01	4.314063E-01	6.875768E-03	1.353396E-02	1.353396E-02
1621	7.324132E+01	4.314063E-01	7.816665E-03	1.361344E-02	1.361344E-02
1622	7.280991E+01	4.314063E-01	4.064728E-03	1.369386E-02	1.369386E-02
1623	7.237851E+01	4.314063E-01	3.651497E-03	1.377524E-02	1.377524E-02
1624	7.194710E+01	4.314063E-01	8.345394E-03	1.385760E-02	1.385760E-02
1625	7.151570E+01	4.314063E-01	1.127250E-02	1.394094E-02	1.394094E-02
1626	7.108429E+01	4.314063E-01	1.139527E-02	1.402529E-02	1.402529E-02
1627	7.065288E+01	4.314063E-01	1.136937E-02	1.411067E-02	1.411067E-02
1628	6.990742E+01	7.454618E-01	1.140787E-02	1.422890E-02	1.422890E-02
1629	6.917231E+01	7.351122E-01	1.141394E-02	1.438037E-02	1.438037E-02
1630	6.849556E+01	6.767536E-01	1.127629E-02	1.452784E-02	1.452784E-02
1631	6.807148E+01	4.240798E-01	1.092462E-02	1.464487E-02	1.464487E-02
1632	6.765670E+01	4.147703E-01	1.030140E-02	1.473538E-02	1.473538E-02
1633	6.724193E+01	4.147703E-01	8.434765E-03	1.482599E-02	1.482599E-02
1634	6.682716E+01	4.147703E-01	2.817474E-03	1.491773E-02	1.491773E-02
1635	6.641239E+01	4.147703E-01	4.752133E-04	1.501061E-02	1.501061E-02
1636	6.599762E+01	4.147703E-01	2.174847E-04	1.510465E-02	1.510465E-02
1637	6.558285E+01	4.147703E-01	5.491996E-04	1.519987E-02	1.519987E-02
1638	6.517585E+01	4.070029E-01	4.369925E-03	1.529540E-02	1.529540E-02
1639	6.476885E+01	4.070029E-01	9.879452E-03	1.539121E-02	1.539121E-02
1640	6.436184E+01	4.070029E-01	1.094245E-02	1.548824E-02	1.548824E-02
1641	6.395484E+01	4.070029E-01	1.101288E-02	1.558649E-02	1.558649E-02
1642	6.354784E+01	4.070029E-01	9.218034E-03	1.568600E-02	1.568600E-02
1643	6.314084E+01	4.070029E-01	7.474047E-03	1.578679E-02	1.578679E-02
1644	6.273383E+01	4.070029E-01	8.994512E-03	1.588888E-02	1.588888E-02
1645	6.232683E+01	4.070029E-01	9.596021E-03	1.599230E-02	1.599230E-02
1646	6.191983E+01	4.070029E-01	9.290180E-03	1.609707E-02	1.609707E-02
1647	6.151282E+01	4.070029E-01	8.567089E-03	1.620323E-02	1.620323E-02
1648	6.140000E+01	1.128246E-01	8.256327E-03	1.627170E-02	1.627170E-02

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	2.354761E+00	0.	4.508056E-01	0.	4.536481E+00	0.
1	PU239	9.972672E+00	2.140116E+01	1.909212E+00	4.097132E+00	9.420204E+00	1.894149E+01
1	PU240	2.242063E+01	1.890429E-05	4.292303E+00	3.619120E-06	2.136190E+01	4.622922E-06

RESULTS OF NARROW GROUPS STARTING AT 6.14000E+01 EV.

BROAD GROUP 49

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1649	6.077536E+01	6.246411E-01	7.888071E-03	1.637006E-02	1.637006E-02
1650	6.033578E+01	4.395819E-01	8.050807E-03	1.651383E-02	1.651383E-02
1651	5.989620E+01	4.395819E-01	8.017763E-03	1.663458E-02	1.663458E-02
1652	5.945661E+01	4.395819E-01	5.430615E-03	1.675712E-02	1.675712E-02
1653	5.901703E+01	4.395819E-01	4.548812E-03	1.688147E-02	1.688147E-02
1654	5.857745E+01	4.395819E-01	6.714752E-03	1.700768E-02	1.700768E-02
1655	5.813787E+01	4.395819E-01	6.386739E-03	1.713579E-02	1.713579E-02
1656	5.769829E+01	4.395819E-01	5.024413E-03	1.726585E-02	1.726585E-02
1657	5.711731E+01	5.809751E-01	5.206806E-03	1.741938E-02	1.741938E-02
1658	5.673620E+01	3.811135E-01	7.695918E-03	1.756650E-02	1.756650E-02
1659	5.635508E+01	3.811135E-01	9.449032E-03	1.768490E-02	1.768490E-02
1660	5.597397E+01	3.811135E-01	9.395067E-03	1.780490E-02	1.780490E-02
1661	5.559286E+01	3.811135E-01	8.101486E-03	1.792655E-02	1.792655E-02
1662	5.521174E+01	3.811135E-01	1.010762E-02	1.804986E-02	1.804986E-02
1663	5.483063E+01	3.811135E-01	1.186983E-02	1.817489E-02	1.817489E-02
1664	5.444952E+01	3.811135E-01	1.262025E-02	1.830166E-02	1.830166E-02
1665	5.407653E+01	3.729887E-01	1.310949E-02	1.842883E-02	1.842883E-02
1666	5.370354E+01	3.729887E-01	1.336337E-02	1.855638E-02	1.855638E-02
1667	5.333055E+01	3.729887E-01	1.327606E-02	1.868571E-02	1.868571E-02
1668	5.295756E+01	3.729887E-01	9.698698E-03	1.881686E-02	1.881686E-02
1669	5.258457E+01	3.729887E-01	3.588134E-03	1.894986E-02	1.894986E-02
1670	5.221158E+01	3.729887E-01	3.670388E-03	1.908475E-02	1.908475E-02
1671	5.184723E+01	3.643559E-01	9.180079E-03	1.921998E-02	1.921998E-02
1672	5.148287E+01	3.643559E-01	1.252432E-02	1.935552E-02	1.935552E-02
1673	5.111852E+01	3.643559E-01	1.361757E-02	1.949300E-02	1.949300E-02
1674	5.075416E+01	3.643559E-01	1.389811E-02	1.963243E-02	1.963243E-02
1675	5.038980E+01	3.643559E-01	1.021344E-02	1.977388E-02	1.977388E-02
1676	5.002545E+01	3.643559E-01	6.718732E-03	1.991738E-02	1.991738E-02
1677	4.966109E+01	3.643559E-01	9.548181E-03	2.006298E-02	2.006298E-02
1678	4.920198E+01	4.591114E-01	1.314603E-02	2.023015E-02	2.023015E-02
1679	4.874287E+01	4.591114E-01	1.450298E-02	2.041980E-02	2.041980E-02
1680	4.828376E+01	4.591114E-01	1.490648E-02	2.061305E-02	2.061305E-02
1681	4.790000E+01	3.837586E-01	1.355273E-02	2.079364E-02	2.079364E-02

REGION	ELEMENT	GROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	8.572444E-02	0.	1.568429E-02	0.	4.552165E+00	0.
1	PU239	2.221236E+01	3.720369E+01	4.064011E+00	6.806851E+01	1.348422E+01	2.574834E+01
1	PU240	1.916413E-01	9.066373E-05	3.506301E-02	1.658799E-05	2.139697E+01	2.121091E-05

RESULTS OF NARROW GROUPS STARTING AT 4.79000E+01 EV. BROAD GROUP 50

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1682	4.744089E+01	4.591114E-01	1.058193E-02	2.097752E-02	2.097752E-02
1683	4.698178E+01	4.591114E-01	1.209211E-02	2.118152E-02	2.118152E-02
1684	4.652267E+01	4.591114E-01	1.467279E-02	2.138953E-02	2.138953E-02
1685	4.606355E+01	4.591114E-01	1.595910E-02	2.160166E-02	2.160166E-02
1686	4.572521E+01	3.383483E-01	1.663751E-02	2.178926E-02	2.178926E-02
1687	4.538686E+01	3.383483E-01	1.596872E-02	2.195109E-02	2.195109E-02
1688	4.504851E+01	3.383483E-01	1.655651E-02	2.211534E-02	2.211534E-02
1689	4.471016E+01	3.383483E-01	9.742592E-03	2.228208E-02	2.228208E-02
1690	4.437181E+01	3.383483E-01	4.505509E-03	2.245134E-02	2.245134E-02
1691	4.403346E+01	3.383483E-01	6.924025E-03	2.262319E-02	2.262319E-02
1692	4.369512E+01	3.383483E-01	1.423090E-02	2.279770E-02	2.279770E-02
1693	4.335677E+01	3.383483E-01	1.645707E-02	2.297492E-02	2.297492E-02
1694	4.302584E+01	3.309246E-01	1.746575E-02	2.315292E-02	2.315292E-02
1695	4.269492E+01	3.309246E-01	1.787298E-02	2.333169E-02	2.333169E-02
1696	4.236399E+01	3.309246E-01	1.773571E-02	2.351323E-02	2.351323E-02
1697	4.203307E+01	3.309246E-01	1.397146E-02	2.369763E-02	2.369763E-02
1698	4.170215E+01	3.309246E-01	4.755390E-03	2.388494E-02	2.388494E-02
1699	4.137122E+01	3.309246E-01	2.653577E-03	2.407523E-02	2.407523E-02
1700	4.104030E+01	3.309246E-01	4.603286E-03	2.426858E-02	2.426858E-02
1701	4.070937E+01	3.309246E-01	1.189425E-02	2.446506E-02	2.446506E-02
1702	4.037845E+01	3.309246E-01	1.576682E-02	2.466475E-02	2.466475E-02
1703	4.004752E+01	3.309246E-01	1.730823E-02	2.486773E-02	2.486773E-02
1704	3.972948E+01	3.180415E-01	1.801433E-02	2.507001E-02	2.507001E-02
1705	3.941389E+01	3.155943E-01	1.820414E-02	2.527073E-02	2.527073E-02
1706	3.909829E+01	3.155943E-01	1.799677E-02	2.547389E-02	2.547389E-02
1707	3.878270E+01	3.155943E-01	1.614983E-02	2.568035E-02	2.568035E-02
1708	3.846710E+01	3.155943E-01	7.107169E-03	2.589018E-02	2.589018E-02
1709	3.815151E+01	3.155943E-01	3.537533E-03	2.610347E-02	2.610347E-02
1710	3.783686E+01	3.146531E-01	6.649816E-03	2.631997E-02	2.631997E-02
1711	3.752220E+01	3.146531E-01	1.026048E-02	2.653976E-02	2.653976E-02
1712	3.730000E+01	2.222032E-01	5.538883E-03	2.673011E-02	2.673011E-02

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	1.222712E+00	0.	2.279929E-01	0.	4.780158E+00	0.
1	PU239	2.032612E+01	8.198504E+00	3.790108E+00	1.528733E+00	1.727432E+01	2.727707E+01
1	PU240	5.705551E+01	1.172612E-01	1.063885E+01	2.186510E-02	3.203582E+01	2.188631E-02

RESULTS OF NARROW GROUPS STARTING AT 3.73000E+01 EV.

BROAD GROUP 51

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1713	3.698535E+01	3.146531E-01	9.092726E-04	2.692337E-02	2.692337E-02
1714	3.667069E+01	3.146531E-01	1.775594E-04	2.715340E-02	2.715340E-02
1715	3.636648E+01	3.042095E-01	2.159296E-04	2.738347E-02	2.738347E-02
1716	3.606227E+01	3.042095E-01	1.451144E-03	2.761350E-02	2.761350E-02
1717	3.575807E+01	3.042095E-01	9.065668E-03	2.784743E-02	2.784743E-02
1718	3.545386E+01	3.042095E-01	1.402192E-02	2.808536E-02	2.808536E-02
1719	3.514965E+01	3.042095E-01	1.494612E-02	2.832738E-02	2.832738E-02
1720	3.484544E+01	3.042095E-01	1.683672E-02	2.857362E-02	2.857362E-02
1721	3.454123E+01	3.042095E-01	1.855356E-02	2.882417E-02	2.882417E-02
1722	3.423702E+01	3.042095E-01	1.963697E-02	2.907915E-02	2.907915E-02
1723	3.393281E+01	3.042095E-01	2.042371E-02	2.933869E-02	2.933869E-02
1724	3.362860E+01	3.042095E-01	2.098609E-02	2.960290E-02	2.960290E-02
1725	3.327180E+01	3.567950E-01	2.145004E-02	2.989547E-02	2.989547E-02
1726	3.291501E+01	3.567950E-01	2.179439E-02	3.021779E-02	3.021779E-02
1727	3.255821E+01	3.567950E-01	2.154068E-02	3.054714E-02	3.054714E-02
1728	3.220259E+01	3.556267E-01	1.984361E-02	3.088319E-02	3.088319E-02
1729	3.184925E+01	3.533342E-01	2.092886E-02	3.122503E-02	3.122503E-02
1730	3.149817E+01	3.510814E-01	2.295380E-02	3.157225E-02	3.157225E-02
1731	3.114930E+01	3.488674E-01	2.404920E-02	3.192500E-02	3.192500E-02
1732	3.080261E+01	3.466915E-01	2.474384E-02	3.228344E-02	3.228344E-02
1733	3.045806E+01	3.445532E-01	2.526196E-02	3.264772E-02	3.264772E-02
1734	3.011561E+01	3.424516E-01	2.572218E-02	3.301800E-02	3.301800E-02
1735	2.977522E+01	3.403863E-01	2.625788E-02	3.339445E-02	3.339445E-02
1736	2.943686E+01	3.383564E-01	2.691192E-02	3.377726E-02	3.377726E-02
1737	2.910050E+01	3.363614E-01	2.756344E-02	3.416659E-02	3.416659E-02
1738	2.900000E+01	1.005033E-01	2.797213E-02	3.442314E-02	3.442314E-02

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	4.169627E+00	0.	8.250579E-01	0.	5.605216E+00	0.
1	PU239	2.459526E+00	2.636767E+00	4.866746E-01	5.217457E-01	1.775100E+01	2.779882E+01
1	PU240	3.907798E-01	1.035505E-03	7.732489E-02	2.048988E-04	3.211314E+01	2.209121E-02

RESULTS OF NARROW GROUPS STARTING AT 2.90000E+01 EV.

BROAD GROUP 52

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1739	2.866618E+01	3.338193E-01	2.847400E-02	3.468276E-02	3.468276E-02
1740	2.839748E+01	2.687043E-01	2.919810E-02	3.504884E-02	3.504884E-02
1741	2.812877E+01	2.687043E-01	2.986051E-02	3.538206E-02	3.538206E-02
1742	2.786007E+01	2.687043E-01	3.050030E-02	3.572168E-02	3.572168E-02
1743	2.759136E+01	2.687043E-01	3.072918E-02	3.606788E-02	3.606788E-02
1744	2.732266E+01	2.687043E-01	2.890219E-02	3.642086E-02	3.642086E-02
1745	2.705395E+01	2.687043E-01	2.822421E-02	3.678082E-02	3.678082E-02
1746	2.678525E+01	2.687043E-01	3.020951E-02	3.714796E-02	3.714796E-02
1747	2.651655E+01	2.687043E-01	2.789604E-02	3.752251E-02	3.752251E-02
1748	2.624784E+01	2.687043E-01	1.534641E-02	3.790468E-02	3.790468E-02
1749	2.597914E+01	2.687043E-01	1.146158E-02	3.829472E-02	3.829472E-02
1750	2.570408E+01	2.750555E-01	2.058097E-02	3.869765E-02	3.869765E-02
1751	2.542903E+01	2.750555E-01	2.854360E-02	3.911398E-02	3.911398E-02
1752	2.515397E+01	2.750555E-01	3.167388E-02	3.953937E-02	3.953937E-02
1753	2.488995E+01	2.640227E-01	3.316418E-02	3.996527E-02	3.996527E-02
1754	2.462593E+01	2.640227E-01	3.387159E-02	4.039147E-02	4.039147E-02
1755	2.436190E+01	2.640227E-01	3.382917E-02	4.082686E-02	4.082686E-02
1756	2.409788E+01	2.640227E-01	2.881204E-02	4.127174E-02	4.127174E-02
1757	2.383386E+01	2.640227E-01	1.799453E-02	4.172643E-02	4.172643E-02
1758	2.356983E+01	2.640227E-01	2.014987E-02	4.219124E-02	4.219124E-02
1759	2.330581E+01	2.640227E-01	2.884091E-02	4.266653E-02	4.266653E-02
1760	2.304179E+01	2.640227E-01	3.199367E-02	4.315265E-02	4.315265E-02
1761	2.277777E+01	2.640227E-01	3.217929E-02	4.364997E-02	4.364997E-02
1762	2.260000E+01	1.777668E-01	2.909474E-02	4.407467E-02	4.407467E-02

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	5.541570E-01	0.	1.163208E-01	0.	5.721537E+00	0.
1	PU239	1.590959E+01	1.437994E+01	3.339516E+00	3.018433E+00	2.110051E+01	3.081725E+01
1	PU240	1.863974E-01	7.739279E-04	3.912590E-02	1.624520E-04	3.215227E+01	2.225366E-02

RESULTS OF NARROW GROUPS STARTING AT 2.26000E+01 EV.

BROAD GROUP 53

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1763	2.233359E+01	2.664086E-01	1.745343E-02	4.451065E-02	4.451065E-02
1764	2.206718E+01	2.664086E-01	8.833787E-03	4.504480E-02	4.504480E-02
1765	2.183219E+01	2.349938E-01	1.276092E-02	4.555917E-02	4.555917E-02
1766	2.159720E+01	2.349938E-01	1.733285E-02	4.605222E-02	4.605222E-02
1767	2.136928E+01	2.279155E-01	8.031186E-03	4.654836E-02	4.654836E-02
1768	2.114136E+01	2.279155E-01	8.768182E-04	4.704749E-02	4.704749E-02
1769	2.091345E+01	2.279155E-01	2.751462E-04	4.755745E-02	4.755745E-02
1770	2.068553E+01	2.279155E-01	5.436139E-04	4.807858E-02	4.807858E-02
1771	2.045762E+01	2.279155E-01	4.119792E-03	4.861126E-02	4.861126E-02
1772	2.022970E+01	2.279155E-01	9.655741E-03	4.915588E-02	4.915588E-02
1773	2.000179E+01	2.279155E-01	1.950285E-02	4.971284E-02	4.971284E-02
1774	1.977387E+01	2.279155E-01	2.706373E-02	5.028256E-02	5.028256E-02
1775	1.954596E+01	2.279155E-01	3.070551E-02	5.086549E-02	5.086549E-02
1776	1.931804E+01	2.279155E-01	3.290290E-02	5.146210E-02	5.146210E-02
1777	1.903083E+01	2.872115E-01	3.451533E-02	5.215375E-02	5.215375E-02
1778	1.874472E+01	2.861136E-01	3.572562E-02	5.294532E-02	5.294532E-02
1779	1.851088E+01	2.338336E-01	3.657898E-02	5.368391E-02	5.368391E-02
1780	1.827705E+01	2.338336E-01	3.707663E-02	5.436639E-02	5.436639E-02
1781	1.804321E+01	2.338336E-01	3.632036E-02	5.506644E-02	5.506644E-02
1782	1.780938E+01	2.338336E-01	2.712426E-02	5.578476E-02	5.578476E-02
1783	1.760000E+01	2.093810E-01	1.188035E-02	5.648287E-02	5.648287E-02

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	6.851435E+00	0.	1.155368E+00	0.	6.876905E+00	0.
1	PU239	1.197540E+01	2.204432E+01	2.019430E+00	3.717367E+00	2.311994E+01	3.453462E+01
1	PU240	1.946955E+01	1.682763E-01	3.283180E+00	2.837670E-02	3.543545E+01	5.053036E-02

RESULTS OF NARROW GROUPS STARTING AT 1.76000E+01 EV. BROAD GROUP 54

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1784	1.736617E+01	2.338336E-01	1.095834E-02	5.719900E-02	5.719900E-02
1785	1.713233E+01	2.338336E-01	2.459620E-02	5.797442E-02	5.797442E-02
1786	1.689850E+01	2.338336E-01	3.451691E-02	5.877116E-02	5.877116E-02
1787	1.666467E+01	2.338336E-01	3.831111E-02	5.959010E-02	5.959010E-02
1788	1.643083E+01	2.338336E-01	3.976266E-02	6.043219E-02	6.043219E-02
1789	1.615391E+01	2.769225E-01	3.977122E-02	6.137990E-02	6.137990E-02
1790	1.587789E+01	2.760229E-01	3.748198E-02	6.243951E-02	6.243951E-02
1791	1.560275E+01	2.751414E-01	3.280691E-02	6.353274E-02	6.353274E-02
1792	1.532847E+01	2.742778E-01	2.995356E-02	6.466130E-02	6.466130E-02
1793	1.511729E+01	2.111793E-01	3.106424E-02	6.569165E-02	6.569165E-02
1794	1.490611E+01	2.111793E-01	2.580587E-02	6.661581E-02	6.661581E-02
1795	1.469493E+01	2.111793E-01	9.609430E-03	6.756634E-02	6.756634E-02
1796	1.448375E+01	2.111793E-01	7.672060E-03	6.854439E-02	6.854439E-02
1797	1.427257E+01	2.111793E-01	1.461349E-02	6.955118E-02	6.955118E-02
1798	1.405727E+01	2.152983E-01	2.035856E-02	7.059829E-02	7.059829E-02
1799	1.384197E+01	2.152983E-01	3.592227E-02	7.168795E-02	7.168795E-02
1800	1.370000E+01	1.419744E-01	4.414582E-02	7.261708E-02	7.261708E-02

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	2.450036E-01	0.	4.284097E-02	0.	6.919746E+00	0.
1	PU239	2.691155E+01	4.815105E+01	4.705713E+00	8.419520E+00	2.782556E+01	4.295424E+01
1	PU240	1.307659E-01	5.644531E-04	2.286553E-02	9.869943E-05	3.545831E+01	5.072906E-02

RESULTS OF NARROW GROUPS STARTING AT 1.37000E+01 EV.

BROAD GROUP 55

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1801	1.348470E+01	2.152983E-01	4.869714E-02	7.357233E-02	7.357233E-02
1802	1.326940E+01	2.152983E-01	5.197672E-02	7.475650E-02	7.475650E-02
1803	1.300184E+01	2.675606E-01	5.428679E-02	7.613149E-02	7.613149E-02
1804	1.275338E+01	2.484587E-01	5.578984E-02	7.765655E-02	7.765655E-02
1805	1.256373E+01	1.896499E-01	5.646046E-02	7.899941E-02	7.899941E-02
1806	1.237408E+01	1.896499E-01	5.613436E-02	8.020102E-02	8.020102E-02
1807	1.218443E+01	1.896499E-01	5.129222E-02	8.143975E-02	8.143975E-02
1808	1.199478E+01	1.896499E-01	2.612195E-02	8.271735E-02	8.271735E-02
1809	1.180513E+01	1.896499E-01	1.230021E-02	8.403568E-02	8.403568E-02
1810	1.161548E+01	1.896499E-01	2.193286E-02	8.539670E-02	8.539670E-02
1811	1.142584E+01	1.896499E-01	4.102228E-02	8.680254E-02	8.680254E-02
1812	1.123619E+01	1.896499E-01	3.909373E-02	8.825545E-02	8.825545E-02
1813	1.104654E+01	1.896499E-01	2.013375E-02	8.975781E-02	8.975781E-02
1814	1.088228E+01	1.642598E-01	1.022775E-02	9.120592E-02	9.120592E-02
1815	1.071802E+01	1.642598E-01	1.260317E-02	9.259313E-02	9.259313E-02
1816	1.070000E+01	1.801569E-02	1.885863E-02	9.337935E-02	9.337935E-02

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	1.645564E-01	0.	2.899274E-02	0.	6.948738E+00	0.
1	PU239	2.740701E+01	4.521790E+01	4.828767E+00	7.966819E+00	3.265442E+01	5.032105E+01
1	PU240	1.236158E-01	2.444708E-04	2.177953E-02	4.307265E-05	3.548009E+01	5.077213E-02

RESULTS OF NARROW GROUPS STARTING AT 1.07000E+01 EV.

BROAD GROUP 56

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1817	1.053574E+01	1.642598E-01	2.875021E-02	9.418273E-02	9.418273E-02
1818	1.037148E+01	1.642598E-01	4.456913E-02	9.566270E-02	9.566270E-02
1819	1.020722E+01	1.642598E-01	5.268674E-02	9.718993E-02	9.718993E-02
1820	1.004296E+01	1.642598E-01	5.779403E-02	9.876671E-02	9.876671E-02
1821	9.878701E+00	1.642598E-01	6.393000E-02	1.003955E-01	1.003955E-01
1822	9.714441E+00	1.642598E-01	6.782552E-02	1.020789E-01	1.020789E-01
1823	9.550181E+00	1.642598E-01	7.048354E-02	1.038198E-01	1.038198E-01
1824	9.385921E+00	1.642598E-01	7.280534E-02	1.056210E-01	1.056210E-01
1825	9.127135E+00	2.587868E-01	7.646302E-02	1.080389E-01	1.080389E-01
1826	8.868826E+00	2.583089E-01	8.063621E-02	1.111437E-01	1.111437E-01
1827	8.610980E+00	2.578453E-01	8.375241E-02	1.144260E-01	1.144260E-01
1828	8.446215E+00	1.647652E-01	8.561279E-02	1.172562E-01	1.172562E-01
1829	8.320000E+00	1.262152E-01	8.574765E-02	1.192898E-01	1.192898E-01

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	6.636443E-01	0.	1.350512E-01	0.	7.083790E+00	0.
1	PU239	4.535955E+00	1.443669E+01	9.230637E-01	2.937856E+00	3.357749E+01	5.385891E+01
1	PU240	2.367196E-01	2.178631E-04	4.817227E-02	4.433500E-05	3.552827E+01	5.081647E-02

RESULTS OF NARROW GROUPS STARTING AT 8.32000E+00 EV.

BROAD GROUP 57

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1830	8.155235E+00	1.647652E-01	8.150636E-02	1.213984E-01	1.213984E-01
1831	7.990470E+00	1.647652E-01	5.492328E-02	1.238763E-01	1.238763E-01
1832	7.825704E+00	1.647652E-01	1.900762E-02	1.264574E-01	1.264574E-01
1833	7.660939E+00	1.647652E-01	1.805565E-02	1.291484E-01	1.291484E-01
1834	7.496174E+00	1.647652E-01	4.852655E-02	1.319564E-01	1.319564E-01
1835	7.331409E+00	1.647652E-01	6.825133E-02	1.348893E-01	1.348893E-01
1836	7.196525E+00	1.348842E-01	6.764919E-02	1.376698E-01	1.376698E-01
1837	7.061640E+00	1.348842E-01	5.665313E-02	1.402747E-01	1.402747E-01
1838	6.926756E+00	1.348842E-01	3.164045E-02	1.429801E-01	1.429801E-01
1839	6.791872E+00	1.348842E-01	4.239723E-03	1.457919E-01	1.457919E-01
1840	6.656988E+00	1.348842E-01	7.480776E-04	1.487165E-01	1.487165E-01
1841	6.522104E+00	1.348842E-01	8.721621E-04	1.517608E-01	1.517608E-01
1842	6.480000E+00	4.210373E-02	2.761216E-03	1.538218E-01	1.538218E-01

REGION	ELEMENT	GROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	1.077333E+01	0.	1.644879E+00	0.	8.728669E+00	0.
1	PU239	2.757369E+01	2.871582E+01	4.209969E+00	4.384349E+00	3.778746E+01	5.824326E+01
1	PU240	2.122445E-01	1.254765E-04	3.240562E-02	1.915782E-05	3.556067E+01	5.093563E-02

RESULTS OF NARROW GROUPS STARTING AT 6.48000E+00 EV.

BROAD GROUP 58

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1843	6.345116E+00	1.348842E-01	1.312511E-02	1.559498E-01	1.559498E-01
1844	6.210232E+00	1.348842E-01	4.102348E-02	1.593008E-01	1.593008E-01
1845	6.075348E+00	1.348842E-01	6.019462E-02	1.627990E-01	1.527990E-01
1846	5.940463E+00	1.348842E-01	7.504054E-02	1.664544E-01	1.664544E-01
1847	5.686943E+00	2.535200E-01	9.131768E-02	1.720347E-01	1.720347E-01
1848	5.433717E+00	2.532259E-01	1.062333E-01	1.798765E-01	1.798765E-01
1849	5.180772E+00	2.529451E-01	1.221748E-01	1.884574E-01	1.884574E-01
1850	5.040000E+00	1.407724E-01	1.361381E-01	1.956923E-01	1.956923E-01

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	5.271247E+00	0.	9.672033E-01	0.	9.695872E+00	0.
1	PU239	5.739137E-01	8.794426E-01	1.053055E-01	1.613660E-01	3.789276E+01	5.840463E+01
1	PU240	7.178051E-01	2.506363E-04	1.317076E-01	4.598841E-05	3.569238E+01	5.098161E-02

RESULTS OF NARROW GROUPS STARTING AT 5.04000E+00 EV.

BROAD GROUP 59

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1851	4.787466E+00	2.525337E-01	1.524937E-01	2.035561E-01	2.035561E-01
1852	4.535180E+00	2.522862E-01	1.705074E-01	2.145838E-01	2.145838E-01
1853	4.283128E+00	2.520516E-01	1.879836E-01	2.268627E-01	2.268627E-01
1854	4.031299E+00	2.518299E-01	2.061650E-01	2.406193E-01	2.406193E-01
1855	3.930000E+00	1.012986E-01	2.184719E-01	2.512289E-01	2.512289E-01

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	9.621327E-01	0.	2.155543E-01	0.	9.911427E+00	0.
1	PU239	4.322927E-01	7.323766E-01	9.685002E-02	1.640802E-01	3.798961E+01	5.856871E+01
1	PU240	1.863463E+00	4.984918E-04	4.174868E-01	1.116811E-04	3.610987E+01	5.099330E-02

RESULTS OF NARROW GROUPS STARTING AT 3.93000E+00 EV.

BROAD GROUP 60

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1856	3.678459E+00	2.515406E-01	2.335205E-01	2.629611E-01	2.629611E-01
1857	3.427110E+00	2.513497E-01	2.537541E-01	2.815869E-01	2.815869E-01
1858	3.175938E+00	2.511716E-01	2.759920E-01	3.030366E-01	3.030366E-01
1859	3.050000E+00	1.259381E-01	2.932958E-01	3.212806E-01	3.212806E-01

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	5.769189E-01	0.	1.385496E-01	0.	1.004998E+01	0.
1	PU239	3.490548E-01	6.159882E-01	8.382704E-02	1.479323E-01	3.807344E+01	5.871664E+01
1	PU240	4.330311E+00	9.646359E-04	1.039943E+00	2.316615E-04	3.714981E+01	5.122496E-02

RESULTS OF NARROW GROUPS STARTING AT 3.05000E+00 EV.

BROAD GROUP 61

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1860	2.799072E+00	2.509279E-01	3.140036E-01	3.421446E-01	3.421446E-01
1861	2.548291E+00	2.507815E-01	3.422887E-01	3.742907E-01	3.742907E-01
1862	2.380000E+00	1.682906E-01	3.678574E-01	4.059781E-01	4.059781E-01

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	4.552097E-01	0.	1.076270E-01	0.	1.015760E+01	0.
1	PU239	3.116102E-01	5.603273E-01	7.367519E-02	1.324803E-01	3.814711E+01	5.884912E+01
1	PU240	1.057692E+01	2.123346E-03	2.500743E+00	5.020308E-04	3.965055E+01	5.172699E-02

RESULTS OF NARROW GROUPS STARTING AT 2.38000E+00 EV.

BROAD GROUP 62

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1853	2.129435E+00	2.505650E-01	3.964486E-01	4.439718E-01	4.439718E-01
1864	1.878983E+00	2.504523E-01	4.282727E-01	4.996008E-01	4.996008E-01
1865	1.860000E+00	1.898267E-02	4.375617E-01	5.349095E-01	5.349095E-01

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	4.023304E-01	0.	9.231676E-02	0.	1.024992E+01	0.
1	PU239	2.924349E-01	5.310342E-01	6.710068E-02	1.218485E-01	3.821421E+01	5.897097E+01
1	PU240	2.857419E+01	5.441062E-03	6.556494E+00	1.248479E-03	4.620704E+01	5.297547E-02

RESULTS OF NARROW GROUPS STARTING AT 1.86000E+00 EV.

BROAD GROUP 63

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1866	1.609655E+00	2.503451E-01	4.454902E-01	5.774296E-01	5.774296E-01
1867	1.440000E+00	1.696549E-01	4.083771E-01	6.564897E-01	6.564897E-01

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	3.511288E-01	0.	7.562620E-02	0.	1.032555E+01	0.
1	PU239	2.637254E-01	4.816759E-01	5.680123E-02	1.037435E-01	3.827102E+01	5.907471E+01
1	PU240	9.680538E+01	1.798180E-02	2.084996E+01	3.872925E-03	6.705701E+01	5.684839E-02

RESULTS OF NARROW GROUPS STARTING AT 1.44000E+00 EV.

BROAD GROUP 64

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1868	1.332512E+00	1.074876E-01	3.208965E-01	7.217291E-01	7.217291E-01
1869	1.271065E+00	6.144723E-02	2.275877E-01	7.683164E-01	7.683164E-01
1870	1.209618E+00	6.144723E-02	1.416193E-01	8.063945E-01	8.063945E-01
1871	1.148171E+00	6.144723E-02	5.470081E-02	8.484445E-01	8.484445E-01
1872	1.130000E+00	1.817075E-02	1.816472E-02	8.779159E-01	8.779159E-01

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	1.787139E-01	0.	2.580969E-02	0.	1.035136E+01	0.
1	PU239	1.365779E-01	2.502711E-01	1.972445E-02	3.614391E-02	3.829074E+01	5.911085E+01
1	PU240	3.776078E+02	5.953015E-02	5.453375E+01	1.004148E-02	1.215908E+02	6.688987E-02

RESULTS OF NARROW GROUPS STARTING AT 1.13000E+00 EV.

BROAD GROUP 65

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1873	1.068553E+00	6.144723E-02	5.927054E-03	9.099263E-01	9.099263E-01
1874	1.007106E+00	6.144723E-02	3.775971E-03	9.638314E-01	9.638314E-01
1875	9.456583E-01	6.144723E-02	1.617269E-02	1.024528E+00	1.024528E+00
1876	8.842111E-01	6.144723E-02	7.769682E-02	1.093385E+00	1.093385E+00
1877	8.760000E-01	8.211071E-03	1.224902E-01	1.136236E+00	1.136236E+00

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	2.771825E-02	0.	3.357907E-03	0.	1.035471E+01	0.
1	PU239	2.153542E-02	3.959727E-02	2.608892E-03	4.796982E-03	3.829335E+01	5.911565E+01
1	PU240	4.966853E+02	9.134262E-02	6.017057E+01	1.106563E-02	1.817613E+02	7.795550E-02

RESULTS OF NARROW GROUPS STARTING AT 8.76000E-01 EV.

BROAD GROUP 66

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1878	8.145528E-01	6.144723E-02	1.781321E-01	1.183566E+00	1.183566E+00
1879	7.531055E-01	6.144723E-02	2.825195E-01	1.276442E+00	1.276442E+00
1880	6.830000E-01	7.010554E-02	4.126393E-01	1.393763E+00	1.393763E+00

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	1.900844E-01	0.	2.764251E-02	0.	1.038236E+01	0.
1	PU239	1.484976E-01	2.733825E-01	2.159486E-02	3.975591E-02	3.831494E+01	5.915541E+01
1	PU240	2.772005E+02	5.108643E-02	4.031113E+01	7.429105E-03	2.220725E+02	8.538461E-02

RESULTS OF NARROW GROUPS STARTING AT 6.83000E-01 EV.

BROAD GROUP 67

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT:FLUX
1881	5.320000E-01	1.510000E-01	6.827035E-01	1.654645E+00	1.654645E+00

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	3.144795E-01	0.	5.365843E-02	0.	1.043601E+01	0.
1	PU239	2.467498E-01	4.547378E-01	4.210197E-02	7.759017E-02	3.835705E+01	5.923300E+01
1	PU240	1.811372E+02	3.350476E-02	3.090674E+01	5.716788E-03	2.529792E+02	9.110140E-02

RESULTS OF NARROW GROUPS STARTING AT 5.32000E-01 EV.

BROAD GROUP 68

GROUP	LOWER LIMIT	WIDTH(EV)	FLUX1	FLUX2	ASYMPT.FLUX
1882	4.140000E-01	1.180000E-01	1.082901E+00	2.125233E+00	2.125233E+00

REGION	ELEMENT	CROSS SECTION		RESONANCE INTEGRAL		CUMULATIVE RESONANCE INTEGRAL	
		CAPTURE	FISSION	CAPTURE	FISSION	CAPTURE	FISSION
1	U238	3.961458E-01	0.	7.304242E-02	0.	1.050906E+01	0.
1	PU239	3.118561E-01	5.752085E-01	5.750085E-02	1.060585E-01	3.841455E+01	5.933906E+01
1	PU240	1.386586E+02	2.575103E-02	2.556625E+01	4.748044E-03	2.785454E+02	9.584944E-02

UNRESOLVED RESONANCE RESULTS FOR BLOCK 1 CELL 1

POINTWISE CROSS SECTIONS FOR U238

ENERGY	L-STATE	J-STATE	CAPTURE X-SECTION	FISSION X-SECTION	AJDN/AJDF
5.250000E+04	1	5.000000E-01	5.987136E-02	0.	9.867306E-01
5.250000E+04	1	1.500000E+00	1.976954E-01	0.	9.734573E-01
3.431891E+04	1	5.000000E-01	7.721235E-02	0.	9.886554E-01
3.431891E+04	1	1.500000E+00	2.415622E-01	0.	9.773068E-01
2.243405E+04	1	5.000000E-01	9.472903E-02	0.	9.904702E-01
2.243405E+04	1	1.500000E+00	2.782451E-01	0.	9.809350E-01
1.466500E+04	1	5.000000E-01	1.096179E-01	0.	9.920935E-01
1.466500E+04	1	1.500000E+00	3.001068E-01	0.	9.841853E-01
9.586415E+03	1	5.000000E-01	1.188435E-01	0.	9.934961E-01
9.586415E+03	1	1.500000E+00	3.024368E-01	0.	9.869906E-01
6.266578E+03	1	5.000000E-01	1.203648E-01	0.	9.946811E-01
6.266578E+03	1	1.500000E+00	2.857486E-01	0.	9.893605E-01
4.096422E+03	1	5.000000E-01	1.142323E-01	0.	9.956669E-01
4.096422E+03	1	1.500000E+00	2.557506E-01	0.	9.913324E-01
2.677805E+03	1	5.000000E-01	1.025965E-01	0.	9.964791E-01
2.677805E+03	1	1.500000E+00	2.199458E-01	0.	9.929572E-01
1.750464E+03	1	5.000000E-01	8.845156E-02	0.	9.971439E-01
1.750464E+03	1	1.500000E+00	1.843045E-01	0.	9.942859E-01
1.144267E+03	1	5.000000E-01	7.421259E-02	0.	9.976860E-01
1.144267E+03	1	1.500000E+00	1.519728E-01	0.	9.953704E-01
7.480000E+02	1	5.000000E-01	6.126286E-02	0.	9.981262E-01
7.480000E+02	1	1.500000E+00	1.242033E-01	0.	9.962512E-01
5.250000E+04	0	5.000000E-01	7.808911E-02	0.	9.533497E-01
4.049502E+04	0	5.000000E-01	9.883293E-02	0.	9.479163E-01
3.123517E+04	0	5.000000E-01	1.246150E-01	0.	9.421537E-01
2.409274E+04	0	5.000000E-01	1.564774E-01	0.	9.360771E-01
1.858354E+04	0	5.000000E-01	1.954439E-01	0.	9.298415E-01
1.433411E+04	0	5.000000E-01	2.426414E-01	0.	9.235218E-01
1.105638E+04	0	5.000000E-01	2.990754E-01	0.	9.173101E-01
8.528157E+03	0	5.000000E-01	3.655463E-01	0.	9.113512E-01
6.578054E+03	0	5.000000E-01	4.427181E-01	0.	9.057880E-01
5.073874E+03	0	5.000000E-01	5.304631E-01	0.	9.008307E-01
3.913650E+03	0	5.000000E-01	6.285626E-01	0.	8.965328E-01

EFFECTIVE UNRESOLVED BROAD GROUP CROSS SECTIONS FOR U238

BROAD GROUP	CAPTURE	FISSION	BROAD GROUP	CAPTURE	FISSION
1	0.	0.	35	2.762295E-01	0.
2	0.	0.	36	2.481618E-01	0.
3	0.	0.	37	2.214319E-01	0.
4	0.	0.	38	1.974665E-01	0.
5	0.	0.	39	0.	0.
6	0.	0.	40	0.	0.
7	0.	0.	41	0.	0.
8	0.	0.	42	0.	0.
9	0.	0.	43	0.	0.
10	0.	0.	44	0.	0.
11	0.	0.	45	0.	0.
12	0.	0.	46	0.	0.
13	0.	0.	47	0.	0.
14	0.	0.	48	0.	0.
15	0.	0.	49	0.	0.
16	0.	0.	50	0.	0.
17	0.	0.	51	0.	0.
18	0.	0.	52	0.	0.
19	0.	0.	53	0.	0.
20	0.	0.	54	0.	0.
21	0.	0.	55	0.	0.
22	3.636048E-01	0.	56	0.	0.
23	4.217865E-01	0.	57	0.	0.
24	4.820286E-01	0.	58	0.	0.
25	5.453181E-01	0.	59	0.	0.
26	6.084443E-01	0.	60	0.	0.
27	6.723486E-01	0.	61	0.	0.
28	7.356639E-01	0.	62	0.	0.
29	7.982179E-01	0.	63	0.	0.
30	8.641846E-01	0.	64	0.	0.
31	9.305127E-01	0.	65	0.	0.
32	9.354345E-01	0.	66	0.	0.
33	3.337669E-01	0.	67	0.	0.
34	3.051105E-01	0.	68	0.	0.

POINTWISE CROSS SECTIONS FOR PU239

ENERGY	L-STATE	J-STATE	CAPTURE X-SECTION	FISSION X-SECTION	AJDN/AJDF
1.110000E+05	0	0.	6.240022E-03	2.157929E-01	9.987347E-01
1.110000E+05	0	1.000000E+00	8.492495E-02	4.352436E-01	9.962041E-01
6.144033E+04	0	0.	9.418313E-03	3.093789E-01	9.983001E-01
6.144033E+04	0	1.000000E+00	1.545828E-01	5.314721E-01	9.949011E-01
3.400824E+04	0	0.	1.406696E-02	4.395244E-01	9.977170E-01
3.400824E+04	0	1.000000E+00	2.834963E-01	6.144766E-01	9.931541E-01
1.882412E+04	0	0.	2.078746E-02	6.191356E-01	9.969355E-01
1.882412E+04	0	1.000000E+00	4.930023E-01	7.351216E-01	9.908164E-01
1.041946E+04	0	0.	3.038681E-02	8.653134E-01	9.958901E-01
1.041946E+04	0	1.000000E+00	8.092444E-01	9.442239E-01	9.876997E-01
5.767344E+03	0	0.	4.391857E-02	1.200440E+00	9.944956E-01
5.767344E+03	0	1.000000E+00	1.276610E+00	1.270570E+00	9.835702E-01
3.192320E+03	0	0.	6.270676E-02	1.653489E+00	9.926432E-01
3.192320E+03	0	1.000000E+00	1.952595E+00	1.749816E+00	9.781576E-01
1.767002E+03	0	0.	8.832093E-02	2.261198E+00	9.901974E-01
1.767002E+03	0	1.000000E+00	2.903013E+00	2.424743E+00	9.711948E-01
9.780648E+02	0	0.	1.224441E-01	3.069037E+00	9.869953E-01
9.780648E+02	0	1.000000E+00	4.188919E+00	3.337607E+00	9.625030E-01
5.413750E+02	0	0.	1.666157E-01	4.132019E+00	9.828463E-01
5.413750E+02	0	1.000000E+00	5.852998E+00	4.493007E+00	9.521382E-01
2.996600E+02	0	0.	2.219569E-01	5.516346E+00	9.775305E-01
2.996600E+02	0	1.000000E+00	7.851082E+00	5.874576E+00	9.405710E-01

EFFECTIVE UNRESOLVED BROAD GROUP CROSS SECTIONS FOR PU239

BROAD GROUP	CAPTURE	FISSION	BROAD GROUP	CAPTURE	FISSION
1	0.	0.	35	2.972885E+00	4.661168E+00
2	0.	0.	36	3.513375E+00	5.366439E+00
3	0.	0.	37	4.075660E+00	6.099387E+00
4	0.	0.	38	4.724046E+00	6.942565E+00
5	0.	0.	39	5.445783E+00	7.879833E+00
6	0.	0.	40	6.202972E+00	8.873535E+00
7	0.	0.	41	7.062586E+00	1.002987E+01
8	0.	0.	42	8.330198E+00	1.060129E+01
9	0.	0.	43	0.	0.
10	0.	0.	44	0.	0.
11	0.	0.	45	0.	0.
12	0.	0.	46	0.	0.
13	0.	0.	47	0.	0.
14	0.	0.	48	0.	0.
15	0.	0.	49	0.	0.
16	0.	0.	50	0.	0.
17	0.	0.	51	0.	0.
18	0.	0.	52	0.	0.
19	1.065204E-01	5.910533E-01	53	0.	0.
20	1.372381E-01	7.711053E-01	54	0.	0.
21	1.730646E-01	8.531815E-01	55	0.	0.
22	2.277028E-01	9.425116E-01	56	0.	0.
23	2.855605E-01	1.034167E+00	57	0.	0.
24	3.675525E-01	1.151189E+00	58	0.	0.
25	4.588304E-01	1.277940E+00	59	0.	0.
26	5.696944E-01	1.432374E+00	60	0.	0.
27	7.073341E-01	1.624686E+00	61	0.	0.
28	8.537305E-01	1.828608E+00	62	0.	0.
29	1.049721E+00	2.098515E+00	63	0.	0.
30	1.254380E+00	2.379883E+00	64	0.	0.
31	1.516286E+00	2.733591E+00	65	0.	0.
32	1.808923E+00	3.126372E+00	66	0.	0.
33	2.141703E+00	3.569244E+00	67	0.	0.
34	2.550953E+00	4.107222E+00	68	0.	0.

POINTWISE CROSS SECTIONS FOR PU240

ENERGY	L-STATE	J-STATE	CAPTURE X-SECTION	FISSION X-SECTION	AJON/AJDF
4.090000E+04	1	5.000000E-01	8.187944E-02	3.374601E-02	9.993140E-01
4.090000E+04	1	1.500000E+00	2.326256E-01	5.872909E-02	9.986273E-01
2.673732E+04	1	5.000000E-01	9.991989E-02	3.558825E-02	9.994193E-01
2.673732E+04	1	1.500000E+00	2.725728E-01	6.086344E-02	9.988380E-01
1.747883E+04	1	5.000000E-01	1.147808E-01	3.626008E-02	9.995156E-01
1.747883E+04	1	1.500000E+00	2.995871E-01	5.981046E-02	9.990307E-01
1.142633E+04	1	5.000000E-01	1.231569E-01	3.577423E-02	9.996000E-01
1.142633E+04	1	1.500000E+00	3.069061E-01	5.699366E-02	9.991997E-01
7.469670E+03	1	5.000000E-01	1.232837E-01	3.380784E-02	9.996721E-01
7.469670E+03	1	1.500000E+00	2.940618E-01	5.204269E-02	9.993438E-01
4.883104E+03	1	5.000000E-01	1.160574E-01	3.013656E-02	9.997324E-01
4.883104E+03	1	1.500000E+00	2.665611E-01	4.513432E-02	9.994646E-01
3.192203E+03	1	5.000000E-01	1.035517E-01	2.600075E-02	9.997823E-01
3.192203E+03	1	1.500000E+00	2.312874E-01	3.819037E-02	9.995644E-01
2.085820E+03	1	5.000000E-01	8.889753E-02	2.185705E-02	9.998233E-01
2.085820E+03	1	1.500000E+00	1.949477E-01	3.169037E-02	9.996464E-01
1.364205E+03	1	5.000000E-01	7.449898E-02	1.798660E-02	9.998568E-01
1.364205E+03	1	1.500000E+00	1.615229E-01	2.586833E-02	9.997134E-01
8.918135E+02	1	5.000000E-01	6.145975E-02	1.469012E-02	9.998840E-01
8.918135E+02	1	1.500000E+00	1.323862E-01	2.103067E-02	9.997679E-01
5.830000E+02	1	5.000000E-01	5.021926E-02	1.197433E-02	9.999061E-01
5.830000E+02	1	1.500000E+00	1.078024E-01	1.710505E-02	9.998121E-01
4.090000E+04	0	5.000000E-01	1.321161E-01	8.352398E-04	9.968420E-01
2.718141E+04	0	5.000000E-01	1.915952E-01	1.211062E-03	9.961358E-01
1.805428E+04	0	5.000000E-01	2.767449E-01	1.748965E-03	9.952777E-01
1.200519E+04	0	5.000000E-01	3.979100E-01	2.514197E-03	9.942394E-01
7.978437E+03	0	5.000000E-01	5.690550E-01	3.594794E-03	9.929910E-01
5.302326E+03	0	5.000000E-01	8.084989E-01	5.106184E-03	9.915046E-01
3.523831E+03	0	5.000000E-01	1.139407E+00	7.194221E-03	9.897612E-01
2.341875E+03	0	5.000000E-01	1.589777E+00	1.003503E-02	9.877528E-01
1.556368E+03	0	5.000000E-01	2.190501E+00	1.382270E-02	9.854976E-01
1.034334E+03	0	5.000000E-01	2.970841E+00	1.874071E-02	9.830514E-01
6.874000E+02	0	5.000000E-01	3.950657E+00	2.491236E-02	9.805168E-01

EFFECTIVE UNRESOLVED BROAD GROUP CROSS SECTIONS FOR PU240

BROAD GROUP	CAPTURE	FISSION	BROAD GROUP	CAPTURE	FISSION
1	0.	0.	35	2.243142E+00	6.265810E-02
2	0.	0.	36	2.634294E+00	5.960988E-02
3	0.	0.	37	3.094472E+00	5.768613E-02
4	0.	0.	38	3.637373E+00	5.671367E-02
5	0.	0.	39	4.156636E+00	3.925551E-02
6	0.	0.	40	0.	0.
7	0.	0.	41	0.	0.
8	0.	0.	42	0.	0.
9	0.	0.	43	0.	0.
10	0.	0.	44	0.	0.
11	0.	0.	45	0.	0.
12	0.	0.	46	0.	0.
13	0.	0.	47	0.	0.
14	0.	0.	48	0.	0.
15	0.	0.	49	0.	0.
16	0.	0.	50	0.	0.
17	0.	0.	51	0.	0.
18	0.	0.	52	0.	0.
19	0.	0.	53	0.	0.
20	0.	0.	54	0.	0.
21	0.	0.	55	0.	0.
22	0.	0.	56	0.	0.
23	4.821043E-01	9.460325E-02	57	0.	0.
24	5.532727E-01	9.706352E-02	58	0.	0.
25	6.290824E-01	9.776860E-02	59	0.	0.
26	7.094223E-01	9.759333E-02	60	0.	0.
27	7.934720E-01	9.624778E-02	61	0.	0.
28	8.878382E-01	9.402820E-02	62	0.	0.
29	9.893260E-01	9.061832E-02	63	0.	0.
30	1.113627E+00	8.596573E-02	64	0.	0.
31	1.257814E+00	8.076187E-02	65	0.	0.
32	1.433058E+00	7.558129E-02	66	0.	0.
33	1.656884E+00	7.072013E-02	67	0.	0.
34	1.916223E+00	6.629399E-02	68	0.	0.

TOTAL RESONANCE CONTRIBUTION
RESOLVED + UNRESOLVED

EFFECTIVE BROAD GROUP CROSS SECTIONS FOR U238

BROAD GROUP	CAPTURE	FISSION	BROAD GROUP	CAPTURE	FISSION
1	0.	0.	35	1.014391E+00	0.
2	0.	0.	36	1.026825E+00	0.
3	0.	0.	37	1.208122E+00	0.
4	0.	0.	38	1.416300E+00	0.
5	0.	0.	39	1.213475E+00	0.
6	0.	0.	40	1.263938E+00	0.
7	0.	0.	41	1.150394E+00	0.
8	0.	0.	42	1.059957E+00	0.
9	0.	0.	43	1.222573E+00	0.
10	0.	0.	44	1.426115E+00	0.
11	0.	0.	45	9.329318E-01	0.
12	0.	0.	46	2.768733E+00	0.
13	0.	0.	47	1.699029E+00	0.
14	0.	0.	48	2.354761E+00	0.
15	0.	0.	49	8.572444E-02	0.
16	0.	0.	50	1.222712E+00	0.
17	0.	0.	51	4.169627E+00	0.
18	0.	0.	52	5.541570E-01	0.
19	0.	0.	53	6.851435E+00	0.
20	0.	0.	54	2.450036E-01	0.
21	0.	0.	55	1.645564E-01	0.
22	3.636048E-01	0.	56	6.636443E-01	0.
23	4.217865E-01	0.	57	1.077333E+01	0.
24	4.820285E-01	0.	58	5.271247E+00	0.
25	5.453181E-01	0.	59	9.621327E-01	0.
26	6.084443E-01	0.	60	5.769189E-01	0.
27	6.723486E-01	0.	61	4.552097E-01	0.
28	7.356639E-01	0.	62	4.023304E-01	0.
29	7.982179E-01	0.	63	3.511288E-01	0.
30	8.641846E-01	0.	64	1.787139E-01	0.
31	9.305127E-01	0.	65	2.771825E-02	0.
32	9.354345E-01	0.	66	1.900844E-01	0.
33	1.048378E+00	0.	67	3.144795E-01	0.
34	1.068078E+00	0.	68	3.961458E-01	0.

EFFECTIVE BROAD GROUP CROSS SECTIONS FOR PU239

BROAD GROUP	CAPTURE	FISSION
1	0.	0.
2	0.	0.
3	0.	0.
4	0.	0.
5	0.	0.
6	0.	0.
7	0.	0.
8	0.	0.
9	0.	0.
10	0.	0.
11	0.	0.
12	0.	0.
13	0.	0.
14	0.	0.
15	0.	0.
16	0.	0.
17	0.	0.
18	0.	0.
19	1.065204E-01	6.910533E-01
20	1.372381E-01	7.711053E-01
21	1.730646E-01	8.531815E-01
22	2.277028E-01	9.425116E-01
23	2.855605E-01	1.034167E+00
24	3.675525E-01	1.151189E+00
25	4.588304E-01	1.277940E+00
26	5.696944E-01	1.432374E+00
27	7.073341E-01	1.624686E+00
28	8.537305E-01	1.828508E+00
29	1.049721E+00	2.098515E+00
30	1.254380E+00	2.379883E+00
31	1.516286E+00	2.733591E+00
32	1.808923E+00	3.126372E+00
33	2.141703E+00	3.569244E+00
34	2.550953E+00	4.107222E+00

BROAD GROUP	CAPTURE	FISSION
35	2.972885E+00	4.661168E+00
36	3.513375E+00	5.365439E+00
37	4.075660E+00	6.099387E+00
38	4.724046E+00	6.942565E+00
39	5.445783E+00	7.879833E+00
40	6.202972E+00	8.873535E+00
41	7.062586E+00	1.002987E+01
42	8.330198E+00	1.060129E+01
43	7.833076E+00	9.864013E+00
44	4.786904E+00	1.277999E+01
45	9.982148E+00	1.472837E+01
46	8.659899E+00	1.256167E+01
47	1.633511E+00	1.835911E+01
48	9.972672E+00	2.140116E+01
49	2.221236E+01	3.720369E+01
50	2.032612E+01	8.198504E+00
51	2.459526E+00	2.635767E+00
52	1.590959E+01	1.437994E+01
53	1.197540E+01	2.204432E+01
54	2.691155E+01	4.815105E+01
55	2.740701E+01	4.521790E+01
56	4.535955E+00	1.443669E+01
57	2.757369E+01	2.871582E+01
58	5.739137E-01	8.794426E-01
59	4.322927E-01	7.323766E-01
60	3.490548E-01	6.159882E-01
61	3.116102E-01	5.603273E-01
62	2.924349E-01	5.310342E-01
63	2.637254E-01	4.816759E-01
64	1.365779E-01	2.502711E-01
65	2.153542E-02	3.359727E-02
66	1.484976E-01	2.733825E-01
67	2.467498E-01	4.547378E-01
68	3.118561E-01	5.752085E-01

EFFECTIVE BROAD GROUP CROSS SECTIONS FOR PU240

BROAD GROUP	CAPTURE	FISSION
1	0.	0.
2	0.	0.
3	0.	0.
4	0.	0.
5	0.	0.
6	0.	0.
7	0.	0.
8	0.	0.
9	0.	0.
10	0.	0.
11	0.	0.
12	0.	0.
13	0.	0.
14	0.	0.
15	0.	0.
16	0.	0.
17	0.	0.
18	0.	0.
19	0.	0.
20	0.	0.
21	0.	0.
22	0.	0.
23	4.821043E-01	9.460325E-02
24	5.532727E-01	9.706352E-02
25	6.290824E-01	9.776860E-02
26	7.094223E-01	9.759333E-02
27	7.934720E-01	9.624778E-02
28	8.878382E-01	9.402820E-02
29	9.893260E-01	9.061832E-02
30	1.113627E+00	8.596573E-02
31	1.257814E+00	8.076187E-02
32	1.433058E+00	7.558129E-02
33	1.656884E+00	7.072013E-02
34	1.916223E+00	6.629399E-02

BROAD GROUP	CAPTURE	FISSION
35	2.243142E+00	6.265810E-02
36	2.634294E+00	5.960988E-02
37	3.094472E+00	5.768613E-02
38	3.637373E+00	5.671367E-02
39	4.156636E+00	3.925551E-02
40	4.357981E+00	0.
41	5.104255E+00	0.
42	8.547633E+00	0.
43	4.408855E+00	0.
44	1.053447E+01	0.
45	1.547841E+01	0.
46	1.580303E+01	0.
47	1.329091E+01	4.933674E-06
48	2.242063E+01	1.890429E-05
49	1.916413E-01	9.066373E-05
50	5.705551E+01	1.172612E-01
51	3.907798E-01	1.035505E-03
52	1.863374E-01	7.739279E-04
53	1.946955E+01	1.682763E-01
54	1.307659E-01	5.644531E-04
55	1.236158E-01	2.444708E-04
56	2.367196E-01	2.178631E-04
57	2.122445E-01	1.254765E-04
58	7.178051E-01	2.506363E-04
59	1.863463E+00	4.984918E-04
60	4.330311E+00	9.646359E-04
61	1.057692E+01	2.123346E-03
62	2.857419E+01	5.441062E-03
63	9.680538E+01	1.798180E-02
64	3.776078E+02	6.953015E-02
65	4.966853E+02	9.134262E-02
66	2.772005E+02	5.108643E-02
67	1.811372E+02	3.350476E-02
68	1.386586E+02	2.575103E-02

-CROSS SECTION AVERAGING CALCULATION-

BLOCK 1

BLOCK 1	COMPOSITION
NUCLIDE	NO. DENSITY
B10	5.000000E-06
O16	1.849381E-02
NA23	8.454116E-03
SS304	1.429758E-02
U238	7.737672E-03
PU239	9.952517E-04
PU240	3.862069E-04
PU241	7.427376E-05
PU242	0.
FP25R	0.
FP39R	0.
FP25S	0.
FP39S	0.
FP25U	0.
FP39U	0.

FUNDAMENTAL MODE SPECTRUM

GROUP	FLUX	CURRENT	GROUP	FLUX	CURRENT
1	1.554347E-01	1.833932E-02	35	1.242160E+00	3.270492E-02
2	3.376449E-01	4.180105E-02	36	1.080831E+00	3.076157E-02
3	7.073651E-01	8.146633E-02	37	7.776763E-01	2.069408E-02
4	1.060601E+00	1.143248E-01	38	5.873485E-01	1.689634E-02
5	1.730614E+00	1.370042E-01	39	4.307012E-01	1.217015E-02
6	2.642713E+00	2.679040E-01	40	2.724746E-01	7.112738E-03
7	2.471535E+00	1.692560E-01	41	1.817762E-01	4.465913E-03
8	2.931174E+00	2.012359E-01	42	9.879966E-02	1.741075E-03
9	3.101638E+00	1.818338E-01	43	8.364992E-02	2.167912E-03
10	3.759905E+00	2.112271E-01	44	5.390149E-02	1.366751E-03
11	6.461615E+00	3.682449E-01	45	3.233858E-02	8.083130E-04
12	7.486066E+00	4.568836E-01	46	1.776157E-02	4.010290E-04
13	4.716315E+00	1.897138E-01	47	1.050200E-02	2.677712E-04
14	7.362942E+00	3.386481E-01	48	5.238434E-03	1.082839E-04
15	8.502824E+00	3.984878E-01	49	2.669479E-03	6.543354E-05
16	8.063605E+00	3.341408E-01	50	1.320818E-03	3.002550E-05
17	8.079007E+00	3.331867E-01	51	7.796041E-04	2.052976E-05
18	8.816873E+00	3.825631E-01	52	4.436065E-04	1.136772E-05
19	7.566219E+00	3.026142E-01	53	1.694224E-04	3.516436E-06
20	7.164797E+00	2.609729E-01	54	6.493515E-05	1.381305E-06
21	6.070669E+00	2.258756E-01	55	2.723267E-05	6.212156E-07
22	6.403550E+00	2.382210E-01	56	1.550821E-05	4.043974E-07
23	5.488558E+00	1.748112E-01	57	4.311733E-06	7.382244E-08
24	3.441781E+00	6.289260E-02	58	1.941581E-06	4.801132E-08
25	4.968573E+00	1.868654E-01	59	1.032615E-06	2.672021E-08
26	3.802376E+00	1.087931E-01	60	6.943275E-07	1.963739E-08
27	3.291744E+00	9.661959E-02	61	4.518731E-07	1.248106E-08
28	2.753613E+00	7.847898E-02	62	2.630984E-07	6.941120E-09
29	1.878507E+00	3.776036E-02	63	1.230806E-07	2.876710E-09
30	1.556902E+00	3.128340E-02	64	3.133954E-08	4.487106E-10
31	1.265874E+00	2.655251E-02	65	6.181305E-09	3.672421E-11
32	5.280017E-01	6.751394E-03	66	2.508224E-09	5.092667E-11
33	1.465731E-01	5.332452E-04	67	5.016505E-10	7.149488E-12
34	8.736430E-01	1.203092E-02	68	5.538255E-11	5.001002E-13

BROAD GROUP AVERAGE CROSS SECTIONS

BROAD GROUP	FLUX	CURRENT	SOURCE
1	3.991659E+00	3.929347E-01	2.546246E-01
2	1.114706E+01	8.202297E-01	4.288912E-01
3	2.242390E+01	1.226069E+00	2.244223E-01
4	3.200838E+01	1.404463E+00	6.945221E-02
5	4.151067E+01	1.585058E+00	2.027634E-02
6	2.295937E+01	6.292459E-01	2.333006E-03
7	5.236234E+00	1.203725E-01	0.
8	8.849520E-01	2.374880E-02	0.
9	2.363511E-01	5.275738E-03	0.
10	6.060215E-02	1.477113E-03	0.
11	9.228732E-03	2.037429E-04	0.
12	1.392633E-03	3.541391E-05	0.
13	1.076760E-04	2.406918E-06	0.
14	7.285929E-06	1.485540E-07	0.
15	1.409299E-06	3.905957E-08	0.
16	1.606014E-07	3.362145E-09	0.
17	3.065257E-09	5.857625E-11	0.

-MICROSCOPIC CROSS SECTIONS FOR B10 -

BROAD GROUP	CAPTURE	FISSION	TRANSPORT	(N,2N)	NEUTRON FISSION	REMOVAL CORRECTION
1	2.659278E-02	0.	1.478948E+00	0.	0.	0.
2	4.977643E-02	0.	1.884771E+00	0.	0.	0.
3	9.305464E-02	0.	2.280546E+00	0.	0.	0.
4	2.088708E-01	0.	3.294041E+00	0.	0.	0.
5	4.915815E-01	0.	4.176927E+00	0.	0.	0.
6	1.049089E+00	0.	5.105598E+00	0.	0.	0.
7	3.040267E+00	0.	6.016872E+00	0.	0.	0.
8	5.149933E+00	0.	6.784392E+00	0.	0.	0.
9	7.687179E+00	0.	8.971411E+00	0.	0.	0.
10	1.077831E+01	0.	1.402121E+01	0.	0.	0.
11	1.570776E+01	0.	1.954090E+01	0.	0.	0.
12	2.254153E+01	0.	2.617269E+01	0.	0.	0.
13	3.284946E+01	0.	3.681569E+01	0.	0.	0.
14	4.747815E+01	0.	5.196209E+01	0.	0.	0.
15	6.886938E+01	0.	7.246578E+01	0.	0.	0.
16	9.430725E+01	0.	9.658202E+01	0.	0.	0.
17	1.389959E+02	0.	1.415385E+02	0.	0.	0.

-MICROSCOPIC CROSS SECTIONS FOR 016 -

BROAD GROUP	CAPTURE	FISSION	TRANSPORT	(N,2N)	NEUTRON FISSION	REMOVAL CORRECTION
1	3.167182E-02	0.	1.316033E+00	0.	0.	0.
2	0.	0.	1.957793E+00	0.	0.	0.
3	0.	0.	3.670191E+00	0.	0.	0.
4	0.	0.	3.942768E+00	0.	0.	0.
5	0.	0.	3.462708E+00	0.	0.	0.
6	0.	0.	3.641121E+00	0.	0.	0.
7	0.	0.	3.641182E+00	0.	0.	0.
8	0.	0.	3.641166E+00	0.	0.	0.
9	0.	0.	3.641145E+00	0.	0.	0.
10	0.	0.	3.641130E+00	0.	0.	0.
11	0.	0.	3.641162E+00	0.	0.	0.
12	0.	0.	3.641147E+00	0.	0.	0.
13	0.	0.	3.641194E+00	0.	0.	0.
14	0.	0.	3.641144E+00	0.	0.	0.
15	0.	0.	3.641132E+00	0.	0.	0.
16	0.	0.	3.641209E+00	0.	0.	0.
17	0.	0.	3.641137E+00	0.	0.	0.

-MICROSCOPIC CROSS SECTIONS FOR NA23 -

BROAD GROUP	CAPTURE	FISSION	TRANSPORT	(N,2N)	NEUTRON FISSION	REMOVAL CORRECTION
1	1.064238E-02	0.	1.671080E+00	0.	0.	0.
2	2.007109E-04	0.	2.284937E+00	0.	0.	0.
3	2.956434E-04	0.	3.805752E+00	0.	0.	0.
4	6.626965E-04	0.	3.666012E+00	0.	0.	0.
5	9.749343E-04	0.	3.846014E+00	0.	0.	0.
6	1.265371E-03	0.	5.214212E+00	0.	0.	0.
7	2.272713E-02	0.	1.199494E+01	0.	0.	0.
8	5.708011E-03	0.	3.084976E+00	0.	0.	0.
9	6.493999E-03	0.	3.013230E+00	0.	0.	0.
10	8.349005E-03	0.	3.024689E+00	0.	0.	0.
11	1.146815E-02	0.	3.040377E+00	0.	0.	0.
12	1.628724E-02	0.	3.046600E+00	0.	0.	0.
13	2.348991E-02	0.	2.890296E+00	0.	0.	0.
14	3.436252E-02	0.	3.075250E+00	0.	0.	0.
15	5.339636E-02	0.	3.095395E+00	0.	0.	0.
16	1.000103E-01	0.	3.134974E+00	0.	0.	0.
17	2.110993E-01	0.	3.251595E+00	0.	0.	0.

-MICROSCOPIC CROSS SECTIONS FOR SS304 -

BROAD GROUP	CAPTURE	FISSION	TRANSPORT	(N,2N)	NEUTRON FISSION	REMOVAL CORRECTION
1	5.744129E-02	0.	2.130976E+00	0.	0.	0.
2	9.053268E-03	0.	2.380589E+00	0.	0.	0.
3	5.926285E-03	0.	2.400286E+00	0.	0.	0.
4	7.374225E-03	0.	3.341147E+00	0.	0.	0.
5	1.488481E-02	0.	4.622184E+00	0.	0.	0.
6	2.956274E-02	0.	9.165340E+00	0.	0.	0.
7	4.790295E-02	0.	9.265814E+00	0.	0.	0.
8	3.055206E-02	0.	1.019556E+01	0.	0.	0.
9	2.317638E-01	0.	1.445185E+01	0.	0.	0.
10	6.121612E-02	0.	1.023692E+01	0.	0.	0.
11	6.506456E-02	0.	1.020089E+01	0.	0.	0.
12	9.383706E-02	0.	1.023143E+01	0.	0.	0.
13	1.363446E-01	0.	1.026982E+01	0.	0.	0.
14	1.983972E-01	0.	1.033169E+01	0.	0.	0.
15	2.940549E-01	0.	1.042325E+01	0.	0.	0.
16	4.048516E-01	0.	1.052851E+01	0.	0.	0.
17	5.834332E-01	0.	1.070879E+01	0.	0.	0.

-MICROSCOPIC CROSS SECTIONS FOR U238 -

BROAD GROUP	CAPTURE	FISSION	TRANSPORT	(N,2N)	NEUTRON FISSION	REMOVAL CORRECTION
1	1.658774E-02	6.055542E-01	4.026512E+00	7.662375E-02	3.089565E+00	-7.662375E-02
2	8.387588E-02	3.440817E-01	5.530327E+00	0.	2.681430E+00	0.
3	1.403877E-01	0.	6.056217E+00	0.	0.	0.
4	1.449311E-01	0.	8.642096E+00	0.	0.	0.
5	2.762835E-01	0.	1.141906E+01	0.	0.	0.
6	6.508792E-01	0.	1.371383E+01	0.	0.	0.
7	1.092759E+00	0.	1.409222E+01	0.	0.	0.
8	1.216055E+00	0.	1.158721E+01	0.	0.	0.
9	1.201015E+00	0.	1.159215E+01	0.	0.	0.
10	1.603738E+00	0.	1.194075E+01	0.	0.	0.
11	1.536406E+00	0.	1.182974E+01	0.	0.	0.
12	3.344221E+00	0.	1.364584E+01	0.	0.	0.
13	2.849529E-01	0.	1.066504E+01	0.	0.	0.
14	7.916603E+00	0.	1.689877E+01	0.	0.	0.
15	5.053010E-01	0.	9.481805E+00	0.	0.	0.
16	3.050364E-01	0.	9.299345E+00	0.	0.	0.
17	2.141656E-01	0.	9.181780E+00	0.	0.	0.

-MICROSCOPIC CROSS SECTIONS FOR PU239 -

BROAD GROUP	CAPTURE	FISSION	TRANSPORT	(N,2N)	NEUTRON FISSION	REMOVAL CORRECTION
1	0.	1.970572E+00	4.189548E+00	1.059291E-02	3.472752E+00	-1.059291E-02
2	1.177616E-02	1.911940E+00	5.250317E+00	0.	3.114362E+00	0.
3	9.131376E-02	1.614520E+00	6.274937E+00	0.	2.958778E+00	0.
4	1.789939E-01	1.489413E+00	8.909889E+00	0.	2.902984E+00	0.
5	2.782678E-01	1.554655E+00	1.115414E+01	0.	2.880766E+00	0.
6	8.908790E-01	1.999915E+00	1.464305E+01	0.	2.872082E+00	0.
7	2.886991E+00	4.450945E+00	2.182473E+01	0.	2.870205E+00	0.
8	5.586639E+00	8.020245E+00	2.783583E+01	0.	2.870100E+00	0.
9	7.367803E+00	1.276109E+01	3.528457E+01	0.	2.870000E+00	0.
10	8.147847E+00	1.472426E+01	3.849333E+01	0.	2.870000E+00	0.
11	1.499488E+01	2.408260E+01	5.528762E+01	0.	2.870000E+00	0.
12	7.901548E+00	8.738460E+00	2.739042E+01	0.	2.870000E+00	0.
13	2.382110E+01	4.265957E+01	8.224629E+01	0.	2.870000E+00	0.
14	1.680116E+01	2.118693E+01	4.352375E+01	0.	2.870000E+00	0.
15	1.454314E+00	7.922632E+00	1.995801E+01	0.	2.870000E+00	0.
16	4.746510E+00	1.112282E+01	2.654976E+01	0.	2.870000E+00	0.
17	3.016834E+01	2.818273E+01	6.132250E+01	0.	2.870000E+00	0.

-MICROSCOPIC CROSS SECTIONS FOR PU240 -

BROAD GROUP	CAPTURE	FISSION	TRANSPORT	(N,2N)	NEUTRON FISSION	REMOVAL CORRECTION
1	1.899134E-02	1.641018E+00	4.361375E+00	2.637712E-02	3.430261E+00	-2.637712E-02
2	9.239129E-02	1.576641E+00	5.321729E+00	0.	3.107618E+00	0.
3	1.592085E-01	7.526893E-01	6.528947E+00	0.	2.967165E+00	0.
4	1.900410E-01	1.191441E-01	8.996217E+00	0.	2.905146E+00	0.
5	3.410896E-01	8.739959E-02	1.125895E+01	0.	2.880353E+00	0.
6	7.826235E-01	9.464416E-02	1.432348E+01	0.	2.872251E+00	0.
7	2.454069E+00	6.275912E-02	2.071590E+01	0.	2.870237E+00	0.
8	6.332686E+00	6.657082E-02	3.297056E+01	0.	2.870100E+00	0.
9	1.030175E+01	5.286539E-02	4.666444E+01	0.	2.870000E+00	0.
10	1.921431E+01	5.857536E-02	7.943469E+01	0.	2.870000E+00	0.
11	2.666484E+01	9.935720E-02	1.282656E+02	0.	2.870000E+00	0.
12	1.103291E+01	2.129806E-02	1.975057E+01	0.	2.870000E+00	0.
13	1.225918E+01	4.336072E-04	2.177367E+01	0.	2.870000E+00	0.
14	1.825173E+01	2.116960E-04	2.921652E+01	0.	2.870000E+00	0.
15	3.712796E+01	2.171853E-03	5.118586E+01	0.	2.870000E+00	0.
16	2.031185E+02	3.086442E-02	2.637095E+02	0.	2.870000E+00	0.
17	3.103925E+02	4.775131E-02	3.471578E+02	0.	2.870000E+00	0.

-MICROSCOPIC CROSS SECTIONS FOR PU241 -

BROAD GROUP	CAPTURE	FISSION	TRANSPORT	(N,2N)	NEUTRON FISSION	REMOVAL CORRECTION
1	5.842869E-03	1.661189E+00	4.192094E+00	9.007282E-02	3.615512E+00	-9.007282E-02
2	2.334236E-02	1.740757E+00	5.420867E+00	0.	3.223301E+00	0.
3	9.883062E-02	1.538382E+00	6.485406E+00	0.	3.061761E+00	0.
4	2.068675E-01	1.811181E+00	9.136334E+00	0.	3.003320E+00	0.
5	3.821340E-01	2.408461E+00	9.876248E+00	0.	2.979596E+00	0.
6	8.294273E-01	3.645205E+00	1.364561E+01	0.	2.971180E+00	0.
7	2.240202E+00	9.100719E+00	2.496234E+01	0.	2.969000E+00	0.
8	4.976633E+00	1.743722E+01	3.506606E+01	0.	2.969000E+00	0.
9	7.776501E+00	2.902725E+01	5.076432E+01	0.	2.969000E+00	0.
10	1.093096E+01	3.868400E+01	6.307971E+01	0.	2.969000E+00	0.
11	5.439823E+00	5.022165E+01	6.782596E+01	0.	2.969000E+00	0.
12	1.417017E+01	7.677554E+01	1.024800E+02	0.	2.969000E+00	0.
13	5.443194E+01	2.076627E+02	2.758895E+02	0.	2.969000E+00	0.
14	3.238254E+01	2.669755E+02	3.203771E+02	0.	2.969000E+00	0.
15	3.617554E+00	3.344345E+01	4.881011E+01	0.	2.969000E+00	0.
16	2.169622E+00	1.721236E+01	3.188151E+01	0.	2.969000E+00	0.
17	9.908407E+00	2.374158E+01	4.533592E+01	0.	2.969000E+00	0.

-MICROSCOPIC CROSS SECTIONS FOR PU242 -

BROAD GROUP	CAPTURE	FISSION	TRANSPORT	(N,2N)	NEUTRON FISSION	REMOVAL CORRECTION
1	1.197259E-02	1.764335E+00	1.787875E+00	0.	3.647074E+00	0.
2	4.178775E-02	1.434392E+00	1.480701E+00	0.	3.062013E+00	0.
3	1.029167E-01	5.642736E-01	6.853303E-01	0.	2.914828E+00	0.
4	1.252805E-01	5.590323E-02	1.818488E-01	0.	2.846409E+00	0.
5	2.396313E-01	3.383968E-02	2.662550E-01	0.	2.818599E+00	0.
6	5.787134E-01	3.664974E-02	6.052984E-01	0.	2.810801E+00	0.
7	2.312310E+00	0.	2.487289E+00	0.	0.	0.
8	5.142597E+00	0.	5.118775E+00	0.	0.	0.
9	7.372199E+00	0.	6.816444E+00	0.	0.	0.
10	1.168933E+01	0.	1.153446E+01	0.	0.	0.
11	3.249170E+01	0.	3.517312E+01	0.	0.	0.
12	1.264179E+00	0.	1.079626E+00	0.	0.	0.
13	2.878672E+00	0.	2.746500E+00	0.	0.	0.
14	4.983983E+00	0.	6.217736E+00	0.	0.	0.
15	1.322160E+03	0.	1.317365E+03	0.	0.	0.
16	1.521374E+01	0.	1.585743E+01	0.	0.	0.
17	7.218073E+00	0.	7.236411E+00	0.	0.	0.

-MICROSCOPIC CROSS SECTIONS FOR FP25R -

BROAD GROUP	CAPTURE	FISSION	TRANSPORT	(N,2N)	NEUTRON FISSION	REMOVAL CORRECTION
1	2.053533E-01	0.	1.987319E-01	0.	0.	0.
2	3.709392E-01	0.	3.594958E-01	0.	0.	0.
3	5.296572E-01	0.	5.277377E-01	0.	0.	0.
4	6.725191E-01	0.	6.690541E-01	0.	0.	0.
5	1.311969E+00	0.	1.280130E+00	0.	0.	0.
6	4.338327E+00	0.	4.165516E+00	0.	0.	0.
7	1.884900E+01	0.	2.003525E+01	0.	0.	0.
8	3.655394E+01	0.	3.630692E+01	0.	0.	0.
9	6.262396E+01	0.	6.418068E+01	0.	0.	0.
10	9.246196E+01	0.	9.243795E+01	0.	0.	0.
11	1.353241E+02	0.	1.361059E+02	0.	0.	0.
12	2.114463E+02	0.	2.102240E+02	0.	0.	0.
13	3.015571E+02	0.	3.033636E+02	0.	0.	0.
14	5.343744E+02	0.	5.515985E+02	0.	0.	0.
15	9.009643E+01	0.	8.821570E+01	0.	0.	0.
16	4.379539E+02	0.	3.435337E+02	0.	0.	0.
17	1.312160E+02	0.	1.316992E+02	0.	0.	0.

-MICROSCOPIC CROSS SECTIONS FOR FP39R -

BROAD GROUP	CAPTURE	FISSION	TRANSPORT	(N,2N)	NEUTRON FISSION	REMOVAL CORRECTION
1	1.937464E-01	0.	1.874111E-01	0.	0.	0.
2	3.467294E-01	0.	3.365063E-01	0.	0.	0.
3	5.055806E-01	0.	5.033414E-01	0.	0.	0.
4	6.580020E-01	0.	6.545791E-01	0.	0.	0.
5	1.316137E+00	0.	1.283901E+00	0.	0.	0.
6	4.282935E+00	0.	4.118909E+00	0.	0.	0.
7	1.724617E+01	0.	1.829208E+01	0.	0.	0.
8	3.348653E+01	0.	3.325693E+01	0.	0.	0.
9	5.422937E+01	0.	5.519886E+01	0.	0.	0.
10	8.249469E+01	0.	8.241873E+01	0.	0.	0.
11	1.251859E+02	0.	1.258642E+02	0.	0.	0.
12	2.016419E+02	0.	2.005092E+02	0.	0.	0.
13	2.671965E+02	0.	2.680091E+02	0.	0.	0.
14	4.911240E+02	0.	4.973811E+02	0.	0.	0.
15	1.820793E+02	0.	1.795984E+02	0.	0.	0.
16	3.708669E+02	0.	2.929076E+02	0.	0.	0.
17	1.373833E+02	0.	1.360232E+02	0.	0.	0.

-MICROSCOPIC CROSS SECTIONS FOR FP25S -

BROAD GROUP	CAPTURE	FISSION	TRANSPORT	(N,2N)	NEUTRON FISSION	REMOVAL CORRECTION
1	2.584337E-02	0.	2.483939E-02	0.	0.	0.
2	5.865672E-02	0.	5.597945E-02	0.	0.	0.
3	1.294646E-01	0.	1.275939E-01	0.	0.	0.
4	2.209822E-01	0.	2.198579E-01	0.	0.	0.
5	3.141261E-01	0.	3.103309E-01	0.	0.	0.
6	8.139283E-01	0.	7.821256E-01	0.	0.	0.
7	3.229351E+00	0.	3.422931E+00	0.	0.	0.
8	6.479122E+00	0.	6.434571E+00	0.	0.	0.
9	1.169578E+01	0.	1.199740E+01	0.	0.	0.
10	1.914003E+01	0.	1.912176E+01	0.	0.	0.
11	3.008679E+01	0.	3.065257E+01	0.	0.	0.
12	7.412351E+00	0.	6.623800E+00	0.	0.	0.
13	1.347507E+02	0.	1.283117E+02	0.	0.	0.
14	2.820970E+02	0.	3.108528E+02	0.	0.	0.
15	9.462647E+00	0.	9.401140E+00	0.	0.	0.
16	6.762258E+01	0.	5.494969E+01	0.	0.	0.
17	2.788121E+01	0.	2.801178E+01	0.	0.	0.

-MICROSCOPIC CROSS SECTIONS FOR FP39S -

BROAD GROUP	CAPTURE	FISSION	TRANSPORT	(N,2N)	NEUTRON FISSION	REMOVAL CORRECTION
1	2.716427E-02	0.	2.609965E-02	0.	0.	0.
2	6.124036E-02	0.	5.845826E-02	0.	0.	0.
3	1.352748E-01	0.	1.333230E-01	0.	0.	0.
4	2.315270E-01	0.	2.303182E-01	0.	0.	0.
5	3.316379E-01	0.	3.274321E-01	0.	0.	0.
6	8.579294E-01	0.	8.232280E-01	0.	0.	0.
7	3.403185E+00	0.	3.605283E+00	0.	0.	0.
8	6.692940E+00	0.	6.646942E+00	0.	0.	0.
9	1.205404E+01	0.	1.237253E+01	0.	0.	0.
10	1.966626E+01	0.	1.966220E+01	0.	0.	0.
11	2.942670E+01	0.	2.992477E+01	0.	0.	0.
12	7.895163E+00	0.	7.176485E+00	0.	0.	0.
13	1.388426E+02	0.	1.322476E+02	0.	0.	0.
14	3.310621E+02	0.	3.478745E+02	0.	0.	0.
15	1.609875E+01	0.	1.602314E+01	0.	0.	0.
16	1.131367E+02	0.	9.078498E+01	0.	0.	0.
17	3.788171E+01	0.	3.821341E+01	0.	0.	0.

-MICROSCOPIC CROSS SECTIONS FOR FP25U -

BROAD GROUP	CAPTURE	FISSION	TRANSPORT	(N,2N)	NEUTRON FISSION	REMOVAL CORRECTION
1	7.909104E-03	0.	7.645992E-03	0.	0.	0.
2	1.405777E-02	0.	1.365490E-02	0.	0.	0.
3	2.135402E-02	0.	2.115251E-02	0.	0.	0.
4	3.700618E-02	0.	3.667053E-02	0.	0.	0.
5	8.006615E-02	0.	7.832301E-02	0.	0.	0.
6	1.992443E-01	0.	1.938161E-01	0.	0.	0.
7	5.943161E-01	0.	6.219140E-01	0.	0.	0.
8	1.749722E+00	0.	1.695663E+00	0.	0.	0.
9	2.044493E+00	0.	2.067624E+00	0.	0.	0.
10	1.937789E+00	0.	1.972140E+00	0.	0.	0.
11	4.407404E+00	0.	4.260501E+00	0.	0.	0.
12	2.138808E+00	0.	2.186606E+00	0.	0.	0.
13	2.712386E+00	0.	2.595452E+00	0.	0.	0.
14	4.156892E-01	0.	4.758044E-01	0.	0.	0.
15	2.335550E-01	0.	2.329450E-01	0.	0.	0.
16	6.038431E-01	0.	6.103189E-01	0.	0.	0.
17	5.606126E-01	0.	5.540537E-01	0.	0.	0.

-MICROSCOPIC CROSS SECTIONS FOR FP39U-

BROAD GROUP	CAPTURE	FISSION	TRANSPORT	(N,2N)	NEUTRON FISSION	REMOVAL CORRECTION
1	1.269659E-02	0.	1.226284E-02	0.	0.	0.
2	2.276449E-02	0.	2.211354E-02	0.	0.	0.
3	3.459259E-02	0.	3.427128E-02	0.	0.	0.
4	5.903403E-02	0.	5.851697E-02	0.	0.	0.
5	1.228783E-01	0.	1.203251E-01	0.	0.	0.
6	2.960611E-01	0.	2.881192E-01	0.	0.	0.
7	8.419010E-01	0.	8.801830E-01	0.	0.	0.
8	2.254835E+00	0.	2.192475E+00	0.	0.	0.
9	2.818529E+00	0.	2.837465E+00	0.	0.	0.
10	2.910705E+00	0.	2.954058E+00	0.	0.	0.
11	6.027276E+00	0.	5.859637E+00	0.	0.	0.
12	6.213804E+00	0.	6.409515E+00	0.	0.	0.
13	3.912050E+00	0.	3.777896E+00	0.	0.	0.
14	1.417205E+01	0.	1.711101E+01	0.	0.	0.
15	3.868643E-01	0.	3.863709E-01	0.	0.	0.
16	1.452342E+00	0.	1.551347E+00	0.	0.	0.
17	7.681786E-01	0.	7.611521E-01	0.	0.	0.

TRANSFER MATRIX FOR B10

J	J+1	J+2	J+3	J+4	J+5
1	4.881891E-01	0.	0.	0.	0.
2	4.028064E-01	0.	0.	0.	0.
3	5.586340E-01	0.	0.	0.	0.
4	5.781481E-01	0.	0.	0.	0.
5	4.029336E-01	0.	0.	0.	0.
6	1.609889E-01	0.	0.	0.	0.
7	1.771052E-01	0.	0.	0.	0.
8	2.143910E-01	0.	0.	0.	0.
9	3.109320E-01	0.	0.	0.	0.
10	5.167814E-01	0.	0.	0.	0.
11	4.381112E-01	0.	0.	0.	0.
12	3.921205E-01	0.	0.	0.	0.
13	4.306119E-01	0.	0.	0.	
14	4.292172E-01	0.	0.		
15	5.583852E-01	0.			
16	1.495252E-01				

TRANSFER MATRIX FOR 016

J	J+1	J+2	J+3	J+4	J+5
1	3.508774E-01	1.888700E-03	9.933083E-06	5.295823E-08	0.
2	5.147329E-01	0.	0.	0.	0.
3	7.943365E-01	0.	0.	0.	0.
4	4.526344E-01	0.	0.	0.	0.
5	2.393953E-01	0.	0.	0.	0.
6	1.007977E-01	0.	0.	0.	0.
7	2.039849E-01	0.	0.	0.	0.
8	3.762033E-01	0.	0.	0.	0.
9	4.113234E-01	0.	0.	0.	0.
10	3.198168E-01	0.	0.	0.	0.
11	2.607367E-01	0.	0.	0.	0.
12	2.216946E-01	0.	0.	0.	0.
13	2.628229E-01	0.	0.	0.	
14	2.596050E-01	0.	0.		
15	3.451217E-01	0.			
16	7.010522E-02				

TRANSFER MATRIX FOR NA23

J	J+1	J+2	J+3	J+4	J+5
1	5.567758E-01	1.586590E-01	3.615508E-02	2.840894E-03	1.400044E-04
2	3.831367E-01	7.012721E-03	6.256157E-04	0.	0.
3	3.449843E-01	1.399437E-02	3.620342E-04	0.	0.
4	3.423088E-01	0.	0.	0.	0.
5	1.802032E-01	0.	0.	0.	0.
6	3.083558E-01	0.	0.	0.	0.
7	1.279075E-01	0.	0.	0.	0.
8	2.149184E-01	0.	0.	0.	0.
9	2.392773E-01	0.	0.	0.	0.
10	1.822708E-01	0.	0.	0.	0.
11	1.507914E-01	0.	0.	0.	0.
12	1.287244E-01	0.	0.	0.	0.
13	1.524954E-01	0.	0.	0.	
14	1.501317E-01	0.	0.		
15	1.977580E-01	0.			
16	4.077084E-02				

TRANSFER MATRIX FOR SS304

J	J+1	J+2	J+3	J+4	J+5
1	7.850880E-01	3.180529E-01	8.409977E-02	1.447221E-02	6.793648E-04
2	3.800807E-01	1.049305E-01	1.322081E-02	4.135060E-04	7.895671E-07
3	1.224321E-01	9.747814E-03	5.465166E-04	1.882748E-07	4.630222E-09
4	1.645780E-01	0.	0.	0.	0.
5	1.267108E-01	0.	0.	0.	0.
6	9.058085E-02	0.	0.	0.	0.
7	1.439097E-01	0.	0.	0.	0.
8	3.701349E-01	0.	0.	0.	0.
9	3.373372E-01	0.	0.	0.	0.
10	2.513025E-01	0.	0.	0.	0.
11	2.075457E-01	0.	0.	0.	0.
12	1.762785E-01	0.	0.	0.	0.
13	2.086931E-01	0.	0.	0.	
14	2.053614E-01	0.	0.		
15	2.705082E-01	0.			
16	5.576942E-02				

TRANSFER MATRIX FOR U238

J	J+1	J+2	J+3	J+4	J+5
1	7.101451E-01	1.213530E+00	5.285969E-01	1.381443E-01	9.335533E-03
2	1.480592E+00	7.951010E-01	1.516906E-01	7.711607E-03	1.468595E-04
3	3.412326E-01	5.609101E-02	4.557000E-03	9.570914E-05	2.174996E-06
4	3.746026E-01	3.986331E-03	6.539874E-05	1.436538E-06	0.
5	9.922565E-02	1.118955E-03	2.643618E-05	5.880328E-06	1.310137E-06
6	2.605368E-02	0.	0.	0.	0.
7	3.910135E-02	0.	0.	0.	0.
8	7.160316E-02	0.	0.	0.	0.
9	7.949606E-02	0.	0.	0.	0.
10	6.042075E-02	0.	0.	0.	0.
11	4.989026E-02	0.	0.	0.	0.
12	4.240690E-02	0.	0.	0.	0.
13	5.020767E-02	0.	0.	0.	
14	4.276338E-02	0.	0.		
15	5.631800E-02	0.			
16	1.161043E-02				

TRANSFER MATRIX FOR PU239

J	J+1	J+2	J+3	J+4	J+5
1	3.979840E-01	6.277448E-01	2.484555E-01	5.703366E-02	3.529817E-03
2	6.104867E-01	2.558217E-01	5.327068E-02	3.152683E-03	4.618745E-05
3	1.703837E-01	1.512915E-02	3.975106E-04	1.560196E-05	1.907828E-07
4	1.281138E-01	1.489611E-03	3.321492E-05	2.957464E-07	0.
5	7.847242E-02	9.375040E-05	2.123208E-06	1.870192E-07	0.
6	3.913463E-02	4.575394E-04	1.002936E-04	2.218562E-05	4.929456E-06
7	5.242828E-02	0.	0.	0.	0.
8	1.008081E-01	0.	0.	0.	0.
9	1.164869E-01	0.	0.	0.	0.
10	9.198975E-02	0.	0.	0.	0.
11	6.784469E-02	0.	0.	0.	0.
12	6.131104E-02	0.	0.	0.	0.
13	4.356373E-02	0.	0.	0.	
14	4.920913E-02	0.	0.		
15	6.855536E-02	0.			
16	1.541925E-02				

TRANSFER MATRIX FOR PU240

J	J+1	J+2	J+3	J+4	J+5
1	4.824615E-01	8.175847E-01	3.395258E-01	8.088184E-02	5.278753E-03
2	8.427496E-01	3.134452E-01	6.041247E-02	2.640274E-03	6.867103E-05
3	2.483227E-01	1.384858E-02	9.285385E-04	1.652996E-05	0.
4	3.232677E-01	2.829452E-03	4.743376E-05	3.869614E-07	0.
5	6.678312E-02	1.833310E-05	1.230381E-06	0.	0.
6	2.716632E-02	0.	0.	0.	0.
7	8.363622E-02	0.	0.	0.	0.
8	2.071745E-01	0.	0.	0.	0.
9	3.052997E-01	0.	0.	0.	0.
10	1.563963E-01	0.	0.	0.	0.
11	3.264714E-01	0.	0.	0.	0.
12	6.425999E-02	0.	0.	0.	0.
13	4.744668E-02	0.	0.	0.	
14	5.380252E-02	0.	0.		
15	1.192130E-01	0.			
16	3.031930E+00				

TRANSFER MATRIX FOR PU241

J	J+1	J+2	J+3	J+4	J+5
1	2.654302E-01	7.953919E-01	4.894765E-01	1.686896E-01	1.487017E-02
2	5.724917E-01	5.586062E-01	2.086961E-01	1.617636E-02	3.242556E-04
3	4.859321E-01	5.210740E-01	7.183831E-02	1.688595E-03	4.226820E-05
4	6.429811E-01	7.126498E-02	2.046944E-03	5.653068E-05	1.711139E-05
5	1.262893E-01	3.874181E-03	9.151248E-05	2.018384E-05	4.457659E-06
6	1.864348E-02	0.	0.	0.	0.
7	4.827686E-02	0.	0.	0.	0.
8	8.840554E-02	0.	0.	0.	0.
9	9.815340E-02	0.	0.	0.	0.
10	7.458408E-02	0.	0.	0.	0.
11	5.003481E-02	0.	0.	0.	0.
12	6.178429E-02	0.	0.	0.	0.
13	7.943931E-02	0.	0.	0.	
14	6.447175E-02	0.	0.		
15	7.626929E-02	0.			
16	1.675634E-02				

*
* RÉAL FLUX CALCULATION *
*

*
* EIGENVALUE 0 1.01342E+00 *
*

>>EDIT REACTOR ZONEMAT RATES BALANCE

<<

*** DATA CARD NO. 52 ***

 * SEARCH *

TYPE OF SEARCH = COMPOSITION
 NUMBER OF SEARCH MATERIALS = 3
 EIGENVALUE DESIRED = 1.00000E+00
 CONVERGENCE CRITERION = 1.00000E-05
 SEARCH MATERIAL IDS = 11,12,13,

FUEL/DILUENT RATIOS (R)
 ZONE MATERIAL 11, R= 0.
 ZONE MATERIAL 12, R= 0.
 ZONE MATERIAL 13, R= 0.

* * * * *

*** COMPOSITION SEARCH COMPLETE ON ITERATION NO. 9, EIGENVALUE = 9.999934E-01 ***

CONCENTRATIONS

ZONE	ZONE MATERIAL	NUCLIDE	CONCENTRATION
1	11	B10	2.24623E-04
2	12	B10	2.24623E-04
3	13	B10	2.24623E-04

* * * MACROSCOPIC CROSS-SECTIONS * * *

*** NU-FISSION CROSS-SECTION ***

		GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
ZONE	1	2.22063E-02	1.40220E-02	5.11223E-03	4.14762E-03	4.35892E-03	5.67705E-03
ZONE	2	2.40026E-02	1.53433E-02	5.83696E-03	4.73561E-03	4.97691E-03	6.48195E-03
ZONE	3	2.54557E-02	1.66894E-02	6.88498E-03	5.58598E-03	5.87062E-03	7.64595E-03
ZONE	4	2.65978E-02	1.33595E-02	0.	0.	0.	0.
ZONE	5	0.	0.	0.	0.	0.	0.
		GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11	GROUP 12
ZONE	1	1.26724E-02	2.29860E-02	3.67640E-02	4.33980E-02	6.85192E-02	3.59078E-02
ZONE	2	1.44692E-02	2.62451E-02	4.19768E-02	4.95518E-02	7.82344E-02	4.10032E-02
ZONE	3	1.70676E-02	3.09583E-02	4.95151E-02	5.84507E-02	9.22838E-02	4.83687E-02
ZONE	4	0.	0.	0.	0.	0.	0.
ZONE	5	0.	0.	0.	0.	0.	0.
		GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	
ZONE	1	1.43627E-01	1.02279E-01	2.57085E-02	3.05220E-02	7.35032E-02	
ZONE	2	1.64000E-01	1.16796E-01	2.93548E-02	3.48264E-02	8.39226E-02	
ZONE	3	1.93456E-01	1.37778E-01	3.46269E-02	4.10304E-02	9.89923E-02	
ZONE	4	0.	0.	0.	0.	0.	
ZONE	5	0.	0.	0.	0.	0.	

*** ABSORPTION CROSS-SECTION ***

		GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
ZONE	1	9.09889E-03	5.67560E-03	3.02686E-03	2.90354E-03	4.29541E-03	8.61430E-03
ZONE	2	9.72846E-03	6.15508E-03	3.34187E-03	3.19116E-03	4.66429E-03	9.28389E-03
ZONE	3	1.01506E-02	6.58212E-03	3.70869E-03	3.51515E-03	5.02178E-03	9.83972E-03
ZONE	4	1.15996E-02	6.24659E-03	2.05386E-03	2.14270E-03	4.15708E-03	9.48764E-03
ZONE	5	2.51957E-03	3.31072E-04	2.59010E-04	3.22441E-04	6.37866E-04	1.19936E-03
		GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11	GROUP 12
ZONE	1	1.76177E-02	2.59628E-02	3.70225E-02	4.44974E-02	5.18605E-02	5.54029E-02
ZONE	2	1.91115E-02	2.85430E-02	4.07895E-02	4.91941E-02	6.88982E-02	5.99491E-02
ZONE	3	2.05960E-02	3.15188E-02	4.53867E-02	5.49786E-02	7.81097E-02	6.44402E-02
ZONE	4	1.41748E-02	1.37021E-02	1.53980E-02	2.03660E-02	1.64161E-02	4.18929E-02
ZONE	5	2.50685E-03	1.46283E-03	5.99631E-03	2.68313E-03	3.06710E-03	4.42892E-03
		GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	
	ZONE 1	8.90662E-02	1.30994E-01	4.65101E-02	1.12024E-01	1.97501E-01	
	ZONE 2	1.00190E-01	1.41968E-01	4.99911E-02	1.23859E-01	2.19618E-01	
	ZONE 3	1.16047E-01	1.52913E-01	5.46019E-02	1.40666E-01	2.51313E-01	
	ZONE 4	7.87947E-03	8.10339E-02	1.05906E-02	1.16442E-02	1.56293E-02	
	ZONE 5	6.43977E-03	9.33575E-03	1.35575E-02	2.01423E-02	2.94888E-02	

*** DIFFUSION COEFFICIENTS ***

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
ZONE 1	3.20483E+00	2.43157E+00	1.78581E+00	1.47262E+00	1.27596E+00	9.21174E-01
ZONE 2	3.10357E+00	2.35441E+00	1.73288E+00	1.42323E+00	1.23283E+00	8.92012E-01
ZONE 3	3.07497E+00	2.33435E+00	1.71783E+00	1.40948E+00	1.22148E+00	8.83786E-01
ZONE 4	2.66059E+00	1.98281E+00	1.43092E+00	1.14735E+00	9.99517E-01	7.60686E-01
ZONE 5	3.00177E+00	2.63180E+00	2.28472E+00	1.84895E+00	1.43491E+00	9.35935E-01
	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11	GROUP 12
ZONE 1	7.64630E-01	9.25146E-01	7.72460E-01	8.52773E-01	7.90447E-01	8.77439E-01
ZONE 2	7.49450E-01	8.86745E-01	7.39537E-01	8.12241E-01	7.48210E-01	8.41348E-01
ZONE 3	7.42608E-01	8.68146E-01	7.21917E-01	7.86541E-01	7.16491E-01	8.25212E-01
ZONE 4	6.85941E-01	8.35169E-01	7.60327E-01	8.27688E-01	8.36994E-01	7.91028E-01
ZONE 5	7.15622E-01	5.95000E-01	6.12476E-01	7.04812E-01	7.05734E-01	7.03689E-01
	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	
ZONE 1	7.98602E-01	7.53030E-01	9.19242E-01	7.51850E-01	6.48201E-01	
ZONE 2	7.55742E-01	7.17659E-01	8.82748E-01	7.10850E-01	6.08261E-01	
ZONE 3	7.22812E-01	6.97085E-01	8.63663E-01	6.76648E-01	5.71124E-01	
ZONE 4	8.55732E-01	7.48907E-01	8.93426E-01	8.90913E-01	8.81537E-01	
ZONE 5	7.02658E-01	6.96763E-01	6.90649E-01	6.81366E-01	6.68600E-01	

*** TOTAL REMOVAL CROSS-SECTION ***

		GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
ZONE	1	6.13004E-02	4.65502E-02	2.67706E-02	2.04718E-02	1.36789E-02	1.52907E-02
ZONE	2	6.33774E-02	4.85298E-02	2.79051E-02	2.12270E-02	1.42614E-02	1.59019E-02
ZONE	3	6.39940E-02	4.90860E-02	2.84744E-02	2.16506E-02	1.46760E-02	1.64455E-02
ZONE	4	9.85646E-02	6.34928E-02	3.30861E-02	2.53420E-02	1.62359E-02	1.69050E-02
ZONE	5	8.44301E-02	3.07260E-02	1.41806E-02	1.10255E-02	8.30490E-03	1.09755E-02
		GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11	GROUP 12
ZONE	1	2.52828E-02	4.10544E-02	5.25246E-02	5.65513E-02	7.18734E-02	6.39886E-02
ZONE	2	2.69880E-02	4.40803E-02	5.67572E-02	6.15939E-02	7.91955E-02	6.87667E-02
ZONE	3	2.85351E-02	4.71880E-02	6.14981E-02	6.74767E-02	8.84922E-02	7.33235E-02
ZONE	4	2.42731E-02	3.64733E-02	3.94204E-02	4.03481E-02	3.89018E-02	5.65911E-02
ZONE	5	1.62618E-02	2.65436E-02	3.58563E-02	2.67274E-02	2.68429E-02	2.77500E-02
		GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	
ZONE	1	9.90420E-02	1.40766E-01	5.94074E-02	1.16031E-01	1.97918E-01	
ZONE	2	1.10436E-01	1.52009E-01	6.32562E-02	1.28071E-01	2.20010E-01	
ZONE	3	1.26355E-01	1.63025E-01	6.79706E-02	1.45073E-01	2.51681E-01	
ZONE	4	3.12523E-02	9.89944E-02	3.38065E-02	3.41342E-02	1.61965E-02	
ZONE	5	2.91057E-02	3.11022E-02	3.40870E-02	3.88617E-02	2.99191E-02	

*** DOWNSCATTER MATRIX ***

ZONE 1
DOWNSCATTER

GROUP J	J+ 1	J+ 2	J+ 3	J+ 4	J+ 5
1	2.81407E-02	1.59142E-02	5.84472E-03	1.35672E-03	8.69306E-05
2	2.99468E-02	7.88904E-03	1.41427E-03	6.85920E-05	1.20260E-06
3	2.18078E-02	7.35481E-04	5.04954E-05	8.51463E-07	1.93383E-08
4	1.65831E-02	3.68383E-05	6.68022E-07	1.48229E-08	1.08858E-09
5	8.55337E-03	8.78095E-06	2.07641E-07	4.58419E-08	1.01755E-08
6	6.08312E-03	3.90163E-07	8.55246E-08	1.89186E-08	4.20356E-09
7	7.17312E-03	0.	0.	0.	0.
8	1.44962E-02	0.	0.	0.	0.
9	1.50050E-02	0.	0.	0.	0.
10	1.15052E-02	0.	0.	0.	0.
11	9.50427E-03	0.	0.	0.	0.
12	8.02109E-03	0.	0.	0.	0.
13	9.46199E-03	0.	0.	0.	0.
14	9.28684E-03	0.	0.	0.	0.
15	1.23058E-02	0.	0.	0.	0.
16	3.52254E-03	0.	0.	0.	0.

ZONE 2
DOWNSCATTER

GROUP J	J+ 1	J+ 2	J+ 3	J+ 4	J+ 5
1	2.88152E-02	1.64957E-02	6.09229E-03	1.42150E-03	9.11939E-05
2	3.10448E-02	8.25788E-03	1.48360E-03	7.21077E-05	1.26577E-06
3	2.26371E-02	7.57297E-04	5.28250E-05	9.02770E-07	2.05022E-08
4	1.70801E-02	3.91822E-05	7.15524E-07	1.58878E-08	1.24334E-09
5	8.79432E-03	9.21739E-06	2.17979E-07	4.80925E-08	1.06716E-08
6	6.04341E-03	4.45460E-07	9.76457E-08	2.15999E-08	4.79931E-09
7	7.39422E-03	0.	0.	0.	0.
8	1.49666E-02	0.	0.	0.	0.
9	1.54918E-02	0.	0.	0.	0.
10	1.18772E-02	0.	0.	0.	0.
11	9.81587E-03	0.	0.	0.	0.
12	8.27621E-03	0.	0.	0.	0.
13	9.75955E-03	0.	0.	0.	0.
14	9.57931E-03	0.	0.	0.	0.
15	1.26971E-02	0.	0.	0.	0.
16	3.74338E-03	0.	0.	0.	0.

ZONE 3
DOWNSCATTER

GROUP J	J+ 1	J+ 2	J+ 3	J+ 4	J+ 5
1	2.89440E-02	1.65496E-02	6.11128E-03	1.42535E-03	9.14045E-05
2	3.11876E-02	8.25590E-03	1.48470E-03	7.22601E-05	1.26688E-06
3	2.28457E-02	7.60289E-04	5.34016E-05	9.18299E-07	2.08519E-08
4	1.71875E-02	4.01323E-05	7.44176E-07	1.65480E-08	1.46681E-09
5	8.85871E-03	9.16409E-06	2.16757E-07	4.77501E-08	1.05875E-08
6	6.03644E-03	5.25444E-07	1.15178E-07	2.54783E-08	5.66105E-09
7	7.46125E-03	0.	0.	0.	0.
8	1.51106E-02	0.	0.	0.	0.
9	1.56468E-02	0.	0.	0.	0.
10	1.19920E-02	0.	0.	0.	0.
11	9.92145E-03	0.	0.	0.	0.
12	8.35229E-03	0.	0.	0.	0.
13	9.84278E-03	0.	0.	0.	0.
14	9.66362E-03	0.	0.	0.	0.
15	1.28129E-02	0.	0.	0.	0.
16	3.97107E-03	0.	0.	0.	0.

ZONE 4
DOWNSCATTER

GROUP J	J+ 1	J+ 2	J+ 3	J+ 4	J+ 5
1	3.90416E-02	3.12865E-02	1.33192E-02	3.60053E-03	2.68118E-04
2	4.11152E-02	1.24165E-02	2.32007E-03	1.16406E-04	2.13562E-06
3	2.90793E-02	9.58796E-04	7.20068E-05	1.34969E-06	3.08474E-08
4	2.24021E-02	5.78409E-05	9.50308E-07	2.10081E-08	0.
5	1.14189E-02	1.63089E-05	3.85310E-07	8.57063E-08	1.90954E-08
6	6.92784E-03	0.	0.	0.	0.
7	9.65691E-03	0.	0.	0.	0.
8	2.22337E-02	0.	0.	0.	0.
9	2.35332E-02	0.	0.	0.	0.
10	1.94495E-02	0.	0.	0.	0.
11	2.19470E-02	0.	0.	0.	0.
12	1.41892E-02	0.	0.	0.	0.
13	2.28221E-02	0.	0.	0.	0.
14	1.74786E-02	0.	0.	0.	0.
15	2.26410E-02	0.	0.	0.	0.
16	2.19167E-02	0.	0.	0.	0.

ZONE 5
DOWNSCATTER

GROUP J	J+ 1	J+ 2	J+ 3	J+ 4	J+ 5
1	4.71845E-02	2.37476E-02	7.66735E-03	1.30304E-03	7.63558E-05
2	2.28162E-02	5.30364E-03	5.64404E-04	1.70275E-05	3.55110E-08
3	1.18548E-02	5.67090E-04	2.95117E-05	8.29811E-09	2.04075E-10
4	9.51327E-03	0.	0.	0.	0.
5	6.74367E-03	0.	0.	0.	0.
6	9.17392E-03	0.	0.	0.	0.
7	1.32945E-02	0.	0.	0.	0.
8	2.46335E-02	0.	0.	0.	0.
9	2.94658E-02	0.	0.	0.	0.
10	2.35907E-02	0.	0.	0.	0.
11	2.33216E-02	0.	0.	0.	0.
12	2.28682E-02	0.	0.	0.	0.
13	2.22137E-02	0.	0.	0.	0.
14	2.13181E-02	0.	0.	0.	0.
15	2.00851E-02	0.	0.	0.	0.
16	1.82809E-02	0.	0.	0.	0.

* * * REAL FLUXES * * *

PRESENT EIGENVALUE 0 9.99993E-01
EIGENVALUE FOR N-1 ITERATION 0 1.00001E+00
NUMBER OF INNER FLUX ITERATIONS 0 2
INNER CONVERGENCE CRITERION 0 1.00000E-04
NORMALIZED TO POWER OF 0 2.34220E+03 MW

POINT	RADIUS	POWER DENSITY	GROUP 1	GROUP 2	NORMALIZED FLUXES GROUP 3	GROUP 4	GROUP 5	GROUP 6
1	0.0000	3.69192E+02	1.33726E+14	3.77439E+14	7.72108E+14	1.11636E+15	1.49681E+15	8.50514E+14
2	4.5213	3.69218E+02	1.33735E+14	3.77454E+14	7.72161E+14	1.11644E+15	1.49692E+15	8.50575E+14
3	9.0426	3.69296E+02	1.33763E+14	3.77542E+14	7.72320E+14	1.11667E+15	1.49724E+15	8.50858E+14
4	13.5639	3.69425E+02	1.33808E+14	3.77670E+14	7.72586E+14	1.11706E+15	1.49777E+15	8.51164E+14
5	18.0852	3.69607E+02	1.33872E+14	3.77850E+14	7.72958E+14	1.11761E+15	1.49852E+15	8.51592E+14
6	22.6065	3.69841E+02	1.33954E+14	3.78083E+14	7.73439E+14	1.11832E+15	1.49949E+15	8.52144E+14
7	27.1278	3.70129E+02	1.34055E+14	3.78368E+14	7.74029E+14	1.11919E+15	1.50059E+15	8.52820E+14
8	31.6491	3.70470E+02	1.34174E+14	3.78705E+14	7.74731E+14	1.12024E+15	1.50211E+15	8.53520E+14
9	36.1704	3.70865E+02	1.34312E+14	3.79037E+14	7.75549E+14	1.12146E+15	1.50377E+15	8.54540E+14
10	40.6917	3.71314E+02	1.34470E+14	3.79543E+14	7.76487E+14	1.12286E+15	1.50566E+15	8.55576E+14
11	45.2130	3.71816E+02	1.34647E+14	3.80046E+14	7.77554E+14	1.12447E+15	1.50779E+15	8.56715E+14
12	49.7343	3.72368E+02	1.34844E+14	3.80607E+14	7.78760E+14	1.12631E+15	1.51017E+15	8.57935E+14
13	54.2556	3.72968E+02	1.35063E+14	3.81233E+14	7.80127E+14	1.12839E+15	1.51276E+15	8.59199E+14
14	58.7769	3.73607E+02	1.35308E+14	3.81935E+14	7.81683E+14	1.13076E+15	1.51555E+15	8.60445E+14
15	63.2982	3.74272E+02	1.35587E+14	3.82732E+14	7.83475E+14	1.13346E+15	1.51845E+15	8.61571E+14
16	67.8195	3.74941E+02	1.35916E+14	3.83665E+14	7.85576E+14	1.13654E+15	1.52133E+15	8.62423E+14
17	72.3408	3.75581E+02	1.36327E+14	3.84809E+14	7.88086E+14	1.14005E+15	1.52397E+15	8.62761E+14
18	76.8621	3.76133E+02	1.36887E+14	3.86301E+14	7.91147E+14	1.14399E+15	1.52596E+15	8.62234E+14
19	81.3834	3.76510E+02	1.37723E+14	3.88391E+14	7.94929E+14	1.14829E+15	1.52655E+15	8.60340E+14
20	85.9047	3.76564E+02	1.39082E+14	3.91525E+14	7.99592E+14	1.15270E+15	1.52505E+15	8.56380E+14
21	90.4260	3.76061E+02	1.41434E+14	3.96487E+14	8.05169E+14	1.15661E+15	1.51963E+15	8.49422E+14
* * * * * INTERFACE * * * * *								
21	90.4260	4.22837E+02	1.41434E+14	3.96487E+14	8.05169E+14	1.15661E+15	1.51963E+15	8.49422E+14
22	93.6116	4.21596E+02	1.43048E+14	3.99673E+14	8.07952E+14	1.15744E+15	1.51263E+15	8.42542E+14
23	96.7972	4.19402E+02	1.43556E+14	4.00432E+14	8.07761E+14	1.15506E+15	1.50300E+15	8.34544E+14
24	99.9828	4.16140E+02	1.43248E+14	3.99267E+14	8.04712E+14	1.14926E+15	1.49007E+15	8.24985E+14
25	103.1684	4.11744E+02	1.42314E+14	3.96544E+14	7.99002E+14	1.13998E+15	1.47330E+15	8.13490E+14
26	106.3540	4.06179E+02	1.40894E+14	3.92552E+14	7.90856E+14	1.12724E+15	1.45228E+15	7.99732E+14
27	109.5396	3.99427E+02	1.39107E+14	3.87559E+14	7.80505E+14	1.11105E+15	1.42666E+15	7.83413E+14
28	112.7252	3.91479E+02	1.37080E+14	3.81845E+14	7.68160E+14	1.09138E+15	1.39606E+15	7.64245E+14
29	115.9108	3.82327E+02	1.34968E+14	3.75754E+14	7.53990E+14	1.06809E+15	1.35008E+15	7.41933E+14
30	119.0964	3.71958E+02	1.32991E+14	3.69736E+14	7.38069E+14	1.04088E+15	1.31819E+15	7.16164E+14
31	122.2820	3.60348E+02	1.31474E+14	3.64416E+14	7.20293E+14	1.00917E+15	1.26981E+15	6.86596E+14
* * * * * INTERFACE * * * * *								
31	122.2820	4.12848E+02	1.31474E+14	3.64416E+14	7.20293E+14	1.00917E+15	1.26981E+15	6.86596E+14
32	125.3897	3.97568E+02	1.29122E+14	3.56854E+14	6.98535E+14	9.72442E+14	1.21640E+15	6.54957E+14
33	128.4974	3.79790E+02	1.24757E+14	3.44315E+14	6.70383E+14	9.29334E+14	1.13791E+15	6.21329E+14
34	131.6051	3.59602E+02	1.18788E+14	3.27639E+14	6.36037E+14	8.79522E+14	1.09412E+15	5.87346E+14
35	134.7128	3.37174E+02	1.11468E+14	3.07392E+14	5.95844E+14	8.23473E+14	1.02523E+15	5.51289E+14
36	137.8205	3.12741E+02	1.02935E+14	2.83921E+14	5.50211E+14	7.51360E+14	9.51809E+14	5.14081E+14
37	140.9282	2.86604E+02	9.32291E+13	2.57390E+14	4.99565E+14	6.94021E+14	8.74844E+14	4.76279E+14

POINT	RADIUS	POWER DENSITY	GROUP 1	GROUP 2	NORMALIZED FLUXES				GROUP 5	GROUP 6
					GROUP 3	GROUP 4				
38	144.0359	2.59142E+02	8.22760E+13	2.27715E+14	4.44367E+14	6.22479E+14	7.95573E+14	4.38576E+14		
39	147.1436	2.30851E+02	6.98544E+13	1.94610E+14	3.85152E+14	5.48103E+14	7.16020E+14	4.02305E+14		
40	150.2513	2.02433E+02	5.55210E+13	1.57383E+14	3.22644E+14	4.72733E+14	6.37990E+14	3.68453E+14		
41	153.3590	1.75006E+02	3.84814E+13	1.14809E+14	2.57954E+14	3.98859E+14	5.64063E+14	3.38686E+14		
			* * * * *		INTERFACE	* * * * *				
41	153.3590	3.73867E+01	3.84814E+13	1.14809E+14	2.57954E+14	3.98859E+14	5.64063E+14	3.38686E+14		
42	156.4319	2.54818E+01	2.24751E+13	7.26443E+13	1.88452E+14	3.14975E+14	4.77480E+14	3.03339E+14		
43	159.5048	1.76701E+01	1.31635E+13	4.57439E+13	1.34636E+14	2.42437E+14	3.94773E+14	2.64079E+14		
44	162.5777	1.24580E+01	7.73083E+12	2.86895E+13	9.45687E+13	1.82847E+14	3.19972E+14	2.24604E+14		
45	165.6506	8.91928E+00	4.55222E+12	1.79337E+13	6.55508E+13	1.35654E+14	2.55113E+14	1.87331E+14		
46	168.7235	6.47653E+00	2.68719E+12	1.11806E+13	4.49659E+13	9.93029E+13	2.00357E+14	1.53573E+14		
47	171.7364	4.76743E+00	1.58977E+12	6.95781E+12	3.06018E+13	7.19189E+13	1.55538E+14	1.24294E+14		
48	174.8693	3.56314E+00	9.41992E+11	4.32859E+12	2.07200E+13	5.16744E+13	1.19567E+14	9.93394E+13		
49	177.9422	2.71935E+00	5.57969E+11	2.70135E+12	1.40164E+13	3.69628E+13	9.12340E+13	7.86162E+13		
50	181.0151	2.14782E+00	3.28448E+11	1.70589E+12	9.54596E+12	2.64574E+13	6.92916E+13	6.17368E+13		
51	184.0380	1.80210E+00	1.88497E+11	1.11431E+12	6.64508E+12	1.91086E+13	5.25652E+13	4.82169E+13		
			* * * * *		INTERFACE	* * * * *				
51	184.0380	2.91670E-01	1.88497E+11	1.11431E+12	6.64508E+12	1.91086E+13	5.25652E+13	4.82169E+13		
52	187.0880	2.80144E-01	1.13651E+11	8.24158E+11	5.35191E+12	1.57027E+13	4.34733E+13	3.95358E+13		
53	190.0380	2.61937E-01	6.85357E+10	6.06339E+11	4.29186E+12	1.28554E+13	3.58203E+13	3.23339E+13		
54	193.0380	2.38685E-01	4.13405E+10	4.44169E+11	3.42586E+12	1.04733E+13	2.93596E+13	2.63245E+13		
55	196.0880	2.11893E-01	2.49489E+10	3.24191E+11	2.71964E+12	8.47664E+12	2.38819E+13	2.12744E+13		
56	199.0380	1.82807E-01	1.50738E+10	2.35845E+11	2.14369E+12	6.79680E+12	1.92090E+13	1.69916E+13		
57	202.0880	1.52390E-01	9.13363E+09	1.71001E+11	1.67276E+12	5.37474E+12	1.51880E+13	1.33156E+13		
58	205.0880	1.21332E-01	5.57607E+09	1.23486E+11	1.28542E+12	4.15943E+12	1.15857E+13	1.01107E+13		
59	208.0880	9.00987E-02	3.47147E+09	8.86490E+10	9.63454E+11	3.10637E+12	8.58924E+12	7.25898E+12		
60	211.0880	5.89685E-02	2.26947E+09	6.30022E+10	6.91295E+11	2.17630E+12	5.79251E+12	4.65540E+12		
61	214.0380	2.80853E-02	1.65487E+09	4.39268E+10	4.55488E+11	1.33402E+12	3.20322E+12	2.20324E+12		

POINT	RADIUS	POWER DENSITY	GROUP 7	GROUP 8	NORMALIZED FLUXES				GROUP 11	GROUP 12
					GROUP 9	GROUP 10				
1	0.0000	3.69192E+02	2.05341E+14	3.59054E+13	9.91424E+12	2.63169E+12	4.21385E+11	6.26004E+10		
2	4.5213	3.69218E+02	2.05355E+14	3.59080E+13	9.91495E+12	2.63188E+12	4.21415E+11	6.26048E+10		
3	9.0426	3.69296E+02	2.05400E+14	3.59157E+13	9.91707E+12	2.63244E+12	4.21504E+11	6.26180E+10		
4	13.5639	3.69425E+02	2.05473E+14	3.59285E+13	9.92061E+12	2.63338E+12	4.21653E+11	6.26400E+10		
5	18.0852	3.69607E+02	2.05577E+14	3.59465E+13	9.92555E+12	2.63468E+12	4.21860E+11	6.26704E+10		
6	22.6065	3.69841E+02	2.05709E+14	3.59695E+13	9.93186E+12	2.63634E+12	4.22123E+11	6.27088E+10		
7	27.1278	3.70129E+02	2.05871E+14	3.59975E+13	9.93950E+12	2.63833E+12	4.22439E+11	6.27547E+10		
8	31.6491	3.70470E+02	2.06061E+14	3.60301E+13	9.94837E+12	2.64064E+12	4.22800E+11	6.28067E+10		
9	36.1704	3.70865E+02	2.06278E+14	3.60670E+13	9.95831E+12	2.64319E+12	4.23196E+11	6.28528E+10		
10	40.6917	3.71314E+02	2.06519E+14	3.61073E+13	9.96901E+12	2.64589E+12	4.23608E+11	6.29194E+10		
11	45.2130	3.71816E+02	2.06778E+14	3.61496E+13	9.98001E+12	2.64857E+12	4.24005E+11	6.29710E+10		
12	49.7343	3.72368E+02	2.07047E+14	3.61916E+13	9.99047E+12	2.65096E+12	4.24335E+11	6.30080E+10		
13	54.2556	3.72968E+02	2.07309E+14	3.62293E+13	9.99904E+12	2.65260E+12	4.24513E+11	6.30150E+10		
14	58.7769	3.73607E+02	2.07540E+14	3.62563E+13	1.00035E+13	2.65276E+12	4.24398E+11	6.29568E+10		
15	63.2982	3.74272E+02	2.07697E+14	3.62619E+13	1.00001E+13	2.65021E+12	4.23764E+11	6.28227E+10		
16	67.8195	3.74941E+02	2.07712E+14	3.62286E+13	9.98289E+12	2.64296E+12	4.22240E+11	6.25169E+10		
17	72.3408	3.75581E+02	2.07470E+14	3.61270E+13	9.94183E+12	2.62777E+12	4.19222E+11	6.19443E+10		

POINT	RADIUS	POWER DENSITY	GROUP 7	GROUP 8	NORMALIZED FLUXES				GROUP 11	GROUP 12
					GROUP 9	GROUP 10				
18	76.8621	3.76133E+02	2.06774E+14	3.59089E+13	9.86070E+12	2.59944E+12		4.13735E+11	6.09394E+10	
19	81.3834	3.76510E+02	2.05271E+14	3.54956E+13	9.71330E+12	2.54967E+12		4.04188E+11	5.92492E+10	
20	85.9047	3.76564E+02	2.02314E+14	3.47633E+13	9.45778E+12	2.46545E+12		3.87916E+11	5.65116E+10	
21	90.4260	3.76061E+02	1.96651E+14	3.35354E+13	9.02677E+12	2.32665E+12		3.60177E+11	5.23080E+10	
				* * * * *	INTERFACE	* * * * *				
21	90.4260	4.22837E+02	1.96651E+14	3.35364E+13	9.02677E+12	2.32665E+12		3.60177E+11	5.23080E+10	
22	93.6116	4.21596E+02	1.91879E+14	3.25381E+13	8.67953E+12	2.21652E+12		3.38234E+11	4.90948E+10	
23	96.7972	4.19402E+02	1.88206E+14	3.17391E+13	8.41789E+12	2.13499E+12		3.23113E+11	4.66536E+10	
24	99.9828	4.16140E+02	1.84917E+14	3.10414E+13	8.19973E+12	2.06914E+12		3.11517E+11	4.47256E+10	
25	103.1684	4.11744E+02	1.81585E+14	3.03687E+13	7.99726E+12	2.01007E+12		3.01502E+11	4.30696E+10	
26	106.3540	4.06179E+02	1.77937E+14	2.96630E+13	7.79057E+12	1.95137E+12		2.91788E+11	4.14907E+10	
27	109.5396	3.99427E+02	1.73779E+14	2.88782E+13	7.56385E+12	1.88787E+12		2.81395E+11	3.98279E+10	
28	112.7252	3.91479E+02	1.68943E+14	2.79726E+13	7.30235E+12	1.81476E+12		2.69414E+11	3.79358E+10	
29	115.9108	3.82327E+02	1.63254E+14	2.69022E+13	6.98944E+12	1.72669E+12		2.54803E+11	3.56704E+10	
30	119.0964	3.71958E+02	1.56485E+14	2.56132E+13	6.60280E+12	1.61591E+12		2.36140E+11	3.28933E+10	
31	122.2820	3.60348E+02	1.48306E+14	2.40342E+13	6.10827E+12	1.47640E+12		2.11190E+11	2.95234E+10	
				* * * * *	INTERFACE	* * * * *				
31	122.2820	4.12848E+02	1.48306E+14	2.40342E+13	6.10827E+12	1.47640E+12		2.11190E+11	2.95234E+10	
32	125.3897	3.97568E+02	1.39896E+14	2.24405E+13	5.62123E+12	1.34029E+12		1.87545E+11	2.64130E+10	
33	128.4974	3.79790E+02	1.32017E+14	2.10450E+13	5.23162E+12	1.23728E+12		1.71399E+11	2.42572E+10	
34	131.6051	3.59602E+02	1.24334E+14	1.97647E+13	4.89896E+12	1.15616E+12		1.59986E+11	2.30558E+10	
35	134.7128	3.37174E+02	1.16711E+14	1.85626E+13	4.60710E+12	1.09313E+12		1.52696E+11	2.30767E+10	
36	137.8205	3.12741E+02	1.09153E+14	1.74384E+13	4.35790E+12	1.05157E+12		1.50907E+11	2.51462E+10	
37	140.9282	2.86604E+02	1.01781E+14	1.64268E+13	4.17235E+12	1.04426E+12		1.59032E+11	3.11807E+10	
38	144.0359	2.59142E+02	9.48261E+13	1.56055E+13	4.10035E+12	1.09976E+12		1.87612E+11	4.52844E+10	
39	147.1436	2.30851E+02	8.86554E+13	1.51147E+13	4.24516E+12	1.27593E+12		2.61074E+11	7.59805E+10	
40	150.2513	2.02433E+02	8.38198E+13	1.51996E+13	4.81847E+12	1.68724E+12		4.37036E+11	1.40557E+11	
41	153.3590	1.75006E+02	8.11551E+13	1.62902E+13	6.26159E+12	2.55728E+12		8.55394E+11	2.72968E+11	
				* * * * *	INTERFACE	* * * * *				
41	153.3590	3.73867E+01	8.11551E+13	1.62902E+13	6.26159E+12	2.55728E+12		8.55394E+11	2.72968E+11	
42	156.4319	2.54818E+01	7.75093E+13	1.72286E+13	7.72741E+12	3.52805E+12		1.36133E+12	4.55178E+11	
43	159.5048	1.76701E+01	7.08182E+13	1.68016E+13	8.19954E+12	4.03358E+12		1.68247E+12	5.85163E+11	
44	162.5777	1.24580E+01	6.26531E+13	1.55850E+13	8.04310E+12	4.18796E+12		1.85221E+12	6.67518E+11	
45	165.6506	8.91928E+00	5.40843E+13	1.39799E+13	7.52692E+12	4.10991E+12		1.91374E+12	7.14597E+11	
46	168.7235	6.47653E+00	4.58174E+13	1.22642E+13	6.84634E+12	3.90544E+12		1.91278E+12	7.42251E+11	
47	171.7964	4.76743E+00	3.83007E+13	1.06330E+13	6.14345E+12	3.66461E+12		1.89454E+12	7.69599E+11	
48	174.8693	3.56314E+00	3.18167E+13	9.23121E+12	5.52384E+12	3.46516E+12		1.90375E+12	8.20071E+11	
49	177.9422	2.71935E+00	2.65653E+13	8.18330E+12	5.06889E+12	3.38021E+12		1.98732E+12	9.24320E+11	
50	181.0151	2.14782E+00	2.27499E+13	7.62297E+12	4.84169E+12	3.49007E+12		2.19884E+12	1.12966E+12	
51	184.0880	1.80210E+00	2.06824E+13	7.72584E+12	4.88147E+12	3.90212E+12		2.60435E+12	1.51703E+12	
				* * * * *	INTERFACE	* * * * *				
51	184.0880	2.91670E-01	2.06824E+13	7.72584E+12	4.88147E+12	3.90212E+12		2.60435E+12	1.51703E+12	
52	187.0880	2.80144E-01	1.91713E+13	7.92722E+12	4.96947E+12	4.38815E+12		3.08829E+12	2.00087E+12	
53	190.0880	2.61937E-01	1.70488E+13	7.55428E+12	4.80695E+12	4.49724E+12		3.30354E+12	2.26766E+12	
54	193.0880	2.38685E-01	1.47177E+13	6.85137E+12	4.44681E+12	4.33297E+12		3.29530E+12	2.35110E+12	
55	196.0880	2.11893E-01	1.23955E+13	5.98192E+12	3.95623E+12	3.97837E+12		3.11292E+12	2.28594E+12	
56	199.0880	1.82807E-01	1.01885E+13	5.04843E+12	3.39288E+12	3.49936E+12		2.80305E+12	2.10545E+12	

POINT	RADIUS	POWER DENSITY	GROUP 7	GROUP 8	NORMALIZED FLUXES				GROUP 11	GROUP 12
57	202.0880	1.52390E-01	8.13681E+12	4.11031E+12	2.79852E+12	2.94583E+12	2.40529E+12	1.83949E+12		
58	205.0880	1.21332E-01	6.24227E+12	3.19794E+12	2.19968E+12	2.35323E+12	1.95098E+12	1.51335E+12		
59	208.0880	9.00987E-02	4.48455E+12	2.32321E+12	1.61094E+12	1.74490E+12	1.46347E+12	1.14745E+12		
60	211.0880	5.89685E-02	2.83108E+12	1.48731E+12	1.03841E+12	1.13473E+12	9.59136E+11	7.57719E+11		
61	214.0880	2.80853E-02	1.24253E+12	6.86871E+11	4.82658E+11	5.29763E+11	4.48963E+11	3.56448E+11		

POINT	RADIUS	POWER DENSITY	GROUP 13	GROUP 14	NORMALIZED FLUXES			GROUP 16	GROUP 17
1	0.0000	3.69192E+02	5.07036E+09	3.40845E+08	5.32936E+07	5.65262E+06	1.00610E+05		
2	4.5213	3.69218E+02	5.07072E+09	3.40869E+08	5.32973E+07	5.65301E+06	1.00617E+05		
3	9.0426	3.69296E+02	5.07178E+09	3.40940E+08	5.33083E+07	5.65417E+06	1.00637E+05		
4	13.5639	3.69425E+02	5.07355E+09	3.41058E+08	5.33264E+07	5.65608E+06	1.00671E+05		
5	18.0852	3.69607E+02	5.07599E+09	3.41222E+08	5.33514E+07	5.65870E+06	1.00717E+05		
6	22.6065	3.69841E+02	5.07908E+09	3.41427E+08	5.33826E+07	5.66196E+06	1.00775E+05		
7	27.1278	3.70129E+02	5.08273E+09	3.41671E+08	5.34191E+07	5.66575E+06	1.00842E+05		
8	31.6491	3.70470E+02	5.08685E+09	3.41943E+08	5.34591E+07	5.66988E+06	1.00914E+05		
9	36.1704	3.70865E+02	5.09125E+09	3.42231E+08	5.35000E+07	5.67402E+06	1.00986E+05		
10	40.6917	3.71314E+02	5.09559E+09	3.42512E+08	5.35372E+07	5.67764E+06	1.01047E+05		
11	45.2130	3.71816E+02	5.09937E+09	3.42747E+08	5.35633E+07	5.67989E+06	1.01082E+05		
12	49.7343	3.72368E+02	5.10173E+09	3.42875E+08	5.35663E+07	5.67938E+06	1.01066E+05		
13	54.2556	3.72968E+02	5.10127E+09	3.42795E+08	5.35266E+07	5.67387E+06	1.00955E+05		
14	58.7769	3.73607E+02	5.09573E+09	3.42344E+08	5.34132E+07	5.65980E+06	1.00686E+05		
15	63.2982	3.74272E+02	5.08143E+09	3.41258E+08	5.31765E+07	5.63153E+06	1.00153E+05		
16	67.8195	3.74941E+02	5.05251E+09	3.39117E+08	5.27387E+07	5.58027E+06	9.91964E+04		
17	72.3408	3.75581E+02	4.99963E+09	3.35251E+08	5.19795E+07	5.49259E+06	9.75699E+04		
18	76.8621	3.76133E+02	4.90807E+09	3.28601E+08	5.07173E+07	5.34850E+06	9.49100E+04		
19	81.3834	3.76510E+02	4.75473E+09	3.17465E+08	4.86919E+07	5.11945E+06	9.06900E+04		
20	85.9047	3.76564E+02	4.50195E+09	2.98978E+08	4.55731E+07	4.76575E+06	8.41124E+04		
21	90.4260	3.76061E+02	4.07754E+09	2.67906E+08	4.11154E+07	4.22245E+06	7.35646E+04		
			* * * *	* * * * INTERFACE * * * *					
21	90.4260	4.22837E+02	4.07754E+09	2.67906E+08	4.11154E+07	4.22245E+06	7.35646E+04		
22	93.6116	4.21596E+02	3.74792E+09	2.44092E+08	3.78235E+07	3.81249E+06	6.55701E+04		
23	96.7972	4.19402E+02	3.52951E+09	2.28390E+08	3.52560E+07	3.52880E+06	6.03770E+04		
24	99.9828	4.16140E+02	3.36666E+09	2.16964E+08	3.32505E+07	3.31451E+06	5.65650E+04		
25	103.1684	4.11744E+02	3.23062E+09	2.07613E+08	3.15900E+07	3.13934E+06	5.34866E+04		
26	106.3540	4.06179E+02	3.10300E+09	1.98958E+08	3.00873E+07	2.98293E+06	5.07621E+04		
27	109.5396	3.99427E+02	2.96986E+09	1.89992E+08	2.85986E+07	2.83120E+06	4.81493E+04		
28	112.7252	3.91479E+02	2.81876E+09	1.79834E+08	2.70286E+07	2.67642E+06	4.55298E+04		
29	115.9108	3.82327E+02	2.63651E+09	1.67540E+08	2.53554E+07	2.52013E+06	4.29528E+04		
30	119.0964	3.71958E+02	2.40554E+09	1.51901E+08	2.37159E+07	2.37956E+06	4.07125E+04		
31	122.2820	3.60348E+02	2.09356E+09	1.31278E+08	2.26310E+07	2.29382E+06	3.93473E+04		
			* * * *	* * * * INTERFACE * * * *					
31	122.2820	4.12848E+02	2.09356E+09	1.31278E+08	2.26310E+07	2.29382E+06	3.93473E+04		
32	125.3897	3.97568E+02	1.81563E+09	1.13299E+08	2.40561E+07	2.55944E+06	4.52709E+04		
33	128.4974	3.79790E+02	1.66071E+09	1.03968E+08	3.14135E+07	3.70783E+06	7.15963E+04		
34	131.6051	3.59602E+02	1.60502E+09	1.03120E+08	5.10855E+07	6.73833E+06	1.52352E+05		
35	134.7128	3.37174E+02	1.68576E+09	1.16169E+08	9.76606E+07	1.42544E+07	4.24852E+05		
36	137.8205	3.12741E+02	2.03228E+09	1.61051E+08	2.04145E+08	3.31217E+07	1.53238E+06		

POINT	RADIUS	POWER DENSITY	NORMALIZED FLUXES				
			GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17
37	140.9282	2.86604E+02	2.98888E+09	2.90586E+08	4.44483E+08	8.24686E+07	6.86490E+06
38	144.0359	2.59142E+02	5.47391E+09	6.63326E+08	9.82675E+08	2.19238E+08	3.55017E+07
39	147.1436	2.30851E+02	1.20490E+10	1.77184E+09	2.17739E+09	6.24411E+08	1.98444E+08
40	150.2513	2.02433E+02	3.02256E+10	5.19140E+09	4.79536E+09	1.90649E+09	1.15223E+09
41	153.3590	1.75006E+02	8.30118E+10	1.60668E+10	1.04120E+10	6.20154E+09	6.81343E+09
			* * * *	* * * * INTERFACE * * * *	* * * *	* * *	
41	153.3590	3.73867E+01	8.30118E+10	1.60668E+10	1.04120E+10	6.20154E+09	6.81343E+09
42	156.4319	2.54818E+01	1.64055E+11	3.52216E+10	1.89433E+10	1.32601E+10	1.92031E+10
43	159.5048	1.76701E+01	2.28972E+11	5.07906E+10	2.75680E+10	2.04305E+10	3.15681E+10
44	162.5777	1.24580E+01	2.80113E+11	6.35942E+10	3.64912E+10	2.82325E+10	4.43712E+10
45	165.6506	8.91928E+00	3.22439E+11	7.49426E+10	4.65257E+10	3.73322E+10	5.79946E+10
46	168.7235	6.47653E+00	3.63302E+11	8.68339E+10	5.91297E+10	4.85845E+10	7.26530E+10
47	171.7964	4.76743E+00	4.12417E+11	1.02318E+11	7.65465E+10	6.29910E+10	8.82349E+10
48	174.8693	3.56314E+00	4.82180E+11	1.26485E+11	1.02028E+11	8.15233E+10	1.04056E+11
49	177.9422	2.71935E+00	5.88280E+11	1.69189E+11	1.40042E+11	1.04699E+11	1.18525E+11
50	181.0151	2.14782E+00	7.50215E+11	2.52702E+11	1.96026E+11	1.31715E+11	1.28764E+11
51	184.0880	1.80210E+00	9.90579E+11	4.33513E+11	2.74231E+11	1.58882E+11	1.30321E+11
			* * * *	* * * * INTERFACE * * * *	* * * *	* * *	
51	184.0880	2.91670E-01	9.90579E+11	4.33513E+11	2.74231E+11	1.58882E+11	1.30321E+11
52	187.0880	2.80144E-01	1.29502E+12	6.97255E+11	3.83189E+11	1.92169E+11	1.29686E+11
53	190.0880	2.61937E-01	1.49215E+12	8.66065E+11	4.67113E+11	2.21933E+11	1.33963E+11
54	193.0880	2.38685E-01	1.57910E+12	9.52650E+11	5.16878E+11	2.41307E+11	1.37517E+11
55	196.0880	2.11893E-01	1.56551E+12	9.68070E+11	5.31093E+11	2.47224E+11	1.37051E+11
56	199.0880	1.82807E-01	1.46683E+12	9.23436E+11	5.12321E+11	2.39161E+11	1.30994E+11
57	202.0880	1.52390E-01	1.30028E+12	8.29948E+11	4.65084E+11	2.18164E+11	1.18977E+11
58	205.0880	1.21332E-01	1.08252E+12	6.98466E+11	3.94747E+11	1.86161E+11	1.01410E+11
59	208.0880	9.00987E-02	8.28502E+11	5.39105E+11	3.06878E+11	1.45522E+11	7.91667E+10
60	211.0880	5.89685E-02	5.51085E+11	3.61036E+11	2.06912E+11	9.87971E+10	5.33434E+10
61	214.0880	2.80853E-02	2.61201E+11	1.72492E+11	1.00029E+11	4.85812E+10	2.50761E+10

*** AVERAGE FLUXES ***

NORMALIZED TO POWER OF 2.34220E+03 MW

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
ZONE 1	1.36135E+14	3.83982E+14	7.85414E+14	1.13507E+15	1.51588E+15	8.58072E+14
ZONE 2	1.39047E+14	3.87429E+14	7.79143E+14	1.10861E+15	1.42651E+15	7.84886E+14
ZONE 3	9.55275E+13	2.64900E+14	5.20179E+14	7.28780E+14	9.24824E+14	5.05925E+14
ZONE 4	6.90150E+12	2.36064E+13	7.00964E+13	1.31574E+14	2.31282E+14	1.64379E+14
ZONE 5	3.61066E+10	3.33938E+11	2.53513E+12	7.71804E+12	2.14859E+13	1.91433E+13
	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11	GROUP 12
ZONE 1	2.05822E+14	3.58045E+13	9.84258E+12	2.59870E+12	4.13968E+11	6.11526E+10
ZONE 2	1.74817E+14	2.91297E+13	7.64485E+12	1.91387E+12	2.86094E+11	4.07139E+10
ZONE 3	1.09248E+14	1.80033E+13	4.80618E+12	1.30937E+12	2.46685E+11	5.94901E+10
ZONE 4	4.70662E+13	1.21685E+13	6.49316E+12	3.69830E+12	1.85957E+12	7.83442E+11
ZONE 5	1.03574E+13	4.76602E+12	3.12696E+12	3.05679E+12	2.35648E+12	1.70045E+12
	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	
ZONE 1	4.92829E+09	3.30169E+08	5.12462E+07	5.41139E+06	9.60650E+04	
ZONE 2	3.04637E+09	1.95538E+08	3.00152E+07	2.99893E+06	5.12634E+04	
ZONE 3	1.10120E+10	1.81122E+09	1.52366E+09	6.56923E+08	5.30517E+08	
ZONE 4	4.24142E+11	1.23098E+11	8.79614E+10	6.33904E+10	7.55018E+10	
ZONE 5	1.16656E+12	7.08441E+11	3.94224E+11	1.87883E+11	1.08740E+11	

* * * * * REACTOR EDIT * * * * *

ZONE 1

VOLUME (LITERS)	=	2.26628E+03
POWER (MW)	=	8.47284E+02
AVERAGE POWER DENSITY (WATTS PER CC)	=	3.73866E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	2.04233E+00
INSTANTANEOUS CONVERSION RATIO	=	1.13452E+00
INSTANTANEOUS BREEDING RATIO	=	3.93219E-01
MEDIAN FISSION ENERGY (KEV)	=	1.63625E+02
MEDIAN ABSORPTION ENERGY (KEV)	=	4.48655E+01
MEDIAN FLUX ENERGY (KEV)	=	1.30278E+02

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	2.24623E-04	9.13432E+00	2.71116E+00
O16	1.76893E-02	1.06456E+03	1.14793E-01
NA23	8.94568E-03	7.73579E+02	2.27329E-01
SS304	1.39676E-02	2.99470E+03	3.32150E+00
U238	7.55032E-03	6.76069E+03	1.42724E+02
PU239	8.52742E-04	7.66773E+02	5.89467E+02
PU240	3.30903E-04	2.98790E+02	4.41830E+01
PU241	6.36173E-05	5.76822E+01	6.45352E+01
PU242	0.	0.	0.
FP25R	0.	0.	0.
FP39R	0.	0.	0.
FP25S	0.	0.	0.
FP39S	0.	0.	0.
FP25U	0.	0.	0.
FP39U	0.	0.	0.

ZONE 2

VOLUME (LITERS)	=	1.87803E+03
POWER (MW)	=	7.50466E+02
AVERAGE POWER DENSITY (WATTS PER CC)	=	3.99604E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	2.29330E+00
INSTANTANEOUS CONVERSION RATIO	=	1.03269E+00
INSTANTANEOUS BREEDING RATIO	=	3.80769E-01
MEDIAN FISSION ENERGY (KEV)	=	1.83967E+02
MEDIAN ABSORPTION ENERGY (KEV)	=	5.26864E+01
MEDIAN FLUX ENERGY (KEV)	=	1.42173E+02

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	2.24623E-04	7.56946E+00	2.02821E+00
O16	1.87548E-02	9.35320E+02	1.03014E-01
NA23	8.28992E-03	5.94060E+02	1.58380E-01
SS304	1.44078E-02	2.55986E+03	2.64772E+00
U238	7.89816E-03	5.86057E+03	1.23090E+02
PU239	9.73599E-04	7.25466E+02	5.24573E+02
PU240	3.77830E-04	2.82716E+02	4.13187E+01
PU241	7.26613E-05	5.45957E+01	5.65482E+01
PU242	0.	0.	0.
FP25R	0.	0.	0.
FP39R	0.	0.	0.
FP25S	0.	0.	0.
FP39S	0.	0.	0.
FP25U	0.	0.	0.
FP39U	0.	0.	0.

ZONE 3

VOLUME (LITERS)	= 2.37416E+03
POWER (MW)	= 7.15352E+02
AVERAGE POWER DENSITY (WATTS PER CC)	= 3.01308E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.23912E+00
INSTANTANEOUS CONVERSION RATIO	= 8.64017E-01
INSTANTANEOUS BREEDING RATIO	= 2.45977E-01
MEDIAN FISSION ENERGY (KEV)	= 1.83278E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 5.71108E+01
MEDIAN FLUX ENERGY (KEV)	= 1.47470E+02

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	2.24623E-04	9.56913E+00	1.84877E+00
O16	1.90553E-02	1.20136E+03	9.09023E-02
NA23	8.11477E-03	7.35129E+02	1.26436E-01
SS304	1.45254E-02	3.26253E+03	2.19899E+00
U238	7.78956E-03	7.30692E+03	1.04004E+02
PU239	1.14841E-03	1.08179E+03	5.11135E+02
PU240	4.45624E-04	4.21532E+02	4.13605E+01
PU241	8.57215E-05	8.14241E+01	5.47866E+01
PU242	0.	0.	0.
FP25R	0.	0.	0.
FP39R	0.	0.	0.
FP25S	0.	0.	0.
FP39S	0.	0.	0.
FP25U	0.	0.	0.
FP39U	0.	0.	0.

ZONE 4

VOLUME (LITERS)	= 2.87396E+03
POWER (MW)	= 2.85273E+01
AVERAGE POWER DENSITY (WATTS PER CC)	= 9.92613E+00
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.02770E-01
INSTANTANEOUS CONVERSION RATIO	= 0.
INSTANTANEOUS BREEDING RATIO	= 1.20520E-01
MEDIAN FISSION ENERGY (KEV)	= 2.23758E+03
MEDIAN ABSORPTION ENERGY (KEV)	= 1.62374E+01
MEDIAN FLUX ENERGY (KEV)	= 6.63378E+01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
O16	2.83435E-02	2.16312E+03	1.20433E-02
NA23	4.77681E-03	5.23837E+02	3.11898E-02
SS304	1.16416E-02	3.16528E+03	5.15959E-01
U238	1.41331E-02	1.60484E+04	2.78681E+01
PU239	0.	0.	0.
PU240	0.	0.	0.
PU241	0.	0.	0.
PU242	0.	0.	0.
FP25R	0.	0.	0.
FP39R	0.	0.	0.
FP25S	0.	0.	0.
FP39S	0.	0.	0.
FP25U	0.	0.	0.
FP39U	0.	0.	0.

ZONE 5

VOLUME (LITERS)	=	3.31072E+03
POWER (MW)	=	5.70328E-01
AVERAGE POWER DENSITY (WATTS PER CC)	=	1.72267E-01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	1.58190E-03
INSTANTANEOUS CONVERSION RATIO	=	0.
INSTANTANEOUS BREEDING RATIO	=	0.
MEDIAN FISSION ENERGY (KEV)	=	0.
MEDIAN ABSORPTION ENERGY (KEV)	=	4.57370E-01
MEDIAN FLUX ENERGY (KEV)	=	1.45610E+01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
NA23	1.07950E-02	1.36371E+03	1.91091E-02
SS304	4.30650E-02	1.34885E+04	5.51219E-01

CORE

VOLUME (LITERS)	= 6.51846E+03
POWER (MW)	= 2.31310E+03
AVERAGE POWER DENSITY (WATTS PER CC)	= 3.54854E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.29330E+00
INSTANTANEOUS CONVERSION RATIO	= 1.01996E+00
INSTANTANEOUS BREEDING RATIO	= 1.01996E+00
MEDIAN FISSION ENERGY (KEV)	= 1.76291E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 5.06854E+01
MEDIAN FLUX ENERGY (KEV)	= 1.38672E+02

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	6.73869E-04	2.62729E+01	6.38814E+00
O16	5.54994E-02	3.20124E+03	3.08709E-01
NA23	2.53504E-02	2.10277E+03	5.12145E-01
SS304	4.29008E-02	8.81709E+03	8.16821E+00
U238	2.32380E-02	1.99282E+04	3.59818E+02
PU239	2.97475E-03	2.57403E+03	1.62518E+03
PU240	1.15436E-03	1.00304E+03	1.26862E+02
PU241	2.22000E-04	1.93702E+02	1.75870E+02
PU242	0.	0.	0.
FP25R	0.	0.	0.
FP39R	0.	0.	0.
FP25S	0.	0.	0.
FP39S	0.	0.	0.
FP25U	0.	0.	0.
FP39U	0.	0.	0.

BLANKET

VOLUME (LITERS)	= 2.87396E+03
POWER (MW)	= 2.85273E+01
AVERAGE POWER DENSITY (WATTS PER CC)	= 9.92613E+00
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.02770E-01
INSTANTANEOUS CONVERSION RATIO	= 0.
INSTANTANEOUS BREEDING RATIO	= 1.20520E-01
MEDIAN FISSION ENERGY (KEV)	= 2.23758E+03
MEDIAN ABSORPTION ENERGY (KEV)	= 1.62374E+01
MEDIAN FLUX ENERGY (KEV)	= 6.63378E+01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
O16	2.83435E-02	2.16312E+03	1.20433E-02
NA23	4.77681E-03	5.23837E+02	3.11898E-02
SS304	1.16416E-02	3.16528E+03	6.15959E-01
U238	1.41331E-02	1.60484E+04	2.78681E+01
PU239	0.	0.	0.
PU240	0.	0.	0.
PU241	0.	0.	0.
PU242	0.	0.	0.
FP25R	0.	0.	0.
FP39R	0.	0.	0.
FP25S	0.	0.	0.
FP39S	0.	0.	0.
FP25U	0.	0.	0.
FP39U	0.	0.	0.

REFLECTOR

VOLUME (LITERS)	=	3.31072E+03
POWER (MW)	=	5.70328E-01
AVERAGE POWER DENSITY (WATTS PER CC)	=	1.72267E-01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	1.58190E-03
INSTANTANEOUS CONVERSION RATIO	=	0.
INSTANTANEOUS BREEDING RATIO	=	0.
MEDIAN FISSION ENERGY (KEV)	=	0.
MEDIAN ABSORPTION ENERGY (KEV)	=	4.57370E-01
MEDIAN FLUX ENERGY (KEV)	=	1.45610E+01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
NA23	1.07950E-02	1.36371E+03	1.91091E-02
SS304	4.30650E-02	1.34885E+04	5.51219E-01

REACTOR

VOLUME (LITERS)	=	1.27031E+04
POWER (MW)	=	2.34220E+03
AVERAGE POWER DENSITY (WATTS PER CC)	=	1.84380E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	2.29330E+00
INSTANTANEOUS CONVERSION RATIO	=	1.14048E+00
INSTANTANEOUS BREEDING RATIO	=	1.14048E+00
MEDIAN FISSION ENERGY (KEV)	=	1.80653E+02
MEDIAN ABSORPTION ENERGY (KEV)	=	4.61609E+01
MEDIAN FLUX ENERGY (KEV)	=	1.29313E+02

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	6.73869E-04	2.62729E+01	5.38814E+00
O16	8.38429E-02	5.36436E+03	3.20752E-01
NA23	4.09222E-02	3.99032E+03	5.62444E-01
SS304	9.76074E-02	2.54709E+04	9.33539E+00
U238	3.73712E-02	3.59766E+04	3.97686E+02
PU239	2.97475E-03	2.57403E+03	1.62518E+03
PU240	1.15436E-03	1.00304E+03	1.26862E+02
PU241	2.22000E-04	1.93702E+02	1.75870E+02
PU242	0.	0.	0.
FP25R	0.	0.	0.
FP39R	0.	0.	0.
FP25S	0.	0.	0.
FP39S	0.	0.	0.
FP25U	0.	0.	0.
FP39U	0.	0.	0.

* * * ZONE MATERIAL EDIT * * *

ZONE MATERIAL 1

ZONE 1

VOLUME (LITERS) = 9.58606E+02
TOTAL POWER (MWT) = 8.41024E+02
CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
O16	1.76893E-02	1.06456E+03	1.14793E-01
U238	7.55032E-03	6.76069E+03	1.42724E+02
PU239	8.52742E-04	7.66773E+02	5.89467E+02
PU240	3.30903E-04	2.98799E+02	4.41830E+01
PU241	6.36173E-05	5.76822E+01	6.45352E+01
PU242	0.	0.	0.
FP25R	0.	0.	0.
FP39R	0.	0.	0.
FP25S	0.	0.	0.
FP39S	0.	0.	0.
FP25U	0.	0.	0.
FP39U	0.	0.	0.

ZONE MATERIAL 2

ZONE 2

VOLUME (LITERS) = 8.41825E+02
TOTAL POWER (MWT) = 7.45632E+02
CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
O16	1.87548E-02	9.35320E+02	1.03014E-01
U238	7.89816E-03	5.86057E+03	1.23090E+02
PU239	9.73599E-04	7.25455E+02	5.24573E+02
PU240	3.77830E-04	2.82715E+02	4.13187E+01
PU241	7.26613E-05	5.45957E+01	5.65482E+01
PU242	0.	0.	0.
FP25R	0.	0.	0.
FP39R	0.	0.	0.
FP25S	0.	0.	0.
FP39S	0.	0.	0.
FP25U	0.	0.	0.
FP39U	0.	0.	0.

ZONE MATERIAL 3

ZONE 3

VOLUME (LITERS) = 1.08023E+03

TOTAL POWER (MMT) = 7.11377E+02

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/3ARN-CM)	MASS (KG)	POWER (MMT)
O16	1.90553E-02	1.20136E+03	9.09023E-02
U238	7.78956E-03	7.30692E+03	1.04004E+02
PU239	1.14841E-03	1.08179E+03	5.11135E+02
PU240	4.45624E-04	4.21532E+02	4.13605E+01
PU241	8.57215E-05	8.14241E+01	5.47866E+01
PU242	0.	0.	0.
FP25R	0.	0.	0.
FP39R	0.	0.	0.
FP25S	0.	0.	0.
FP39S	0.	0.	0.
FP25U	0.	0.	0.
FP39U	0.	0.	0.

ZONE MATERIAL 4

ZONE 4

VOLUME (LITERS) = 1.84964E+03

TOTAL POWER (MMT) = 2.78801E+01

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/3ARN-CM)	MASS (KG)	POWER (MMT)
O16	2.83435E-02	2.16312E+03	1.20433E-02
U238	1.41331E-02	1.60484E+04	2.78581E+01
PU239	0.	0.	0.
PU240	0.	0.	0.
PU241	0.	0.	0.
PU242	0.	0.	0.
FP25R	0.	0.	0.
FP39R	0.	0.	0.
FP25S	0.	0.	0.
FP39S	0.	0.	0.
FP25U	0.	0.	0.
FP39U	0.	0.	0.

ZONE MATERIAL 5

ZONE 1
VOLUME (LITERS) = 6.23325E+02
TOTAL POWER (MWT) = 1.50902E-01
CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	5.93819E-03	5.13506E+02	1.50902E-01

ZONE MATERIAL 5

ZONE 2
VOLUME (LITERS) = 5.47389E+02
TOTAL POWER (MWT) = 1.20226E-01
CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	6.29285E-03	4.50948E+02	1.20226E-01

ZONE MATERIAL 5

ZONE 3
VOLUME (LITERS) = 7.02413E+02
TOTAL POWER (MWT) = 9.95248E-02
CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	6.38757E-03	5.78650E+02	9.95248E-02

ZONE MATERIAL 6

ZONE 4
VOLUME (LITERS) = 5.01652E+02
TOTAL POWER (MWT) = 2.46065E-02
CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	3.76856E-03	4.13270E+02	2.46065E-02

ZONE MATERIAL 7

ZONE 1

VOLUME (LITERS) = 3.15692E+02
 TOTAL POWER (MWT) = 7.64266E-02
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	3.00749E-03	2.60073E+02	7.64266E-02

ZONE MATERIAL 7

ZONE 2

VOLUME (LITERS) = 1.73717E+02
 TOTAL POWER (MWT) = 3.81544E-02
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	1.99707E-03	1.43111E+02	3.81544E-02

ZONE MATERIAL 7

ZONE 3

VOLUME (LITERS) = 1.89933E+02
 TOTAL POWER (MWT) = 2.69115E-02
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	1.72720E-03	1.56470E+02	2.69115E-02

ZONE MATERIAL 7

ZONE 4

VOLUME (LITERS) = 1.34214E+02
 TOTAL POWER (MWT) = 6.58332E-03
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	1.00825E-03	1.10568E+02	6.58332E-03

ZONE MATERIAL 7

ZONE 5
 VOLUME (LITERS) = 1.65536E+03
 TOTAL POWER (MWT) = 1.91091E-02
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	1.07950E-02	1.36371E+03	1.91091E-02

ZONE MATERIAL 8

ZONE 1
 VOLUME (LITERS) = 1.93923E+02
 TOTAL POWER (MWT) = 1.75260E+00
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	7.37007E-03	1.58016E+03	1.75260E+00

ZONE MATERIAL 8

ZONE 2
 VOLUME (LITERS) = 1.70299E+02
 TOTAL POWER (MWT) = 1.43529E+00
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	7.81024E-03	1.38766E+03	1.43529E+00

ZONE MATERIAL 8

ZONE 3
 VOLUME (LITERS) = 2.18528E+02
 TOTAL POWER (MWT) = 1.20019E+00
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	7.92781E-03	1.78066E+03	1.20019E+00

ZONE MATERIAL 9

ZONE 4
VOLUME (LITERS) = 1.58309E+02
TOTAL POWER (MWT) = 2.66882E-01
CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	5.04408E-03	1.37145E+03	2.66882E-01

ZONE MATERIAL 10

ZONE 1
VOLUME (LITERS) = 1.73597E+02
TOTAL POWER (MWT) = 1.56890E+00
CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	6.59756E-03	1.41454E+03	1.56890E+00

ZONE MATERIAL 10

ZONE 2
VOLUME (LITERS) = 1.43857E+02
TOTAL POWER (MWT) = 1.21243E+00
CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	6.59756E-03	1.17220E+03	1.21243E+00

ZONE MATERIAL 10

ZONE 3
VOLUME (LITERS) = 1.81860E+02
TOTAL POWER (MWT) = 9.98800E-01
CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	6.59756E-03	1.48187E+03	9.98800E-01

ZONE MATERIAL 10

ZONE 4
VOLUME (LITERS) = 2.20145E+02
TOTAL POWER (MWT) = 3.49077E-01
CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	6.59756E-03	1.79383E+03	3.49077E-01

ZONE MATERIAL 10

ZONE 5
VOLUME (LITERS) = 1.65536E+03
TOTAL POWER (MWT) = 5.51219E-01
CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	4.30650E-02	1.34885E+04	5.51219E-01

ZONE MATERIAL 11

ZONE 1
VOLUME (LITERS) = 1.13314E+00
TOTAL POWER (MWT) = 2.71116E+00
CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
B10	2.24623E-04	9.13432E+00	2.71115E+00

ZONE MATERIAL 12

ZONE 2
VOLUME (LITERS) = 9.39013E-01
TOTAL POWER (MWT) = 2.02821E+00
CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
B10	2.24623E-04	7.56946E+00	2.02821E+00

ZONE MATERIAL 13

ZONE 3

VOLUME (LITERS) = 1.18708E+00

TOTAL POWER (MWT) = 1.64877E+00

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
B10	2.24623E-04	9.56913E+00	1.64877E+00

* * * REACTION RATES EDIT * * *

ZONE 1

REACTION RATES (REACTIONS PER SEC)

NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N,ALPHA)+(N,PROTON)
B10	1.47635E+18	0.	0.	0.	0.
O16	1.72849E+17	0.	0.	0.	0.
NA23	2.03698E+17	0.	0.	0.	0.
SS304	2.71211E+18	0.	0.	0.	0.
U238	2.68959E+19	3.67133E+18	1.04202E+19	1.7E489E+17	0.
PU239	4.56161E+18	1.81885E+19	5.32423E+19	2.72686E+15	0.
PU240	1.84662E+18	1.33855E+18	4.09121E+18	2.69283E+15	0.
PU241	3.40365E+17	1.99649E+18	6.00609E+18	1.76787E+15	0.
PU242	0.	0.	0.	0.	0.
FP25R	0.	0.	0.	0.	0.
FP39R	0.	0.	0.	0.	0.
FP25S	0.	0.	0.	0.	0.
FP39S	0.	0.	0.	0.	0.
FP25U	0.	0.	0.	0.	0.
FP39U	0.	0.	0.	0.	0.
TOTAL	3.82095E+19	2.51949E+19	7.37597E+19	1.85736E+17	0.

ZONE 2

REACTION RATES (REACTIONS PER SEC)

NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N,ALPHA)+(N,PROTON)
B10	1.10445E+18	0.	0.	0.	0.
O16	1.55113E+17	0.	0.	0.	0.
NA23	1.41917E+17	0.	0.	0.	0.
SS304	2.16195E+18	0.	0.	0.	0.
U238	2.14949E+19	3.22629E+18	9.16085E+18	1.58035E+17	0.
PU239	3.86601E+18	1.51930E+19	4.74608E+19	2.69314E+15	0.
PU240	1.56901E+18	1.25593E+18	3.84300E+18	2.60248E+15	0.
PU241	2.90876E+17	1.74965E+18	5.26892E+18	1.70907E+15	0.
PU242	0.	0.	0.	0.	0.
FP25R	0.	0.	0.	0.	0.
FP39R	0.	0.	0.	0.	0.
FP25S	0.	0.	0.	0.	0.
FP39S	0.	0.	0.	0.	0.
FP25U	0.	0.	0.	0.	0.
FP39U	0.	0.	0.	0.	0.
TOTAL	3.07842E+19	2.24248E+19	6.57336E+19	1.65040E+17	0.

ZONE 3

REACTION RATES (REACTIONS PER SEC)

NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N,ALPHA)+(N,PROTON)
B10	8.97826E+17	0.	0.	0.	0.
O16	1.36876E+17	0.	0.	0.	0.
NA23	1.13293E+17	0.	0.	0.	0.
SS304	1.79554E+18	0.	0.	0.	0.
U238	1.73286E+19	2.75544E+18	7.82521E+18	1.35367E+17	0.
PU239	3.69626E+18	1.57807E+19	4.62868E+19	2.75900E+15	0.
PU240	1.50612E+18	1.25889E+18	3.85545E+18	2.66584E+15	0.
PU241	2.78985E+17	1.69524E+18	5.10788E+18	1.75114E+15	0.
PU242	0.	0.	0.	0.	0.
FP25R	0.	0.	0.	0.	0.
FP39R	0.	0.	0.	0.	0.
FP25S	0.	0.	0.	0.	0.
FP39S	0.	0.	0.	0.	0.
FP25U	0.	0.	0.	0.	0.
FP39U	0.	0.	0.	0.	0.
TOTAL	2.57535E+19	2.14903E+19	6.30754E+19	1.42543E+17	0.

ZONE 4

REACTION RATES (REACTIONS PER SEC)

NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N,ALPHA)+(N,PROTON)
O16	1.81341E+16	0.	0.	0.	0.
NA23	2.79477E+16	0.	0.	0.	0.
SS304	5.02950E+17	0.	0.	0.	0.
U238	1.11727E+19	5.07916E+17	1.43393E+18	2.24429E+16	0.
PU239	0.	0.	0.	0.	0.
PU240	0.	0.	0.	0.	0.
PU241	0.	0.	0.	0.	0.
PU242	0.	0.	0.	0.	0.
FP25R	0.	0.	0.	0.	0.
FP39R	0.	0.	0.	0.	0.
FP25S	0.	0.	0.	0.	0.
FP39S	0.	0.	0.	0.	0.
FP25U	0.	0.	0.	0.	0.
FP39U	0.	0.	0.	0.	0.
TOTAL	1.17217E+19	5.07916E+17	1.43393E+18	2.24429E+16	0.

ZONE 5

REACTION RATES (REACTIONS PER SEC)

NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N,ALPHA)+(N,PROTON)
NA23	1.71227E+16	0.	0.	0.	0.
SS304	4.50088E+17	0.	0.	0.	0.
TOTAL	4.67211E+17	0.	0.	0.	0.

CORE

REACTION RATES (REACTIONS PER SEC)

NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N,ALPHA)+(N,PROTON)
B10	3.47863E+18	0.	0.	0.	0.
O16	4.64837E+17	0.	0.	0.	0.
NA23	4.58908E+17	0.	0.	0.	0.
SS304	6.66960E+18	0.	0.	0.	0.
U238	6.57194E+19	9.65306E+18	2.74063E+19	4.71891E+17	0.
PU239	1.21239E+19	5.01622E+19	1.46990E+20	8.23899E+15	0.
PU240	4.92175E+18	3.85337E+18	1.17897E+19	7.96115E+15	0.
PU241	9.10226E+17	5.44137E+18	1.63829E+19	5.22808E+15	0.
PU242	0.	0.	0.	0.	0.
FP25R	0.	0.	0.	0.	0.
FP39R	0.	0.	0.	0.	0.
FP25S	0.	0.	0.	0.	0.
FP39S	0.	0.	0.	0.	0.
FP25U	0.	0.	0.	0.	0.
FP39U	0.	0.	0.	0.	0.
TOTAL	9.47472E+19	6.91100E+19	2.02569E+20	4.93319E+17	0.

BLANKET

REACTION RATES (REACTIONS PER SEC)

NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N,ALPHA)+(N,PROTON)
O16	1.81341E+15	0.	0.	0.	0.
NA23	2.79477E+15	0.	0.	0.	0.
SS304	5.02950E+17	0.	0.	0.	0.
U238	1.11727E+19	5.07916E+17	1.43393E+18	2.24429E+16	0.
PU239	0.	0.	0.	0.	0.
PU240	0.	0.	0.	0.	0.
PU241	0.	0.	0.	0.	0.
PU242	0.	0.	0.	0.	0.
FP25R	0.	0.	0.	0.	0.
FP39R	0.	0.	0.	0.	0.
FP25S	0.	0.	0.	0.	0.
FP39S	0.	0.	0.	0.	0.
FP25U	0.	0.	0.	0.	0.
FP39U	0.	0.	0.	0.	0.
TOTAL	1.17217E+19	5.07916E+17	1.43393E+18	2.24429E+16	0.

REFLECTOR

REACTION RATES (REACTIONS PER SEC)

NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N,ALPHA)+(N,PROTON)
NA23	1.71227E+16	0.	0.	0.	0.
SS304	4.50088E+17	0.	0.	0.	0.
TOTAL	4.67211E+17	0.	0.	0.	0.

REACTOR	REACTION RATES (REACTIONS PER SEC)				
NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N, ALPHA)+(N, PROTON)
B10	3.47863E+18	0.	0.	0.	0.
O16	4.82971E+17	0.	0.	0.	0.
NA23	5.03978E+17	0.	0.	0.	0.
SS304	7.62264E+18	0.	0.	0.	0.
U238	7.68921E+19	1.01610E+19	2.88402E+19	4.94334E+17	0.
PU239	1.21239E+19	5.01622E+19	1.46990E+20	8.23899E+15	0.
PU240	4.92175E+18	3.85337E+18	1.17897E+19	7.96115E+15	0.
PU241	9.10226E+17	5.44137E+18	1.63829E+19	5.22808E+15	0.
PU242	0.	0.	0.	0.	0.
FP25R	0.	0.	0.	0.	0.
FP39R	0.	0.	0.	0.	0.
FP25S	0.	0.	0.	0.	0.
FP39S	0.	0.	0.	0.	0.
FP25U	0.	0.	0.	0.	0.
FP39U	0.	0.	0.	0.	0.
TOTAL	1.06936E+20	6.96179E+19	2.04003E+20	5.15762E+17	0.

* * * * * ZONE - GROUP NEUTRON BALANCE EDIT * * * * *

* * * ZONE 1

REACTION RATES (REACTIONS PER SEC.)

GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT SCATTER	FISSION SOURCE	IN SCATTER
1	-1.17182E+17	6.36262E+17	4.92287E+17	2.12916E+18	0.	1.56546E+19	1.87810E+19	0.
2	-1.76930E+17	1.36163E+18	7.09063E+17	4.22990E+18	0.	3.42166E+19	3.16349E+19	8.68194E+18
3	-1.15836E+17	2.04548E+18	2.31958E+18	3.05813E+18	0.	4.82176E+19	1.65533E+19	3.09698E+19
4	-4.98530E+16	2.43766E+18	3.80405E+18	3.66496E+18	0.	4.27546E+19	5.12278E+18	4.74854E+19
5	1.19379E+17	2.82075E+18	9.57636E+18	5.18012E+18	0.	2.94154E+19	1.49558E+18	4.55165E+19
6	9.24221E+16	1.15273E+18	1.29234E+19	3.82825E+18	0.	1.18304E+19	1.72082E+17	2.96555E+19
7	7.01055E+16	2.29512E+17	6.16761E+18	2.05016E+18	0.	3.34590E+18	0.	1.18639E+19
8	1.60867E+16	4.83070E+16	1.45995E+18	6.46754E+17	0.	1.17627E+18	0.	3.34745E+18
9	4.94608E+15	1.10878E+16	5.41512E+17	2.84314E+17	0.	3.34702E+17	0.	1.17659E+18
10	1.71170E+15	3.23185E+15	1.73507E+17	8.85547E+16	0.	6.77584E+16	0.	3.34773E+17
11	3.34992E+14	4.77201E+14	3.57408E+16	2.22947E+16	0.	8.31E60E+15	0.	6.77666E+16
12	4.83061E+13	7.82516E+13	5.96763E+15	1.71059E+15	0.	1.11163E+15	0.	8.91560E+15
13	5.40363E+12	5.73969E+12	4.40919E+14	5.53850E+14	0.	1.05680E+14	0.	1.11163E+15
14	3.49229E+11	3.62585E+11	7.17896E+13	2.62273E+13	0.	5.94891E+12	0.	1.05680E+14
15	4.93436E+10	6.86995E+10	4.36979E+12	1.03180E+12	0.	1.42917E+12	0.	6.94891E+12
16	6.18953E+09	5.93328E+09	1.24394E+12	1.29872E+11	0.	4.31987E+10	0.	1.42917E+12
17	1.08661E+08	9.08116E+07	3.74339E+10	5.55446E+09	0.	-0.	0.	4.31987E+10
TOTAL	-1.54761E+17	1.07472E+19	3.82095E+19	2.51949E+19	0.	1.79124E+20	7.37597E+19	1.79210E+20

* * * ZONE 2

REACTION RATES (REACTIONS PER SEC.)

GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT SCATTER	FISSION SOURCE	IN SCATTER
1	1.85933E+17	5.21522E+17	4.32023E+17	1.94337E+18	0.	1.36531E+19	1.67374E+19	0.
2	4.04038E+17	1.10237E+18	6.21240E+17	3.85721E+18	0.	2.97296E+19	2.81926E+19	7.52463E+18
3	8.13679E+17	1.63168E+18	2.01023E+18	2.87977E+18	0.	3.43105E+19	1.47521E+19	2.68959E+19
4	1.09253E+18	1.90679E+18	3.25718E+18	3.38681E+18	0.	3.56439E+19	4.56534E+18	4.07231E+19
5	1.24456E+18	2.12534E+18	7.88344E+18	4.61230E+18	0.	2.35856E+19	1.33284E+18	3.81195E+19
6	5.08292E+17	8.46111E+17	1.03715E+19	3.31325E+18	0.	8.90905E+18	1.53357E+17	2.37953E+19
7	7.57442E+16	1.58335E+17	4.62691E+18	1.64760E+18	0.	2.42760E+18	0.	8.93663E+18
8	1.73496E+16	3.12166E+16	1.06362E+18	4.97865E+17	0.	8.18771E+17	0.	2.42891E+18
9	4.13732E+15	6.83249E+15	3.76679E+17	2.08945E+17	0.	2.22419E+17	0.	8.19046E+17
10	1.08181E+15	1.87866E+15	1.15110E+17	6.17087E+16	0.	4.26902E+16	0.	2.22479E+17
11	1.43804E+14	2.58692E+14	2.24398E+16	1.45786E+16	0.	5.27399E+15	0.	4.26973E+16
12	1.58061E+13	4.13970E+13	3.50613E+15	1.07768E+15	0.	6.32814E+14	0.	5.27399E+15
13	9.48725E+11	2.78231E+12	2.49257E+14	3.23946E+14	0.	5.58359E+13	0.	6.32814E+14
14	1.24624E+10	1.69589E+11	3.74354E+13	1.45987E+13	0.	3.51776E+12	0.	5.58359E+13
15	-4.77722E+10	3.20205E+10	2.24614E+12	5.71830E+11	0.	7.15726E+11	0.	3.51776E+12
16	-5.59395E+09	2.57633E+09	6.29542E+11	6.81002E+10	0.	2.10830E+10	0.	7.15726E+11
17	-9.86943E+07	3.76832E+07	1.83341E+10	2.80945E+09	0.	-0.	0.	2.10830E+10
TOTAL	4.34751E+18	8.33238E+18	3.07842E+19	2.24248E+19	0.	1.49349E+20	5.57336E+19	1.49514E+20

* * * ZONE 3

REACTION RATES (REACTIONS PER SEC.)

GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT SCATTER	FISSION SOURCE	IN SCATTER
1	1.53683E+18	4.48773E+17	3.78384E+17	1.78120E+18	0.	1.19053E+19	1.60605E+19	0.
2	2.72973E+18	9.44726E+17	5.37321E+17	3.60226E+18	0.	2.57866E+19	2.70525E+19	6.56443E+18
3	2.35085E+18	1.36518E+18	1.71325E+18	2.86693E+18	0.	2.92201E+19	1.41555E+19	2.33677E+19
4	1.71186E+18	1.56933E+18	2.76204E+18	3.32000E+18	0.	2.98093E+19	4.38072E+18	3.47923E+19
5	9.90970E+17	1.72585E+18	6.56724E+18	4.45896E+18	0.	1.94716E+19	1.27894E+18	3.19345E+19
6	4.68607E+16	6.83111E+17	8.63424E+18	3.18469E+18	0.	7.25145E+18	1.47155E+17	1.96524E+19
7	-1.26978E+17	1.23945E+17	3.80663E+18	1.53538E+18	0.	1.93524E+18	0.	7.27398E+18
8	-8.03744E+16	2.38783E+16	8.88357E+17	4.58842E+17	0.	5.45869E+17	0.	1.93640E+18
9	-5.54532E+16	5.30084E+15	3.22006E+17	1.95884E+17	0.	1.78540E+17	0.	6.46115E+17
10	-3.10760E+16	1.57340E+15	1.07953E+17	6.29553E+16	0.	3.72789E+16	0.	1.78594E+17
11	-1.44840E+16	2.70030E+14	2.70014E+16	1.87450E+16	0.	5.81068E+15	0.	3.72857E+16
12	-4.53057E+15	7.50012E+13	6.75319E+15	2.34826E+15	0.	1.17967E+15	0.	5.81068E+15
13	-2.11304E+15	1.21605E+13	1.28773E+15	1.74623E+15	0.	2.57332E+14	0.	1.17967E+15
14	-4.41330E+14	1.92892E+12	4.54505E+14	2.03038E+14	0.	4.15547E+13	0.	2.57332E+14
15	-2.03605E+14	2.01044E+12	1.54231E+14	4.32868E+13	0.	4.63495E+13	0.	4.15547E+13
16	-1.78903E+14	6.79100E+11	1.97143E+14	2.22447E+13	0.	5.19340E+12	0.	4.63495E+13
17	-3.08575E+14	4.62900E+11	2.73181E+14	4.33554E+13	0.	-0.	0.	6.19340E+12
TOTAL	9.05095E+18	6.89204E+18	2.57535E+19	2.14903E+19	0.	1.26249E+20	6.30753E+19	1.26391E+20

* * * ZONE 4

REACTION RATES (REACTIONS PER SEC.)

GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT SCATTER	FISSION SOURCE	IN SCATTER
1	-1.59438E+18	3.39587E+16	3.72227E+16	1.70408E+17	0.	1.71340E+18	3.65113E+17	0.
2	-2.92500E+18	8.65645E+16	8.62848E+16	3.37508E+17	0.	3.79724E+18	6.14998E+17	7.74375E+17
3	-2.93653E+18	1.85498E+17	4.13759E+17	0.	0.	6.06607E+18	3.21805E+17	3.40997E+18
4	-2.51907E+18	2.79187E+17	8.10237E+17	0.	0.	8.49333E+18	9.95893E+16	6.96470E+18
5	-1.86883E+18	4.27524E+17	2.76318E+18	0.	0.	7.60121E+18	2.90748E+16	8.89305E+18
6	-3.42004E+17	2.31250E+17	4.48215E+18	0.	0.	3.27285E+18	3.34536E+15	7.63963E+18
7	1.85181E+15	5.97070E+16	1.91738E+18	0.	0.	1.30625E+18	0.	3.28446E+18
8	3.13530E+16	1.87949E+16	4.79185E+17	0.	0.	7.77551E+17	0.	1.30552E+18
9	4.21530E+16	9.13032E+15	2.87343E+17	0.	0.	4.39155E+17	0.	7.77608E+17
10	1.04326E+16	5.66107E+15	2.16465E+17	0.	0.	2.06724E+17	0.	4.39168E+17
11	-1.12464E+15	2.87848E+15	8.77332E+16	0.	0.	1.17292E+17	0.	2.06724E+17
12	-1.00861E+16	1.14611E+15	9.43252E+16	0.	0.	3.19482E+16	0.	1.17292E+17
13	-6.13369E+15	6.71240E+14	9.60481E+15	0.	0.	2.78194E+16	0.	3.19482E+16
14	-7.17604E+15	1.70493E+14	2.86679E+16	0.	0.	5.18354E+15	0.	2.78194E+16
15	-2.36070E+15	1.45338E+14	2.67727E+15	0.	0.	5.72360E+15	0.	6.18354E+15
16	-4.96045E+14	1.04445E+14	2.12136E+15	0.	0.	3.99281E+15	0.	5.72360E+15
17	4.76617E+14	1.23091E+14	3.39138E+15	0.	0.	-0.	0.	3.99281E+15
TOTAL	-1.21269E+19	1.34251E+18	1.17217E+19	5.07916E+17	0.	3.38667E+19	1.43392E+18	3.38892E+19

* * * ZONE 5

REACTION RATES (REACTIONS PER SEC.)

GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT SCATTER	FISSION SOURCE	IN SCATTER
1	-1.01130E+16	2.30906E+14	3.01187E+14	0.	0.	9.56060E+15	0.	0.
2	-2.83513E+16	1.87181E+15	3.65916E+14	0.	0.	3.17220E+16	0.	5.64039E+15
3	-9.10434E+16	1.23397E+16	2.17391E+15	0.	0.	1.04506E+17	0.	2.80563E+16
4	-1.75607E+17	3.04021E+16	8.23910E+15	0.	0.	2.43086E+17	0.	1.06277E+17
5	-3.42456E+17	6.56825E+16	4.53740E+16	0.	0.	4.79704E+17	0.	2.48625E+17
6	-2.15861E+17	3.81710E+16	7.60130E+16	0.	0.	5.81426E+17	0.	4.79980E+17
7	2.39334E+16	1.57909E+16	8.59611E+16	0.	0.	4.55874E+17	0.	5.81425E+17
8	3.71350E+16	7.05687E+15	2.30819E+16	0.	0.	3.88692E+17	0.	4.55874E+17
9	1.75096E+16	4.08022E+15	6.20769E+16	0.	0.	3.05045E+17	0.	3.88692E+17
10	3.46105E+16	4.58998E+15	2.71538E+16	0.	0.	2.38742E+17	0.	3.05045E+17
11	2.93521E+16	3.54304E+15	2.39285E+16	0.	0.	1.81948E+17	0.	2.38742E+17
12	2.57470E+16	2.54927E+15	2.49336E+16	0.	0.	1.28742E+17	0.	1.81948E+17
13	1.63388E+16	1.74631E+15	2.48714E+16	0.	0.	8.57928E+16	0.	1.28742E+17
14	1.28548E+16	1.05162E+15	2.18965E+16	0.	0.	5.00007E+16	0.	8.57928E+16
15	5.51135E+15	5.80059E+14	1.76947E+16	0.	0.	2.62144E+16	0.	5.00007E+16
16	2.04042E+15	2.72735E+14	1.25291E+16	0.	0.	1.13713E+16	0.	2.62144E+16
17	5.98740E+14	1.54892E+14	1.06162E+16	0.	0.	-0.	0.	1.13713E+16
TOTAL	-6.57799E+17	1.90114E+17	4.67211E+17	0.	0.	3.32243E+18	0.	3.32243E+18

* * * CORE BALANCE NORMALIZED TO A TOTAL FISSION SOURCE OF 1.0

GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT SCATTER	FISSION SOURCE	IN SCATTER
1	7.87038E-03	7.87518E-03	6.38567E-03	2.86944E-02	0.	2.02022E-01	2.52835E-01	0.
2	1.44941E-02	1.67092E-02	9.15491E-03	5.73001E-02	0.	4.39861E-01	4.25877E-01	1.11621E-01
3	1.49444E-02	2.47170E-02	2.96225E-02	4.32094E-02	0.	5.08563E-01	2.22845E-01	3.98198E-01
4	1.35025E-02	2.89888E-02	4.81527E-02	5.08414E-02	0.	5.30424E-01	5.89641E-02	6.02938E-01
5	1.15435E-02	3.27052E-02	1.17778E-01	6.98588E-02	0.	3.55254E-01	2.01338E-02	5.67006E-01
6	3.17435E-03	1.31467E-02	1.56513E-01	5.05179E-02	0.	1.37208E-01	2.31661E-03	3.58345E-01
7	9.25083E-05	2.50876E-03	7.15734E-02	2.56524E-02	0.	3.77875E-02	0.	1.37618E-01
8	-2.30086E-04	5.06866E-04	1.67249E-02	7.85000E-03	0.	1.29455E-02	0.	3.78072E-02
9	-2.27300E-04	1.13828E-04	6.07932E-03	3.37811E-03	0.	3.60613E-03	0.	1.29496E-02
10	-1.38638E-04	3.27639E-05	1.94395E-03	1.04518E-03	0.	7.24145E-04	0.	3.60705E-03
11	-6.86522E-05	4.93093E-06	4.17553E-04	2.72535E-04	0.	9.80442E-05	0.	7.24253E-04
12	-2.18941E-05	9.54154E-07	7.95429E-05	2.51788E-05	0.	1.43337E-05	0.	9.80442E-05
13	-1.03268E-05	1.01383E-07	9.69551E-06	1.28527E-05	0.	2.05315E-06	0.	1.43337E-05
14	-2.16158E-06	1.20640E-08	2.76335E-06	1.19589E-06	0.	2.55003E-07	0.	2.05315E-06
15	-9.98042E-07	1.03487E-08	7.88454E-07	2.20048E-07	0.	2.37715E-07	0.	2.55003E-07
16	-8.76963E-07	3.37059E-09	9.75557E-07	1.10012E-07	0.	3.06745E-08	0.	2.37715E-07
17	-1.51261E-06	2.26972E-09	1.33938E-06	2.12565E-07	0.	0.	0.	3.06745E-08
TOTAL	6.49193E-02	1.27310E-01	4.64441E-01	3.38770E-01	0.	2.22851E+00	9.92971E-01	2.23093E+00

* * * BLANKET BALANCE NORMALIZED TO A TOTAL FISSION SOURCE OF 1.0

GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT SCATTER	FISSION SOURCE	IN SCATTER
1	-7.81550E-03	1.66462E-04	1.82462E-04	8.35322E-04	0.	8.39893E-03	1.78975E-03	0.
2	-1.43381E-02	4.24330E-04	4.22960E-04	1.65443E-03	0.	1.86137E-02	3.01466E-03	3.79591E-03
3	-1.43946E-02	9.09291E-04	2.02820E-03	0.	0.	2.97353E-02	1.57745E-03	1.67153E-02
4	-1.23483E-02	1.36855E-03	3.97170E-03	0.	0.	4.16334E-02	4.88177E-04	3.41403E-02
5	-9.16081E-03	2.09568E-03	1.35448E-02	0.	0.	3.72603E-02	1.42522E-04	4.35929E-02
6	-1.67547E-03	1.13356E-03	2.13710E-02	0.	0.	1.60432E-02	1.63986E-05	3.74487E-02
7	9.07737E-06	2.92678E-04	9.39878E-03	0.	0.	5.40313E-03	0.	1.61001E-02
8	1.53689E-04	9.21306E-05	2.34892E-03	0.	0.	3.81148E-03	0.	6.40445E-03
9	2.06579E-04	4.47559E-05	1.40852E-03	0.	0.	2.15269E-03	0.	3.81175E-03
10	5.11393E-05	2.77500E-05	1.06109E-03	0.	0.	1.01334E-03	0.	2.15276E-03
11	-5.51286E-06	1.41100E-05	4.30059E-04	0.	0.	5.74954E-04	0.	1.01334E-03
12	-4.94409E-05	5.51813E-06	4.62373E-04	0.	0.	1.56607E-04	0.	5.74954E-04
13	-3.00667E-05	3.29035E-06	4.70818E-05	0.	0.	1.36368E-04	0.	1.55507E-04
14	-3.51762E-05	8.35739E-07	1.40527E-04	0.	0.	3.03111E-05	0.	1.36368E-04
15	-1.15719E-05	7.12434E-07	1.31237E-05	0.	0.	2.80565E-05	0.	3.03111E-05
16	-2.43156E-06	5.11979E-07	1.03987E-05	0.	0.	1.95723E-05	0.	2.80565E-05
17	2.33633E-06	6.03380E-07	1.66242E-05	0.	0.	0.	0.	1.95723E-05
TOTAL	-5.94449E-02	6.58087E-03	5.74587E-02	2.48975E-03	0.	1.66011E-01	7.02896E-03	1.66121E-01

* * * REFLECTOR BALANCE NORMALIZED TO A TOTAL FISSION SOURCE OF 1.0

GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT SCATTER	FISSION SOURCE	IN SCATTER
1	-4.95731E-05	1.13188E-06	1.47639E-06	0.	0.	4.68651E-05	0.	0.
2	-1.38975E-04	9.17541E-06	1.79368E-06	0.	0.	1.55498E-04	0.	2.76486E-05
3	-4.46286E-04	6.04881E-05	1.06563E-05	0.	0.	5.12279E-04	0.	1.37529E-04
4	-8.60805E-04	1.49028E-04	4.03872E-05	0.	0.	1.19158E-03	0.	5.20960E-04
5	-1.67868E-03	3.21969E-04	2.22419E-04	0.	0.	2.35146E-03	0.	1.21873E-03
6	-1.05813E-03	1.87111E-04	3.72608E-04	0.	0.	2.85009E-03	0.	2.35281E-03
7	1.17319E-04	7.74053E-05	4.21372E-04	0.	0.	2.23465E-03	0.	2.85009E-03
8	1.82032E-04	3.45921E-05	1.13145E-04	0.	0.	1.90533E-03	0.	2.23465E-03
9	8.58305E-05	2.00008E-05	3.04295E-04	0.	0.	1.49530E-03	0.	1.90533E-03
10	1.69657E-04	2.24996E-05	1.33105E-04	0.	0.	1.17029E-03	0.	1.49530E-03
11	1.43881E-04	1.73676E-05	1.17295E-04	0.	0.	8.91889E-04	0.	1.17029E-03
12	1.26209E-04	1.24963E-05	1.22222E-04	0.	0.	6.31079E-04	0.	8.91889E-04
13	8.00909E-05	8.56025E-06	1.21917E-04	0.	0.	4.20548E-04	0.	6.31079E-04
14	6.30131E-05	5.15495E-06	1.07335E-04	0.	0.	2.45098E-04	0.	4.20548E-04
15	2.70161E-05	2.84339E-06	8.67377E-05	0.	0.	1.28500E-04	0.	2.45098E-04
16	1.00019E-05	1.33692E-06	6.14165E-05	0.	0.	5.57407E-05	0.	1.28500E-04
17	2.93496E-06	7.59263E-07	5.20397E-05	0.	0.	0.	0.	5.57407E-05
TOTAL	-3.22447E-03	9.31920E-04	2.29022E-03	0.	0.	1.62862E-02	0.	1.62862E-02

* * * REACTOR BALANCE NORMALIZED TO A TOTAL FISSION SOURCE OF 1.0

GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT SCATTER	FISSION SOURCE	IN SCATTER
1	5.30258E-06	8.04278E-03	6.56961E-03	2.95297E-02	0.	2.10468E-01	2.54625E-01	0.
2	1.71023E-05	1.71427E-02	9.57966E-03	5.89546E-02	0.	4.58630E-01	4.28891E-01	1.15445E-01
3	1.03514E-04	2.56868E-02	3.16613E-02	4.32094E-02	0.	5.38811E-01	2.24422E-01	4.15051E-01
4	2.93404E-04	3.05064E-02	5.21648E-02	5.08414E-02	0.	5.73249E-01	6.94522E-02	6.37599E-01
5	7.04021E-04	3.51229E-02	1.31545E-01	6.98588E-02	0.	3.94865E-01	2.02763E-02	6.11817E-01
6	4.39753E-04	1.44673E-02	1.78857E-01	5.05179E-02	0.	1.56102E-01	2.33301E-03	3.98146E-01
7	2.18905E-04	2.87884E-03	8.13935E-02	2.56524E-02	0.	4.64253E-02	0.	1.56568E-01
8	1.05636E-04	6.33588E-04	1.91870E-02	7.86000E-03	0.	1.86623E-02	0.	4.64463E-02
9	6.52090E-05	1.78585E-04	7.79214E-03	3.37811E-03	0.	7.25413E-03	0.	1.86667E-02
10	8.21587E-05	8.30135E-05	3.13814E-03	1.04518E-03	0.	2.90778E-03	0.	7.25510E-03
11	6.97159E-05	3.64086E-05	9.64908E-04	2.72635E-04	0.	1.56489E-03	0.	2.90788E-03
12	5.48742E-05	1.90685E-05	6.64137E-04	2.51788E-05	0.	8.02019E-04	0.	1.56489E-03
13	3.96974E-05	1.19520E-05	1.78694E-04	1.28627E-05	0.	5.58969E-04	0.	8.02019E-04
14	2.56753E-05	6.00275E-06	2.50625E-04	1.19589E-06	0.	2.75564E-04	0.	5.58969E-04
15	1.44461E-05	3.56617E-06	1.00650E-04	2.20048E-07	0.	1.56795E-04	0.	2.75564E-04
16	6.69341E-06	1.85227E-06	7.27907E-05	1.10012E-07	0.	7.53437E-05	0.	1.56795E-04
17	3.75869E-06	1.36491E-06	7.00033E-05	2.12565E-07	0.	0.	0.	7.53437E-05
TOTAL	2.24987E-03	1.34823E-01	5.24190E-01	3.41260E-01	0.	2.41081E+00	1.00000E+00	2.41334E+00

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* ADJOINT FLUX CALCULATION *
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* * * ADJOINT FLUXES * * *

PRESENT EIGENVALUE 0 9.99589E-01
EIGENVALUE FOR N-1 ITERATION 0 9.99507E-01
NUMBER OF INNER FLUX ITERATIONS 0 10
INNER CONVERGENCE CRITERION 0 1.00000E-04

POINT	RADIUS	FISSION SOURCE	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
1	0.0000	5.22035E-21	6.01566E-21	5.33464E-21	4.54424E-21	4.20523E-21	3.86728E-21	3.50725E-21
2	4.5213	5.22160E-21	6.01711E-21	5.33592E-21	4.54532E-21	4.20624E-21	3.86822E-21	3.50812E-21
3	9.0426	5.22536E-21	6.02144E-21	5.33975E-21	4.54858E-21	4.20928E-21	3.87104E-21	3.51073E-21
4	13.5639	5.23160E-21	6.02863E-21	5.34613E-21	4.55399E-21	4.21433E-21	3.87574E-21	3.51506E-21
5	18.0852	5.24029E-21	6.03867E-21	5.35501E-21	4.56153E-21	4.22137E-21	3.88228E-21	3.52110E-21
6	22.6065	5.25141E-21	6.05149E-21	5.36638E-21	4.57118E-21	4.23038E-21	3.89056E-21	3.52983E-21
7	27.1278	5.26491E-21	6.06705E-21	5.38016E-21	4.58289E-21	4.24131E-21	3.90082E-21	3.53820E-21
8	31.6491	5.28072E-21	6.08527E-21	5.39631E-21	4.59661E-21	4.25413E-21	3.91274E-21	3.54919E-21
9	36.1704	5.29877E-21	6.10606E-21	5.41475E-21	4.61230E-21	4.26879E-21	3.92636E-21	3.56175E-21
10	40.6917	5.31898E-21	6.12930E-21	5.43539E-21	4.62986E-21	4.28522E-21	3.94164E-21	3.57581E-21
11	45.2130	5.34123E-21	6.15486E-21	5.45811E-21	4.64923E-21	4.30338E-21	3.95853E-21	3.59133E-21
12	49.7343	5.36539E-21	6.18258E-21	5.48278E-21	4.67031E-21	4.32318E-21	3.97696E-21	3.60924E-21
13	54.2556	5.39132E-21	6.21223E-21	5.50924E-21	4.69298E-21	4.34456E-21	3.99691E-21	3.62650E-21
14	58.7769	5.41882E-21	6.24356E-21	5.53728E-21	4.71711E-21	4.36744E-21	4.01832E-21	3.64508E-21
15	63.2982	5.44765E-21	6.27623E-21	5.56665E-21	4.74253E-21	4.39173E-21	4.04119E-21	3.66701E-21
16	67.8195	5.47750E-21	6.30980E-21	5.59701E-21	4.76901E-21	4.41732E-21	4.06554E-21	3.68941E-21
17	72.3408	5.50796E-21	6.34372E-21	5.62793E-21	4.79626E-21	4.44408E-21	4.09142E-21	3.71357E-21
18	76.8621	5.53851E-21	6.37722E-21	5.65883E-21	4.82391E-21	4.47182E-21	4.11894E-21	3.74003E-21
19	81.3834	5.56845E-21	6.40935E-21	5.68897E-21	4.85144E-21	4.50025E-21	4.14821E-21	3.76972E-21
20	85.9047	5.59684E-21	6.43881E-21	5.71736E-21	4.87818E-21	4.52891E-21	4.17934E-21	3.80406E-21
21	90.4260	5.62246E-21	6.46392E-21	5.74270E-21	4.90323E-21	4.55710E-21	4.21230E-21	3.84500E-21
* * * * * INTERFACE * * * * *								
21	90.4260	5.62246E-21	6.46392E-21	5.74270E-21	4.90323E-21	4.55710E-21	4.21230E-21	3.84500E-21
22	93.6116	5.63091E-21	6.47026E-21	5.75072E-21	4.91270E-21	4.56970E-21	4.22925E-21	3.86881E-21
23	96.7972	5.62201E-21	6.45711E-21	5.74111E-21	4.90674E-21	4.56753E-21	4.23135E-21	3.87595E-21
24	99.9828	5.59569E-21	6.42422E-21	5.71379E-21	4.88543E-21	4.55073E-21	4.21912E-21	3.86800E-21
25	103.1684	5.55198E-21	6.37147E-21	5.66876E-21	4.84889E-21	4.51956E-21	4.19315E-21	3.84644E-21
26	106.3540	5.49097E-21	6.29877E-21	5.60609E-21	4.79728E-21	4.47430E-21	4.15408E-21	3.81268E-21
27	109.5396	5.41277E-21	6.20607E-21	5.52587E-21	4.73080E-21	4.41528E-21	4.10259E-21	3.76813E-21
28	112.7252	5.31747E-21	6.09328E-21	5.42821E-21	4.64967E-21	4.34279E-21	4.03932E-21	3.71434E-21
29	115.9108	5.20516E-21	5.96023E-21	5.31317E-21	4.55411E-21	4.25708E-21	3.96487E-21	3.65304E-21
30	119.0964	5.07584E-21	5.80663E-21	5.18078E-21	4.44434E-21	4.15834E-21	3.87977E-21	3.58522E-21
31	122.2820	4.92943E-21	5.63195E-21	5.03099E-21	4.32059E-21	4.04660E-21	3.78433E-21	3.51615E-21
* * * * * INTERFACE * * * * *								
31	122.2820	4.92943E-21	5.63195E-21	5.03099E-21	4.32059E-21	4.04660E-21	3.78433E-21	3.51615E-21
32	125.3897	4.75941E-21	5.43127E-21	4.85729E-21	4.17548E-21	3.91389E-21	3.66822E-21	3.42549E-21
33	128.4974	4.55573E-21	5.19526E-21	4.64943E-21	3.99877E-21	3.75000E-21	3.51947E-21	3.29591E-21
34	131.6051	4.32016E-21	4.92537E-21	4.40930E-21	3.79242E-21	3.55659E-21	3.33996E-21	3.13430E-21
35	134.7128	4.05507E-21	4.62393E-21	4.13937E-21	3.55872E-21	3.33573E-21	3.13181E-21	2.94079E-21
36	137.8205	3.76335E-21	4.29398E-21	3.84269E-21	3.30034E-21	3.08988E-21	2.89726E-21	2.71869E-21
37	140.9282	3.44840E-21	3.93924E-21	3.52281E-21	3.02024E-21	2.82183E-21	2.63858E-21	2.46943E-21

POINT	RADIUS	FISSION SOURCE	NORMALIZED FLUXES					
			GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
38	144.0359	3.11406E-21	3.56395E-21	3.18383E-21	2.72172E-21	2.53473E-21	2.35856E-21	2.19348E-21
39	147.1436	2.76462E-21	3.17285E-21	2.83037E-21	2.40833E-21	2.23212E-21	2.05961E-21	1.89029E-21
40	150.2513	2.40480E-21	2.77110E-21	2.46752E-21	2.08382E-21	1.91796E-21	1.74489E-21	1.55924E-21
41	153.3590	2.03973E-21	2.36416E-21	2.10143E-21	1.75206E-21	1.59667E-21	1.41805E-21	1.19475E-21
* * * * *								
41	153.3590	2.03973E-21	2.36416E-21	2.10143E-21	1.75206E-21	1.59657E-21	1.41805E-21	1.19475E-21
42	156.4319	1.64712E-21	1.93071E-21	1.70698E-21	1.39345E-21	1.24444E-21	1.06678E-21	8.31252E-22
43	159.5048	1.31722E-21	1.56011E-21	1.37206E-21	1.09954E-21	9.60925E-22	7.95452E-22	5.75052E-22
44	162.5777	1.04424E-21	1.24878E-21	1.09265E-21	8.61121E-22	7.35786E-22	5.88514E-22	3.95943E-22
45	165.6506	8.21341E-22	9.91093E-22	8.62955E-22	6.69668E-22	5.59188E-22	4.32729E-22	2.71338E-22
46	168.7235	6.41455E-22	7.80528E-22	6.76516E-22	5.17441E-22	4.22212E-22	3.16434E-22	1.85402E-22
47	171.7964	4.97801E-22	6.10359E-22	5.26878E-22	3.97556E-22	3.17070E-22	2.30492E-22	1.26499E-22
48	174.8693	3.84153E-22	4.74103E-22	4.07978E-22	3.04017E-22	2.37155E-22	1.67574E-22	8.64587E-23
49	177.9422	2.94971E-22	3.65747E-22	3.14339E-22	2.31703E-22	1.76996E-22	1.21973E-22	5.96018E-23
50	181.0151	2.25423E-22	2.79815E-22	2.41148E-22	1.76316E-22	1.32142E-22	8.93212E-23	4.19500E-23
51	184.0880	1.71332E-22	2.11312E-22	1.84243E-22	1.34309E-22	9.90208E-23	6.63119E-23	3.08276E-23
* * * * *								
51	184.0880	1.71332E-22	2.11312E-22	1.84243E-22	1.34309E-22	9.90208E-23	6.63119E-23	3.08276E-23
52	187.0880	1.39292E-22	1.65644E-22	1.50845E-22	1.13382E-22	8.29118E-23	5.42841E-23	2.46093E-23
53	190.0880	1.13377E-22	1.31014E-22	1.23328E-22	9.51062E-23	6.89796E-23	4.42202E-23	1.95330E-23
54	193.0880	9.20607E-23	1.04053E-22	1.00409E-22	7.90915E-23	5.69070E-23	3.57782E-23	1.54352E-23
55	196.0880	7.42415E-23	8.25205E-23	8.10960E-23	6.49898E-23	4.64070E-23	2.86656E-23	1.21302E-23
56	199.0880	5.91044E-23	6.48956E-23	6.46091E-23	5.24893E-23	3.72207E-23	2.26357E-23	9.40183E-24
57	202.0880	4.60294E-23	5.01188E-23	5.03280E-23	4.13095E-23	2.91141E-23	1.74706E-23	7.14813E-24
58	205.0880	3.45316E-23	3.74326E-23	3.77491E-23	3.11959E-23	2.18748E-23	1.29848E-23	5.25772E-24
59	208.0880	2.42207E-23	2.62801E-23	2.64550E-23	2.19156E-23	1.53093E-23	9.01479E-24	3.63608E-24
60	211.0880	1.47742E-23	1.62420E-23	1.60916E-23	1.32534E-23	9.23894E-24	5.41516E-24	2.20223E-24
61	214.0880	5.91813E-24	6.99819E-24	6.34959E-24	5.00784E-24	3.49763E-24	2.05392E-24	8.85287E-25

POINT	RADIUS	FISSION SOURCE	NORMALIZED FLUXES					
			GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11	GROUP 12
1	0.0000	5.22035E-21	3.94463E-21	4.71095E-21	5.09476E-21	5.10092E-21	5.46902E-21	3.90773E-21
2	4.5213	5.22160E-21	3.94562E-21	4.71214E-21	5.09605E-21	5.10221E-21	5.47040E-21	3.90872E-21
3	9.0426	5.22536E-21	3.94859E-21	4.71569E-21	5.09990E-21	5.10507E-21	5.47455E-21	3.91168E-21
4	13.5639	5.23160E-21	3.95352E-21	4.72150E-21	5.10631E-21	5.11249E-21	5.48145E-21	3.91660E-21
5	18.0852	5.24029E-21	3.96040E-21	4.72984E-21	5.11525E-21	5.12144E-21	5.49107E-21	3.92346E-21
6	22.6065	5.25141E-21	3.95919E-21	4.74038E-21	5.12669E-21	5.13289E-21	5.50337E-21	3.93224E-21
7	27.1278	5.26491E-21	3.97987E-21	4.75317E-21	5.14057E-21	5.14680E-21	5.51831E-21	3.94289E-21
8	31.6491	5.28672E-21	3.99237E-21	4.76816E-21	5.15684E-21	5.16309E-21	5.53582E-21	3.95538E-21
9	36.1704	5.29877E-21	4.00666E-21	4.78528E-21	5.17542E-21	5.18170E-21	5.55583E-21	3.96964E-21
10	40.6917	5.31898E-21	4.02264E-21	4.80444E-21	5.19622E-21	5.20254E-21	5.57823E-21	3.98562E-21
11	45.2130	5.34123E-21	4.04026E-21	4.82555E-21	5.21914E-21	5.22550E-21	5.60291E-21	4.00321E-21
12	49.7343	5.36539E-21	4.05940E-21	4.84848E-21	5.24404E-21	5.25044E-21	5.62973E-21	4.0233E-21
13	54.2556	5.39132E-21	4.07998E-21	4.87309E-21	5.27076E-21	5.27720E-21	5.65852E-21	4.04284E-21
14	58.7769	5.41882E-21	4.10189E-21	4.89924E-21	5.29911E-21	5.30559E-21	5.68905E-21	4.06460E-21
15	63.2982	5.44765E-21	4.12510E-21	4.92579E-21	5.32890E-21	5.33540E-21	5.72108E-21	4.08745E-21
16	67.8195	5.47750E-21	4.14965E-21	4.95559E-21	5.35994E-21	5.36644E-21	5.75433E-21	4.11125E-21
17	72.3408	5.50796E-21	4.17586E-21	4.98612E-21	5.39227E-21	5.39866E-21	5.78859E-21	4.13599E-21

POINT	RADIUS	FISSION SOURCE	GROUP 7	GROUP 8	NORMALIZED FLUXES				GROUP 11	GROUP 12
					GROUP 9	GROUP 10				
18	76.8621	5.53851E-21	4.20459E-21	5.01888E-21	5.42650E-21	5.43256E-21		5.82404E-21	4.16219E-21	
19	81.3834	5.56845E-21	4.23783E-21	5.05607E-21	5.46498E-21	5.47020E-21		5.86248E-21	4.19202E-21	
20	85.9047	5.59684E-21	4.27981E-21	5.10258E-21	5.51479E-21	5.51789E-21		5.91128E-21	4.23247E-21	
21	90.4260	5.62246E-21	4.33909E-21	5.16854E-21	5.59561E-21	5.59272E-21		5.99699E-21	4.30446E-21	
				* * * * *	INTERFACE	* * * * *				
21	90.4260	5.62246E-21	4.33909E-21	5.16854E-21	5.59561E-21	5.59272E-21		5.99699E-21	4.30446E-21	
22	93.6116	5.63091E-21	4.37666E-21	5.21054E-21	5.65069E-21	5.64244E-21		6.05616E-21	4.35546E-21	
23	96.7972	5.62201E-21	4.38822E-21	5.22157E-21	5.66363E-21	5.65308E-21		6.06644E-21	4.36824E-21	
24	99.9828	5.59569E-21	4.37913E-21	5.20815E-21	5.64772E-21	5.63611E-21		6.04637E-21	4.35674E-21	
25	103.1684	5.55198E-21	4.35289E-21	5.17442E-21	5.60933E-21	5.59718E-21		6.00317E-21	4.32724E-21	
26	106.3540	5.49097E-21	4.31207E-21	5.12322E-21	5.55185E-21	5.53934E-21		5.93989E-21	4.28284E-21	
27	109.5396	5.41277E-21	4.25892E-21	5.05695E-21	5.47767E-21	5.46476E-21		5.85836E-21	4.22564E-21	
28	112.7252	5.31747E-21	4.19604E-21	4.97836E-21	5.38962E-21	5.37601E-21		5.76075E-21	4.15922E-21	
29	115.9108	5.20516E-21	4.12694E-21	4.89140E-21	5.29250E-21	5.27748E-21		5.65144E-21	4.08936E-21	
30	119.0964	5.07584E-21	4.05694E-21	4.80235E-21	5.19579E-21	5.17777E-21		5.54093E-21	4.01733E-21	
31	122.2820	4.92943E-21	3.99440E-21	4.72130E-21	5.11900E-21	5.09419E-21		5.45543E-21	3.97597E-21	
				* * * * *	INTERFACE	* * * * *				
31	122.2820	4.92943E-21	3.99440E-21	4.72130E-21	5.11900E-21	5.09419E-21		5.45543E-21	3.97597E-21	
32	125.3897	4.75941E-21	3.90774E-21	4.61158E-21	5.01005E-21	4.97326E-21		5.33580E-21	3.91884E-21	
33	128.4974	4.55573E-21	3.76808E-21	4.44191E-21	4.82552E-21	4.79315E-21		5.13310E-21	3.77329E-21	
34	131.6051	4.32016E-21	3.58628E-21	4.22514E-21	4.58869E-21	4.55678E-21		4.87739E-21	3.59043E-21	
35	134.7128	4.05507E-21	3.36900E-21	3.96935E-21	4.31112E-21	4.28086E-21		4.58148E-21	3.37437E-21	
36	137.8205	3.76335E-21	3.11994E-21	3.67896E-21	3.99857E-21	3.97086E-21		4.25161E-21	3.13082E-21	
37	140.9282	3.44840E-21	2.84022E-21	3.35524E-21	3.65278E-21	3.62852E-21		3.89054E-21	2.86177E-21	
38	144.0359	3.11406E-21	2.52804E-21	2.99552E-21	3.27045E-21	3.25067E-21		3.49649E-21	2.56494E-21	
39	147.1436	2.76462E-21	2.17739E-21	2.59162E-21	2.83873E-21	2.82478E-21		3.05687E-21	2.23011E-21	
40	150.2513	2.40480E-21	1.77588E-21	2.12530E-21	2.32474E-21	2.31864E-21		2.53042E-21	1.82990E-21	
41	153.3590	2.03973E-21	1.30093E-21	1.56392E-21	1.65275E-21	1.65931E-21		1.79862E-21	1.29911E-21	
				* * * * *	INTERFACE	* * * * *				
41	153.3590	2.03973E-21	1.30093E-21	1.56392E-21	1.65275E-21	1.65931E-21		1.79862E-21	1.29911E-21	
42	156.4319	1.64712E-21	8.51487E-22	1.03186E-21	1.03890E-21	1.01240E-21		1.02623E-21	7.51140E-22	
43	159.5048	1.31722E-21	5.56706E-22	6.72906E-22	6.47645E-22	6.11949E-22		5.88369E-22	4.40083E-22	
44	162.5777	1.04424E-21	3.63194E-22	4.34395E-22	4.00755E-22	3.67490E-22		3.39249E-22	2.60306E-22	
45	165.6506	8.21341E-22	2.36322E-22	2.78010E-22	2.46451E-22	2.19781E-22		1.96860E-22	1.55160E-22	
46	168.7235	6.41455E-22	1.53404E-22	1.76706E-22	1.50887E-22	1.31234E-22		1.15036E-22	9.31929E-23	
47	171.7964	4.97801E-22	9.95010E-23	1.11855E-22	9.22420E-23	7.85319E-23		6.79858E-23	5.65228E-23	
48	174.8693	3.84153E-22	6.47684E-23	7.08885E-23	5.66469E-23	4.74538E-23		4.08730E-23	3.48581E-23	
49	177.9422	2.94971E-22	4.27528E-23	4.54982E-23	3.54148E-23	2.94665E-23		2.54896E-23	2.23035E-23	
50	181.0151	2.25423E-22	2.92809E-23	3.03180E-23	2.31976E-23	1.95573E-23		1.72222E-23	1.56563E-23	
51	184.0880	1.71332E-22	2.17409E-23	2.20083E-23	1.67796E-23	1.49062E-23		1.35490E-23	1.36155E-23	
				* * * * *	INTERFACE	* * * * *				
51	184.0880	1.71332E-22	2.17409E-23	2.20083E-23	1.67796E-23	1.49062E-23		1.35490E-23	1.36155E-23	
52	187.0880	1.39292E-22	1.71808E-23	1.63280E-23	1.26218E-23	1.22534E-23		1.19042E-23	1.31288E-23	
53	190.0880	1.13377E-22	1.34708E-23	1.23116E-23	9.86421E-24	1.02425E-23		1.04524E-23	1.18636E-23	
54	193.0880	9.20607E-23	1.05099E-23	9.43478E-24	7.90631E-24	8.61216E-24		9.07179E-24	1.03333E-23	
55	196.0880	7.42415E-23	8.16223E-24	7.31770E-24	6.41203E-24	7.21478E-24		7.74398E-24	8.77572E-24	
56	199.0880	5.91044E-23	6.29264E-24	5.69911E-24	5.19304E-24	5.96900E-24		6.47635E-24	7.29162E-24	

POINT	RADIUS	FISSION	NORMALIZED FLUXES					
		SOURCE	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11	GROUP 12
57	202.0880	4.60294E-23	4.78258E-24	4.40486E-24	4.14283E-24	4.82865E-24	5.27501E-24	5.91428E-24
58	205.0880	3.45316E-23	3.53462E-24	3.32080E-24	3.19948E-24	3.76445E-24	4.13713E-24	4.64303E-24
59	208.0880	2.42207E-23	2.47122E-24	2.37244E-24	2.32525E-24	2.75447E-24	3.05036E-24	3.45906E-24
60	211.0880	1.47742E-23	1.53101E-24	1.51086E-24	1.49581E-24	1.78029E-24	1.99424E-24	2.33215E-24
61	214.0880	5.91813E-24	6.64145E-25	7.03321E-25	6.95242E-25	8.26769E-25	9.42305E-25	1.22273E-24

POINT	RADIUS	FISSION	NORMALIZED FLUXES				
		SOURCE	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17
1	0.0000	5.22035E-21	7.91046E-21	3.94220E-21	2.54560E-21	1.42484E-21	1.92964E-21
2	4.5213	5.22160E-21	7.91246E-21	3.94320E-21	2.54624E-21	1.42520E-21	1.93013E-21
3	9.0426	5.22536E-21	7.91846E-21	3.94619E-21	2.54816E-21	1.42628E-21	1.93159E-21
4	13.5639	5.23160E-21	7.92843E-21	3.95116E-21	2.55135E-21	1.42807E-21	1.93402E-21
5	18.0852	5.24029E-21	7.94234E-21	3.95810E-21	2.55580E-21	1.43057E-21	1.93741E-21
6	22.6065	5.25141E-21	7.96013E-21	3.96697E-21	2.56149E-21	1.43376E-21	1.94175E-21
7	27.1278	5.26491E-21	7.98173E-21	3.97774E-21	2.56840E-21	1.43764E-21	1.94701E-21
8	31.6491	5.28072E-21	8.00705E-21	3.99036E-21	2.57649E-21	1.44219E-21	1.95318E-21
9	36.1704	5.29877E-21	8.03597E-21	4.00479E-21	2.58574E-21	1.44738E-21	1.96023E-21
10	40.6917	5.31898E-21	8.06836E-21	4.02094E-21	2.59609E-21	1.45320E-21	1.96812E-21
11	45.2130	5.34123E-21	8.10405E-21	4.03873E-21	2.60749E-21	1.45961E-21	1.97682E-21
12	49.7343	5.36539E-21	8.14282E-21	4.05807E-21	2.61989E-21	1.46656E-21	1.98626E-21
13	54.2556	5.39132E-21	8.18443E-21	4.07883E-21	2.63323E-21	1.47403E-21	1.99640E-21
14	58.7769	5.41882E-21	8.22856E-21	4.1007E-21	2.64745E-21	1.48196E-21	2.00719E-21
15	63.2982	5.44765E-21	8.27484E-21	4.12400E-21	2.66253E-21	1.49028E-21	2.01843E-21
16	67.8195	5.47750E-21	8.32285E-21	4.14808E-21	2.67857E-21	1.49896E-21	2.03015E-21
17	72.3408	5.50796E-21	8.37221E-21	4.17305E-21	2.69591E-21	1.50799E-21	2.04223E-21
18	76.8621	5.53851E-21	8.42293E-21	4.19946E-21	2.71549E-21	1.51750E-21	2.05477E-21
19	81.3834	5.56845E-21	8.47655E-21	4.23005E-21	2.73955E-21	1.52805E-21	2.06832E-21
20	85.9047	5.59684E-21	8.53971E-21	4.27561E-21	2.77324E-21	1.54124E-21	2.08489E-21
21	90.4260	5.62246E-21	8.63467E-21	4.37582E-21	2.82791E-21	1.56142E-21	2.11085E-21
* * * * * INTERFACE * * * * *							
21	90.4260	5.62246E-21	8.63467E-21	4.37582E-21	2.82791E-21	1.56142E-21	2.11085E-21
22	93.6116	5.63091E-21	8.69494E-21	4.45364E-21	2.86595E-21	1.57457E-21	2.12783E-21
23	96.7972	5.62201E-21	8.70132E-21	4.47330E-21	2.87999E-21	1.57731E-21	2.13052E-21
24	99.9828	5.59569E-21	8.66959E-21	4.46284E-21	2.87703E-21	1.57252E-21	2.12331E-21
25	103.1684	5.55198E-21	8.60645E-21	4.43267E-21	2.86108E-21	1.56164E-21	2.10811E-21
26	106.3540	5.49097E-21	8.51493E-21	4.38696E-21	2.83466E-21	1.54544E-21	2.08584E-21
27	109.5396	5.41277E-21	8.39688E-21	4.32806E-21	2.79973E-21	1.52441E-21	2.05703E-21
28	112.7252	5.31747E-21	8.25430E-21	4.25894E-21	2.75833E-21	1.49910E-21	2.02226E-21
29	115.9108	5.20516E-21	8.09082E-21	4.18610E-21	2.71332E-21	1.47032E-21	1.98249E-21
30	119.0964	5.07584E-21	7.91428E-21	4.12617E-21	2.66929E-21	1.43958E-21	1.93972E-21
31	122.2820	4.92943E-21	7.74244E-21	4.12323E-21	2.63415E-21	1.40990E-21	1.89843E-21
* * * * * INTERFACE * * * * *							
31	122.2820	4.92943E-21	7.74244E-21	4.12323E-21	2.63415E-21	1.40990E-21	1.89843E-21
32	125.3897	4.75941E-21	7.52712E-21	4.08974E-21	2.58284E-21	1.37232E-21	1.84651E-21
33	128.4974	4.55573E-21	7.22578E-21	3.95388E-21	2.49307E-21	1.31873E-21	1.77311E-21
34	131.6051	4.32016E-21	6.86059E-21	3.76364E-21	2.37475E-21	1.25304E-21	1.68387E-21
35	134.7128	4.05507E-21	5.44282E-21	3.53755E-21	2.23378E-21	1.17751E-21	1.58171E-21
36	137.8205	3.76335E-21	5.97915E-21	3.28332E-21	2.07375E-21	1.09374E-21	1.46854E-21

POINT	RADIUS	FISSION SOURCE	NORMALIZED FLUXES				
			GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17
37	140.9282	3.44840E-21	5.47346E-21	3.00368E-21	1.89673E-21	1.00304E-21	1.34586E-21
38	144.0359	3.11406E-21	4.92541E-21	2.69615E-21	1.70326E-21	9.06691E-22	1.21488E-21
39	147.1436	2.76462E-21	4.32444E-21	2.34682E-21	1.49184E-21	8.06003E-22	1.07629E-21
40	150.2513	2.40480E-21	3.63423E-21	1.91124E-21	1.25744E-21	7.02365E-22	9.29539E-22
41	153.3590	2.03973E-21	2.75342E-21	1.26182E-21	9.88672E-22	5.97287E-22	7.70899E-22
			* * * *	* * INTERFACE * * *	* * *	* * *	
41	153.3590	2.03973E-21	2.75342E-21	1.26182E-21	9.88672E-22	5.97287E-22	7.70899E-22
42	156.4319	1.64712E-21	1.69863E-21	5.82101E-22	7.04740E-22	4.84665E-22	6.00457E-22
43	159.5048	1.31722E-21	1.03671E-21	2.84851E-22	5.10314E-22	3.90192E-22	4.67511E-22
44	162.5777	1.04424E-21	6.29754E-22	1.50428E-22	3.74616E-22	3.12013E-22	3.63719E-22
45	165.6506	8.21341E-22	3.82485E-22	8.65465E-23	2.78069E-22	2.47937E-22	2.82583E-22
46	168.7235	6.41455E-22	2.33162E-22	5.40709E-23	2.08057E-22	1.95748E-22	2.19032E-22
47	171.7964	4.97801E-22	1.43201E-22	3.61781E-23	1.56323E-22	1.53380E-22	1.69105E-22
48	174.8693	3.84153E-22	8.90095E-23	2.55288E-23	1.17358E-22	1.18981E-22	1.29698E-22
49	177.9422	2.94971E-22	5.63566E-23	1.89479E-23	8.74036E-23	9.09347E-23	9.83684E-23
50	181.0151	2.25423E-22	3.67091E-23	1.53195E-23	6.38237E-23	6.78450E-23	7.31810E-23
51	184.0880	1.71332E-22	2.48643E-23	1.50246E-23	4.47081E-23	4.85061E-23	5.25889E-23
			* * * *	* * INTERFACE * * *	* * *	* * *	
51	184.0880	1.71332E-22	2.48643E-23	1.50246E-23	4.47081E-23	4.85061E-23	5.25889E-23
52	187.0880	1.39292E-22	1.95358E-23	1.53976E-23	3.51139E-23	3.69604E-23	3.87069E-23
53	190.0880	1.13377E-22	1.57019E-23	1.44624E-23	2.74488E-23	2.80708E-23	2.84903E-23
54	193.0880	9.20607E-23	1.27727E-23	1.28883E-23	2.13570E-23	2.12545E-23	2.09693E-23
55	196.0880	7.42415E-23	1.04206E-23	1.10755E-23	1.65361E-23	1.60453E-23	1.54309E-23
56	199.0880	5.91044E-23	8.46069E-24	9.25129E-24	1.27321E-23	1.20740E-23	1.13503E-23
57	202.0880	4.60294E-23	6.78377E-24	7.53321E-24	9.73359E-24	9.05043E-24	8.34121E-24
58	205.0880	3.45316E-23	5.31899E-24	5.96993E-24	7.36588E-24	6.74770E-24	6.11923E-24
59	208.0880	2.42207E-23	4.01371E-24	4.56780E-24	5.48443E-24	4.98888E-24	4.47445E-24
60	211.0880	1.47742E-23	2.82272E-24	3.30729E-24	3.96917E-24	3.63577E-24	3.25172E-24
61	214.0880	5.91813E-24	1.70265E-24	2.15277E-24	2.71887E-24	2.57968E-24	2.33587E-24

*** AVERAGE FLUXES ***

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
ZONE 1	6.26805E-21	5.56089E-21	4.73936E-21	4.39122E-21	4.04338E-21	3.67167E-21
ZONE 2	6.19247E-21	5.51339E-21	4.71928E-21	4.40262E-21	4.09005E-21	3.75841E-21
ZONE 3	4.12772E-21	3.68960E-21	3.15947E-21	2.94959E-21	2.74986E-21	2.55356E-21
ZONE 4	9.21029E-22	8.06142E-22	6.35901E-22	5.41913E-22	4.36298E-22	3.03363E-22
ZONE 5	7.63422E-23	7.24652E-23	5.66376E-23	4.07441E-23	2.56840E-23	1.11689E-23
	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11	GROUP 12
ZONE 1	4.13045E-21	4.93078E-21	5.33235E-21	5.33783E-21	5.72259E-21	4.09093E-21
ZONE 2	4.25132E-21	5.04825E-21	5.46932E-21	5.45613E-21	5.84897E-21	4.22124E-21
ZONE 3	2.92089E-21	3.45407E-21	3.75602E-21	3.73399E-21	4.01032E-21	2.94037E-21
ZONE 4	2.89916E-22	3.45168E-22	3.32963E-22	3.16172E-22	3.12471E-22	2.34064E-22
ZONE 5	7.66426E-24	7.16828E-24	6.01048E-24	6.36040E-24	6.57583E-24	7.34485E-24
	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	
ZONE 1	8.27379E-21	4.12959E-21	2.66884E-21	1.49095E-21	2.01863E-21	
ZONE 2	8.37857E-21	4.32589E-21	2.79284E-21	1.52079E-21	2.05224E-21	
ZONE 3	5.67032E-21	3.07519E-21	1.96009E-21	1.04766E-21	1.40351E-21	
ZONE 4	5.37223E-22	1.77434E-22	2.89303E-22	2.30414E-22	2.71352E-22	
ZONE 5	9.64266E-24	9.11191E-24	1.58478E-23	1.59046E-23	1.58926E-23	

>>EDIT VPERT Z1 NA23 MO.0

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*** DATA CARD NO. 54

* * * * * PERTURBATION EDIT * * * * *

TYPE OF PERTURBATION - ISOTOPE
 PERTURBED ZONE = 1
 PERTURBED ISOTOPE = NA23
 DIFFUSION COEFFICIENT PERTURBATION = VOID WORTH
 PERTURBATION FACTOR M = 0.
 PERTURBATION DENOMINATOR = 1.00000E+00

* * * PERTURBATION RESULTS - ZONE NORTH * * *

PERTURBATION TERM	(DELTA K)/K
SOURCE	0.
RADIAL LEAKAGE	-4.58166E-06
TRANSVERSE LEAKAGE	-7.32403E-03
CAPTURE	9.05724E-04
FISSION	0.
(N,ALPHA) + (N,PROTON)	0.
SCATTERING	8.40033E-03
TOTAL ZONE PERTURBATION	1.97744E-03

* * * PERTURBATION RESULTS - POINT WORTHS * * *

RADIUS		(DELTA K)/K PER CC.		
	SOURCE	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE
0.	0.	0.	-3.04881E-09	3.78945E-10
4.52130E+00	0.	-1.12824E-14	-3.04976E-09	3.79065E-10
9.04260E+00	0.	-5.33405E-14	-3.05260E-09	3.79426E-10
1.35639E+01	0.	-1.26604E-13	-3.05734E-09	3.80025E-10
1.80852E+01	0.	-2.30825E-13	-3.06396E-09	3.80863E-10
2.26065E+01	0.	-3.65744E-13	-3.07245E-09	3.81937E-10
2.71278E+01	0.	-5.31058E-13	-3.08279E-09	3.83244E-10
3.16491E+01	0.	-7.26419E-13	-3.09497E-09	3.84781E-10
3.61704E+01	0.	-9.51438E-13	-3.10897E-09	3.86542E-10
4.06917E+01	0.	-1.20571E-12	-3.12475E-09	3.88519E-10
4.52130E+01	0.	-1.48887E-12	-3.14229E-09	3.90701E-10
4.97343E+01	0.	-1.80057E-12	-3.16156E-09	3.93074E-10
5.42556E+01	0.	-2.14050E-12	-3.18252E-09	3.95614E-10
5.87759E+01	0.	-2.50783E-12	-3.20514E-09	3.98290E-10
6.32982E+01	0.	-2.89936E-12	-3.22938E-09	4.01053E-10
6.78195E+01	0.	-3.30326E-12	-3.25522E-09	4.03837E-10
7.23408E+01	0.	-3.58102E-12	-3.28263E-09	4.06542E-10
7.68621E+01	0.	-3.91669E-12	-3.31157E-09	4.09022E-10
8.13834E+01	0.	-3.67696E-12	-3.34204E-09	4.11052E-10
8.59047E+01	0.	-2.01188E-12	-3.37395E-09	4.12256E-10
9.04260E+01	0.	3.86646E-12	-3.40709E-09	4.11941E-10

* * * PERTURBATION RESULTS - POINT WORTHS * * *

RADIUS		(DELTA K)/K PER CC.		
	FISSION	(N, ALPHA) (N, PROTON)	SCATTERING	TOTAL PERTURBATION
0.	0.	0.	3.53571E-09	8.65853E-10
4.52130E+00	0.	0.	3.53668E-09	8.65981E-10
9.04260E+00	0.	0.	3.53958E-09	8.66355E-10
1.35639E+01	0.	0.	3.54441E-09	8.66973E-10
1.80852E+01	0.	0.	3.55116E-09	8.67832E-10
2.26065E+01	0.	0.	3.55980E-09	8.68929E-10
2.71278E+01	0.	0.	3.57034E-09	8.70262E-10
3.16491E+01	0.	0.	3.58275E-09	8.71829E-10
3.61704E+01	0.	0.	3.59701E-09	8.73631E-10
4.06917E+01	0.	0.	3.61311E-09	8.75671E-10
4.52130E+01	0.	0.	3.63103E-09	8.77953E-10
4.97343E+01	0.	0.	3.65076E-09	8.80473E-10
5.42556E+01	0.	0.	3.67225E-09	8.83204E-10
5.87769E+01	0.	0.	3.69542E-09	8.86062E-10
6.32982E+01	0.	0.	3.72005E-09	8.88819E-10
6.78195E+01	0.	0.	3.74563E-09	8.90945E-10
7.23408E+01	0.	0.	3.77105E-09	8.91285E-10
7.68621E+01	0.	0.	3.79331E-09	8.87442E-10
8.13834E+01	0.	0.	3.80931E-09	8.74650E-10
8.59047E+01	0.	0.	3.80753E-09	8.43830E-10
9.04260E+01	0.	0.	3.76995E-09	7.78669E-10

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* * * * * PERTURBATION EDIT * * * * *

TYPE OF PERTURBATION - ISOTOPE
 PERTURBED ZONE = 2
 PERTURBED ISOTOPE = NA23
 DIFFUSION COEFFICIENT PERTURBATION = VOID WORTH
 PERTURBATION FACTOR M = 0.
 PERTURBATION DENOMINATOR = 1.00000E+00

* * * PERTURBATION RESULTS - ZONE NORTH * * *

PERTURBATION TERM	(DELTA K)/K
SOURCE	0.
RADIAL LEAKAGE	-1.89150E-04
TRANSVERSE LEAKAGE	-5.14451E-03
CAPTURE	6.46172E-04
FISSION	0.
(N,ALPHA) + (N,PROTON)	0.
SCATTERING	5.81220E-03
TOTAL ZONE PERTURBATION	1.12474E-03

* * * PERTURBATION RESULTS - POINT WORTHS * * *

RADIUS	SOURCE	(DELTA K)/K PER CC. RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE
9.04260E+01	0.	3.59156E-12	-2.96046E-09	3.81744E-10
9.36116E+01	0.	4.40073E-12	-2.97137E-09	3.79987E-10
9.67972E+01	0.	-2.16361E-12	-2.96233E-09	3.76546E-10
9.99828E+01	0.	-1.58157E-11	-2.93406E-09	3.71211E-10
1.03168E+02	0.	-3.92217E-11	-2.88751E-09	3.63893E-10
1.06354E+02	0.	-6.86259E-11	-2.82379E-09	3.54583E-10
1.09540E+02	0.	-1.04063E-10	-2.74415E-09	3.43338E-10
1.12725E+02	0.	-1.44403E-10	-2.64937E-09	3.30266E-10
1.15911E+02	0.	-1.88304E-10	-2.54271E-09	3.15519E-10
1.19095E+02	0.	-2.34047E-10	-2.42392E-09	2.99289E-10
1.22282E+02	0.	-2.79142E-10	-2.29512E-09	2.81797E-10

* * * PERTURBATION RESULTS - POINT FORTHS * * *

RADIUS			(DELTA K)/K PER CC.	
	FISSION	(N, ALPHA) (N, PROTON)	SCATTERING	TOTAL PERTURBATION
9.04260E+01	0.	0.	3.49363E-09	9.18468E-10
9.36116E+01	0.	0.	3.45271E-09	8.65724E-10
9.67972E+01	0.	0.	3.41113E-09	8.23188E-10
9.99828E+01	0.	0.	3.35973E-09	7.80069E-10
1.03168E+02	0.	0.	3.29335E-09	7.30507E-10
1.06354E+02	0.	0.	3.20885E-09	6.71028E-10
1.09540E+02	0.	0.	3.10394E-09	5.99064E-10
1.12725E+02	0.	0.	2.97601E-09	5.11905E-10
1.15911E+02	0.	0.	2.82131E-09	4.05814E-10
1.19096E+02	0.	0.	2.63385E-09	2.75183E-10
1.22282E+02	0.	0.	2.40425E-09	1.11782E-10

VPERT 23 NA23 M0.0

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*** DATA CARD NO. 56

* * * * * PERTURBATION EDIT * * * * *

TYPE OF PERTURBATION - ISOTOPE

PERTURBED ZONE = 3

PERTURBED ISOTOPE = NA23

DIFFUSION COEFFICIENT PERTURBATION = VOID WORTH

PERTURBATION FACTOR M = 0.

PERTURBATION DENOMINATOR = 1.00000E+00

* * * PERTURBATION RESULTS - ZONE WORTH * * *

PERTURBATION TERM	(DELTA K)/K
SOURCE	0.
RADIAL LEAKAGE	-3.38845E-03
TRANSVERSE LEAKAGE	-2.95010E-03
CAPTURE	3.70169E-04
FISSION	0.
(N,ALPHA) + (N,PROTON)	0.
SCATTERING	3.10935E-03
TOTAL ZONE PERTURBATION	-2.85903E-03

* * * PERTURBATION RESULTS - POINT WORTHS * * *

RADIUS	SOURCE	(DELTA K)/K PER CC.		
		RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE
1.22282E+02	0.	-2.73956E-10	-2.20597E-09	2.75844E-10
1.25390E+02	0.	-4.71592E-10	-2.06381E-09	2.56745E-10
1.28497E+02	0.	-6.93997E-10	-1.89408E-09	2.34854E-10
1.31605E+02	0.	-9.33904E-10	-1.70314E-09	2.10948E-10
1.34713E+02	0.	-1.18276E-09	-1.49775E-09	1.85786E-10
1.37820E+02	0.	-1.43120E-09	-1.28483E-09	1.60110E-10
1.40928E+02	0.	-1.66961E-09	-1.07123E-09	1.34628E-10
1.44036E+02	0.	-1.88810E-09	-8.63530E-10	1.09981E-10
1.47144E+02	0.	-2.07600E-09	-6.67748E-10	8.66871E-11
1.50251E+02	0.	-2.21996E-09	-4.89098E-10	6.50542E-11
1.53359E+02	0.	-2.29770E-09	-3.31638E-10	4.49629E-11

* * * PERTURBATION RESULTS - POINT WORTHS * * *

RADIUS	FISSION	(N, ALPHA) (N, PROTON)	(DELTA K)/K PER CC. SCATTERING	TOTAL PERTURBATION
1.22282E+02	0.	0.	2.35345E-09	1.49373E-10
1.25390E+02	0.	0.	2.12395E-09	-1.54709E-10
1.28497E+02	0.	0.	1.91013E-09	-4.43095E-10
1.31605E+02	0.	0.	1.70075E-09	-7.25351E-10
1.34713E+02	0.	0.	1.49324E-09	-1.00149E-09
1.37820E+02	0.	0.	1.29012E-09	-1.26580E-09
1.40928E+02	0.	0.	1.09698E-09	-1.50923E-09
1.44036E+02	0.	0.	9.21582E-10	-1.72026E-09
1.47144E+02	0.	0.	7.72373E-10	-1.88469E-09
1.50251E+02	0.	0.	6.61069E-10	-1.98293E-09
1.53359E+02	0.	0.	6.03229E-10	-1.98115E-09

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*** DATA CARD NO. 57

* * * SAFETY AND KINETIC PARAMETERS EDIT * * *

BETA-EFFECTIVE = 3.43702E-03

PROMPT NEUTRON LIFETIME (SEC.) = 3.25162E-07

* * PROMPT AND DELAYED NEUTRON WORTHS * *

(NORMALIZED TO 1.0 FOR U238 IN ZONE 1)

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ZONE 1	NUCLIDE	PROMPT NEUTRON WORTH	DELAYED NEUTRON WORTH
	U238	1.00000E+00	8.38976E-01
	PU239	9.99847E-01	8.37721E-01
	PU240	9.99965E-01	8.38228E-01
	PU241	9.99807E-01	8.37685E-01
	PU242	0.	0.

ZONE 2	NUCLIDE	PROMPT NEUTRON WORTH	DELAYED NEUTRON WORTH
	U238	9.93161E-01	8.39581E-01
	PU239	9.93968E-01	8.39157E-01
	PU240	9.93393E-01	8.39066E-01
	PU241	9.94139E-01	8.39293E-01
	PU242	0.	0.

ZONE 3	NUCLIDE	PROMPT NEUTRON WORTH	DELAYED NEUTRON WORTH
	U238	7.38439E-01	6.01415E-01
	PU239	7.00125E-01	5.93372E-01
	PU240	7.96011E-01	5.98787E-01
	PU241	6.98145E-01	5.91533E-01
	PU242	0.	0.

ZONE 4	NUCLIDE	PROMPT NEUTRON WORTH	DELAYED NEUTRON WORTH
	U238	2.61933E-01	2.07380E-01
	PU239	0.	0.
	PU240	0.	0.
	PU241	0.	0.
	PU242	0.	0.

ZONE 5	NUCLIDE	PROMPT NEUTRON WORTH	DELAYED NEUTRON WORTH
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THIS ZONE CONTAINS NO FISSIONABLE NUCLIDES

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>DEplete 0.0 3 100.0 4 REACTOR
>TEST 9MAXIMUM 3.3+4 ZM1 ZM2 ZM3
> IMINIMUM B10 0.0 ZM11
> B10 0.0 ZM12
> B10 0.0 ZM13
> CONTROL ZM11 ZM12 ZM13 1.0 .00001
>DEplete TIME 10 50.0 2 SETTEST SETEDIT

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<< *** DATA CARD NO. 58
<< *** DATA CARD NO. 59
<< *** DATA CARD NO. 60
<< *** DATA CARD NO. 61
<< *** DATA CARD NO. 62
<< *** DATA CARD NO. 63
<< *** DATA CARD NO. 64

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*
* DEPLETION *
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STARTING TIME (DAYS)           = 0.00
LENGTH OF EACH MAJOR TIME STEP (DAYS) = 100.00
LENGTH OF EACH MINOR TIME STEP (DAYS) = 25.00
NUMBER OF MAJOR TIME STEPS     = 3
NUMBER OF MINOR TIME STEPS IN EACH MAJOR = 4
DEPLETION ENDS WHEN TIME (DAYS) = 300.00

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AT THE END OF EACH MAJOR DEPLETION PERIOD

A COMPOSITION SEARCH WILL BE PERFORMED

VALUE OF THE K-EFFECTIVE TO BE ACHIEVED IS 1.00000E+00
 CONVERGENCE CRITERION TO TERMINATE SEARCH IS 1.00000E-05

ZONE MATERIAL	FUEL/DILUENT RATIO
11	0.
12	0.
13	0.

THE FOLLOWING EDITS WILL BE PERFORMED
 REACTOR

THE FOLLOWING CONDITIONS WILL BE CHECKED

BMAXIMUM---BURNUP

ZONE MATERIAL	MAXIMUM BURNUP (MWD/TONNE)
1	3.30000E+04
2	3.30000E+04
3	3.30000E+04

IMINIMUM---ISOTOPE CONCENTRATION

NUCLIDE	ZONE MATERIAL	MINIMUM CONC. (NUCLEI/BARN-CM.)
810	11	0.
810	12	0.
810	13	0.

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*****  
*  
*   TIME (DAYS) 0 100.00   *  
*  
*   EIGENVALUE  0 1.00032E+00 *  
*  
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*** COMPOSITION SEARCH COMPLETE ON ITERATION NO. 12, EIGENVALUE = 9.999905E-01 ***

CONCENTRATIONS			
ZONE	ZONE MATERIAL	NUCLIDE	CONCENTRATION
1	11	910	2.22054E-04
2	12	810	2.22595E-04
3	13	810	2.24398E-04

* * * * * REACTOR EDIT * * * * *

TIME (DAYS) = 100.00

ZONE 1

VOLUME (LITERS)	= 2.26628E+03
POWER (MW)	= 8.70645E+02
AVERAGE POWER DENSITY (WATTS PER CC)	= 3.84174E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.09622E+00
INSTANTANEOUS CONVERSION RATIO	= 1.11185E+00
INSTANTANEOUS BREEDING RATIO	= 3.87427E-01
MEDIAN FISSION ENERGY (KEV)	= 1.66661E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 4.56275E+01
MEDIAN FLUX ENERGY (KEV)	= 1.31967E+02
INTEGRATED CONVERSION RATIO	= 1.12209E+00
INTEGRATED BREEDING RATIO	= 3.89971E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	2.22054E-04	9.02986E+00	2.70994E+00
O16	1.76893E-02	1.06456E+03	1.18369E-01
NA23	8.94568E-03	7.73579E+02	2.30346E-01
SS304	1.39676E-02	2.99470E+03	3.37695E+00
U238	7.43413E-03	6.65665E+03	1.44534E+02
PU239	8.66987E-04	7.79581E+02	6.10081E+02
PU240	3.36186E-04	3.03560E+02	4.60908E+01
PU241	6.10731E-05	5.53753E+01	5.28933E+01
PU242	1.25181E-06	1.13976E+00	1.36300E-01
FP25R	6.93743E-08	3.92988E-02	1.74199E-03
FP39R	1.10502E-06	6.24304E-01	2.79888E-02
FP25S	5.21694E-06	2.40582E+00	2.61627E-02
FP39S	3.30681E-05	1.51998E+01	1.84460E-01
FP25U	2.14117E-05	9.13313E+00	2.32952E-02
FP39U	1.23787E-04	5.36394E+01	2.09864E-01

ZONE 2

VOLUME (LITERS)	=	1.87803E+03
POWER (MW)	=	7.43055E+02
AVERAGE POWER DENSITY (WATTS PER CC)	=	3.95658E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	2.29640E+00
INSTANTANEOUS CONVERSION RATIO	=	1.02046E+00
INSTANTANEOUS BREEDING RATIO	=	3.75439E-01
MEDIAN FISSION ENERGY (KEV)	=	1.85687E+02
MEDIAN ABSORPTION ENERGY (KEV)	=	5.28915E+01
MEDIAN FLUX ENERGY (KEV)	=	1.42952E+02
INTEGRATED CONVERSION RATIO	=	1.02572E+00
INTEGRATED BREEDING RATIO	=	3.77784E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	2.22595E-04	7.50113E+00	1.98136E+00
O16	1.87548E-02	9.35320E+02	1.02505E-01
NA23	8.28992E-03	5.94060E+02	1.56306E-01
SS304	1.44078E-02	2.55986E+03	2.51812E+00
U238	7.78464E-03	5.77634E+03	1.20649E+02
PU239	9.79199E-04	7.29639E+02	5.21932E+02
PU240	3.82572E-04	2.86264E+02	4.15588E+01
PU241	6.96899E-05	5.23631E+01	5.35775E+01
PU242	1.29158E-06	9.74511E-01	1.12167E-01
FP25R	7.36059E-08	3.45527E-02	1.32448E-03
FP39R	1.18372E-06	5.54196E-01	2.15359E-02
FP25S	5.53516E-06	2.11527E+00	2.00510E-02
FP39S	3.54232E-05	1.34929E+01	1.42778E-01
FP25U	2.27177E-05	8.03012E+00	1.79003E-02
FP39U	1.32603E-04	4.76157E+01	1.53343E-01

ZONE 3

VOLUME (LITERS)	= 2.37416E+03
POWER (MW)	= 5.94000E+02
AVERAGE POWER DENSITY (WATTS PER CC)	= 2.92315E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.17938E+00
INSTANTANEOUS CONVERSION RATIO	= 8.64152E-01
INSTANTANEOUS BREEDING RATIO	= 2.43498E-01
MEDIAN FISSION ENERGY (KEV)	= 1.83904E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 5.67550E+01
MEDIAN FLUX ENERGY (KEV)	= 1.47250E+02
INTEGRATED CONVERSION RATIO	= 8.63653E-01
INTEGRATED BREEDING RATIO	= 2.44602E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	2.24398E-04	9.55955E-00	1.60996E+00
O16	1.90553E-02	1.20136E+03	8.87912E-02
NA23	8.11477E-03	7.35129E-02	1.23597E-01
SS304	1.45254E-02	3.26253E+03	2.15096E+00
U238	7.71639E-03	7.23829E+03	1.00745E+02
PU239	1.14054E-03	1.07437E+03	4.96434E+02
PU240	4.48911E-04	4.24640E+02	4.07383E+01
PU241	8.29219E-05	7.87648E+01	5.18139E+01
PU242	9.88769E-07	9.43123E-01	7.20565E-02
FP25R	4.98524E-08	2.95844E-02	7.21611E-04
FP39R	9.08974E-07	5.37990E-01	1.33082E-02
FP25S	3.74890E-06	1.81112E+00	1.09482E-02
FP39S	2.72014E-05	1.30983E+01	8.83844E-02
FP25U	1.53864E-05	6.87548E+00	9.75614E-03
FP39U	1.01825E-04	4.62233E+01	1.01049E-01

ZONE 4

VOLUME (LITERS)	= 2.87396E+03
POWER (MW)	= 3.39259E+01
AVERAGE POWER DENSITY (WATTS PER CC)	= 1.18046E+01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.19595E-01
INSTANTANEOUS CONVERSION RATIO	= 6.45660E+01
INSTANTANEOUS BREEDING RATIO	= 1.19895E-01
MEDIAN FISSION ENERGY (KEV)	= 1.79517E+03
MEDIAN ABSORPTION ENERGY (KEV)	= 1.85902E+01
MEDIAN FLUX ENERGY (KEV)	= 6.77049E+01
INTEGRATED CONVERSION RATIO	= 1.29041E+02
INTEGRATED BREEDING RATIO	= 1.20183E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
O16	2.83435E-02	2.16312E+03	1.24371E-02
NA23	4.77581E-03	5.23837E+02	3.04941E-02
SS304	1.16416E-02	3.16528E+03	5.05503E-01
U238	1.40980E-02	1.60085E+04	2.80873E+01
PU239	3.31675E-05	3.78207E+01	5.18604E+00
PU240	9.87835E-08	1.13114E-01	1.73572E-03
PU241	4.04508E-10	4.65116E-04	1.03038E-04
PU242	5.47966E-13	6.32700E-07	5.39420E-09
FP25R	7.61767E-09	5.47231E-03	6.96372E-05
FP39R	3.30353E-09	2.36686E-03	2.98421E-05
FP25S	5.72849E-07	3.35007E-01	1.04634E-03
FP39S	9.88595E-08	5.76253E-02	1.99892E-04
FP25U	2.35112E-06	1.27178E+00	7.74972E-04
FP39U	3.70370E-07	2.03357E-01	1.88083E-04

ZONE 5

VOLUME (LITERS)	=	3.31072E+03
POWER (MW)	=	5.73675E-01
AVERAGE POWER DENSITY (WATTS PER CC)	=	1.73278E-01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	1.57074E-03
INSTANTANEOUS CONVERSION RATIO	=	0.
INSTANTANEOUS BREEDING RATIO	=	0.
MEDIAN FISSION ENERGY (KEV)	=	0.
MEDIAN ABSORPTION ENERGY (KEV)	=	5.25034E-01
MEDIAN FLUX ENERGY (KEV)	=	1.61927E+01
INTEGRATED CONVERSION RATIO	=	0.
INTEGRATED BREEDING RATIO	=	0.

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
NA23	1.07950E-02	1.36371E+03	1.90914E-02
SS304	4.30650E-02	1.34885E+04	5.54584E-01

CORE

VOLUME (LITERS)	= 6.51846E+03
POWER (MW)	= 2.30770E+03
AVERAGE POWER DENSITY (WATTS PER CC)	= 3.54025E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.29640E+00
INSTANTANEOUS CONVERSION RATIO	= 1.00824E+00
INSTANTANEOUS BREEDING RATIO	= 1.00637E+00
MEDIAN FISSION ENERGY (KEV)	= 1.77957E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 5.08947E+01
MEDIAN FLUX ENERGY (KEV)	= 1.39474E+02
INTEGRATED CONVERSION RATIO	= 1.01330E+00
INTEGRATED BREEDING RATIO	= 1.01236E+00

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	6.69048E-04	2.60905E+01	5.30125E+00
O16	5.54994E-02	3.20124E+03	3.09666E-01
NA23	2.53504E-02	2.10277E+03	5.10249E-01
SS304	4.29008E-02	8.81709E+03	8.14603E+00
U238	2.29352E-02	1.96713E+04	3.65928E+02
PU239	2.98673E-03	2.58359E+03	1.52845E+03
PU240	1.15767E-03	1.01446E+03	1.28388E+02
PU241	2.13685E-04	1.86503E+02	1.58284E+02
PU242	3.53215E-06	3.05740E+00	3.20524E-01
FP25R	1.92833E-07	1.03436E-01	3.78809E-03
FP39R	3.19771E-06	1.71649E+00	5.28329E-02
FP25S	1.45010E-05	6.33220E+00	5.71620E-02
FP39S	9.55928E-05	4.17909E+01	4.15623E-01
FP25U	5.95158E-05	2.40387E+01	5.09516E-02
FP39U	3.58216E-04	1.47478E+02	4.74256E-01

BLANKET

VOLUME (LITERS)	=	2.87396E+03
POWER (MW)	=	3.39259E+01
AVERAGE POWER DENSITY (WATTS PER CC)	=	1.18046E+01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	2.19595E-01
INSTANTANEOUS CONVERSION RATIO	=	6.45660E+01
INSTANTANEOUS BREEDING RATIO	=	1.19895E-01
MEDIAN FISSION ENERGY (KEV)	=	1.79517E+03
MEDIAN ABSORPTION ENERGY (KEV)	=	1.65902E+01
MEDIAN FLUX ENERGY (KEV)	=	6.77049E+01
INTEGRATED CONVERSION RATIO	=	1.29041E+02
INTEGRATED BREEDING RATIO	=	1.20183E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
O16	2.83435E-02	2.16312E+03	1.24371E-02
NA23	4.77681E-03	5.23837E+02	3.04941E-02
SS304	1.16416E-02	3.16528E+03	5.05503E-01
U238	1.40980E-02	1.60085E+04	2.80873E+01
PU239	3.31675E-05	3.78207E+01	5.18604E+00
PU240	9.87835E-08	1.13114E-01	1.73572E-03
PU241	4.04508E-10	4.65116E-04	1.03038E-04
PU242	5.47966E-13	6.32700E-07	6.39420E-09
FP25R	7.61767E-09	5.47231E-03	6.36372E-05
FP39R	3.30353E-09	2.36686E-03	2.98421E-05
FP25S	5.72849E-07	3.35007E-01	1.04634E-03
FP39S	9.88595E-08	5.76253E-02	1.99892E-04
FP25U	2.35112E-06	1.27178E+00	7.74972E-04
FP39U	3.70070E-07	2.03357E-01	1.88083E-04

REFLECTOR

VOLUME (LITERS)	=	3.31072E+03
POWER (MW)	=	5.73675E-01
AVERAGE POWER DENSITY (WATTS PER CC)	=	1.73278E-01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	1.57074E-03
INSTANTANEOUS CONVERSION RATIO	=	0.
INSTANTANEOUS BREEDING RATIO	=	0.
MEDIAN FISSION ENERGY (KEV)	=	0.
MEDIAN ABSORPTION ENERGY (KEV)	=	5.25034E-01
MEDIAN FLUX ENERGY (KEV)	=	1.61927E+01
INTEGRATED CONVERSION RATIO	=	0.
INTEGRATED BREEDING RATIO	=	0.

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
NA23	1.07950E-02	1.36371E+03	1.90914E-02
SS304	4.30650E-02	1.34885E+04	5.54584E-01

REACTOR

VOLUME (LITERS)	=	1.27031E+04
POWER (MW)	=	2.34220E+03
AVERAGE POWER DENSITY (WATTS PER CC)	=	1.84380E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	2.29640E+00
INSTANTANEOUS CONVERSION RATIO	=	1.12626E+00
INSTANTANEOUS BREEDING RATIO	=	1.12626E+00
MEDIAN FISSION ENERGY (KEV)	=	1.81625E+02
MEDIAN ABSORPTION ENERGY (KEV)	=	4.64257E+01
MEDIAN FLUX ENERGY (KEV)	=	1.30244E+02
INTEGRATED CONVERSION RATIO	=	1.13254E+00
INTEGRATED BREEDING RATIO	=	1.13254E+00

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	6.69048E-04	2.60905E+01	6.30125E+00
O16	8.38429E-02	5.36436E+03	3.22103E-01
NA23	4.09222E-02	3.99032E+03	5.59835E-01
SS304	9.76074E-02	2.54709E+04	9.30611E+00
U238	3.70332E-02	3.56798E+04	3.94016E+02
PU239	3.01989E-03	2.62142E+03	1.53363E+03
PU240	1.16777E-03	1.01458E+03	1.28390E+02
PU241	2.13685E-04	1.86504E+02	1.68284E+02
PU242	3.53215E-06	3.05740E+00	3.20524E-01
FP25R	2.00450E-07	1.08908E-01	3.85773E-03
FP39R	3.20102E-06	1.71886E+00	6.28627E-02
FP25S	1.50739E-05	6.66721E+00	5.82083E-02
FP39S	9.57916E-05	4.18485E+01	4.15823E-01
FP25U	6.18669E-05	2.53105E+01	5.17266E-02
FP39U	3.58586E-04	1.47682E+02	4.74444E-01

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*   TIME (DAYS) 0 200.00
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*   EIGENVALUE  0 9.99342E-01
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*** COMPOSITION SEARCH COMPLETE ON ITERATION NO. 11, EIGENVALUE = 9.999953E-01 ***

CONCENTRATIONS

ZONE	ZONE MATERIAL	NUCLIDE	CONCENTRATION
1	11	B10	2.09387E-04
2	12	B10	2.10536E-04
3	13	B10	2.13952E-04

* * * * * REACTOR EDIT * * * * *

TIME (DAYS) = 200.00

ZONE 1

VOLUME (LITERS)	= 2.26628E+03
POWER (MW)	= 8.88408E+02
AVERAGE POWER DENSITY (WATTS PER CC)	= 3.92012E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.16552E+00
INSTANTANEOUS CONVERSION RATIO	= 1.08554E+00
INSTANTANEOUS BREEDING RATIO	= 3.88546E-01
MEDIAN FISSION ENERGY (KEV)	= 1.69167E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 4.62651E+01
MEDIAN FLUX ENERGY (KEV)	= 1.33408E+02
INTEGRATED CONVERSION RATIO	= 1.10820E+00
INTEGRATED BREEDING RATIO	= 3.90467E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	2.09387E-04	8.51476E+00	2.57414E+00
O16	1.76893E-02	1.06456E+03	1.21244E-01
NA23	8.94568E-03	7.73579E+02	2.32477E-01
SS304	1.39676E-02	2.99470E+03	3.41777E+00
U238	7.31772E-03	6.55241E+03	1.45433E+02
PU239	8.78427E-04	7.89867E+02	6.26252E+02
PU240	3.41500E-04	3.08358E+02	4.77842E+01
PU241	5.89457E-05	5.34465E+01	6.13566E+01
PU242	2.43465E-06	2.21673E+00	2.70860E-01
FP25R	1.39876E-07	7.92365E-02	3.52655E-03
FP39R	2.24246E-06	1.26692E+00	5.70541E-02
FP25S	1.05187E-05	4.85075E+00	5.30216E-02
FP39S	6.71063E-05	3.08454E+01	3.76291E-01
FP25U	4.31714E-05	1.84147E+01	4.72455E-02
FP39U	2.51205E-04	1.08852E+02	4.28626E-01

ZONE 2

VOLUME (LITERS)	=	1.87803E+03
POWER (MW)	=	7.36822E+02
AVERAGE POWER DENSITY (WATTS PER CC)	=	3.92339E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	2.29705E+00
INSTANTANEOUS CONVERSION RATIO	=	1.80702E+00
INSTANTANEOUS BREEDING RATIO	=	3.66959E-01
MEDIAN FISSION ENERGY (KEV)	=	1.87139E+02
MEDIAN ABSORPTION ENERGY (KEV)	=	5.30563E+01
MEDIAN FLUX ENERGY (KEV)	=	1.43526E+02
INTEGRATED CONVERSION RATIO	=	1.01877E+00
INTEGRATED BREEDING RATIO	=	3.73433E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	2.10536E-04	7.09473E+00	1.85323E+00
O16	1.87548E-02	9.35320E+02	1.02187E-01
NA23	8.28992E-03	5.94060E+02	1.54733E-01
SS304	1.44078E-02	2.55986E+03	2.59581E+00
U238	7.67391E-03	5.69418E+03	1.18514E+02
PU239	9.82888E-04	7.32388E+02	5.19630E+02
PU240	3.87122E-04	2.89668E+02	4.18590E+01
PU241	6.71950E-05	5.04885E+01	5.11768E+01
PU242	2.48306E-06	1.87350E+00	2.14763E-01
FP25R	1.45889E-07	6.84845E-02	2.59070E-03
FP39R	2.35720E-06	1.10360E+00	4.23346E-02
FP25S	1.09709E-05	4.19252E+00	3.92439E-02
FP39S	7.05400E-05	2.68690E+01	2.80778E-01
FP25U	4.50272E-05	1.59160E+01	3.50524E-02
FP39U	2.64059E-04	9.48194E+01	3.21470E-01

ZONE 3

VOLUME (LITERS)	= 2.37416E+03
POWER (MW)	= 6.77298E+02
AVERAGE POWER DENSITY (WATTS PER CC)	= 2.85280E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.13141E+00
INSTANTANEOUS CONVERSION RATIO	= 8.65558E-01
INSTANTANEOUS BREEDING RATIO	= 2.36767E-01
MEDIAN FISSION ENERGY (KEV)	= 1.84439E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 5.54456E+01
MEDIAN FLUX ENERGY (KEV)	= 1.47042E+02
INTEGRATED CONVERSION RATIO	= 8.54381E-01
INTEGRATED BREEDING RATIO	= 2.41166E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	2.13962E-04	9.11495E+00	1.50942E+00
O16	1.90553E-02	1.20136E+03	8.72361E-02
NA23	8.11477E-03	7.35129E+02	1.21546E-01
SS304	1.45254E-02	3.26253E+03	2.11609E+00
U238	7.64545E-03	7.17175E+03	9.81715E+01
PU239	1.13278E-03	1.06707E+03	4.84960E+02
PU240	4.51965E-04	4.27529E+02	4.03323E+01
PU241	8.04432E-05	7.64103E+01	4.94297E+01
PU242	1.90874E-06	1.82063E+00	1.36769E-01
FP25R	9.81560E-08	5.82497E-02	1.39554E-03
FP39R	1.79109E-06	1.06008E+00	2.57606E-02
FP25S	7.38133E-06	3.56597E+00	2.11746E-02
FP39S	5.35991E-05	2.58096E+01	1.71080E-01
FP25U	3.02949E-05	1.35374E+01	1.88807E-02
FP39U	2.00642E-04	9.10809E+01	1.95724E-01

ZONE 4

VOLUME (LITERS)	= 2.87396E+03
POWER (MW)	= 3.90914E+01
AVERAGE POWER DENSITY (WATTS PER CC)	= 1.36019E+01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.36377E-01
INSTANTANEOUS CONVERSION RATIO	= 2.85958E+01
INSTANTANEOUS BREEDING RATIO	= 1.18027E-01
MEDIAN FISSION ENERGY (KEV)	= 1.48868E+03
MEDIAN ABSORPTION ENERGY (KEV)	= 1.59411E+01
MEDIAN FLUX ENERGY (KEV)	= 5.90034E+01
INTEGRATED CONVERSION RATIO	= 5.68355E+01
INTEGRATED BREEDING RATIO	= 1.19221E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
O16	2.83435E-02	2.16312E+03	1.28691E-02
NA23	4.77681E-03	5.23837E+02	3.00480E-02
SS304	1.16416E-02	3.16528E+03	5.99356E-01
U238	1.40635E-02	1.59693E+04	2.84347E+01
PU239	6.51171E-05	7.42525E+01	1.00019E+01
PU240	3.75936E-07	4.30473E-01	6.58700E-03
PU241	2.77524E-09	3.19105E-03	6.92491E-04
PU242	7.05700E-12	8.14826E-06	8.32746E-08
FP25R	1.54477E-08	1.10972E-02	1.36107E-04
FP39R	1.28160E-08	9.18215E-03	1.11669E-04
FP25S	1.16167E-06	6.79354E-01	2.03758E-03
FP39S	3.83522E-07	2.23556E-01	7.44403E-04
FP25U	4.76779E-06	2.57901E+00	1.53783E-03
FP39U	1.43567E-06	7.88918E-01	7.13236E-04

ZONE 5

VOLUME (LITERS)	=	3.31072E+03
POWER (MW)	=	5.79914E-01
AVERAGE POWER DENSITY (WATTS PER CC)	=	1.75162E-01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	1.57063E-03
INSTANTANEOUS CONVERSION RATIO	=	0.
INSTANTANEOUS BREEDING RATIO	=	0.
MEDIAN FISSION ENERGY (KEV)	=	0.
MEDIAN ABSORPTION ENERGY (KEV)	=	5.91325E-01
MEDIAN FLUX ENERGY (KEV)	=	1.77891E+01
INTEGRATED CONVERSION RATIO	=	0.
INTEGRATED BREEDING RATIO	=	0.

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
NA23	1.07950E-02	1.36371E-03	1.91883E-02
SS304	4.30650E-02	1.34885E-04	5.60726E-01

CORE

VOLUME (LITERS)	= 6.51846E+03
POWER (MW)	= 2.30253E+03
AVERAGE POWER DENSITY (WATTS PER CC)	= 3.53232E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.29705E+00
INSTANTANEOUS CONVERSION RATIO	= 9.96385E-01
INSTANTANEOUS BREEDING RATIO	= 9.92273E-01
MEDIAN FISSION ENERGY (KEV)	= 1.79388E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 5.10817E+01
MEDIAN FLUX ENERGY (KEV)	= 1.40183E+02
INTEGRATED CONVERSION RATIO	= 1.00718E+00
INTEGRATED BREEDING RATIO	= 1.00507E+00

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	6.33885E-04	2.47244E+01	5.93678E+00
O16	5.54994E-02	3.20124E+03	3.10668E-01
NA23	2.53504E-02	2.10277E+03	5.08755E-01
SS304	4.29008E-02	8.81709E+03	8.12967E+00
U238	2.26371E-02	1.94183E+04	3.62118E+02
PU239	2.99410E-03	2.58932E+03	1.53084E+03
PU240	1.18059E-03	1.02556E+03	1.29975E+02
PU241	2.06584E-04	1.80345E+02	1.61963E+02
PU242	6.82646E-06	5.91086E+00	6.22392E-01
FP25R	3.83921E-07	2.05971E-01	7.51280E-03
FP39R	6.39074E-06	3.43060E+00	1.25149E-01
FP25S	2.88709E-05	1.26092E+01	1.13440E-01
FP39S	1.91245E-04	8.35239E+01	8.28148E-01
FP25U	1.18494E-04	4.78681E+01	1.01179E-01
FP39U	7.15906E-04	2.94753E+02	3.45820E-01

BLANKET

VOLUME (LITERS)	= 2.87396E+03
POWER (MW)	= 3.90914E+01
AVERAGE POWER DENSITY (WATTS PER CC)	= 1.36019E+01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.36377E-01
INSTANTANEOUS CONVERSION RATIO	= 2.85958E+01
INSTANTANEOUS BREEDING RATIO	= 1.18027E-01
MEDIAN FISSION ENERGY (KEV)	= 1.48868E+03
MEDIAN ABSORPTION ENERGY (KEV)	= 1.69411E+01
MEDIAN FLUX ENERGY (KEV)	= 6.90034E+01
INTEGRATED CONVERSION RATIO	= 5.68355E+01
INTEGRATED BREEDING RATIO	= 1.19221E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
O16	2.83435E-02	2.16312E+03	1.28691E-02
NA23	4.77681E-03	5.23837E+02	3.00480E-02
SS304	1.16416E-02	3.16528E+03	5.99356E-01
U238	1.40635E-02	1.59693E+04	2.84347E+01
PU239	6.51171E-05	7.42525E+01	1.00019E+01
PU240	3.75936E-07	4.30473E-01	6.58700E-03
PU241	2.77524E-09	3.19105E-03	6.92491E-04
PU242	7.05700E-12	8.14826E-06	8.32746E-08
FP25R	1.54477E-08	1.10972E-02	1.36107E-04
FP39R	1.28160E-08	9.18215E-03	1.11669E-04
FP25S	1.16167E-06	6.79354E-01	2.03758E-03
FP39S	3.83522E-07	2.23556E-01	7.44403E-04
FP25U	4.76779E-06	2.57901E+00	1.53783E-03
FP39U	1.43567E-06	7.88918E-01	7.13230E-04

REFLECTOR

VOLUME (LITERS)	=	3.31072E+03
POWER (MW)	=	5.79914E-01
AVERAGE POWER DENSITY (WATTS PER CC)	=	1.75162E-01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	1.57063E-03
INSTANTANEOUS CONVERSION RATIO	=	0.
INSTANTANEOUS BREEDING RATIO	=	0.
MEDIAN FISSION ENERGY (KEV)	=	0.
MEDIAN ABSORPTION ENERGY (KEV)	=	5.91325E-01
MEDIAN FLUX ENERGY (KEV)	=	1.77891E+01
INTEGRATED CONVERSION RATIO	=	0.
INTEGRATED BREEDING RATIO	=	0.

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
NA23	1.07950E-02	1.36371E+03	1.91883E-02
SS304	4.30650E-02	1.34885E+04	5.60726E-01

REACTOR

VOLUME (LITERS)	= 1.27031E+04
POWER (MW)	= 2.34220E+03
AVERAGE POWER DENSITY (WATTS PER CC)	= 1.84380E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.29705E+00
INSTANTANEOUS CONVERSION RATIO	= 1.11030E+00
INSTANTANEOUS BREEDING RATIO	= 1.11030E+00
MEDIAN FISSION ENERGY (KEV)	= 1.82456E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 4.66454E+01
MEDIAN FLUX ENERGY (KEV)	= 1.31041E+02
INTEGRATED CONVERSION RATIO	= 1.12429E+00
INTEGRATED BREEDING RATIO	= 1.12429E+00

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	6.33885E-04	2.47244E+01	5.93678E+00
O16	8.38429E-02	5.36436E+03	3.23537E-01
NA23	4.09222E-02	3.99032E+03	5.57991E-01
SS304	9.76074E-02	2.54719E+04	9.28975E+00
U238	3.67005E-02	3.53876E+04	3.90553E+02
PU239	3.05922E-03	2.66358E+03	1.54084E+03
PU240	1.18096E-03	1.02599E+03	1.29982E+02
PU241	2.06587E-04	1.80348E+02	1.61964E+02
PU242	6.82646E-06	5.91087E+00	6.22392E-01
FP25R	3.99369E-07	2.17088E-01	7.64890E-03
FP39R	6.40356E-06	3.43978E+00	1.25261E-01
FP25S	3.00326E-05	1.32886E+01	1.15478E-01
FP39S	1.91629E-04	8.37475E+01	8.28893E-01
FP25U	1.23261E-04	5.04471E+01	1.02716E-01
FP39U	7.17342E-04	2.95541E+02	9.46533E-01

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*   TIME (DAYS) 0 300.00
*
*   EIGENVALUE 0 9.98832E-01
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*** COMPOSITION SEARCH COMPLETE ON ITERATION NO. 5, EIGENVALUE = 9.999952E-01 ***

CONCENTRATIONS

ZONE	ZONE MATERIAL	NUCLIDE	CONCENTRATION
1	11	B10	1.87109E-04
2	12	B10	1.88789E-04
3	13	B10	1.93416E-04

* * * * * REACTOR EDIT * * * * *

TIME (DAYS) = 300.00

ZONE 1

VOLUME (LITERS)	=	2.26628E+03
POWER (MW)	=	9.02860E+02
AVERAGE POWER DENSITY (WATTS PER CC)	=	3.98389E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	2.22339E+00
INSTANTANEOUS CONVERSION RATIO	=	1.06218E+00
INSTANTANEOUS BREEDING RATIO	=	3.87864E-01
MEDIAN FISSION ENERGY (KEV)	=	1.71253E+02
MEDIAN ABSORPTION ENERGY (KEV)	=	4.67970E+01
MEDIAN FLUX ENERGY (KEV)	=	1.34641E+02
INTEGRATED CONVERSION RATIO	=	1.09529E+00
INTEGRATED BREEDING RATIO	=	3.90359E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	1.87109E-04	7.60882E+00	2.31458E+00
O16	1.76893E-02	1.06456E+03	1.23749E-01
NA23	8.94568E-03	7.73579E+02	2.34322E-01
SS304	1.39676E-02	2.99470E+03	3.45280E+00
U238	7.20165E-03	6.44849E+03	1.45852E+02
PU239	8.87230E-04	7.97783E+02	6.39560E+02
PU240	3.46780E-04	3.13126E+02	4.93724E+01
PU241	5.71929E-05	5.18572E+01	6.00751E+01
PU242	3.55250E-06	3.23453E+00	4.02538E-01
FP25R	2.11033E-07	1.19545E-01	5.33890E-03
FP39R	3.40512E-06	1.92379E+00	8.69666E-02
FP25S	1.58697E-05	7.31838E+00	8.03427E-02
FP39S	1.01899E-04	4.68381E+01	5.73926E-01
FP25U	6.51333E-05	2.77825E+01	7.16344E-02
FP39U	3.81449E-04	1.65290E+02	6.54403E-01

ZONE 2

VOLUME (LITERS)	=	1.87803E+03
POWER (MW)	=	7.31113E+02
AVERAGE POWER DENSITY (WATTS PER CC)	=	3.89299E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	2.29566E+00
INSTANTANEOUS CONVERSION RATIO	=	9.94933E-01
INSTANTANEOUS BREEDING RATIO	=	3.59650E-01
MEDIAN FISSION ENERGY (KEV)	=	1.88292E+02
MEDIAN ABSORPTION ENERGY (KEV)	=	5.31714E+01
MEDIAN FLUX ENERGY (KEV)	=	1.43979E+02
INTEGRATED CONVERSION RATIO	=	1.01230E+00
INTEGRATED BREEDING RATIO	=	3.69481E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	1.88789E-04	6.36190E+00	1.64704E+00
O16	1.87548E-02	9.35320E+02	1.01954E-01
NA23	8.28992E-03	5.94060E+02	1.53501E-01
SS304	1.44078E-02	2.55986E+03	2.57822E+00
U238	7.56561E-03	5.61381E+03	1.16548E+02
PU239	9.84913E-04	7.33897E+02	5.17317E+02
PU240	3.91478E-04	2.92928E+02	4.21797E+01
PU241	6.51010E-05	4.89151E+01	4.92115E+01
PU242	3.59055E-06	2.70911E+00	3.09594E-01
FP25R	2.17012E-07	1.01871E-01	3.81303E-03
FP39R	3.52231E-06	1.64908E+00	6.26068E-02
FP25S	1.63193E-05	6.23643E+00	5.77877E-02
FP39S	1.05406E-04	4.01497E+01	4.15357E-01
FP25U	6.69785E-05	2.36752E+01	5.16371E-02
FP39U	3.94577E-04	1.41687E+02	4.75858E-01

ZONE 3

VOLUME (LITERS)	= 2.37416E+03
POWER (MW)	= 6.63523E+02
AVERAGE POWER DENSITY (WATTS PER CC)	= 2.79477E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.09079E+00
INSTANTANEOUS CONVERSION RATIO	= 8.66793E-01
INSTANTANEOUS BREEDING RATIO	= 2.31532E-01
MEDIAN FISSION ENERGY (KEV)	= 1.84820E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 5.61621E+01
MEDIAN FLUX ENERGY (KEV)	= 1.46815E+02
INTEGRATED CONVERSION RATIO	= 8.65046E-01
INTEGRATED BREEDING RATIO	= 2.38236E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	1.93416E-04	8.23967E+00	1.34700E+00
O16	1.90553E-02	1.20136E-03	8.60163E-02
NA23	8.11477E-03	7.35129E-02	1.20004E-01
SS304	1.45254E-02	3.26253E-03	2.08955E+00
U238	7.57626E-03	7.10685E+03	3.60211E+01
PU239	1.12510E-03	1.05983E+03	4.75519E+02
PU240	4.54819E-04	4.30229E+02	4.00530E+01
PU241	7.82382E-05	7.43159E+01	4.74571E+01
PU242	2.77204E-06	2.64407E+00	1.95996E-01
FP25R	1.45238E-07	8.61859E-02	2.03685E-03
FP39R	2.65231E-06	1.56981E+00	3.76325E-02
FP25S	1.09219E-05	5.27642E+00	3.09060E-02
FP39S	7.93714E-05	3.82157E+01	2.49910E-01
FP25U	4.48261E-05	2.00307E+01	2.75710E-02
FP39U	2.97118E-04	1.34876E+02	2.86054E-01

ZONE 4

VOLUME (LITERS)	= 2.87396E+03
POWER (MW)	= 4.41154E+01
AVERAGE POWER DENSITY (WATTS PER CC)	= 1.53501E+01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.53076E-01
INSTANTANEOUS CONVERSION RATIO	= 1.87092E+01
INSTANTANEOUS BREEDING RATIO	= 1.16906E-01
MEDIAN FISSION ENERGY (KEV)	= 1.26561E+03
MEDIAN ABSORPTION ENERGY (KEV)	= 1.72903E+01
MEDIAN FLUX ENERGY (KEV)	= 7.02478E+01
INTEGRATED CONVERSION RATIO	= 3.69498E+01
INTEGRATED BREEDING RATIO	= 1.18509E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
O16	2.83435E-02	2.16312E+03	1.33248E-02
NA23	4.77681E-03	5.23837E+02	2.97575E-02
SS304	1.16416E-02	3.16528E+03	5.95920E-01
U238	1.40292E-02	1.59304E+04	2.88613E+01
PU239	9.61096E-05	1.09553E+02	1.45900E+01
PU240	8.12342E-07	9.30189E-01	1.42652E-02
PU241	8.34092E-09	9.59065E-03	2.05137E-03
PU242	3.14338E-11	3.62946E-05	3.76396E-07
FP25R	2.35144E-08	1.68921E-02	2.01218E-04
FP39R	2.81511E-08	2.01692E-02	2.38405E-04
FP25S	1.76829E-06	1.03411E+00	3.00440E-03
FP39S	8.42433E-07	4.91055E-01	1.58352E-03
FP25U	7.25750E-06	3.92576E+00	2.30253E-03
FP39U	3.15356E-06	1.73291E+00	1.53986E-03

ZONE 5

VOLUME (LITERS)	= 3.31072E+03
POWER (MW)	= 5.87990E-01
AVERAGE POWER DENSITY (WATTS PER CC)	= 1.77602E-01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 1.57749E-03
INSTANTANEOUS CONVERSION RATIO	= 0.
INSTANTANEOUS BREEDING RATIO	= 0.
MEDIAN FISSION ENERGY (KEV)	= 0.
MEDIAN ABSORPTION ENERGY (KEV)	= 6.56976E-01
MEDIAN FLUX ENERGY (KEV)	= 1.93685E+01
INTEGRATED CONVERSION RATIO	= 0.
INTEGRATED BREEDING RATIO	= 0.

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
NA23	1.07950E-02	1.36371E+03	1.93577E-02
SS304	4.30650E-02	1.34885E+04	5.68632E-01

CORE

VOLUME (LITERS)	= 6.51846E+03
POWER (MW)	= 2.29750E+03
AVERAGE POWER DENSITY (WATTS PER CC)	= 3.52460E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.29566E+00
INSTANTANEOUS CONVERSION RATIO	= 9.85201E-01
INSTANTANEOUS BREEDING RATIO	= 9.79045E-01
MEDIAN FISSION ENERGY (KEV)	= 1.80566E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 5.12318E+01
MEDIAN FLUX ENERGY (KEV)	= 1.40777E+02
INTEGRATED CONVERSION RATIO	= 1.00129E+00
INTEGRATED BREEDING RATIO	= 9.98077E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	5.69314E-04	2.22104E+01	5.30863E+00
O16	5.54994E-02	3.20124E+03	3.11719E-01
NA23	2.53504E-02	2.10277E+03	5.07827E-01
SS304	4.29008E-02	8.81709E+03	8.12057E+00
U238	2.23435E-02	1.91691E+04	3.58421E+02
PU239	2.99725E-03	2.59151E+03	1.63240E+03
PU240	1.19308E-03	1.03629E+03	1.31605E+02
PU241	2.00532E-04	1.75088E+02	1.56744E+02
PU242	9.91509E-06	8.58771E+00	9.08129E-01
FP25R	5.73282E-07	3.07606E-01	1.11888E-02
FP39R	9.57973E-05	5.14268E+00	1.87206E-01
FP25S	4.31108E-05	1.88312E+01	1.59036E-01
FP39S	2.86677E-04	1.25207E+02	1.23919E+00
FP25U	1.75938E-04	7.14884E+01	1.50843E-01
FP39U	1.07314E-03	4.41852E+02	1.41631E+00

BLANKET

VOLUME (LITERS)	= 2.87396E+03
POWER (MW)	= 4.41154E+01
AVERAGE POWER DENSITY (WATTS PER CC)	= 1.53501E+01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.53076E-01
INSTANTANEOUS CONVERSION RATIO	= 1.87092E+01
INSTANTANEOUS BREEDING RATIO	= 1.16906E-01
MEDIAN FISSION ENERGY (KEV)	= 1.26561E+03
MEDIAN ABSORPTION ENERGY (KEV)	= 1.72903E+01
MEDIAN FLUX ENERGY (KEV)	= 7.02478E+01
INTEGRATED CONVERSION RATIO	= 3.69498E+01
INTEGRATED BREEDING RATIO	= 1.18509E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
O16	2.83435E-02	2.16312E+03	1.33248E-02
NA23	4.77681E-03	5.23837E+02	2.97575E-02
SS304	1.16416E-02	3.16528E+03	5.95920E-01
U238	1.40292E-02	1.59304E+04	2.88613E+01
PU239	9.61096E-05	1.09593E+02	1.45900E+01
PU240	8.12342E-07	9.30189E-01	1.42652E-02
PU241	8.34092E-09	9.59065E-03	2.05137E-03
PU242	3.14338E-11	3.62946E-05	3.76396E-07
FP25R	2.35144E-08	1.68921E-02	2.01218E-04
FP39R	2.81511E-08	2.01692E-02	2.38405E-04
FP25S	1.76829E-06	1.03411E+00	3.00440E-03
FP39S	8.42433E-07	4.91055E-01	1.58352E-03
FP25U	7.25750E-06	3.92576E+00	2.30253E-03
FP39U	3.15356E-06	1.73291E+00	1.53986E-03

REFLECTOR

VOLUME (LITERS)	=	3.31072E+03
POWER (MW)	=	5.87990E-01
AVERAGE POWER DENSITY (WATTS PER CC)	=	1.77602E-01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	1.57749E-03
INSTANTANEOUS CONVERSION RATIO	=	0.
INSTANTANEOUS BREEDING RATIO	=	0.
MEDIAN FISSION ENERGY (KEV)	=	0.
MEDIAN ABSORPTION ENERGY (KEV)	=	6.56976E-01
MEDIAN FLUX ENERGY (KEV)	=	1.93685E+01
INTEGRATED CONVERSION RATIO	=	0.
INTEGRATED BREEDING RATIO	=	0.

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
NA23	1.07950E-02	1.36371E+03	1.93577E-02
SS304	4.30650E-02	1.34885E+04	5.68532E-01

REACTOR

VOLUME (LITERS)	= 1.27031E+04
POWER (MW)	= 2.34220E+03
AVERAGE POWER DENSITY (WATTS PER CC)	= 1.84380E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.29566E+00
INSTANTANEOUS CONVERSION RATIO	= 1.09595E+00
INSTANTANEOUS BREEDING RATIO	= 1.09595E+00
MEDIAN FISSION ENERGY (KEV)	= 1.83096E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 4.68167E+01
MEDIAN FLUX ENERGY (KEV)	= 1.31707E+02
INTEGRATED CONVERSION RATIO	= 1.11659E+00
INTEGRATED BREEDING RATIO	= 1.11659E+00

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	5.69314E-04	2.22104E+01	5.30863E+00
O16	8.38429E-02	5.36436E+03	3.25044E-01
NA23	4.09222E-02	3.99032E+03	5.56943E-01
SS304	9.76074E-02	2.54709E+04	9.28512E+00
U238	3.63727E-02	3.50995E+04	3.87282E+02
PU239	3.09336E-03	2.70111E+03	1.64699E+03
PU240	1.19389E-03	1.03721E+03	1.31619E+02
PU241	2.00540E-04	1.75098E+02	1.56746E+02
PU242	9.91512E-06	8.58774E+00	9.08128E-01
FP25R	5.96797E-07	3.24499E-01	1.13900E-02
FP39R	9.60788E-06	5.16285E+00	1.87444E-01
FP25S	4.48791E-05	1.98653E+01	1.72041E-01
FP39S	2.87519E-04	1.25698E+02	1.24078E+00
FP25U	1.84195E-04	7.54142E+01	1.53145E-01
FP39U	1.07630E-03	4.43585E+02	1.41785E+00

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*** DEPLETION COMPLETE ***

>>EDIT ZONEMAT

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*** DATA CARD NO. 65

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*  D E P L E T I O N
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STARTING TIME (DAYS)           = 300.00
LENGTH OF EACH MAJOR TIME STEP (DAYS) = 50.00
LENGTH OF EACH MINOR TIME STEP (DAYS) = 25.00
NUMBER OF MAJOR TIME STEPS      = 10
NUMBER OF MINOR TIME STEPS IN EACH MAJOR = 2
DEPLETION ENDS WHEN TIME (DAYS)   = 800.00

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AT THE END OF EACH MAJOR DEPLETION PERIOD

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A COMPOSITION SEARCH WILL BE PERFORMED
VALUE OF THE K-EFFECTIVE TO BE ACHIEVED IS 1.00000E+00
CONVERGENCE CRITERION TO TERMINATE SEARCH IS 1.00000E-05
ZONE MATERIAL      FUEL/DILUENT RATIO
11                  0.
12                  0.
13                  0.

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THE FOLLOWING EDITS WILL BE PERFORMED
REACTOR

THE FOLLOWING CONDITIONS WILL BE CHECKED
BMAXIMUM---BURNUP

ZONE MATERIAL	MAXIMUM BURNUP (MWD/TONNE)
1	3.30000E+04
2	3.30000E+04
3	3.30000E+04

IMINIMUM---ISOTOPE CONCENTRATION

NUCLIDE	ZONE MATERIAL	MINIMUM CONC. (NUCLEI/BARN-CM.)
B10	11	0.
B10	12	0.
B10	13	0.

4-211

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*
*   TIME (DAYS) 0 350.00
*
*   EIGENVALUE 0 9.99251E-01
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*****
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*** COMPOSITION SEARCH COMPLETE ON ITERATION NO. 11, EIGENVALUE = 9.999975E-01 ***

CONCENTRATIONS			
ZONE	ZONE MATERIAL	NUCLIDE	CONCENTRATION
1	11	B10	1.75252E-04
2	12	B10	1.77174E-04
3	13	B10	1.82248E-04

* * * * * REACTOR EDIT * * * * *

TIME (DAYS) = 350.00

ZONE 1

VOLUME (LITERS)	=	2.26628E+03
POWER (MW)	=	9.15013E+02
AVERAGE POWER DENSITY (WATTS PER CC)	=	4.03752E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	2.27995E+00
INSTANTANEOUS CONVERSION RATIO	=	1.05102E+00
INSTANTANEOUS BREEDING RATIO	=	3.89285E-01
MEDIAN FISSION ENERGY (KEV)	=	1.72422E+02
MEDIAN ABSORPTION ENERGY (KEV)	=	4.70718E+01
MEDIAN FLUX ENERGY (KEV)	=	1.35306E+02
INTEGRATED CONVERSION RATIO	=	1.08913E+00
INTEGRATED BREEDING RATIO	=	3.90311E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	1.75262E-04	7.12703E+00	2.18747E+00
O16	1.76893E-02	1.06456E+03	1.25794E-01
NA23	8.94568E-03	7.73579E+02	2.36638E-01
SS304	1.39676E-02	2.99470E+03	3.49082E+00
U238	7.14368E-03	6.39658E+03	1.46941E+02
PU239	8.90708E-04	8.00910E+02	6.49435E+02
PU240	3.49387E-04	3.15480E+02	5.04808E+01
PU241	5.64390E-05	5.11736E+01	5.39033E+01
PU242	4.08987E-06	3.72380E+00	4.70543E-01
FP25R	2.46954E-07	1.39893E-01	6.29535E-03
FP39R	3.99617E-06	2.25772E+00	1.02860E-01
FP25S	1.85709E-05	8.56407E+00	9.47787E-02
FP39S	1.19587E-04	5.49681E+01	6.79022E-01
FP25U	7.62198E-05	3.25115E+01	8.45291E-02
FP39U	4.47660E-04	1.93980E+02	7.74597E-01

ZONE 2

VOLUME (LITERS)	= 1.87803E+03
POWER (MW)	= 7.26793E+02
AVERAGE POWER DENSITY (WATTS PER CC)	= 3.86998E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.29591E+00
INSTANTANEOUS CONVERSION RATIO	= 9.89168E-01
INSTANTANEOUS BREEDING RATIO	= 3.55428E-01
MEDIAN FISSION ENERGY (KEV)	= 1.88673E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 5.31776E+01
MEDIAN FLUX ENERGY (KEV)	= 1.44122E+02
INTEGRATED CONVERSION RATIO	= 1.00923E+00
INTEGRATED BREEDING RATIO	= 3.67562E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	1.77174E-04	5.97048E+00	1.53668E+00
O16	1.87548E-02	9.35320E+02	1.01607E-01
NA23	8.28992E-03	5.94060E+02	1.52660E-01
SS304	1.44078E-02	2.55986E+03	2.56534E+00
U238	7.51236E-03	5.57430E+03	1.15340E+02
PU239	9.85366E-04	7.34235E+02	5.15004E+02
PU240	3.93576E-04	2.94498E+02	4.22437E+01
PU241	6.41838E-05	4.82260E+01	4.82608E+01
PU242	4.11575E-06	3.10538E+00	3.53587E-01
FP25R	2.52158E-07	1.18370E-01	4.40144E-03
FP39R	4.10124E-06	1.92013E+00	7.24252E-02
FP25S	1.89623E-05	7.24645E+00	6.57181E-02
FP39S	1.22731E-04	4.67488E+01	4.80550E-01
FP25U	7.78261E-05	2.75095E+01	5.96287E-02
FP39U	4.59431E-04	1.64975E+02	5.50707E-01

ZONE 3

VOLUME (LITERS)	= 2.37416E+03
POWER (MW)	= 5.53557E+02
AVERAGE POWER DENSITY (WATTS PER CC)	= 2.75280E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.06307E+00
INSTANTANEOUS CONVERSION RATIO	= 8.57495E-01
INSTANTANEOUS BREEDING RATIO	= 2.28207E-01
MEDIAN FISSION ENERGY (KEV)	= 1.84746E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 5.59649E+01
MEDIAN FLUX ENERGY (KEV)	= 1.46596E+02
INTEGRATED CONVERSION RATIO	= 8.65368E-01
INTEGRATED BREEDING RATIO	= 2.36842E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	1.82248E-04	7.76392E+00	1.25539E+00
O16	1.90553E-02	1.20136E+03	8.49393E-02
NA23	8.11477E-03	7.35129E+02	1.18685E-01
SS304	1.45254E-02	3.26253E+03	2.06655E+00
U238	7.54232E-03	7.07500E+03	3.44603E+01
PU239	1.12130E-03	1.05625E+03	4.68602E+02
PU240	4.56175E-04	4.31512E+02	3.96971E+01
PU241	7.72278E-05	7.33562E+01	4.63234E+01
PU242	3.18409E-06	3.03709E+00	2.22439E-01
FP25R	1.58319E-07	9.98874E-02	2.33406E-03
FP39R	3.07515E-06	1.82007E+00	4.31443E-02
FP25S	1.26576E-05	6.11497E+00	3.54145E-02
FP39S	9.20251E-05	4.43128E+01	2.86495E-01
FP25U	5.19500E-05	2.32141E+01	3.16002E-02
FP39U	3.44486E-04	1.56378E+02	3.28004E-01

ZONE 4

VOLUME (LITERS)	= 2.87396E+03
POWER (MW)	= 4.62482E+01
AVERAGE POWER DENSITY (WATTS PER CC)	= 1.60922E+01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.59484E-01
INSTANTANEOUS CONVERSION RATIO	= 1.61111E+01
INSTANTANEOUS BREEDING RATIO	= 1.16425E-01
MEDIAN FISSION ENERGY (KEV)	= 1.17529E+03
MEDIAN ABSORPTION ENERGY (KEV)	= 1.74574E+01
MEDIAN FLUX ENERGY (KEV)	= 7.08202E+01
INTEGRATED CONVERSION RATIO	= 3.15857E+01
INTEGRATED BREEDING RATIO	= 1.18219E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
O16	2.83435E-02	2.16312E+03	1.34520E-02
NA23	4.77681E-03	5.23837E+02	2.94467E-02
SS304	1.16416E-02	3.16528E+03	5.90741E-01
U238	1.40121E-02	1.59110E+04	2.88771E+01
PU239	1.11293E-04	1.26906E+02	1.67047E+01
PU240	1.08439E-06	1.24171E+00	1.89495E-02
PU241	1.24817E-08	1.43518E-02	3.03132E-03
PU242	5.50351E-11	6.35455E-05	6.59404E-07
FP25R	2.76760E-08	1.98816E-02	2.32278E-04
FP39R	3.79019E-08	2.71552E-02	3.14926E-04
FP25S	2.08124E-06	1.21712E+00	3.46450E-03
FP39S	1.13423E-06	6.61142E-01	2.08866E-03
FP25U	8.54192E-06	4.62053E+00	2.57293E-03
FP39U	4.24586E-06	2.33314E+00	2.04426E-03

ZONE 5

VOLUME (LITERS)	= 3.31072E+03
POWER (MW)	= 5.88147E-01
AVERAGE POWER DENSITY (WATTS PER CC)	= 1.77649E-01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 1.57118E-03
INSTANTANEOUS CONVERSION RATIO	= 0.
INSTANTANEOUS BREEDING RATIO	= 0.
MEDIAN FISSION ENERGY (KEV)	= 0.
MEDIAN ABSORPTION ENERGY (KEV)	= 6.89309E-01
MEDIAN FLUX ENERGY (KEV)	= 2.01406E+01
INTEGRATED CONVERSION RATIO	= 0.
INTEGRATED BREEDING RATIO	= 0.

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
NA23	1.07950E-02	1.36371E+03	1.93187E-02
SS304	4.30650E-02	1.34885E+04	5.68829E-01

CORE

VOLUME (LITERS)	=	5.51846E+03
POWER (MW)	=	2.29536E+03
AVERAGE POWER DENSITY (WATTS PER CC)	=	3.52133E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	2.29591E+00
INSTANTANEOUS CONVERSION RATIO	=	9.80002E-01
INSTANTANEOUS BREEDING RATIO	=	9.72920E-01
MEDIAN FISSION ENERGY (KEV)	=	1.81051E+02
MEDIAN ABSORPTION ENERGY (KEV)	=	5.12669E+01
MEDIAN FLUX ENERGY (KEV)	=	1.41015E+02
INTEGRATED CONVERSION RATIO	=	9.98452E-01
INTEGRATED BREEDING RATIO	=	9.94715E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	5.34683E-04	2.08614E+01	4.97954E+00
O16	5.54994E-02	3.20124E+03	3.12340E-01
NA23	2.53504E-02	2.10277E+03	5.07983E-01
SS304	4.29008E-02	8.81709E+03	8.12271E+00
U238	2.21984E-02	1.90459E+04	3.56741E+02
PU239	2.99737E-03	2.59139E+03	1.53304E+03
PU240	1.19914E-03	1.04149E+03	1.32422E+02
PU241	1.97851E-04	1.72756E+02	1.54487E+02
PU242	1.13897E-05	9.86627E+00	1.04657E+00
FP25R	6.67431E-07	3.58151E-01	1.30309E-02
FP39R	1.11726E-05	5.93792E+00	2.18429E-01
FP25S	5.01908E-05	2.19255E+01	1.96911E-01
FP39S	3.34343E-04	1.46030E+02	1.44607E+00
FP25U	2.05996E-04	8.32350E+01	1.75758E-01
FP39U	1.25158E-03	5.15333E+02	1.65331E+00

BLANKET

VOLUME (LITERS)	= 2.87396E+03
POWER (MW)	= 4.62482E+01
AVERAGE POWER DENSITY (WATTS PER CC)	= 1.50922E+01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.59484E-01
INSTANTANEOUS CONVERSION RATIO	= 1.51111E+01
INSTANTANEOUS BREEDING RATIO	= 1.16425E-01
MEDIAN FISSION ENERGY (KEV)	= 1.17529E+03
MEDIAN ABSORPTION ENERGY (KEV)	= 1.74574E+01
MEDIAN FLUX ENERGY (KEV)	= 7.08202E+01
INTEGRATED CONVERSION RATIO	= 3.15857E+01
INTEGRATED BREEDING RATIO	= 1.18219E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
O16	2.83435E-02	2.16312E+03	1.34520E-02
NA23	4.77681E-03	5.23837E+02	2.94467E-02
SS304	1.16416E-02	3.16528E+03	5.90741E-01
U238	1.40121E-02	1.59110E+04	2.88771E+01
PU239	1.11293E-04	1.26986E+02	1.57047E+01
PU240	1.08439E-06	1.24171E+00	1.89495E-02
PU241	1.24817E-08	1.43518E-02	3.03132E-03
PU242	5.50351E-11	6.35455E-05	6.59404E-07
FP25R	2.75760E-08	1.98816E-02	2.32278E-04
FP39R	3.79019E-08	2.71552E-02	3.14926E-04
FP25S	2.08124E-06	1.21712E+00	3.46450E-03
FP39S	1.13423E-06	6.61142E-01	2.08866E-03
FP25U	8.54192E-06	4.62053E+00	2.57293E-03
FP39U	4.24586E-06	2.33314E+00	2.04426E-03

REFLECTOR

VOLUME (LITERS)	=	3.31072E+03
POWER (MW)	=	5.88147E-01
AVERAGE POWER DENSITY (WATTS PER CC)	=	1.77649E-01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	1.57110E-03
INSTANTANEOUS CONVERSION RATIO	=	0.
INSTANTANEOUS BREEDING RATIO	=	0.
MEDIAN FISSION ENERGY (KEV)	=	0.
MEDIAN ABSORPTION ENERGY (KEV)	=	6.89309E-01
MEDIAN FLUX ENERGY (KEV)	=	2.01406E+01
INTEGRATED CONVERSION RATIO	=	0.
INTEGRATED BREEDING RATIO	=	0.

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
NA23	1.07950E-02	1.36371E+03	1.93187E-02
SS304	4.30650E-02	1.34885E+04	5.68829E-01

REACTOR

VOLUME (LITERS)	= 1.27031E+04
POWER (MW)	= 2.34220E+03
AVERAGE POWER DENSITY (WATTS PER CC)	= 1.84380E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.29591E+00
INSTANTANEOUS CONVERSION RATIO	= 1.08934E+00
INSTANTANEOUS BREEDING RATIO	= 1.08934E+00
MEDIAN FISSION ENERGY (KEV)	= 1.83309E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 4.68919E+01
MEDIAN FLUX ENERGY (KEV)	= 1.32039E+02
INTEGRATED CONVERSION RATIO	= 1.11293E+00
INTEGRATED BREEDING RATIO	= 1.11293E+00

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	5.34683E-04	2.08614E+01	4.97954E+00
O16	8.38429E-02	5.36436E+03	3.25792E-01
NA23	4.09222E-02	3.99032E+03	5.56749E-01
SS304	9.76074E-02	2.54709E+04	9.28228E+00
U238	3.62105E-02	3.49569E+04	3.85618E+02
PU239	3.10866E-03	2.71830E+03	1.64979E+03
PU240	1.20022E-03	1.04273E+03	1.32441E+02
PU241	1.97863E-04	1.72770E+02	1.54491E+02
PU242	1.13898E-05	9.86634E+00	1.04657E+00
FP25R	6.95107E-07	3.78032E-01	1.32631E-02
FP39R	1.12105E-05	6.02507E+00	2.18744E-01
FP25S	5.22720E-05	2.31426E+01	2.00376E-01
FP39S	3.35477E-04	1.46691E+02	1.44816E+00
FP25U	2.14538E-04	8.78555E+01	1.78431E-01
FP39U	1.25582E-03	5.17566E+02	1.65535E+00

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* * * DEPLETION TEST FAILURE * * *

TIME (DAYS) 0 350.00

*** ZONE MATERIAL 1 HAS EXCEEDED ITS BURNUP OF 3.30000E+04 ***

*** ZONE MATERIAL 2 HAS EXCEEDED ITS BURNUP OF 3.30000E+04 ***

ALL DEPLETION DIRECTIVES WITHIN THIS
RAIM SEQUENCE WILL BE IGNORED UNTIL A
SEARCH IS PERFORMED.

4-222

* EDIT *

>>FUELMGMT

<<

*** DATA CARD NO. 66

* * * ZONE MATERIAL EDIT * * *

TIME (DAYS) 0 350.00

ZONE MATERIAL 1

ZONE 1

VOLUME (LITERS) = 9.58605E+02

TOTAL POWER (MWT) = 9.09098E+02

CUMMULATIVE BURNUP (MWD/TONNE) = 3.85791E+04

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
O16	1.76893E-02	1.06456E+03	1.25794E-01
U238	7.14368E-03	6.39658E+03	1.46941E+02
PU239	8.90708E-04	8.08910E+02	6.49435E+02
PU240	3.49387E-04	3.15480E+02	5.04808E+01
PU241	5.64390E-05	5.11736E+01	5.99033E+01
PU242	4.08987E-06	3.72380E+00	4.70543E-01
FP25R	2.46954E-07	1.33893E-01	6.29535E-03
FP39R	3.99617E-05	2.25772E+00	1.02950E-01
FP25S	1.85709E-05	8.56407E+00	9.47787E-02
FP39S	1.19587E-04	5.43681E+01	6.73022E-01
FP25U	7.62198E-05	3.25115E+01	8.45291E-02
FP39U	4.47660E-04	1.93980E+02	7.74597E-01

ZONE MATERIAL 2

ZONE 2

VOLUME (LITERS) = 8.41825E+02

TOTAL POWER (MWT) = 7.22538E+02

CUMMULATIVE BURNUP (MWD/TONNE) = 3.71858E+04

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
O16	1.87548E-02	9.35320E+02	1.01507E-01
U238	7.51236E-03	5.57430E+03	1.15340E+02
PU239	9.85366E-04	7.34235E+02	5.15004E+02
PU240	3.93576E-04	2.94498E+02	4.22437E+01
PU241	6.41838E-05	4.82250E+01	4.82608E+01
PU242	4.11575E-06	3.10538E+00	3.53587E-01
FP25R	2.52158E-07	1.18370E-01	4.40144E-03
FP39R	4.10124E-06	1.92013E+00	7.24252E-02
FP25S	1.89623E-05	7.24645E+00	6.67181E-02
FP39S	1.22731E-04	4.67488E+01	4.80550E-01
FP25U	7.78261E-05	2.75095E+01	5.96287E-02
FP39U	4.59431E-04	1.64975E+02	5.50707E-01

ZONE MATERIAL 3

ZONE 3

VOLUME (LITERS) = 1.08023E+03

TOTAL POWER (MWT) = 6.50117E+02

CUMMULATIVE BURNUP (MWD/TONNE) = 2.68957E+04

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
O16	1.90553E-02	1.20136E+03	8.49393E-02
U238	7.54232E-03	7.07500E+03	9.44603E+01
PU239	1.12130E-03	1.05625E+03	4.68602E+02
PU240	4.56175E-04	4.31512E+02	3.96971E+01
PU241	7.72278E-05	7.33552E+01	4.63234E+01
PU242	3.18409E-05	3.03709E+00	2.22439E-01
FP25R	1.68319E-07	9.98874E-02	2.33406E-03
FP39R	3.07515E-06	1.82007E+00	4.31443E-02
FP25S	1.26576E-05	6.11497E+00	3.54145E-02
FP39S	9.20251E-05	4.43128E+01	2.86495E-01
FP25U	5.19500E-05	2.32141E+01	3.16002E-02
FP39U	3.44486E-04	1.56378E+02	3.28004E-01

ZONE MATERIAL 4

ZONE 4
 VOLUME (LITERS) = 1.84964E+03
 TOTAL POWER (MWT) = 4.56280E+01
 CUMMULATIVE BURNUP (MWD/TONNE) = 8.19306E+02

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
O16	2.83435E-02	2.16312E+03	1.34520E-02
U238	1.40121E-02	1.59110E+04	2.88771E+01
PU239	1.11293E-04	1.26906E+02	1.67047E+01
PU240	1.08439E-05	1.24171E+00	1.89495E-02
PU241	1.24817E-08	1.43518E-02	3.03132E-03
PU242	5.50351E-11	6.35455E-05	6.59404E-07
FP25R	2.76760E-08	1.98816E-02	2.32278E-04
FP39R	3.79019E-08	2.71552E-02	3.14925E-04
FP25S	2.08124E-05	1.21712E+00	3.46450E-03
FP39S	1.13423E-06	6.61142E-01	2.08865E-03
FP25U	8.54192E-05	4.62053E+00	2.67293E-03
FP39U	4.24586E-05	2.33314E+00	2.04425E-03

ZONE MATERIAL 5

ZONE 1
 VOLUME (LITERS) = 6.23325E+02
 TOTAL POWER (MWT) = 1.57082E-01
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	5.93819E-03	5.13506E+02	1.57082E-01

ZONE MATERIAL 5

ZONE 2
 VOLUME (LITERS) = 5.47389E+02
 TOTAL POWER (MWT) = 1.15884E-01
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	6.29285E-03	4.50948E+02	1.15884E-01

ZONE MATERIAL 5
 ZONE 3
 VOLUME (LITERS) = 7.02413E+02
 TOTAL POWER (MWT) = 9.34232E-02
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	6.38757E-03	5.78660E+02	9.34232E-02

ZONE MATERIAL 6
 ZONE 4
 VOLUME (LITERS) = 5.01652E+02
 TOTAL POWER (MWT) = 2.32313E-02
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	3.76856E-03	4.13270E+02	2.32313E-02

ZONE MATERIAL 7
 ZONE 1
 VOLUME (LITERS) = 3.15692E+02
 TOTAL POWER (MWT) = 7.95564E-02
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	3.00749E-03	2.60073E+02	7.95564E-02

ZONE MATERIAL 7
 ZONE 2
 VOLUME (LITERS) = 1.73717E+02
 TOTAL POWER (MWT) = 3.67765E-02
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	1.99707E-03	1.43111E+02	3.67765E-02

ZONE MATERIAL 7

ZONE 3
 VOLUME (LITERS) = 1.89933E+02
 TOTAL POWER (MWT) = 2.52616E-02
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	1.72720E-03	1.56470E+02	2.52515E-02

ZONE MATERIAL 7

ZONE 4
 VOLUME (LITERS) = 1.34214E+02
 TOTAL POWER (MWT) = 6.21539E-03
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	1.00825E-03	1.10568E+02	6.21539E-03

ZONE MATERIAL 7

ZONE 5
 VOLUME (LITERS) = 1.65536E+03
 TOTAL POWER (MWT) = 1.93187E-02
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	1.07950E-02	1.36371E+03	1.93187E-02

ZONE MATERIAL 8

ZONE 1
 VOLUME (LITERS) = 1.93923E+02
 TOTAL POWER (MWT) = 1.84195E+00
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	7.37007E-03	1.58016E+03	1.84195E+00

ZONE MATERIAL 8

ZONE 2

VOLUME (LITERS) = 1.70299E+02

TOTAL POWER (MWT) = 1.39063E+00

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	7.81024E-03	1.38766E+03	1.39063E+00

ZONE MATERIAL 8

ZONE 3

VOLUME (LITERS) = 2.18528E+02

TOTAL POWER (MWT) = 1.12790E+00

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	7.92781E-03	1.78066E+03	1.12790E+00

ZONE MATERIAL 9

ZONE 4

VOLUME (LITERS) = 1.68309E+02

TOTAL POWER (MWT) = 2.55956E-01

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	5.04408E-03	1.37145E+03	2.55956E-01

ZONE MATERIAL 10

ZONE 1

VOLUME (LITERS) = 1.73597E+02

TOTAL POWER (MWT) = 1.64888E+00

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	6.59756E-03	1.41454E+03	1.64888E+00

ZONE MATERIAL 10

ZONE 2

VOLUME (LITERS) = 1.43857E+02
 TOTAL POWER (MWT) = 1.17471E+00
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	6.59756E-03	1.17220E+03	1.17471E+00

ZONE MATERIAL 10

ZONE 3

VOLUME (LITERS) = 1.81860E+02
 TOTAL POWER (MWT) = 9.38648E-01
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	6.59756E-03	1.48187E+03	9.38648E-01

ZONE MATERIAL 10

ZONE 4

VOLUME (LITERS) = 2.20145E+02
 TOTAL POWER (MWT) = 3.34785E-01
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	6.59756E-03	1.79393E+03	3.34785E-01

ZONE MATERIAL 10

ZONE 5

VOLUME (LITERS) = 1.65536E+03
 TOTAL POWER (MWT) = 5.68829E-01
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	4.30650E-02	1.34885E+04	5.68829E-01

ZONE MATERIAL 11

ZONE 1
VOLUME (LITERS) = 1.13314E+00
TOTAL POWER (MWT) = 2.18747E+00
CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
B10	1.75262E-04	7.12703E+00	2.18747E+00

ZONE MATERIAL 12

ZONE 2
VOLUME (LITERS) = 9.39013E-01
TOTAL POWER (MWT) = 1.53668E+00
CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
B10	1.77174E-04	5.97048E+00	1.53668E+00

ZONE MATERIAL 13

ZONE 3
VOLUME (LITERS) = 1.18708E+00
TOTAL POWER (MWT) = 1.25539E+00
CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
B10	1.82248E-04	7.76392E+00	1.25539E+00

>>MOVE	ZM1	Z1	.666667	ZM31	<<	*** DATA CARD NO.	67 *
>>			.333333	OUT	<<	*** DATA CARD NO.	68 *
>>	ZM2	Z2	.666667	ZM32	<<	*** DATA CARD NO.	69 *
>>			.333333	OUT	<<	*** DATA CARD NO.	70 *
>>	ZM3	Z3	.666667	ZM33	<<	*** DATA CARD NO.	71 *
>>			.333333	OUT	<<	*** DATA CARD NO.	72 *
>>	ZM21	Z1	.2612	IN	<<	*** DATA CARD NO.	73 *
>>	ZM22	Z2	.2768	IN	<<	*** DATA CARD NO.	74 *
>>	ZM23	Z3	.2810	IN	<<	*** DATA CARD NO.	75 *
>>RAIM					<<	*** DATA CARD NO.	76 *

***** SUMMARY OF REACTOR SPECIFICATIONS FOLLOWING *****

***** FUEL MANAGEMENT *****

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* * * * *
*                                     *
*      TIME      350.0 DAYS          *
*                                     *
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GENERAL PARAMETERS -

GEOMETRIC SHAPE OF REACTOR.....	CYLINDER
NUMBER OF MULTIGROUPS.....	68
NUMBER OF POLYGROUPS.....	17
NUMBER OF DOWNSCATTERING POLYGROUPS..	5
DEPLETION CHAIN ID.....	3
INNER BOUNDARY CONDITION OPTION.....	1
OUTER BOUNDARY CONDITION OPTION.....	5
CONVERGENCE OPTION.....	1
CONVERGENCE CRITERION.....	1.00000E-04
MAX NUMBER OF ITERATION.....	40
REACTOR DIMENSION.....	8.82220E+01 (CM)
INNER RADIUS OF REACTOR.....	0. (CM)
OUTER RADIUS OF REACTOR.....	2.14088E+02 (CM)
EXTRAPOLATION FACTOR.....	2.00000E-01
REACTOR POWER.....	2.34220E+03 (MEGA-WATTS)

NUMBER OF ACTIVE NUCLIDES.....	15
NUMBER OF BULK MATERIALS DESCRIBED...	10
NUMBER OF ZONE MATERIALS DESCRIBED...	25
NUMBER OF ZONES DESCRIBED.....	5
NUMBER OF BLOCKS DESCRIBED.....	3
NUMBER OF CELLS DESCRIBED.....	2
NUMBER OF MESH POINTS.....	61

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* * * * *
*                                     *
* DISCHARGED AVERAGE CORE BURNUP  3.37883E+04 MWD/TONNE *
* DISCHARGED AVERAGE BLANKET BURNUP 0. MWD/TONNE      *
*                                     *
* * * * *

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NUCLIDES INCLUDED IN REACTOR SPECIFICATION

15

ALPHA-ID	NUMERIC-ID
B10	5010
O16	8016
NA23	11023
SS304	87304
U238	92238
PU239	94239
PU240	94240
PU241	94241
PU242	94242
FP25R	1895025
FP39R	1895039
FP25S	1995025
FP39S	1995039
FP25U	2195025
FP39U	2195039

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BULK MATERIALS INCLUDED IN REACTOR SPECIFICATION

10

BULK MATERIAL 1 WITH DESIGNATED CELL INDEX OF 1 CONTAINS 12 NUCLIDES

NUCLIDE ID	LUMP DENSITY (ATOMS/BARN-CM)	NUCLIDE TYPE	CHAIN INDEX
O15	4.18200E-02	MIX	0
U238	1.78500E-02	DILUENT	7
PU239	2.01600E-03	FUEL	9
PU240	7.82300E-04	FUEL	11
PU241	1.50400E-04	FUEL	12
PU242	0.	MIX	13
FP25R	0.	MIX	17
FP25S	0.	MIX	18
FP25U	0.	MIX	19
FP39R	0.	MIX	20
FP39S	0.	MIX	21
FP39U	0.	MIX	22

BULK MATERIAL 2 WITH DESIGNATED CELL INDEX OF 1 CONTAINS 12 NUCLIDES

NUCLIDE ID	LUMP DENSITY (ATOMS/BARN-CM)	NUCLIDE TYPE	CHAIN INDEX
O15	4.18400E-02	MIX	0
U238	1.76200E-02	DILUENT	7
PU239	2.17200E-03	FUEL	9
PU240	8.42900E-04	FUEL	11
PU241	1.62100E-04	FUEL	12
PU242	0.	MIX	13
FP25R	0.	MIX	17
FP25S	0.	MIX	18
FP25U	0.	MIX	19
FP39R	0.	MIX	20
FP39S	0.	MIX	21
FP39U	0.	MIX	22

BULK MATERIAL 3 WITH DESIGNATED CELL INDEX OF 1 CONTAINS 12 NUCLIDES

NUCLIDE ID	LUMP DENSITY (ATOMS/BARN-CM)	NUCLIDE TYPE	CHAIN INDEX
O16	4.18800E-02	MIX	0
U238	1.71200E-02	DILUENT	7
PU239	2.52400E-03	FUEL	9
PU240	9.79400E-04	FUEL	11
PU241	1.88400E-04	FUEL	12
PU242	0.	MIX	13
FP25R	0.	MIX	17
FP25S	0.	MIX	18
FP25U	0.	MIX	19
FP39R	0.	MIX	20
FP39S	0.	MIX	21
FP39U	0.	MIX	22

BULK MATERIAL 4 WITH DESIGNATED CELL INDEX OF 1 CONTAINS 12 NUCLIDES

NUCLIDE ID	LUMP DENSITY (ATOMS/BARN-CM)	NUCLIDE TYPE	CHAIN INDEX
O16	4.40400E-02	MIX	0
U238	2.19600E-02	MIX	7
PU239	0.	MIX	9
PU240	0.	MIX	11
PU241	0.	MIX	12
PU242	0.	MIX	13
FP25R	0.	MIX	17
FP25S	0.	MIX	18
FP25U	0.	MIX	19
FP39R	0.	MIX	20
FP39S	0.	MIX	21
FP39U	0.	MIX	22

BULK MATERIAL 5 WITH DESIGNATED CELL INDEX OF 0 CONTAINS 1 NUCLIDES

NUCLIDE ID	LUMP DENSITY (ATOMS/BARN-CM)	NUCLIDE TYPE	CHAIN INDEX
NA23	2.15900E-02	MIX	0

BULK MATERIAL 6 WITH DESIGNATED CELL INDEX OF 0 CONTAINS 1 NUCLIDES

NUCLIDE ID	LUMP DENSITY (ATOMS/BARN-CM)	NUCLIDE TYPE	CHAIN INDEX
SS304	8.61300E-02	MIX	0

BULK MATERIAL 7 WITH DESIGNATED CELL INDEX OF 0 CONTAINS 1 NUCLIDES

NUCLIDE ID	LUMP DENSITY (ATOMS/BARN-CM)	NUCLIDE TYPE	CHAIN INDEX
B10	1.00000E-02	FUEL	1

BULK MATERIAL 500 WITH DESIGNATED CELL INDEX OF 1 CONTAINS 12 NUCLIDES

NUCLIDE ID	LUMP DENSITY (ATOMS/BARN-CM)	NUCLIDE TYPE	CHAIN INDEX
O16	4.18200E-02	MIX	0
U238	1.68887E-02	DILUENT	7
PU239	2.10575E-03	FUEL	9
PU240	8.25999E-04	FUEL	11
PU241	1.33429E-04	FUEL	12
PU242	9.66901E-06	MIX	13
FP25R	5.83833E-07	MIX	17
FP25S	4.39042E-05	MIX	18
FP25U	1.80194E-04	MIX	19
FP39R	9.44749E-06	MIX	20
FP39S	2.82720E-04	MIX	21
FP39U	1.05833E-03	MIX	22

BULK MATERIAL 501 WITH DESIGNATED CELL INDEX OF 1 CONTAINS 12 NUCLIDES

NUCLIDE ID	LUMP DENSITY (ATOMS/BARN-CM)	NUCLIDE TYPE	CHAIN INDEX
O16	4.18400E-02	MIX	0
U238	1.67593E-02	DILUENT	7
PU239	2.19825E-03	FUEL	9
PU240	8.78028E-04	FUEL	11
PU241	1.43188E-04	FUEL	12
PU242	9.18182E-06	MIX	13
FP25R	5.62539E-07	MIX	17
FP25S	4.23029E-05	MIX	18
FP25U	1.73622E-04	MIX	19
FP39R	9.14945E-06	MIX	20
FP39S	2.73801E-04	MIX	21
FP39U	1.02494E-03	MIX	22

BULK MATERIAL 502 WITH DESIGNATED CELL INDEX OF 1 CONTAINS 12 NUCLIDES

NUCLIDE ID	LUMP DENSITY (ATOMS/BARN-CM)	NUCLIDE TYPE	CHAIN INDEX
O16	4.18800E-02	MIX	0
U238	1.65766E-02	DILUENT	7
PU239	2.46440E-03	FUEL	9
PU240	1.00259E-03	FUEL	11
PU241	1.69732E-04	FUEL	12
PU242	6.99803E-06	MIX	13
FP25R	3.69934E-07	MIX	17
FP25S	2.78191E-05	MIX	18
FP25U	1.14177E-04	MIX	19
FP39R	6.75861E-06	MIX	20
FP39S	2.02254E-04	MIX	21
FP39U	7.57116E-04	MIX	22

ZONE MATERIALS INCLUDED IN REACTOR SPECIFICATION

25.

ZONE MAT ID	IDENT OF BM	BM FRACTION
1	1	.53980
21	1	.53980
24	1	.53980
27	1	.53980
2	2	.53980
22	2	.53980
25	2	.53980
28	2	.53980
3	3	.53980
23	3	.53980
26	3	.53980
29	3	.53980
4	4	.73410
5	5	.35100
6	5	.19910
7	5	1.00000
8	6	.10920
9	6	.06680
10	6	1.00000
11	7	1.00000
12	7	1.00000
13	7	1.00000
31	500	.53980
32	501	.53980
33	502	.53980

CELLS INCLUDED IN REACTOR SPECIFICATION

2

CELL ID	CELL INDEX	LATTICE TYPE	LUMP SIZE (CM)	PITCH (CM)	FUEL TEMP (DEG K)	MACRO X-SECT (1/CM)
1	1	HEX	6.60400E-01	8.55980E-01	1.64330E+03	2.65700E-01
2	1	HEX	1.45796E+00	1.62052E+00	1.36640E+03	2.77400E-01

ZONES INCLUDED IN REACTOR SPECIFICATION

5

ZONE ID 1
 OUTER RADIUS 9.04260E+01 (CM)
 NUMBER OF MESH INTERVALS 20
 ZONE TYPE CORE

ZONE MATERIALS INCLUDED

ZONE MAT ID	ZM FRAC	BULK MAT ID	BM FRAC	ZM VOLUME (CM**3)
5	.78360	5	.35100	6.23325E+05
8	.78360	6	.10920	1.93923E+05
7	.13930	5	1.00000	3.15692E+05
10	.07660	6	1.00000	1.73597E+05
11	.00050	7	1.00000	1.13314E+03
31	.52240	500	.53980	6.39071E+05
21	.26120	1	.53980	3.19535E+05

ZONE ID 2
 OUTER RADIUS 1.22282E+02 (CM)
 NUMBER OF MESH INTERVALS 10
 ZONE TYPE CORE

ZONE MATERIALS INCLUDED

ZONE MAT ID	ZM FRAC	BULK MAT ID	BM FRAC	ZM VOLUME (CM**3)
5	.83040	5	.35100	5.47389E+05
8	.83040	6	.10920	1.70299E+05
7	.09250	5	1.00000	1.73717E+05
10	.07660	6	1.00000	1.43857E+05
12	.00050	7	1.00000	9.39013E+02
32	.55360	501	.53980	5.61217E+05
22	.27680	2	.53980	2.80608E+05

ZONE ID 3
 OUTER RADIUS 1.53359E+02 (CM)
 NUMBER OF MESH INTERVALS 10
 ZONE TYPE CORE

ZONE MATERIALS INCLUDED

ZONE MAT ID	ZM FRAC	BULK MAT ID	BM FRAC	ZM VOLUME (CM**3)
5	.84290	5	.35100	7.02413E+05
8	.84290	6	.10920	2.18528E+05
7	.08000	5	1.00000	1.89933E+05
10	.07660	6	1.00000	1.81860E+05
13	.00050	7	1.00000	1.18708E+03
33	.56193	502	.53980	7.20157E+05
23	.28100	3	.53980	3.60121E+05

ZONE ID 4
 OUTER RADIUS 1.84088E+02 (CM)
 NUMBER OF MESH INTERVALS 10
 ZONE TYPE BLANKET

ZONE MATERIALS INCLUDED

ZONE MAT ID	ZM FRAC	BULK MAT ID	BM FRAC	ZM VOLUME (CM**3)
4	.87670	4	.73410	1.84964E+06
6	.87670	5	.19910	5.01652E+05
9	.87670	6	.06680	1.68309E+05
7	.04670	5	1.00000	1.34214E+05
10	.07660	6	1.00000	2.20145E+05

ZONE ID
OUTER RADIUS
NUMBER OF MESH INTERVALS
ZONE TYPE

5
2.14088E+02 (CM)
10
REFLECT

ZONE MATERIALS INCLUDED

ZONE MAT ID	ZM FRAC	BULK MAT ID	BM FRAC	ZM VOLUME (CM**3)
7	.50000	5	1.00000	1.65536E+06
10	.50000	6	1.00000	1.65536E+06

BLOCKS INCLUDED IN REACTOR SPECIFICATION

3

BLOCK IDENTIFICATION
 BLOCK BUCKLING
 FISSION SPECTRUM ID
 HOMOGENOUS TEMP
 ZONES INCLUDED
 CELLS INCLUDED

1
 9.50000E-04 (1/CM**2)
 13
 0. (DEG K)
 1 2 3
 1

BLOCK IDENTIFICATION
 BLOCK BUCKLING
 FISSION SPECTRUM ID
 HOMOGENOUS TEMP
 ZONES INCLUDED
 CELLS INCLUDED

2
 9.50000E-04 (1/CM**2)
 13
 0. (DEG K)
 +
 2

BLOCK IDENTIFICATION
 BLOCK BUCKLING
 FISSION SPECTRUM ID
 HOMOGENOUS TEMP
 ZONES INCLUDED

3
 9.50000E-04 (1/CM**2)
 13
 0. (DEG K)
 5

SUMMARY OF ZONE DEPENDENT PARAMETERS

ZONE NUMBER	1
ZONE TYPE	CORE
ZONE IDENTIFICATION	1
BLOCK IDENTIFICATION	1
NO OF MESH INTERVALS	20
NO OF NUCLIDES INCLUDED	29
OUTER RADIUS	9.04260E+01 (CM)
VOLUME	2.26628E+06 (CM**3)

NUCLIDE ID	ZONE MAT ID	BULK MAT ID	CELL INDEX	NUCLIDE TYPE	CHAIN INDEX	CURRENT DENSITY (ATOMS/BARN-CM)	INITIAL DENSITY	ZONE MAT V.F.	BULK MAT V.F.
B10	11	7	0	FUEL	1	1.75262E-04	1.75262E-04	.00050	1.00000
O16	21	1	1	MIX	0	5.89644E-03	5.89644E-03	.26120	.53980
O16	31	500	1	MIX	0	1.17929E-02	1.17929E-02	.52240	.53980
NA23	5	5	0	MIX	0	5.93819E-03	5.93819E-03	.78360	.35100
NA23	7	5	0	MIX	0	3.00749E-03	3.00749E-03	.13930	1.00000
SS304	8	6	0	MIX	0	7.37007E-03	7.37007E-03	.78360	.10320
SS304	10	6	0	MIX	0	6.59756E-03	6.59756E-03	.07660	1.00000
U238	21	1	1	DILUENT	7	2.51677E-03	2.51677E-03	.26120	.53980
U238	31	500	1	DILUENT	7	4.76246E-03	4.76246E-03	.52240	.53980
PU239	21	1	1	FUEL	9	2.84247E-04	2.84247E-04	.26120	.53980
PU239	31	500	1	FUEL	9	5.93805E-04	5.93805E-04	.52240	.53980
PU240	21	1	1	FUEL	11	1.10301E-04	1.10301E-04	.26120	.53980
PU240	31	500	1	FUEL	11	2.32925E-04	2.32925E-04	.52240	.53980
PU241	21	1	1	FUEL	12	2.12058E-05	2.12058E-05	.26120	.53980
PU241	31	500	1	FUEL	12	3.76260E-05	3.76260E-05	.52240	.53980
PU242	21	1	1	MIX	13	0.	0.	.26120	.53980
PU242	31	500	1	MIX	13	2.72658E-06	2.72658E-06	.52240	.53980
FP25R	21	1	1	MIX	17	0.	0.	.26120	.53980
FP25R	31	500	1	MIX	17	1.64636E-07	1.64636E-07	.52240	.53980
FP39R	21	1	1	MIX	20	0.	0.	.26120	.53980
FP39R	31	500	1	MIX	20	2.66411E-06	2.66411E-06	.52240	.53980
FP25S	21	1	1	MIX	18	0.	0.	.26120	.53980
FP25S	31	500	1	MIX	18	1.23805E-05	1.23805E-05	.52240	.53980
FP39S	21	1	1	MIX	21	0.	0.	.26120	.53980
FP39S	31	500	1	MIX	21	7.97246E-05	7.97246E-05	.52240	.53980
FP25U	21	1	1	MIX	19	0.	0.	.26120	.53980
FP25U	31	500	1	MIX	19	5.08132E-05	5.08132E-05	.52240	.53980
FP39U	21	1	1	MIX	22	0.	0.	.26120	.53980
FP39U	31	500	1	MIX	22	2.98440E-04	2.98440E-04	.52240	.53980

ZONE NUMBER	2
ZONE TYPE	CORE
ZONE IDENTIFICATION	2
BLOCK IDENTIFICATION	1
NO OF MESH INTERVALS	10
NO OF NUCLIDES INCLUDED	29
OUTER RADIUS	1.22282E+02 (CM)
VOLUME	1.87803E+06 (CM**3)

NUCLIDE ID	ZONE MAT ID	BULK MAT ID	CELL INDEX	NUCLIDE TYPE	CHAIN INDEX	CURRENT DENSITY (ATOMS/BARN-CM)	INITIAL DENSITY	ZONE MAT V.F.	BULK MAT V.F.
B10	12	7	0	FUEL	1	1.77174E-04	1.77174E-04	.00050	1.00000
O16	22	2	1	MIX	0	6.25159E-03	6.25159E-03	.27680	.53980
O16	32	501	1	MIX	0	1.25032E-02	1.25032E-02	.55360	.53980
NA23	5	5	0	MIX	0	6.29285E-03	6.29285E-03	.83040	.35100
NA23	7	5	0	MIX	0	1.99707E-03	1.99707E-03	.09250	1.00000
SS304	8	6	0	MIX	0	7.81024E-03	7.81024E-03	.83040	.10920
SS304	10	6	0	MIX	0	6.59756E-03	6.59756E-03	.07660	1.00000
U238	22	2	1	DILUENT	7	2.63272E-03	2.63272E-03	.27680	.53980
U238	32	501	1	DILUENT	7	5.00824E-03	5.00824E-03	.55360	.53980
PU239	22	2	1	FUEL	9	3.24533E-04	3.24533E-04	.27680	.53980
PU239	32	501	1	FUEL	9	6.56911E-04	6.56911E-04	.55360	.53980
PU240	22	2	1	FUEL	11	1.25943E-04	1.25943E-04	.27680	.53980
PU240	32	501	1	FUEL	11	2.62384E-04	2.62384E-04	.55360	.53980
PU241	22	2	1	FUEL	12	2.42204E-05	2.42204E-05	.27680	.53980
PU241	32	501	1	FUEL	12	4.27893E-05	4.27893E-05	.55360	.53980
PU242	22	2	1	MIX	13	0.	0.	.27680	.53980
PU242	32	501	1	MIX	13	2.74383E-06	2.74383E-06	.55360	.53980
FP25R	22	2	1	MIX	17	0.	0.	.27680	.53980
FP25R	32	501	1	MIX	17	1.68105E-07	1.68105E-07	.55360	.53980
FP39R	22	2	1	MIX	20	0.	0.	.27680	.53980
FP39R	32	501	1	MIX	20	2.73416E-06	2.73416E-06	.55360	.53980
FP25S	22	2	1	MIX	18	0.	0.	.27680	.53980
FP25S	32	501	1	MIX	18	1.26415E-05	1.26415E-05	.55360	.53980
FP39S	22	2	1	MIX	21	0.	0.	.27680	.53980
FP39S	32	501	1	MIX	21	8.18208E-05	8.18208E-05	.55360	.53980
FP25U	22	2	1	MIX	19	0.	0.	.27680	.53980
FP25U	32	501	1	MIX	19	5.18841E-05	5.18841E-05	.55360	.53980
FP39U	22	2	1	MIX	22	0.	0.	.27680	.53980
FP39U	32	501	1	MIX	22	3.06287E-04	3.06287E-04	.55360	.53980

ZONE NUMBER 3
 ZONE TYPE CORE
 ZONE IDENTIFICATION 3
 BLOCK IDENTIFICATION 1
 NO OF MESH INTERVALS 10
 NO OF NUCLIDES INCLUDED 29
 OUTER RADIUS 1.53359E+02 (CM)
 VOLUME 2.37416E+06 (CM**3)

NUCLIDE ID	ZONE MAT ID	BULK MAT ID	CELL INDEX	NUCLIDE TYPE	CHAIN INDEX	CURRENT DENSITY (ATOMS/BARN-CM)	INITIAL DENSITY	ZONE MAT V.F.	BULK MAT V.F.
B10	13	7	0	FUEL	1	1.82248E-04	1.82248E-04	.00050	1.00000
O16	23	3	1	MIX	0	6.35252E-03	6.35252E-03	.28100	.53980
O16	33	502	1	MIX	0	1.27035E-02	1.27035E-02	.56193	.53980
NA23	5	5	0	MIX	0	6.38757E-03	6.38757E-03	.84290	.35100
NA23	7	5	0	MIX	0	1.72720E-03	1.72720E-03	.08000	1.00000
SS304	8	6	0	MIX	0	7.92781E-03	7.92781E-03	.84290	.10920
SS304	10	6	0	MIX	0	6.59756E-03	6.59756E-03	.07660	1.00000
U238	23	3	1	DILUENT	7	2.59683E-03	2.59683E-03	.28100	.53980
U238	33	502	1	DILUENT	7	5.02821E-03	5.02821E-03	.56193	.53980
PU239	23	3	1	FUEL	9	3.82850E-04	3.82850E-04	.28100	.53980
PU239	33	502	1	FUEL	9	7.47532E-04	7.47532E-04	.56193	.53980
PU240	23	3	1	FUEL	11	1.48559E-04	1.48559E-04	.28100	.53980
PU240	33	502	1	FUEL	11	3.04117E-04	3.04117E-04	.56193	.53980
PU241	23	3	1	FUEL	12	2.85772E-05	2.85772E-05	.28100	.53980
PU241	33	502	1	FUEL	12	5.14852E-05	5.14852E-05	.56193	.53980
PU242	23	3	1	MIX	13	0.	0.	.28100	.53980
PU242	33	502	1	MIX	13	2.12272E-06	2.12272E-06	.56193	.53980
FP25R	23	3	1	MIX	17	0.	0.	.28100	.53980
FP25R	33	502	1	MIX	17	1.12213E-07	1.12213E-07	.56193	.53980
FP39R	23	3	1	MIX	20	0.	0.	.28100	.53980
FP39R	33	502	1	MIX	20	2.05010E-06	2.05010E-06	.56193	.53980
FP25S	23	3	1	MIX	18	0.	0.	.28100	.53980
FP25S	33	502	1	MIX	18	8.43840E-06	8.43840E-06	.56193	.53980
FP39S	23	3	1	MIX	21	0.	0.	.28100	.53980
FP39S	33	502	1	MIX	21	6.13501E-05	6.13501E-05	.56193	.53980
FP25U	23	3	1	MIX	19	0.	0.	.28100	.53980
FP25U	33	502	1	MIX	19	3.46334E-05	3.46334E-05	.56193	.53980
FP39U	23	3	1	MIX	22	0.	0.	.28100	.53980
FP39U	33	502	1	MIX	22	2.29657E-04	2.29657E-04	.56193	.53980

ZONE NUMBER
 ZONE TYPE
 ZONE IDENTIFICATION
 BLOCK IDENTIFICATION
 NO OF MESH INTERVALS
 NO OF NUCLIDES INCLUDED
 OUTER RADIUS
 VOLUME

4
 BLANKET
 4
 2
 10
 16
 1.84088E+02 (CM)
 2.87396E+06 (CM**3)

NUCLIDE ID	ZONE MAT ID	BULK MAT ID	CELL INDEX	NUCLIDE TYPE	CHAIN INDEX	CURRENT DENSITY (ATOMS/BARN-CM)	INITIAL DENSITY	ZONE MAT V.F.	BULK MAT V.F.
O16	4	4	1	MIX	0	2.83435E-02	2.83435E-02	.87670	.73410
NA23	6	5	0	MIX	0	3.76856E-03	3.76856E-03	.87670	.19910
NA23	7	5	0	MIX	0	1.00825E-03	1.00825E-03	.04670	1.00000
SS304	9	6	0	MIX	0	5.04408E-03	5.04408E-03	.87670	.06580
SS304	10	6	0	MIX	0	6.59756E-03	6.59756E-03	.07660	1.00000
U238	4	4	1	MIX	7	1.40121E-02	1.40121E-02	.87670	.73410
PU239	4	4	1	MIX	9	1.11293E-04	1.11293E-04	.87670	.73410
PU240	4	4	1	MIX	11	1.08439E-06	1.08439E-06	.87670	.73410
PU241	4	4	1	MIX	12	1.24817E-08	1.24817E-08	.87670	.73410
PU242	4	4	1	MIX	13	5.50351E-11	5.50351E-11	.87670	.73410
FP25R	4	4	1	MIX	17	2.76760E-08	2.76760E-08	.87670	.73410
FP39R	4	4	1	MIX	20	3.79019E-08	3.79019E-08	.87670	.73410
FP25S	4	4	1	MIX	18	2.08124E-06	2.08124E-06	.87670	.73410
FP39S	4	4	1	MIX	21	1.13423E-06	1.13423E-06	.87670	.73410
FP25U	4	4	1	MIX	19	8.54192E-06	8.54192E-06	.87670	.73410
FP39U	4	4	1	MIX	22	4.24586E-06	4.24586E-06	.87670	.73410

ZONE NUMBER
 ZONE TYPE
 ZONE IDENTIFICATION
 BLOCK IDENTIFICATION
 NO OF MESH INTERVALS
 NO OF NUCLIDES INCLUDED
 OUTER RADIUS
 VOLUME

5
 REFLECT
 5
 3
 10
 2
 2.14088E+02 (CM)
 3.31072E+06 (CM**3)

NUCLIDE ID	ZONE MAT ID	BULK MAT ID	CELL INDEX	NUCLIDE TYPE	CHAIN INDEX	CURRENT DENSITY (ATOMS/BARN-CM)	INITIAL DENSITY	ZONE MAT V.F.	BULK MAT V.F.
NA23	7	5	0	MIX	0	1.07950E-02	1.07950E-02	.50000	1.00000
SS304	10	6	0	MIX	0	4.30650E-02	4.30650E-02	.50000	1.00000

*
* REAL FLUX CALCULATION *
*

*
* TIME (DAYS) 0 350.00 *
*
* EIGENVALUE 0 1.00169E+00 *
*

>>EDIT REACTOR BALANCE ZONEMAT RATES

<<

* DATA CARD NO. 78 *

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*****
*   S E A R C H   *
*   *   *   *   *
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TYPE OF SEARCH      = COMPOSITION
NUMBER OF SEARCH MATERIALS = 3
EIGENVALUE DESIRED   = 1.00000E+00
CONVERGENCE CRITERION = 1.00000E-05
SEARCH MATERIAL IDS   = 11,12,13,

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FUEL/DILUENT RATIOS (R)
ZONE MATERIAL 11, R= 0.
ZONE MATERIAL 12, R= 0.
ZONE MATERIAL 13, R= 0.

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*** COMPOSITION SEARCH COMPLETE ON ITERATION NO. 17, EIGENVALUE = 9.999913E-01 ***

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CONCENTRATIONS			
ZONE	ZONE MATERIAL	NUCLIDE	CONCENTRATION
1	11	B10	1.95225E-04
2	12	B10	1.97355E-04
3	13	B10	2.03007E-04

* * * MACROSCOPIC CROSS-SECTIONS * * *

*** NU-FISSION CROSS-SECTION ***

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
ZONE 1	2.19304E-02	1.39681E-02	5.24260E-03	4.23573E-03	4.44130E-03	5.77423E-03
ZONE 2	2.36179E-02	1.51845E-02	5.87577E-03	4.74286E-03	4.97439E-03	6.46893E-03
ZONE 3	2.50439E-02	1.64424E-02	6.79142E-03	5.48001E-03	5.75123E-03	7.48322E-03
ZONE 4	2.71392E-02	1.39155E-02	5.33883E-04	4.81647E-04	4.97115E-04	6.45193E-04
ZONE 5	0.	0.	0.	0.	0.	0.
	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11	GROUP 12
ZONE 1	1.28587E-02	2.33232E-02	3.72804E-02	4.39200E-02	6.95586E-02	3.54525E-02
ZONE 2	1.44186E-02	2.61351E-02	4.17787E-02	4.92360E-02	7.79369E-02	3.99124E-02
ZONE 3	1.66856E-02	3.02516E-02	4.83681E-02	5.70399E-02	9.01957E-02	4.66269E-02
ZONE 4	1.44016E-03	2.82825E-03	4.86486E-03	6.49200E-03	1.46882E-02	6.66559E-03
ZONE 5	0.	0.	0.	0.	0.	0.
	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	
ZONE 1	1.43776E-01	1.00025E-01	2.58089E-02	3.13665E-02	7.52148E-02	
ZONE 2	1.61476E-01	1.12794E-01	2.89721E-02	3.47890E-02	8.41602E-02	
ZONE 3	1.87759E-01	1.32196E-01	3.36551E-02	4.02152E-02	9.71358E-02	
ZONE 4	3.35002E-02	1.84658E-02	2.60405E-03	4.97217E-03	3.72239E-02	
ZONE 5	0.	0.	0.	0.	0.	

*** ABSORPTION CROSS-SECTION ***

		GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
ZONE	1	8.98327E-03	5.63706E-03	3.05970E-03	2.93754E-03	4.31991E-03	8.66033E-03
ZONE	2	9.58362E-03	6.08481E-03	3.34464E-03	3.19726E-03	4.66040E-03	9.29011E-03
ZONE	3	1.00106E-02	6.49159E-03	3.67057E-03	3.48018E-03	4.97729E-03	9.78367E-03
ZONE	4	1.17370E-02	6.41087E-03	2.22849E-03	2.31260E-03	4.32971E-03	9.74182E-03
ZONE	5	2.51957E-03	3.31072E-04	2.59010E-04	3.22441E-04	6.37866E-04	1.19936E-03
		GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11	GROUP 12
ZONE	1	1.80426E-02	2.72826E-02	3.91577E-02	4.73636E-02	6.72203E-02	5.72156E-02
ZONE	2	1.94320E-02	2.96598E-02	4.26121E-02	5.17053E-02	7.36646E-02	6.15511E-02
ZONE	3	2.06641E-02	3.20077E-02	4.62149E-02	5.62324E-02	8.06233E-02	6.51538E-02
ZONE	4	1.49097E-02	1.53349E-02	1.80369E-02	2.38260E-02	2.65932E-02	4.58452E-02
ZONE	5	2.50685E-03	1.46283E-03	5.99631E-03	2.68313E-03	3.06710E-03	4.42892E-03
		GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	
ZONE	1	1.03415E-01	1.62753E-01	5.04988E-02	1.23404E-01	2.02528E-01	
ZONE	2	1.13582E-01	1.73897E-01	5.39453E-02	1.35884E-01	2.23433E-01	
ZONE	3	1.23930E-01	1.75372E-01	5.72675E-02	1.48322E-01	2.52287E-01	
ZONE	4	2.70307E-02	9.36572E-02	1.17275E-02	2.37920E-02	3.63705E-02	
ZONE	5	6.43977E-03	9.33575E-03	1.35575E-02	2.01423E-02	2.94888E-02	

*** DIFFUSION COEFFICIENTS ***

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
ZONE 1	3.23543E+00	2.45602E+00	1.80002E+00	1.48644E+00	1.28964E+00	9.29397E-01
ZONE 2	3.13300E+00	2.37775E+00	1.74660E+00	1.43645E+00	1.24585E+00	8.99933E-01
ZONE 3	3.09647E+00	2.35120E+00	1.72786E+00	1.41912E+00	1.23090E+00	8.89598E-01
ZONE 4	2.66090E+00	1.98369E+00	1.43108E+00	1.14752E+00	9.99897E-01	7.60698E-01
ZONE 5	3.00177E+00	2.63180E+00	2.28472E+00	1.84895E+00	1.43491E+00	9.35935E-01

	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11	GROUP 12
ZONE 1	7.69264E-01	9.27563E-01	7.72313E-01	8.50479E-01	7.82913E-01	8.79227E-01
ZONE 2	7.54267E-01	8.89829E-01	7.40236E-01	8.11339E-01	7.42979E-01	8.43576E-01
ZONE 3	7.46459E-01	8.71347E-01	7.23443E-01	7.87353E-01	7.14811E-01	8.27798E-01
ZONE 4	6.84851E-01	8.30985E-01	7.54955E-01	8.19534E-01	8.14946E-01	7.83536E-01
ZONE 5	7.15622E-01	6.95000E-01	6.12476E-01	7.04812E-01	7.05734E-01	7.03689E-01

	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17
ZONE 1	7.77698E-01	7.02313E-01	9.14683E-01	7.39014E-01	6.44422E-01
ZONE 2	7.38835E-01	6.71129E-01	8.78828E-01	6.99959E-01	6.06254E-01
ZONE 3	7.14592E-01	6.65475E-01	8.61576E-01	6.70295E-01	5.71513E-01
ZONE 4	8.14392E-01	7.30924E-01	8.90427E-01	8.60594E-01	8.35042E-01
ZONE 5	7.02658E-01	6.96763E-01	6.90649E-01	6.81356E-01	6.68600E-01

*** TOTAL REMOVAL CROSS-SECTION ***

	GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
ZONE 1	6.05733E-02	4.58973E-02	2.66900E-02	2.03989E-02	1.36753E-02	1.53315E-02
ZONE 2	6.26281E-02	4.78496E-02	2.77962E-02	2.11289E-02	1.42297E-02	1.59026E-02
ZONE 3	6.34344E-02	4.85817E-02	2.83575E-02	2.15433E-02	1.46108E-02	1.63849E-02
ZONE 4	9.85337E-02	6.34684E-02	3.32347E-02	2.54800E-02	1.64053E-02	1.71604E-02
ZONE 5	8.44301E-02	3.07260E-02	1.41806E-02	1.10255E-02	8.30490E-03	1.09755E-02

	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11	GROUP 12
ZONE 1	2.56971E-02	4.23547E-02	5.46352E-02	5.93884E-02	7.72075E-02	6.57815E-02
ZONE 2	2.72978E-02	4.51772E-02	5.85549E-02	6.40769E-02	8.39375E-02	7.03493E-02
ZONE 3	2.85949E-02	4.76520E-02	6.23073E-02	6.87092E-02	9.09881E-02	7.40225E-02
ZONE 4	2.50087E-02	3.81071E-02	4.20607E-02	4.38073E-02	4.90683E-02	6.05413E-02
ZONE 5	1.62518E-02	2.65436E-02	3.58563E-02	2.67274E-02	2.68429E-02	2.77500E-02

	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17
ZONE 1	1.13352E-01	1.72469E-01	6.33644E-02	1.27432E-01	2.02943E-01
ZONE 2	1.23793E-01	1.83886E-01	6.71795E-02	1.39303E-01	2.23823E-01
ZONE 3	1.34214E-01	1.85447E-01	7.06129E-02	1.52740E-01	2.52654E-01
ZONE 4	5.03746E-02	1.11607E-01	3.49430E-02	4.62889E-02	3.69079E-02
ZONE 5	2.91057E-02	3.11022E-02	3.40870E-02	3.88617E-02	2.99191E-02

*** DOWNSCATTER MATRIX ***

ZONE 1
DOWNSCATTER

GROUP J	J+ 1	J+ 2	J+ 3	J+ 4	J+ 5
1	2.79486E-02	1.56073E-02	5.70955E-03	1.32091E-03	8.44831E-05
2	2.95567E-02	7.68116E-03	1.37424E-03	6.65364E-05	1.16325E-06
3	2.17039E-02	7.18336E-04	4.89378E-05	8.18035E-07	1.85512E-08
4	1.64687E-02	3.54892E-05	6.41923E-07	1.41752E-08	1.00669E-09
5	8.51684E-03	8.46167E-06	2.00106E-07	4.41559E-08	9.79904E-09
6	6.07256E-03	4.01744E-07	8.80630E-08	1.94801E-08	4.32832E-09
7	7.15944E-03	0.	0.	0.	0.
8	1.44752E-02	0.	0.	0.	0.
9	1.49805E-02	0.	0.	0.	0.
10	1.14775E-02	0.	0.	0.	0.
11	9.48337E-03	0.	0.	0.	0.
12	8.00012E-03	0.	0.	0.	0.
13	9.43703E-03	0.	0.	0.	0.
14	9.26423E-03	0.	0.	0.	0.
15	1.22770E-02	0.	0.	0.	0.
16	3.55267E-03	0.	0.	0.	0.

ZONE 2
DOWNSCATTER

GROUP J	J+ 1	J+ 2	J+ 3	J+ 4	J+ 5
1	2.86259E-02	1.61926E-02	5.95908E-03	1.38631E-03	8.87919E-05
2	3.06634E-02	8.05552E-03	1.44446E-03	7.00853E-05	1.22725E-06
3	2.25353E-02	7.40189E-04	5.12598E-05	8.68906E-07	1.97054E-08
4	1.69688E-02	3.77956E-05	6.87893E-07	1.52052E-08	1.14663E-09
5	8.75841E-03	8.90863E-06	2.10692E-07	4.64674E-08	1.03094E-08
6	6.03281E-03	4.49049E-07	9.84325E-08	2.17739E-08	4.83799E-09
7	7.38035E-03	0.	0.	0.	0.
8	1.49448E-02	0.	0.	0.	0.
9	1.54664E-02	0.	0.	0.	0.
10	1.18495E-02	0.	0.	0.	0.
11	9.79477E-03	0.	0.	0.	0.
12	8.25542E-03	0.	0.	0.	0.
13	9.73529E-03	0.	0.	0.	0.
14	9.55719E-03	0.	0.	0.	0.
15	1.26687E-02	0.	0.	0.	0.
16	3.76817E-03	0.	0.	0.	0.

ZONE 3
DOWNSCATTER

GROUP J	J+ 1	J+ 2	J+ 3	J+ 4	J+ 5
1	2.88117E-02	1.63399E-02	6.01947E-03	1.40121E-03	8.97581E-05
2	3.09274E-02	8.11953E-03	1.45803E-03	7.08617E-05	1.24053E-06
3	2.27740E-02	7.47937E-04	5.22447E-05	8.92833E-07	2.02514E-08
4	1.71101E-02	3.90662E-05	7.21569E-07	1.59891E-08	1.36998E-09
5	8.83220E-03	8.95652E-06	2.11861E-07	4.66651E-08	1.03467E-08
6	5.02813E-03	5.17194E-07	1.13370E-07	2.50782E-08	5.57217E-09
7	7.45052E-03	0.	0.	0.	0.
8	1.50936E-02	0.	0.	0.	0.
9	1.56268E-02	0.	0.	0.	0.
10	1.19702E-02	0.	0.	0.	0.
11	9.90476E-03	0.	0.	0.	0.
12	8.33600E-03	0.	0.	0.	0.
13	9.82451E-03	0.	0.	0.	0.
14	9.64663E-03	0.	0.	0.	0.
15	1.27910E-02	0.	0.	0.	0.
16	3.98698E-03	0.	0.	0.	0.

ZONE 4
DOWNSCATTER

GROUP J	J+ 1	J+ 2	J+ 3	J+ 4	J+ 5
1	3.89816E-02	3.12083E-02	1.32831E-02	3.59015E-03	2.67376E-04
2	4.10056E-02	1.23498E-02	2.30764E-03	1.15813E-04	2.12284E-06
3	2.90587E-02	9.53671E-04	7.14969E-05	1.33978E-06	3.06036E-08
4	2.23705E-02	5.75104E-05	9.45849E-07	2.08613E-08	2.07807E-13
5	1.14155E-02	1.61806E-05	3.82269E-07	8.49958E-08	1.89319E-08
6	6.92898E-03	5.60123E-08	1.22780E-08	2.71598E-09	6.03468E-10
7	9.65825E-03	0.	0.	0.	0.
8	2.22374E-02	0.	0.	0.	0.
9	2.35381E-02	0.	0.	0.	0.
10	1.94539E-02	0.	0.	0.	0.
11	2.19507E-02	0.	0.	0.	0.
12	1.41918E-02	0.	0.	0.	0.
13	2.28198E-02	0.	0.	0.	0.
14	1.74732E-02	0.	0.	0.	0.
15	2.26425E-02	0.	0.	0.	0.
16	2.19430E-02	0.	0.	0.	0.

ZONE 5
DOWNSCATTER

GROUP J	J+ 1	J+ 2	J+ 3	J+ 4	J+ 5
1	4.71845E-02	2.37476E-02	7.66735E-03	1.30304E-03	7.63558E-05
2	2.28162E-02	5.30364E-03	5.64404E-04	1.70275E-05	3.55110E-08
3	1.18548E-02	5.67090E-04	2.95117E-05	8.29811E-09	2.04075E-10
4	9.51327E-03	0.	0.	0.	0.
5	6.74367E-03	0.	0.	0.	0.
6	9.17392E-03	0.	0.	0.	0.
7	1.32945E-02	0.	0.	0.	0.
8	2.46335E-02	0.	0.	0.	0.
9	2.94658E-02	0.	0.	0.	0.
10	2.35907E-02	0.	0.	0.	0.
11	2.33216E-02	0.	0.	0.	0.
12	2.28682E-02	0.	0.	0.	0.
13	2.22137E-02	0.	0.	0.	0.
14	2.13181E-02	0.	0.	0.	0.
15	2.00851E-02	0.	0.	0.	0.
16	1.82809E-02	0.	0.	0.	0.

* * * REAL FLUXES * * *

TIME (DAYS) 0 350.00
 PRESENT EIGENVALUE 0 9.99991E-01
 EIGENVALUE FOR N-1 ITERATION 0 9.99998E-01
 NUMBER OF INNER FLUX ITERATIONS 0 2
 INNER CONVERGENCE CRITERION 0 1.00000E-04
 NORMALIZED TO POWER OF 0 2.34220E+03 MW

POINT	RADIUS	POWER DENSITY	GROUP 1	GROUP 2	NORMALIZED FLUXES GROUP 3	GROUP 4	GROUP 5	GROUP 6
1	0.0000	4.01635E+02	1.47092E+14	4.16445E+14	8.40479E+14	1.20951E+15	1.60530E+15	9.03968E+14
2	4.5213	4.01589E+02	1.47074E+14	4.16396E+14	8.40381E+14	1.20936E+15	1.60512E+15	9.03964E+14
3	9.0426	4.01449E+02	1.47022E+14	4.16248E+14	8.40085E+14	1.20894E+15	1.60456E+15	9.03553E+14
4	13.5639	4.01216E+02	1.46936E+14	4.16004E+14	8.39593E+14	1.20824E+15	1.60364E+15	9.03036E+14
5	18.0852	4.00891E+02	1.46815E+14	4.15661E+14	8.38906E+14	1.20726E+15	1.60235E+15	9.02311E+14
6	22.6065	4.00473E+02	1.46659E+14	4.15222E+14	8.38025E+14	1.20600E+15	1.60070E+15	9.01382E+14
7	27.1278	3.99964E+02	1.46470E+14	4.14687E+14	8.36951E+14	1.20447E+15	1.59859E+15	9.00246E+14
8	31.6491	3.99364E+02	1.46247E+14	4.14056E+14	8.35687E+14	1.20268E+15	1.59632E+15	8.98906E+14
9	36.1704	3.98674E+02	1.45990E+14	4.13330E+14	8.34236E+14	1.20062E+15	1.59360E+15	8.97357E+14
10	40.6917	3.97893E+02	1.45701E+14	4.12511E+14	8.32603E+14	1.19831E+15	1.59054E+15	8.95597E+14
11	45.2130	3.97020E+02	1.45378E+14	4.11600E+14	8.30794E+14	1.19576E+15	1.58713E+15	8.93514E+14
12	49.7343	3.96056E+02	1.45024E+14	4.10600E+14	8.28818E+14	1.19298E+15	1.58337E+15	8.91393E+14
13	54.2556	3.94995E+02	1.44639E+14	4.09515E+14	8.26691E+14	1.19001E+15	1.57925E+15	8.88903E+14
14	58.7769	3.93833E+02	1.44227E+14	4.08352E+14	8.24435E+14	1.18685E+15	1.57474E+15	8.86094E+14
15	63.2982	3.92557E+02	1.43794E+14	4.07129E+14	8.22085E+14	1.18356E+15	1.56978E+15	8.82888E+14
16	67.8195	3.91152E+02	1.43353E+14	4.05876E+14	8.19694E+14	1.18016E+15	1.56427E+15	8.79162E+14
17	72.3408	3.89586E+02	1.42932E+14	4.04648E+14	8.17339E+14	1.17670E+15	1.55802E+15	8.74729E+14
18	76.8621	3.87813E+02	1.42584E+14	4.03551E+14	8.15124E+14	1.17319E+15	1.55072E+15	8.69316E+14
19	81.3834	3.85754E+02	1.42410E+14	4.02773E+14	8.13175E+14	1.16957E+15	1.54186E+15	8.62532E+14
20	85.9047	3.83282E+02	1.42610E+14	4.02651E+14	8.11613E+14	1.16569E+15	1.53064E+15	8.53836E+14
21	90.4260	3.80180E+02	1.43563E+14	4.03775E+14	8.10470E+14	1.16112E+15	1.51585E+15	8.42508E+14
* * * * * INTERFACE * * * * *								
21	90.4260	4.21177E+02	1.43563E+14	4.03775E+14	8.10470E+14	1.16112E+15	1.51585E+15	8.42508E+14
22	93.6116	4.17919E+02	1.44132E+14	4.04120E+14	8.08406E+14	1.15589E+15	1.50228E+15	8.32533E+14
23	96.7972	4.13834E+02	1.43764E+14	4.02442E+14	8.03754E+14	1.14772E+15	1.48627E+15	8.21668E+14
24	99.9828	4.08822E+02	1.42698E+14	3.99138E+14	7.96628E+14	1.13648E+15	1.46729E+15	8.09273E+14
25	103.1684	4.02830E+02	1.41092E+14	3.94500E+14	7.87200E+14	1.12217E+15	1.44492E+15	7.95164E+14
26	106.3540	3.95832E+02	1.39063E+14	3.88762E+14	7.75662E+14	1.10483E+15	1.41886E+15	7.79092E+14
27	109.5396	3.87816E+02	1.36711E+14	3.82138E+14	7.62210E+14	1.08449E+15	1.38885E+15	7.60936E+14
28	112.7252	3.78781E+02	1.34139E+14	3.74856E+14	7.47021E+14	1.06115E+15	1.35460E+15	7.40178E+14
29	115.9108	3.68726E+02	1.31476E+14	3.67190E+14	7.30243E+14	1.03471E+15	1.31581E+15	7.16999E+14
30	119.0964	3.57649E+02	1.28898E+14	3.59496E+14	7.11948E+14	1.00494E+15	1.27211E+15	6.90768E+14
31	122.2820	3.45536E+02	1.26666E+14	3.52260E+14	6.92074E+14	9.71402E+14	1.22303E+15	6.61533E+14
* * * * * INTERFACE * * * * *								
31	122.2820	3.90019E+02	1.26666E+14	3.52260E+14	6.92074E+14	9.71402E+14	1.22303E+15	6.61533E+14
32	125.3897	3.74742E+02	1.23730E+14	3.43136E+14	6.68855E+14	9.33639E+14	1.15974E+15	6.30570E+14
33	128.4974	3.57367E+02	1.19121E+14	3.29896E+14	6.40221E+14	8.90448E+14	1.11210E+15	5.98399E+14
34	131.6051	3.37989E+02	1.13170E+14	3.13211E+14	6.06363E+14	8.41682E+14	1.05001E+15	5.64921E+14
35	134.7128	3.16762E+02	1.06080E+14	2.93528E+14	5.67585E+14	7.87515E+14	9.83675E+14	5.30249E+14
36	137.8205	2.93889E+02	9.79583E+13	2.71114E+14	5.24232E+14	7.28372E+14	9.13659E+14	4.94594E+14
37	140.9282	2.69625E+02	8.88251E+13	2.46076E+14	4.76665E+14	6.54902E+14	8.40832E+14	4.58769E+14

POINT	RADIUS	POWER DENSITY	NORMALIZED FLUXES					
			GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
38	144.0359	2.44287E+02	7.86020E+13	2.18336E+14	4.25273E+14	5.98005E+14	7.65389E+14	4.23184E+14
39	147.1436	2.18280E+02	6.70787E+13	1.87533E+14	3.70524E+14	5.28883E+14	6.91848E+14	3.88859E+14
40	150.2513	1.92170E+02	5.38475E+13	1.53225E+14	3.13061E+14	4.59158E+14	6.19053E+14	3.56336E+14
41	153.3590	1.66831E+02	3.81923E+13	1.14147E+14	2.53892E+14	3.91023E+14	5.50209E+14	3.28798E+14
* * * * *								
41	153.3590	4.90949E+01	3.81923E+13	1.14147E+14	2.53892E+14	3.91023E+14	5.50209E+14	3.28798E+14
42	156.4319	3.64144E+01	2.33189E+13	7.50172E+13	1.89715E+14	3.13013E+14	4.59016E+14	2.95286E+14
43	159.5048	2.74708E+01	1.45059E+13	4.96029E+13	1.39356E+14	2.45059E+14	3.91293E+14	2.58255E+14
44	162.5777	2.10080E+01	9.22206E+12	3.30936E+13	1.01249E+14	1.88672E+14	3.20666E+14	2.21032E+14
45	165.6506	1.62414E+01	6.00823E+12	2.23388E+13	7.30952E+13	1.43442E+14	2.58903E+14	1.85796E+14
46	168.7235	1.26749E+01	4.01939E+12	1.52951E+13	5.26255E+13	1.08046E+14	2.06463E+14	1.53924E+14
47	171.7964	9.99169E+00	2.75272E+12	1.06450E+13	3.78988E+13	8.08514E+13	1.62965E+14	1.25728E+14
48	174.8693	7.98924E+00	1.94697E+12	7.53933E+12	2.73689E+13	6.02466E+13	1.27557E+14	1.01655E+14
49	177.9422	6.54439E+00	1.39439E+12	5.42532E+12	1.98544E+13	4.47953E+13	9.91759E+13	8.14506E+13
50	181.0151	5.59756E+00	9.87066E+11	3.93065E+12	1.44756E+13	3.32959E+13	7.67169E+13	6.47884E+13
51	184.0880	5.15530E+00	6.29994E+11	2.78183E+12	1.05891E+13	2.47880E+13	5.91357E+13	5.12571E+13
* * * * *								
51	184.0880	2.97151E-01	6.29994E+11	2.78183E+12	1.05891E+13	2.47880E+13	5.91357E+13	5.12571E+13
52	187.0880	2.89662E-01	3.79842E+11	2.07754E+12	8.68710E+12	2.06558E+13	4.93791E+13	4.24557E+13
53	190.0880	2.73980E-01	2.29059E+11	1.54020E+12	7.07623E+12	1.71449E+13	4.10651E+13	3.50597E+13
54	193.0880	2.52016E-01	1.38168E+11	1.13517E+12	5.72416E+12	1.41389E+13	3.39553E+13	2.88064E+13
55	196.0880	2.25488E-01	8.33839E+10	8.32621E+11	4.59617E+12	1.15703E+13	2.78498E+13	2.34794E+13
56	199.0880	1.95825E-01	5.03795E+10	6.08136E+11	3.65809E+12	9.36934E+12	2.25707E+13	1.88987E+13
57	202.0880	1.64151E-01	3.05263E+10	4.42362E+11	2.87792E+12	7.47339E+12	1.79672E+13	1.49124E+13
58	205.0880	1.31303E-01	1.86363E+10	3.20279E+11	2.22653E+12	5.82518E+12	1.39059E+13	1.13896E+13
59	208.0880	9.78765E-02	1.15023E+10	2.30392E+11	1.67776E+12	4.37586E+12	1.02684E+13	8.21545E+12
60	211.0880	6.42705E-02	7.58500E+09	1.63958E+11	1.20826E+12	3.07905E+12	6.94786E+12	5.28595E+12
61	214.0880	3.07378E-02	5.53090E+09	1.14374E+11	7.97069E+11	1.88991E+12	3.84625E+12	2.50400E+12

POINT	RADIUS	POWER DENSITY	NORMALIZED FLUXES					
			GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11	GROUP 12
1	0.0000	4.01635E+02	2.14080E+14	3.61862E+13	9.58699E+12	2.41807E+12	3.59435E+11	5.18022E+10
2	4.5213	4.01589E+02	2.14056E+14	3.61821E+13	9.58589E+12	2.41780E+12	3.59393E+11	5.17962E+10
3	9.0426	4.01449E+02	2.13982E+14	3.61696E+13	9.58259E+12	2.41696E+12	3.59259E+11	5.17782E+10
4	13.5639	4.01216E+02	2.13859E+14	3.61489E+13	9.57708E+12	2.41557E+12	3.59052E+11	5.17482E+10
5	18.0852	4.00891E+02	2.13688E+14	3.61198E+13	9.56936E+12	2.41361E+12	3.58770E+11	5.17160E+10
6	22.6065	4.00473E+02	2.13467E+14	3.60823E+13	9.55941E+12	2.41109E+12	3.58394E+11	5.16515E+10
7	27.1278	3.99964E+02	2.13197E+14	3.60364E+13	9.54719E+12	2.40799E+12	3.57931E+11	5.15840E+10
8	31.6491	3.99364E+02	2.12877E+14	3.59819E+13	9.53265E+12	2.40429E+12	3.57376E+11	5.15031E+10
9	36.1704	3.98674E+02	2.12506E+14	3.59194E+13	9.51565E+12	2.39994E+12	3.56723E+11	5.14073E+10
10	40.6917	3.97893E+02	2.12082E+14	3.58454E+13	9.49599E+12	2.39489E+12	3.55950E+11	5.12946E+10
11	45.2130	3.97020E+02	2.11600E+14	3.57616E+13	9.47332E+12	2.38902E+12	3.55068E+11	5.11515E+10
12	49.7343	3.96056E+02	2.11053E+14	3.56655E+13	9.44704E+12	2.38213E+12	3.54012E+11	5.10120E+10
13	54.2556	3.94995E+02	2.10430E+14	3.55538E+13	9.41614E+12	2.37391E+12	3.52739E+11	5.08064E+10
14	58.7769	3.93833E+02	2.09709E+14	3.54218E+13	9.37896E+12	2.36384E+12	3.51156E+11	5.05587E+10
15	63.2982	3.92557E+02	2.08857E+14	3.52608E+13	9.33271E+12	2.35103E+12	3.49114E+11	5.02329E+10
16	67.8195	3.91152E+02	2.07819E+14	3.50570E+13	9.27275E+12	2.33405E+12	3.46355E+11	4.97863E+10
17	72.3408	3.89586E+02	2.06499E+14	3.47858E+13	9.19140E+12	2.31054E+12	3.42506E+11	4.91503E+10

POINT	RADIUS	POWER DENSITY	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11	GROUP 12
18	76.8621	3.87813E+02	2.04730E+14	3.44106E+13	9.07603E+12	2.27668E+12	3.36880E+11	4.82163E+10
19	81.3834	3.85754E+02	2.02211E+14	3.38633E+13	8.90617E+12	2.22637E+12	3.28409E+11	4.68158E+10
20	85.9047	3.83282E+02	1.98367E+14	3.30427E+13	8.64935E+12	2.15001E+12	3.15281E+11	4.47035E+10
21	90.4260	3.80180E+02	1.92071E+14	3.18054E+13	8.25396E+12	2.03263E+12	2.94219E+11	4.15834E+10
* * * * *								
21	90.4260	4.21177E+02	1.92071E+14	3.18054E+13	8.25396E+12	2.03263E+12	2.94219E+11	4.15834E+10
22	93.6116	4.17919E+02	1.86922E+14	3.08180E+13	7.93979E+12	1.94027E+12	2.77638E+11	3.92013E+10
23	96.7972	4.13834E+02	1.82794E+14	2.99981E+13	7.69261E+12	1.86936E+12	2.65752E+11	3.73529E+10
24	99.9828	4.08822E+02	1.79034E+14	2.92657E+13	7.48003E+12	1.81026E+12	2.56318E+11	3.58565E+10
25	103.1684	4.02830E+02	1.75259E+14	2.85575E+13	7.28048E+12	1.75637E+12	2.47979E+11	3.45479E+10
26	106.3540	3.95832E+02	1.71231E+14	2.78258E+13	7.07853E+12	1.70299E+12	2.39877E+11	3.32973E+10
27	109.5396	3.87816E+02	1.66787E+14	2.70332E+13	6.86209E+12	1.64640E+12	2.31359E+11	3.19993E+10
28	112.7252	3.78781E+02	1.61789E+14	2.61474E+13	6.62025E+12	1.58321E+12	2.21834E+11	3.05610E+10
29	115.9108	3.68726E+02	1.56098E+14	2.51350E+13	6.34112E+12	1.50976E+12	2.10641E+11	2.88914E+10
30	119.0964	3.57649E+02	1.49535E+14	2.39570E+13	6.00915E+12	1.42149E+12	1.96885E+11	2.69030E+10
31	122.2820	3.45536E+02	1.41840E+14	2.25634E+13	5.60076E+12	1.31229E+12	1.79162E+11	2.45416E+10
* * * * *								
31	122.2820	3.90019E+02	1.41840E+14	2.25634E+13	5.60076E+12	1.31229E+12	1.79162E+11	2.45416E+10
32	125.3897	3.74742E+02	1.33954E+14	2.11547E+13	5.19616E+12	1.20565E+12	1.62156E+11	2.23338E+10
33	128.4974	3.57367E+02	1.26479E+14	1.98862E+13	4.85855E+12	1.12115E+12	1.49823E+11	2.07228E+10
34	131.6051	3.37989E+02	1.19156E+14	1.87018E+13	4.56128E+12	1.05180E+12	1.40566E+11	1.97265E+10
35	134.7128	3.16762E+02	1.11888E+14	1.75734E+13	4.29481E+12	9.95756E+11	1.34148E+11	1.95368E+10
36	137.8205	2.93889E+02	1.04692E+14	1.65211E+13	4.06305E+12	9.56512E+11	1.31654E+11	2.07061E+10
37	140.9282	2.69625E+02	9.76837E+13	1.55634E+13	3.88524E+12	9.44908E+11	1.36284E+11	2.44868E+10
38	144.0359	2.44287E+02	9.10712E+13	1.47753E+13	3.80476E+12	9.84389E+11	1.55328E+11	3.35246E+10
39	147.1436	2.18280E+02	8.51786E+13	1.42814E+13	3.91047E+12	1.12207E+12	2.05343E+11	5.32548E+10
40	150.2513	1.92170E+02	8.04903E+13	1.42989E+13	4.38405E+12	1.45073E+12	3.24507E+11	9.46025E+10
41	153.3590	1.66831E+02	7.77370E+13	1.52101E+13	5.60460E+12	2.15090E+12	6.03826E+11	1.78852E+11
* * * * *								
41	153.3590	4.90949E+01	7.77370E+13	1.52101E+13	5.60460E+12	2.15090E+12	6.03826E+11	1.78852E+11
42	156.4319	3.64144E+01	7.40649E+13	1.59811E+13	6.83784E+12	2.92923E+12	9.38112E+11	2.93836E+11
43	159.5048	2.74708E+01	6.77054E+13	1.55381E+13	7.20713E+12	3.32002E+12	1.14021E+12	3.73132E+11
44	162.5777	2.10080E+01	6.00596E+13	1.44050E+13	7.04378E+12	3.42707E+12	1.23931E+12	4.21808E+11
45	165.6506	1.62414E+01	5.20777E+13	1.29434E+13	6.58469E+12	3.35323E+12	1.26930E+12	4.49671E+11
46	168.7235	1.26749E+01	4.43866E+13	1.13966E+13	5.99903E+12	3.18828E+12	1.25486E+12	4.69398E+11
47	171.7964	9.99169E+00	3.73899E+13	9.93982E+12	5.40997E+12	3.00871E+12	1.26097E+12	4.96572E+11
48	174.8693	7.98924E+00	3.13525E+13	8.70685E+12	4.91188E+12	2.88326E+12	1.29553E+12	5.51739E+11
49	177.9422	6.54439E+00	2.64801E+13	7.82120E+12	4.58325E+12	2.88207E+12	1.41539E+12	6.65262E+11
50	181.0151	5.59756E+00	2.30059E+13	7.42667E+12	4.49391E+12	3.09079E+12	1.68694E+12	8.86848E+11
51	184.0880	5.15530E+00	2.13010E+13	7.72359E+12	4.70199E+12	3.63441E+12	2.21413E+12	1.30381E+12
* * * * *								
51	184.0880	2.97151E-01	2.13010E+13	7.72359E+12	4.70199E+12	3.63441E+12	2.21413E+12	1.30381E+12
52	187.0880	2.89662E-01	2.00741E+13	8.13614E+12	4.98169E+12	4.28925E+12	2.87475E+12	1.84624E+12
53	190.0880	2.73980E-01	1.80800E+13	7.88808E+12	4.93918E+12	4.52541E+12	3.22099E+12	2.17944E+12
54	193.0880	2.52016E-01	1.57726E+13	7.24579E+12	4.64642E+12	4.44873E+12	3.30470E+12	2.32166E+12
55	196.0880	2.25488E-01	1.34037E+13	6.39034E+12	4.18487E+12	4.14406E+12	3.18159E+12	2.30121E+12
56	199.0880	1.95825E-01	1.11028E+13	5.43771E+12	3.62295E+12	3.68497E+12	2.90395E+12	2.14980E+12

POINT	RADIUS	POWER	NORMALIZED FLUXES					
		DENSITY	GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11	GROUP 12
57	202.0880	1.64151E-01	8.92586E+12	4.45732E+12	3.01045E+12	3.12801E+12	2.51679E+12	1.89825E+12
58	205.0880	1.31303E-01	6.88521E+12	3.48685E+12	2.37990E+12	2.51459E+12	2.05643E+12	1.57399E+12
59	208.0880	9.78765E-02	4.96757E+12	2.54357E+12	1.75035E+12	1.87310E+12	1.55058E+12	1.20007E+12
60	211.0880	6.42705E-02	3.14498E+12	1.63274E+12	1.13133E+12	1.22161E+12	1.01949E+12	7.95193E+11
61	214.0880	3.07378E-02	1.38120E+12	7.54407E+11	5.26089E+11	5.70636E+11	4.77505E+11	3.74316E+11

POINT	RADIUS	POWER	NORMALIZED FLUXES				
		DENSITY	GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17
1	0.0000	4.01635E+02	3.65550E+09	2.00000E+08	2.92315E+07	2.81582E+06	4.92895E+04
2	4.5213	4.01589E+02	3.65508E+09	1.99977E+08	2.92281E+07	2.81549E+06	4.92837E+04
3	9.0426	4.01449E+02	3.65381E+09	1.99907E+08	2.92179E+07	2.81451E+06	4.92664E+04
4	13.5639	4.01216E+02	3.65168E+09	1.99791E+08	2.92008E+07	2.81285E+06	4.92374E+04
5	18.0852	4.00891E+02	3.64870E+09	1.99628E+08	2.91767E+07	2.81052E+06	4.91965E+04
6	22.6065	4.00473E+02	3.64483E+09	1.99415E+08	2.91453E+07	2.80749E+06	4.91433E+04
7	27.1278	3.99964E+02	3.64005E+09	1.99153E+08	2.91064E+07	2.80372E+06	4.90770E+04
8	31.6491	3.99364E+02	3.63430E+09	1.98837E+08	2.90593E+07	2.79913E+06	4.89964E+04
9	36.1704	3.98674E+02	3.62747E+09	1.98461E+08	2.90028E+07	2.79363E+06	4.88995E+04
10	40.6917	3.97893E+02	3.61941E+09	1.98016E+08	2.89353E+07	2.78703E+06	4.87828E+04
11	45.2130	3.97020E+02	3.60983E+09	1.97486E+08	2.88538E+07	2.77901E+06	4.86408E+04
12	49.7343	3.96056E+02	3.59828E+09	1.96844E+08	2.87535E+07	2.76908E+06	4.84643E+04
13	54.2556	3.94995E+02	3.58400E+09	1.96046E+08	2.86266E+07	2.75642E+06	4.82384E+04
14	58.7769	3.93833E+02	3.56575E+09	1.95021E+08	2.84602E+07	2.73971E+06	4.79391E+04
15	63.2982	3.92557E+02	3.54151E+09	1.93652E+08	2.82341E+07	2.71685E+06	4.75282E+04
16	67.8195	3.91152E+02	3.50801E+09	1.91751E+08	2.79155E+07	2.68449E+06	4.69454E+04
17	72.3408	3.89586E+02	3.45999E+09	1.89017E+08	2.74535E+07	2.63746E+06	4.60971E+04
18	76.8621	3.87813E+02	3.38914E+09	1.84968E+08	2.67697E+07	2.56785E+06	4.48412E+04
19	81.3834	3.85754E+02	3.28228E+09	1.78827E+08	2.57485E+07	2.46397E+06	4.29633E+04
20	85.9047	3.83282E+02	3.11782E+09	1.69254E+08	2.42356E+07	2.30855E+06	4.01192E+04
21	90.4260	3.80180E+02	2.85368E+09	1.53598E+08	2.20962E+07	2.07068E+06	3.55777E+04
* * * * * INTERFACE * * * * *							
21	90.4260	4.21177E+02	2.85368E+09	1.53598E+08	2.20962E+07	2.07068E+06	3.55777E+04
22	93.6116	4.17919E+02	2.64850E+09	1.41515E+08	2.05082E+07	1.88986E+06	3.21102E+04
23	96.7972	4.13834E+02	2.50745E+09	1.33387E+08	1.92598E+07	1.76428E+06	2.98400E+04
24	99.9828	4.08822E+02	2.39853E+09	1.27266E+08	1.82684E+07	1.66804E+06	2.81500E+04
25	103.1684	4.02830E+02	2.30534E+09	1.22114E+08	1.74326E+07	1.58803E+06	2.67629E+04
26	106.3540	3.95832E+02	2.21736E+09	1.17296E+08	1.66681E+07	1.51574E+06	2.55199E+04
27	109.5396	3.87816E+02	2.12671E+09	1.12356E+08	1.59119E+07	1.44532E+06	2.43202E+04
28	112.7252	3.78781E+02	2.02651E+09	1.06913E+08	1.51221E+07	1.37339E+06	2.31091E+04
29	115.9108	3.68726E+02	1.90978E+09	1.00595E+08	1.42872E+07	1.29976E+06	2.18849E+04
30	119.0964	3.57649E+02	1.76786E+09	9.30407E+07	1.34568E+07	1.22895E+06	2.07050E+04
31	122.2820	3.45536E+02	1.58566E+09	8.41683E+07	1.28171E+07	1.17027E+06	1.96115E+04
* * * * * INTERFACE * * * * *							
31	122.2820	3.90019E+02	1.58555E+09	8.41683E+07	1.28171E+07	1.17027E+06	1.96115E+04
32	125.3897	3.74742E+02	1.41964E+09	7.61759E+07	1.30357E+07	1.22329E+06	2.07805E+04
33	128.4974	3.57367E+02	1.31589E+09	7.09495E+07	1.53045E+07	1.56117E+06	2.81477E+04
34	131.6051	3.37989E+02	1.26626E+09	6.91366E+07	2.19080E+07	2.49875E+06	5.01538E+04
35	134.7128	3.16762E+02	1.23139E+09	7.28269E+07	3.91071E+07	4.85891E+06	1.16892E+05
36	137.8205	2.93889E+02	1.45577E+09	8.81717E+07	7.59707E+07	1.07935E+07	3.51855E+05

POINT	RADIUS	POWER DENSITY	GROUP 13	GROUP 14	NORMALIZED FLUXES			
					GROUP 15	GROUP 16	GROUP 17	
37	140.9282	2.69625E+02	1.92090E+09	1.32578E+08	1.53025E+08	2.62395E+07	1.34798E+06	
38	144.0359	2.44287E+02	3.09360E+09	2.58042E+08	3.61633E+08	6.87477E+07	6.26625E+06	
39	147.1436	2.18280E+02	6.05629E+09	6.31512E+08	8.11585E+08	1.94092E+08	3.29654E+07	
40	150.2513	1.92170E+02	1.38908E+10	1.82454E+09	1.82024E+09	5.91488E+08	1.85442E+08	
41	153.3590	1.66831E+02	3.59548E+10	5.89301E+09	4.03902E+09	1.93710E+09	1.07900E+09	
			* * *	* * * INTERFACE * * *				
41	153.3590	4.90949E+01	3.59548E+10	5.89301E+09	4.03902E+09	1.93710E+09	1.07900E+09	
42	156.4319	3.64144E+01	6.96630E+10	1.31663E+10	7.52181E+09	4.27058E+09	3.14092E+09	
43	159.5048	2.74708E+01	9.51279E+10	1.87598E+10	1.12802E+10	6.85602E+09	5.41151E+09	
44	162.5777	2.10080E+01	1.14326E+11	2.32602E+10	1.56629E+10	1.00652E+10	8.19078E+09	
45	165.6506	1.62414E+01	1.30556E+11	2.75113E+10	2.14421E+10	1.44236E+10	1.18304E+10	
46	168.7235	1.26749E+01	1.48728E+11	3.28516E+10	2.99349E+10	2.06818E+10	1.57491E+10	
47	171.7964	9.99169E+00	1.76114E+11	4.15846E+10	4.32325E+10	2.98662E+10	2.34207E+10	
48	174.8693	7.98924E+00	2.23981E+11	5.81300E+10	6.45328E+10	4.32762E+10	3.23172E+10	
49	177.9422	6.54439E+00	3.10699E+11	9.20154E+10	9.84857E+10	6.23474E+10	4.37843E+10	
50	181.0151	5.59756E+00	4.67321E+11	1.66044E+11	1.51130E+11	8.82277E+10	5.78342E+10	
51	184.0880	5.15530E+00	7.47259E+11	3.39609E+11	2.27900E+11	1.20874E+11	7.38741E+10	
			* * *	* * * INTERFACE * * *				
51	184.0880	2.97151E-01	7.47259E+11	3.39609E+11	2.27900E+11	1.20874E+11	7.38741E+10	
52	187.0880	2.89662E-01	1.13067E+12	6.11146E+11	3.39701E+11	1.64162E+11	9.36186E+10	
53	190.0880	2.73980E-01	1.38967E+12	8.00089E+11	4.30991E+11	2.00953E+11	1.10378E+11	
54	193.0880	2.52016E-01	1.52525E+12	9.09367E+11	4.90271E+11	2.26065E+11	1.21916E+11	
55	196.0880	2.25488E-01	1.54818E+12	9.45208E+11	5.14058E+11	2.36872E+11	1.26799E+11	
56	199.0880	1.95825E-01	1.47462E+12	9.16503E+11	5.03506E+11	2.32838E+11	1.24439E+11	
57	202.0880	1.64151E-01	1.32279E+12	8.33724E+11	4.62393E+11	2.14909E+11	1.14989E+11	
58	205.0880	1.31303E-01	1.11079E+12	7.07885E+11	3.95862E+11	1.84977E+11	9.91533E+10	
59	208.0880	9.78765E-02	8.55282E+11	5.49789E+11	3.09637E+11	1.45484E+11	7.80019E+10	
60	211.0880	6.42705E-02	5.71001E+11	3.69598E+11	2.09561E+11	9.91418E+10	5.27987E+10	
61	214.0880	3.07378E-02	2.70824E+11	1.76704E+11	1.01377E+11	4.87814E+10	2.48407E+10	

*** AVERAGE FLUXES ***

NORMALIZED TO POWER OF 2.34220E+03 MW

		GROUP 1	GROUP 2	GROUP 3	GROUP 4	GROUP 5	GROUP 6
ZONE	1	1.44134E+14	4.07787E+14	8.22942E+14	1.18396E+15	1.56652E+15	8.79461E+14
ZONE	2	1.37225E+14	3.83646E+14	7.64359E+14	1.08706E+15	1.39472E+15	7.65340E+14
ZONE	3	9.14083E+13	2.54379E+14	4.98051E+14	7.00009E+14	8.90189E+14	4.87613E+14
ZONE	4	7.91991E+12	2.67545E+13	7.54174E+13	1.37151E+14	2.34175E+14	1.63331E+14
ZONE	5	1.20675E+11	8.49329E+11	4.22303E+12	1.04172E+13	2.48615E+13	2.09439E+13
		GROUP 7	GROUP 8	GROUP 9	GROUP 10	GROUP 11	GROUP 12
ZONE	1	2.07139E+14	3.48573E+13	9.20510E+12	2.31199E+12	3.42328E+11	4.91111E+10
ZONE	2	1.68448E+14	2.73739E+13	6.96159E+12	1.67473E+12	2.35918E+11	3.27770E+10
ZONE	3	1.04756E+14	1.70013E+13	4.43805E+12	1.16298E+12	1.97436E+11	4.28743E+10
ZONE	4	4.56187E+13	1.13979E+13	5.77705E+12	3.10046E+12	1.30644E+12	5.46556E+11
ZONE	5	1.10999E+13	5.04190E+12	3.26416E+12	3.14394E+12	2.36747E+12	1.69337E+12
		GROUP 13	GROUP 14	GROUP 15	GROUP 16	GROUP 17	
ZONE	1	3.45343E+09	1.88531E+08	2.73989E+07	2.63016E+06	4.59405E+04	
ZONE	2	2.18459E+09	1.15790E+08	1.66151E+07	1.51836E+06	2.56345E+04	
ZONE	3	5.39603E+09	6.74546E+08	5.80870E+08	2.04950E+08	8.46182E+07	
ZONE	4	2.20608E+11	6.77935E+10	5.86788E+10	3.57475E+10	2.50641E+10	
ZONE	5	1.13456E+12	6.86170E+11	3.79890E+11	1.77952E+11	9.64816E+10	

4-262

* EDIT *

>>FINIS

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*** DATA CARD NO. 79 ***

* * * * * REACTOR EDIT * * * * *

TIME (DAYS) = 350.00

ZONE 1

VOLUME (LITERS)	=	2.26628E+03
POWER (MW)	=	8.88193E+02
AVERAGE POWER DENSITY (WATTS PER CC)	=	3.91917E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	2.17831E+00
INSTANTANEOUS CONVERSION RATIO	=	1.07596E+00
INSTANTANEOUS BREEDING RATIO	=	3.91604E-01
MEDIAN FISSION ENERGY (KEV)	=	1.69617E+02
MEDIAN ABSORPTION ENERGY (KEV)	=	4.63294E+01
MEDIAN FLUX ENERGY (KEV)	=	1.33640E+02
INTEGRATED CONVERSION RATIO	=	1.08913E+00
INTEGRATED BREEDING RATIO	=	3.90311E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	1.95225E-04	7.93884E+00	2.39871E+00
O16	1.76893E-02	1.06456E+03	1.21538E-01
NA23	8.94568E-03	7.73579E+02	2.32461E-01
SS304	1.39676E-02	2.99470E+03	3.41870E+00
U238	7.27923E-03	6.51795E+03	1.44985E+02
PU239	8.78053E-04	7.89531E+02	6.26239E+02
PU240	3.43226E-04	3.09917E+02	4.81093E+01
PU241	5.88318E-05	5.33431E+01	6.12383E+01
PU242	2.72658E-06	2.48254E+00	3.03934E-01
FP25R	1.64636E-07	9.32622E-02	4.14610E-03
FP39R	2.66411E-06	1.50515E+00	6.77110E-02
FP25S	1.23806E-05	5.70938E+00	6.23464E-02
FP39S	7.97246E-05	3.66454E+01	4.46622E-01
FP25U	5.08132E-05	2.16743E+01	5.55629E-02
FP39U	2.98440E-04	1.29320E+02	5.08854E-01

ZONE 2

VOLUME (LITERS)	= 1.87803E+03
POWER (MW)	= 7.31750E+02
AVERAGE POWER DENSITY (WATTS PER CC)	= 3.89638E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.28429E+00
INSTANTANEOUS CONVERSION RATIO	= 1.00292E+00
INSTANTANEOUS BREEDING RATIO	= 3.61068E-01
MEDIAN FISSION ENERGY (KEV)	= 1.87106E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 5.29891E+01
MEDIAN FLUX ENERGY (KEV)	= 1.43493E+02
INTEGRATED CONVERSION RATIO	= 1.00923E+00
INTEGRATED BREEDING RATIO	= 3.67562E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	1.97355E-04	6.65055E+00	1.72789E+00
O16	1.87548E-02	9.35320E+02	1.01664E-01
NA23	8.28992E-03	5.94060E+02	1.53924E-01
SS304	1.44078E-02	2.55986E+03	2.58236E+00
U238	7.64096E-03	5.66973E+03	1.17429E+02
PU239	9.81444E-04	7.31312E+02	5.16147E+02
PU240	3.88327E-04	2.90570E+02	4.17752E+01
PU241	6.70097E-05	5.03492E+01	5.07649E+01
PU242	2.74383E-06	2.07025E+00	2.36114E-01
FP25R	1.68105E-07	7.89135E-02	2.96843E-03
FP39R	2.73416E-06	1.28008E+00	4.88305E-02
FP25S	1.26415E-05	4.83097E+00	4.49670E-02
FP39S	8.18208E-05	3.11659E+01	3.23861E-01
FP25U	5.18841E-05	1.83397E+01	4.01682E-02
FP39U	3.06287E-04	1.09983E+02	3.70844E-01

ZONE 3

VOLUME (LITERS)	= 2.37416E+03
POWER (MW)	= 6.74211E+02
AVERAGE POWER DENSITY (WATTS PER CC)	= 2.83979E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.11531E+00
INSTANTANEOUS CONVERSION RATIO	= 8.67111E-01
INSTANTANEOUS BREEDING RATIO	= 2.32540E-01
MEDIAN FISSION ENERGY (KEV)	= 1.84525E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 5.64173E+01
MEDIAN FLUX ENERGY (KEV)	= 1.46973E+02
INTEGRATED CONVERSION RATIO	= 8.65368E-01
INTEGRATED BREEDING RATIO	= 2.36842E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	2.03007E-04	8.64827E+00	1.42840E+00
O16	1.90561E-02	1.20140E+03	8.69860E-02
NA23	8.11477E-03	7.35129E+02	1.21252E-01
SS304	1.45254E-02	3.26253E+03	2.11120E+00
U238	7.62504E-03	7.15260E+03	9.76649E+01
PU239	1.13038E-03	1.06481E+03	4.82783E+02
PU240	4.52676E-04	4.28202E+02	4.02964E+01
PU241	8.00625E-05	7.60487E+01	4.90721E+01
PU242	2.12272E-06	2.02473E+00	1.51719E-01
FP25R	1.12213E-07	6.65916E-02	1.59033E-03
FP39R	2.05010E-06	1.21338E+00	2.93942E-02
FP25S	8.43840E-06	4.07665E+00	2.41309E-02
FP39S	6.13501E-05	2.95419E+01	1.95208E-01
FP25U	3.46334E-05	1.54760E+01	2.15255E-02
FP39U	2.29657E-04	1.04252E+02	2.23418E-01

ZONE 4

VOLUME (LITERS)	= 2.87396E+03
POWER (MW)	= 4.74434E+01
AVERAGE POWER DENSITY (WATTS PER CC)	= 1.65080E+01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.66271E-01
INSTANTANEOUS CONVERSION RATIO	= 1.50805E+01
INSTANTANEOUS BREEDING RATIO	= 1.18350E-01
MEDIAN FISSION ENERGY (KEV)	= 1.17632E+03
MEDIAN ABSORPTION ENERGY (KEV)	= 1.74796E+01
MEDIAN FLUX ENERGY (KEV)	= 7.09350E+01
INTEGRATED CONVERSION RATIO	= 3.15857E+01
INTEGRATED BREEDING RATIO	= 1.18219E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
O16	2.83435E-02	2.16312E+03	1.38204E-02
NA23	4.77681E-03	5.23837E+02	3.01812E-02
SS304	1.16416E-02	3.16529E+03	5.05624E-01
U238	1.40121E-02	1.59113E+04	2.96302E+01
PU239	1.11293E-04	1.26906E+02	1.71299E+01
PU240	1.08439E-06	1.24171E+00	1.94479E-02
PU241	1.24817E-08	1.43519E-02	3.10800E-03
PU242	5.50351E-11	6.35455E-05	6.76887E-07
FP25R	2.76760E-08	1.98816E-02	2.38112E-04
FP39R	3.79019E-08	2.71552E-02	3.22836E-04
FP25S	2.08124E-06	1.21712E+00	3.55182E-03
FP39S	1.13423E-06	6.61142E-01	2.14129E-03
FP25U	8.54192E-06	4.62053E+00	2.73989E-03
FP39U	4.24586E-06	2.33314E+00	2.09552E-03

ZONE 5

VOLUME (LITERS)	=	3.31072E+03
POWER (MW)	=	6.03336E-01
AVERAGE POWER DENSITY (WATTS PER CC)	=	1.82237E-01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	1.61163E-03
INSTANTANEOUS CONVERSION RATIO	=	0.
INSTANTANEOUS BREEDING RATIO	=	0.
MEDIAN FISSION ENERGY (KEV)	=	0.
MEDIAN ABSORPTION ENERGY (KEV)	=	6.89848E-01
MEDIAN FLUX ENERGY (KEV)	=	2.01548E+01
INTEGRATED CONVERSION RATIO	=	0.
INTEGRATED BREEDING RATIO	=	0.

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
NA23	1.07950E-02	1.36371E+03	1.98169E-02
SS304	4.30650E-02	1.34885E+04	5.83519E-01

CORE

VOLUME (LITERS)	= 6.51846E+03
POWER (MW)	= 2.29415E+03
AVERAGE POWER DENSITY (WATTS PER CC)	= 3.51947E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.28429E+00
INSTANTANEOUS CONVERSION RATIO	= 9.93005E-01
INSTANTANEOUS BREEDING RATIO	= 9.85212E-01
MEDIAN FISSION ENERGY (KEV)	= 1.79557E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 5.10750E+01
MEDIAN FLUX ENERGY (KEV)	= 1.40245E+02
INTEGRATED CONVERSION RATIO	= 9.98452E-01
INTEGRATED BREEDING RATIO	= 9.94715E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	5.95587E-04	2.3237E+01	5.55500E+00
O16	5.55002E-02	3.20129E+03	3.10188E-01
NA23	2.53504E-02	2.1027E+03	5.07637E-01
SS304	4.29008E-02	8.81709E+03	8.11226E+00
U238	2.25452E-02	1.93403E+04	3.60079E+02
PU239	2.98988E-03	2.58565E+03	1.62517E+03
PU240	1.18423E-03	1.02869E+03	1.30181E+02
PU241	2.05904E-04	1.79741E+02	1.61075E+02
PU242	7.59314E-06	6.57752E+00	6.91767E-01
FP25R	4.44954E-07	2.3876E-01	8.70486E-03
FP39R	7.44838E-06	3.99861E+00	1.45936E-01
FP25S	3.34606E-05	1.46173E+01	1.31444E-01
FP39S	2.22895E-04	9.73532E+01	9.65691E-01
FP25U	1.37331E-04	5.54901E+01	1.17257E-01
FP39U	8.34385E-04	3.43555E+02	1.10312E+00

BLANKET

VOLUME (LITERS)	= 2.87396E+03
POWER (MW)	= 4.74434E+01
AVERAGE POWER DENSITY (WATTS PER CC)	= 1.55080E+01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.66271E-01
INSTANTANEOUS CONVERSION RATIO	= 1.50805E+01
INSTANTANEOUS BREEDING RATIO	= 1.18350E-01
MEDIAN FISSION ENERGY (KEV)	= 1.17632E+03
MEDIAN ABSORPTION ENERGY (KEV)	= 1.74796E+01
MEDIAN FLUX ENERGY (KEV)	= 7.09330E+01
INTEGRATED CONVERSION RATIO	= 3.15857E+01
INTEGRATED BREEDING RATIO	= 1.18219E-01

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
O16	2.83435E-02	2.16312E+03	1.38204E-02
NA23	4.77681E-03	5.23837E+02	3.01812E-02
SS304	1.16416E-02	3.16528E+03	6.05624E-01
U238	1.40121E-02	1.59110E+04	2.96302E+01
PU239	1.11293E-04	1.26906E+02	1.71299E+01
PU240	1.08439E-06	1.24171E+00	1.94479E-02
PU241	1.24817E-08	1.43518E-02	3.10800E-03
PU242	5.50351E-11	6.35455E-05	6.76887E-07
FP25R	2.76760E-08	1.98816E-02	2.38112E-04
FP39R	3.79019E-08	2.71552E-02	3.22836E-04
FP25S	2.08124E-06	1.21712E+00	3.55182E-03
FP39S	1.13423E-06	6.61142E-01	2.14129E-03
FP25U	8.54192E-06	4.62053E+00	2.73989E-03
FP39U	4.24586E-06	2.33314E+00	2.09552E-03

REFLECTOR

VOLUME (LITERS)	=	3.31072E+03
POWER (MW)	=	6.03336E-01
AVERAGE POWER DENSITY (WATTS PER CC)	=	1.82237E-01
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	=	1.61163E-03
INSTANTANEOUS CONVERSION RATIO	=	0.
INSTANTANEOUS BREEDING RATIO	=	0.
MEDIAN FISSION ENERGY (KEV)	=	0.
MEDIAN ABSORPTION ENERGY (KEV)	=	6.89848E-01
MEDIAN FLUX ENERGY (KEV)	=	2.01548E+01
INTEGRATED CONVERSION RATIO	=	0.
INTEGRATED BREEDING RATIO	=	0.

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
NA23	1.07950E-02	1.36371E+03	1.98169E-02
SS304	4.30650E-02	1.34885E+04	5.83519E-01

REACTOR

VOLUME (LITERS)	= 1.27031E+04
POWER (MW)	= 2.34220E+03
AVERAGE POWER DENSITY (WATTS PER CC)	= 1.84380E+02
RATIO OF MAXIMUM-TO-REACTOR AVERAGE POWER DENSITY	= 2.28429E+00
INSTANTANEOUS CONVERSION RATIO	= 1.10356E+00
INSTANTANEOUS BREEDING RATIO	= 1.10356E+00
MEDIAN FISSION ENERGY (KEV)	= 1.81881E+02
MEDIAN ABSORPTION ENERGY (KEV)	= 4.66347E+01
MEDIAN FLUX ENERGY (KEV)	= 1.31169E+02
INTEGRATED CONVERSION RATIO	= 1.11293E+00
INTEGRATED BREEDING RATIO	= 1.11293E+00

NUCLIDE	CONCENTRATION (NUCLEI PER BARN-CM)	MASS (KG)	POWER (MW)
B10	5.95587E-04	2.32377E+01	5.55500E+00
O16	8.38437E-02	5.36441E+03	3.24008E-01
NA23	4.09222E-02	3.99032E+03	5.57635E-01
SS304	9.76074E-02	2.54709E+04	9.30140E+00
U238	3.65574E-02	3.52513E+04	3.89710E+02
PU239	3.10117E-03	2.71255E+03	1.64230E+03
PU240	1.18531E-03	1.02993E+03	1.30200E+02
PU241	2.05916E-04	1.79755E+02	1.61078E+02
PU242	7.59319E-06	6.57758E+00	6.91767E-01
FP25R	4.72630E-07	2.58649E-01	8.94297E-03
FP39R	7.48628E-06	4.02577E+00	1.46258E-01
FP25S	3.55418E-05	1.58341E+01	1.34996E-01
FP39S	2.24030E-04	9.80143E+01	9.57832E-01
FP25U	1.45873E-04	6.01106E+01	1.19996E-01
FP39U	8.38631E-04	3.45888E+02	1.10521E+00

* * * * * ZONE - GROUP NEUTRON BALANCE EDIT * * * * *

TIME (DAYS) = 350.00

* * * ZONE 1		REACTION RATES (REACTIONS PER SEC.)						
GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT. SCATTER	FISSION SOURCE	IN SCATTER
1	-6.05350E+16	6.80079E+17	5.21928E+17	2.22251E+18	0.	1.63616E+19	1.97188E+19	0.
2	-6.15599E+16	1.46058E+18	7.45018E+17	4.46452E+18	0.	3.57463E+19	3.32145E+19	9.12934E+18
3	2.12684E+16	2.16027E+18	2.40900E+18	3.29738E+18	0.	4.19106E+19	1.73799E+19	3.24132E+19
4	8.78631E+16	2.56651E+18	3.97687E+18	3.90505E+18	0.	4.42854E+19	5.37856E+18	4.94417E+19
5	2.49547E+17	2.94623E+18	9.88035E+18	5.45610E+18	0.	3.02672E+19	1.57025E+18	4.72295E+19
6	1.34949E+17	1.19201E+18	1.32686E+19	3.99232E+18	0.	1.21043E+19	1.80674E+17	3.05118E+19
7	7.39706E+16	2.32380E+17	6.37377E+18	2.09608E+18	0.	3.35089E+18	0.	1.21376E+19
8	1.55842E+16	4.71653E+16	1.91651E+18	6.39335E+17	0.	1.14381E+18	0.	3.36248E+18
9	4.36119E+15	1.03677E+16	5.47127E+17	2.69753E+17	0.	3.12514E+17	0.	1.14415E+18
10	1.40757E+15	2.86756E+15	1.68396E+17	7.97713E+16	0.	6.01379E+16	0.	3.12588E+17
11	2.46592E+14	3.90856E+14	3.34264E+16	1.87238E+16	0.	7.35729E+15	0.	6.01465E+15
12	3.57255E+13	6.29712E+13	5.01054E+15	1.35752E+15	0.	8.90407E+14	0.	7.35729E+15
13	3.23893E+12	3.91673E+12	4.20594E+14	3.89776E+14	0.	7.38583E+13	0.	8.90407E+14
14	1.67511E+11	1.93097E+11	5.48790E+13	1.46594E+13	0.	7.95826E+12	0.	7.38583E+13
15	2.36911E+10	3.65482E+10	2.58148E+12	5.54171E+11	0.	7.62321E+11	0.	3.95826E+12
16	2.71972E+09	2.83463E+09	6.71258E+11	6.43135E+10	0.	2.11763E+10	0.	7.62321E+11
17	4.67106E+07	4.31746E+07	1.83625E+10	2.72352E+09	0.	0.	0.	2.11763E+10
TOTAL	4.67142E+17	1.12989E+19	3.94465E+19	2.64433E+19	0.	1.25561E+20	7.74426E+19	1.85751E+20

* * * ZONE 2

REACTION RATES (REACTIONS PER SEC.)

GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT SCATTER	FISSION SOURCE	IN SCATTER
1	1.84863E+17	5.19568E+17	4.27036E+17	1.88501E+18	0.	1.33084E+19	1.63255E+19	0.
2	3.99110E+17	1.10242E+18	6.09826E+17	3.77426E+18	0.	2.89890E+19	2.74987E+19	7.37723E+18
3	7.52706E+17	1.61339E+18	1.95679E+18	2.84440E+18	0.	3.34865E+19	1.43890E+19	2.62659E+19
4	1.00501E+18	1.88709E+18	3.20049E+18	3.32678E+18	0.	3.47206E+19	4.45299E+18	3.96888E+19
5	1.12969E+18	2.09992E+18	7.69861E+18	4.50845E+18	0.	2.29651E+19	1.30004E+18	3.71026E+19
6	4.57170E+17	8.32367E+17	1.01277E+19	3.22525E+18	0.	8.67195E+18	1.49583E+17	2.31552E+19
7	6.19763E+16	1.53547E+17	4.56476E+18	1.53256E+18	0.	2.33477E+18	0.	8.69800E+18
8	1.34526E+16	2.94369E+16	1.05872E+18	4.66059E+17	0.	7.68296E+17	0.	2.33603E+18
9	2.98778E+15	6.22772E+15	3.67671E+17	1.89442E+17	0.	2.02209E+17	0.	7.68562E+17
10	7.26378E+14	1.64209E+15	1.08947E+17	5.36756E+16	0.	3.72688E+16	0.	2.02267E+17
11	8.48495E+13	2.11830E+14	2.06576E+16	1.19802E+16	0.	4.33967E+15	0.	3.72757E+16
12	9.13772E+12	3.34151E+13	2.94372E+15	8.45120E+14	0.	5.08170E+14	0.	4.33967E+15
13	2.60903E+11	1.95060E+12	2.37130E+14	2.28864E+14	0.	3.99411E+13	0.	5.08170E+14
14	-4.67645E+10	9.39133E+10	2.94030E+13	8.41205E+12	0.	2.07828E+12	0.	3.99411E+13
15	-1.79186E+10	1.76465E+10	1.37071E+12	3.12582E+11	0.	3.95310E+11	0.	2.07828E+12
16	-1.92568E+09	1.28439E+09	3.50743E+11	3.44514E+10	0.	1.07450E+10	0.	3.95310E+11
17	-3.06287E+07	1.87818E+07	9.34749E+09	1.40909E+09	0.	-0.	0.	1.07450E+10
TOTAL	4.00878E+18	8.24586E+18	3.01444E+19	2.18689E+19	0.	1.45489E+20	6.41159E+19	1.45647E+20

* * * ZONE 3

REACTION RATES (REACTIONS PER SEC.)

GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT SCATTER	FISSION SOURCE	IN SCATTER
1	1.35627E+18	4.32425E+17	3.62576E+17	1.67635E+18	0.	1.12950E+19	1.51271E+19	0.
2	2.38570E+18	9.13754E+17	5.13711E+17	3.40679E+18	0.	2.45060E+19	2.54802E+19	6.25264E+18
3	2.02354E+18	1.31474E+18	1.63233E+18	2.70795E+18	0.	2.78764E+19	1.33328E+19	2.22242E+19
4	1.46258E+18	1.51769E+18	2.65496E+18	3.12886E+18	0.	2.85020E+19	4.12611E+18	3.31391E+19
5	8.31716E+17	1.67403E+18	6.31388E+18	4.20537E+18	0.	1.86859E+19	1.20460E+18	3.05048E+19
6	2.64096E+16	6.62715E+17	8.32160E+18	3.00465E+18	0.	5.97935E+18	1.38602E+17	1.88554E+19
7	-1.11057E+17	1.19466E+17	3.69973E+18	1.43960E+18	0.	1.85301E+18	0.	7.00052E+18
8	-6.95587E+16	2.26325E+16	8.68451E+17	4.23503E+17	0.	6.09237E+17	0.	1.85410E+18
9	-4.68960E+16	4.90518E+15	3.10220E+17	1.75729E+17	0.	1.64654E+17	0.	6.09469E+17
10	-2.49335E+16	1.39894E+15	1.00683E+17	5.45806E+16	0.	3.30508E+16	0.	1.64705E+17
11	-9.55565E+15	2.15614E+14	2.31255E+16	1.46663E+16	0.	4.64281E+15	0.	3.30573E+16
12	-2.88260E+15	5.42225E+13	4.99989E+15	1.63213E+15	0.	8.48524E+14	0.	4.64281E+15
13	-8.66534E+14	5.89102E+12	7.56901E+14	8.30767E+14	0.	1.25862E+14	0.	8.48524E+14
14	-1.70154E+14	6.85806E+11	2.08268E+14	7.25856E+13	0.	1.54489E+13	0.	1.25862E+14
15	-8.16347E+13	7.64593E+11	6.29319E+13	1.60444E+13	0.	1.76398E+13	0.	1.54489E+13
16	-5.63501E+13	2.09881E+11	6.53759E+13	6.79517E+12	0.	1.94000E+12	0.	1.76398E+13
17	-4.84679E+13	7.38836E+10	4.38974E+13	6.78623E+12	0.	-0.	0.	1.94000E+12
TOTAL	7.82012E+18	6.66402E+18	2.48074E+19	2.02416E+19	0.	1.20510E+20	5.94093E+19	1.20644E+20

* * * ZONE 4

REACTION RATES (REACTIONS PER SEC.)

GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT SCATTER	FISSION SOURCE	IN SCATTER
1	-1.44612E+18	3.89742E+16	4.26756E+16	1.98914E+17	0.	1.96221E+18	8.00768E+17	0.
2	-2.65020E+18	9.81523E+16	9.71648E+16	3.95776E+17	0.	4.28908E+18	1.34882E+18	8.87278E+17
3	-2.63695E+18	1.99601E+17	4.43902E+17	3.91144E+16	0.	5.52088E+18	7.05785E+17	3.85333E+18
4	-2.27515E+18	2.91066E+17	8.46145E+17	6.54043E+16	0.	8.84077E+18	2.18420E+17	7.55032E+18
5	-1.69270E+18	4.33036E+17	2.79778E+18	1.16148E+17	0.	7.69396E+18	6.37670E+16	9.28358E+18
6	-3.10816E+17	2.29779E+17	4.46743E+18	1.05450E+17	0.	3.25254E+18	7.33706E+15	7.73590E+18
7	-1.38890E+16	5.77787E+16	1.88898E+18	6.57837E+16	0.	1.26626E+18	0.	3.25423E+18
8	1.86253E+16	1.75164E+16	4.70047E+17	3.22791E+16	0.	7.28429E+17	0.	1.26655E+18
9	3.03292E+16	8.06596E+15	2.71323E+17	2.81431E+16	0.	3.90802E+17	0.	7.28492E+17
10	5.81139E+14	4.69918E+15	1.92148E+17	2.01558E+16	0.	1.73346E+17	0.	3.90816E+17
11	-1.08237E+16	1.96901E+15	8.06327E+16	1.92157E+16	0.	8.24173E+16	0.	1.73346E+17
12	-1.26376E+16	7.91996E+14	6.83647E+16	3.64809E+15	0.	2.22923E+16	0.	8.24173E+16
13	-9.62080E+15	3.32264E+14	9.73743E+15	7.40056E+15	0.	1.44682E+16	0.	2.22923E+16
14	-7.24982E+15	9.16409E+13	1.69942E+16	1.25356E+15	0.	3.40557E+15	0.	1.44682E+16
15	-2.48481E+15	9.66294E+13	1.82473E+15	1.53011E+14	0.	3.81844E+15	0.	3.40557E+15
16	-9.36519E+14	5.69015E+13	2.26633E+15	1.77987E+14	0.	2.25435E+15	0.	3.81844E+15
17	-4.04163E+14	3.87070E+13	1.68561E+15	9.34270E+14	0.	-0.	0.	2.25435E+15
TOTAL	-1.10204E+19	1.38205E+18	1.16991E+19	1.09995E+18	0.	3.52469E+19	3.14489E+18	3.52725E+19

* * * ZONE 5

REACTION RATES (REACTIONS PER SEC.)

GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT SCATTER	FISSION SOURCE	IN SCATTER
1	-3.37997E+16	7.71733E+14	1.00663E+15	0.	0.	3.19534E+16	0.	0.
2	-6.76169E+16	4.76213E+15	9.30938E+14	0.	0.	8.07051E+16	0.	1.88513E+16
3	-1.24707E+17	2.05555E+16	3.62130E+15	0.	0.	1.74087E+17	0.	7.36445E+16
4	-1.96691E+17	4.10342E+16	1.11205E+16	0.	0.	3.28097E+17	0.	1.83722E+17
5	-3.45758E+17	7.60018E+16	5.25026E+16	0.	0.	5.55069E+17	0.	3.38133E+17
6	-2.05597E+17	4.17614E+16	8.31628E+16	0.	0.	6.36116E+17	0.	5.55560E+17
7	3.86711E+16	1.69229E+16	9.21233E+16	0.	0.	4.88554E+17	0.	6.36116E+17
8	4.55822E+16	7.46535E+15	2.44180E+16	0.	0.	4.11191E+17	0.	4.88554E+17
9	2.37302E+16	4.25924E+15	6.48005E+16	0.	0.	3.18430E+17	0.	4.11191E+17
10	4.02859E+16	4.72084E+15	2.79279E+16	0.	0.	2.45548E+17	0.	3.18430E+17
11	3.51872E+16	3.55956E+15	2.40400E+16	0.	0.	1.82796E+17	0.	2.45548E+17
12	2.72418E+16	2.53865E+15	2.48297E+16	0.	0.	1.28206E+17	0.	1.82796E+17
13	1.88890E+16	1.69841E+15	2.41891E+16	0.	0.	8.34393E+16	0.	1.28206E+17
14	1.27914E+16	1.01856E+15	2.12082E+16	0.	0.	4.84288E+16	0.	8.34393E+16
15	5.55554E+15	5.58968E+14	1.70513E+16	0.	0.	2.52612E+16	0.	4.84288E+16
16	2.36573E+15	2.58318E+14	1.18668E+16	0.	0.	1.07702E+16	0.	2.52612E+16
17	1.21318E+15	1.37430E+14	9.41944E+15	0.	0.	-0.	0.	1.07702E+16
TOTAL	-7.22754E+17	2.28025E+17	4.94219E+17	0.	0.	3.74865E+18	0.	3.74865E+18

* * * CORE BALANCE NORMALIZED TO A TOTAL FISSION SOURCE OF 1.0

GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT SCATTER	FISSION SOURCE	IN SCATTER
1	7.25385E-03	7.99593E-03	6.42557E-03	2.83367E-02	0.	2.00698E-01	2.50702E-01	0.
2	1.33419E-02	1.70335E-02	9.15453E-03	5.70546E-02	0.	4.37216E-01	4.22283E-01	1.11503E-01
3	1.37057E-02	2.49294E-02	2.93863E-02	4.33571E-02	0.	5.05963E-01	2.20965E-01	3.96366E-01
4	1.25247E-02	2.92549E-02	4.81711E-02	5.07596E-02	0.	5.26709E-01	6.83821E-02	5.99030E-01
5	1.08320E-02	3.29238E-02	1.17057E-01	6.94220E-02	0.	3.52346E-01	1.99639E-02	5.62616E-01
6	3.03033E-03	1.31647E-02	1.55394E-01	5.00813E-02	0.	1.35982E-01	2.29706E-03	3.55355E-01
7	1.21943E-04	2.47605E-03	7.17165E-02	2.50756E-02	0.	3.69828E-02	0.	1.36376E-01
8	-1.98527E-04	4.86176E-04	1.68714E-02	7.49045E-03	0.	1.23527E-02	0.	3.70021E-02
9	-1.93751E-04	1.05337E-04	6.00168E-03	3.11555E-03	0.	3.32844E-03	0.	1.23568E-02
10	-1.11701E-04	2.89477E-05	1.85204E-03	9.21194E-04	0.	5.39144E-04	0.	3.32934E-03
11	-4.51917E-05	4.00906E-06	3.78269E-04	2.22280E-04	0.	8.00527E-05	0.	6.39252E-04
12	-1.39028E-05	7.37871E-07	6.34657E-05	1.87875E-05	0.	1.10091E-05	0.	8.00527E-05
13	-4.22822E-06	5.76071E-08	6.93061E-06	7.09511E-06	0.	1.17416E-06	0.	1.10091E-05
14	-8.33036E-07	4.76607E-09	1.43328E-06	4.68648E-07	0.	1.05262E-07	0.	1.17416E-05
15	-3.99921E-07	4.01145E-09	3.27682E-07	8.28519E-08	0.	9.20932E-08	0.	1.05262E-07
16	-2.76119E-07	1.04844E-09	3.25300E-07	3.37752E-08	0.	9.66095E-09	0.	9.20932E-08
17	-2.37457E-07	3.62278E-10	2.15200E-07	3.32677E-08	0.	0.	0.	9.66095E-09
TOTAL	5.02414E-02	1.28404E-01	4.62481E-01	3.35863E-01	0.	2.21231E+00	9.84592E-01	2.21467E+00

* * * BLANKET BALANCE NORMALIZED TO A TOTAL FISSION SOURCE OF 1.0

GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT SCATTER	FISSION SOURCE	IN SCATTER
1	-7.08490E-03	1.90945E-04	2.09078E-04	9.74531E-04	0.	9.61336E-03	3.92316E-03	0.
2	-1.29840E-02	4.80873E-04	4.75035E-04	1.93901E-03	0.	2.10133E-02	5.60820E-03	4.34700E-03
3	-1.29191E-02	9.77897E-04	2.17479E-03	1.91631E-04	0.	3.19474E-02	3.45782E-03	1.89274E-02
4	-1.11465E-02	1.42601E-03	4.14548E-03	3.20432E-04	0.	4.33132E-02	1.07009E-03	3.69909E-02
5	-8.29296E-03	2.12155E-03	1.37070E-02	5.63039E-04	0.	3.76947E-02	3.12411E-04	4.54825E-02
6	-1.52277E-03	1.12575E-03	2.18871E-02	5.16629E-04	0.	1.59350E-02	3.59461E-05	3.79001E-02
7	-6.80457E-05	2.83073E-04	9.25457E-03	3.22291E-04	0.	6.20371E-03	0.	1.59923E-02
8	9.12499E-05	8.58174E-05	2.30288E-03	1.58143E-04	0.	3.56876E-03	0.	6.20517E-03
9	1.48591E-04	3.95172E-05	1.32928E-03	1.37880E-04	0.	1.91464E-03	0.	3.55907E-03
10	2.84715E-06	2.30225E-05	9.41383E-04	9.87484E-05	0.	8.43264E-04	0.	1.91471E-03
11	-5.30281E-05	9.64668E-06	3.95040E-04	9.41425E-05	0.	4.03783E-04	0.	8.49265E-04
12	-6.19150E-05	3.88019E-06	3.34936E-04	1.78729E-05	0.	1.09215E-04	0.	4.03783E-04
13	-4.71347E-05	1.62785E-06	4.77061E-05	3.62572E-05	0.	7.08832E-05	0.	1.09215E-04
14	-3.55187E-05	4.48972E-07	8.32589E-05	6.14153E-06	0.	1.66848E-05	0.	7.08832E-05
15	-1.21737E-05	4.73412E-07	8.93980E-06	7.43640E-07	0.	1.87075E-05	0.	1.66848E-05
16	-4.58873E-06	2.78775E-07	1.11033E-05	8.72003E-07	0.	1.10447E-05	0.	1.87075E-05
17	-1.98010E-06	1.89635E-07	8.25825E-06	4.57722E-06	0.	0.	0.	1.10447E-05
TOTAL	-5.39920E-02	5.77099E-03	5.73169E-02	5.38895E-03	0.	1.72684E-01	1.54076E-02	1.72809E-01

* * * REFLECTOR BALANCE NORMALIZED TO A TOTAL FISSION SOURCE OF 1.0

GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT SCATTER	FISSION SOURCE	IN SCATTER
1	-1.65594E-04	3.78092E-06	4.93172E-06	0.	0.	1.56548E-04	0.	0.
2	-3.31273E-04	2.33309E-05	4.56090E-06	0.	0.	3.95395E-04	0.	9.23572E-05
3	-6.10970E-04	1.00707E-04	1.77417E-05	0.	0.	8.52895E-04	0.	3.60803E-04
4	-9.63638E-04	2.01037E-04	5.44819E-05	0.	0.	1.60743E-03	0.	9.00100E-04
5	-1.69395E-03	3.72352E-04	2.57223E-04	0.	0.	2.71943E-03	0.	1.65660E-03
6	-1.00776E-03	2.04600E-04	4.07436E-04	0.	0.	3.11649E-03	0.	2.72183E-03
7	1.89459E-04	8.29094E-05	4.51335E-04	0.	0.	2.39355E-03	0.	3.11649E-03
8	2.23319E-04	3.65747E-05	1.19630E-04	0.	0.	2.01453E-03	0.	2.39355E-03
9	1.16260E-04	2.08671E-05	3.17474E-04	0.	0.	1.56007E-03	0.	2.01453E-03
10	1.97371E-04	2.31286E-05	1.36826E-04	0.	0.	1.20300E-03	0.	1.56007E-03
11	1.72391E-04	1.74392E-05	1.17778E-04	0.	0.	8.95563E-04	0.	1.20300E-03
12	1.33465E-04	1.24375E-05	1.21647E-04	0.	0.	6.28112E-04	0.	8.95563E-04
13	9.25422E-05	8.32093E-06	1.18509E-04	0.	0.	4.08793E-04	0.	6.28112E-04
14	6.26682E-05	4.99020E-06	1.03904E-04	0.	0.	2.37265E-04	0.	4.08790E-04
15	2.72229E-05	2.73852E-06	8.35388E-05	0.	0.	1.23761E-04	0.	2.37265E-04
16	1.15903E-05	1.26556E-06	5.81386E-05	0.	0.	5.27659E-05	0.	1.23761E-04
17	5.94369E-06	6.73306E-07	4.61482E-05	0.	0.	0.	0.	5.27658E-05
TOTAL	-3.54096E-03	1.11715E-03	2.42130E-03	0.	0.	1.83655E-02	0.	1.83656E-02

* * * REACTOR BALANCE NORMALIZED TO A TOTAL FISSION SOURCE OF 1.0

GROUP	RADIAL LEAKAGE	TRANSVERSE LEAKAGE	CAPTURE	FISSION	(N,ALPHA) (N,PROTON)	OUT SCATTER	FISSION SOURCE	IN SCATTER
1	3.35881E-06	8.19066E-03	6.63958E-03	2.93112E-02	0.	2.10468E-01	2.54625E-01	0.
2	2.66422E-05	1.75377E-02	9.63512E-03	5.89937E-02	0.	4.58624E-01	4.28891E-01	1.15943E-01
3	1.75558E-04	2.60080E-02	3.15789E-02	4.35487E-02	0.	5.38763E-01	2.24422E-01	4.15654E-01
4	4.14540E-04	3.08819E-02	5.23710E-02	5.10801E-02	0.	5.71629E-01	5.94522E-02	6.36921E-01
5	8.45086E-04	3.54177E-02	1.31021E-01	6.99911E-02	0.	3.92760E-01	2.02763E-02	6.09755E-01
6	4.99804E-04	1.44951E-02	1.77588E-01	5.05979E-02	0.	1.55033E-01	2.33301E-03	3.95977E-01
7	2.43356E-04	2.84203E-03	8.14224E-02	2.53978E-02	0.	4.55881E-02	0.	1.55485E-01
8	1.16041E-04	6.08568E-04	1.92940E-02	7.64860E-03	0.	1.79360E-02	0.	4.56009E-02
9	7.10996E-05	1.65721E-04	7.64843E-03	3.25343E-03	0.	5.80315E-03	0.	1.79404E-02
10	8.85175E-05	7.50987E-05	2.93025E-03	1.01994E-03	0.	2.69111E-03	0.	6.80411E-03
11	7.41711E-05	3.10949E-05	8.91087E-04	3.15423E-04	0.	1.37940E-03	0.	2.69152E-03
12	5.76469E-05	1.70555E-05	5.20049E-04	3.66504E-05	0.	7.48336E-04	0.	1.37940E-03
13	4.11793E-05	1.00064E-05	1.73145E-04	4.33533E-05	0.	4.80848E-04	0.	7.48335E-04
14	2.63165E-05	5.44394E-06	1.88596E-04	6.61018E-06	0.	2.54055E-04	0.	4.80848E-04
15	1.46493E-05	3.21595E-06	9.28063E-05	8.32492E-07	0.	1.42551E-04	0.	2.54055E-04
16	6.72545E-06	1.54539E-06	6.95572E-05	9.05779E-07	0.	6.38201E-05	0.	1.42561E-04
17	3.72613E-06	8.63303E-07	5.46217E-05	4.61049E-06	0.	0.	0.	6.38201E-05
TOTAL	2.70852E-03	1.36292E-01	5.22219E-01	3.41252E-01	0.	2.40336E+00	1.00000E+00	2.40584E+00

* * * ZONE MATERIAL EDIT * * *

TIME (DAYS) 0 350.00

ZONE MATERIAL 4

ZONE 4

VOLUME (LITERS) = 1.84964E+03

TOTAL POWER (MWT) = 4.68076E+01

CUMMULATIVE BURNUP (MWD/TONNE) = 8.19288E+02

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
O16	2.83435E-02	2.16312E+03	1.38204E-02
U238	1.40121E-02	1.59110E+04	2.96302E+01
PU239	1.11293E-04	1.26906E+02	1.71299E+01
PU240	1.08439E-05	1.24171E+00	1.94479E-02
PU241	1.24817E-08	1.43518E-02	3.10800E-03
PU242	5.50351E-11	6.35455E-05	6.76887E-07
FP25R	2.76760E-08	1.98816E-02	2.38112E-04
FP39R	3.79019E-08	2.71552E-02	3.22836E-04
FP25S	2.08124E-05	1.21712E+00	3.55182E-03
FP39S	1.13423E-05	6.61142E-01	2.14129E-03
FP25U	8.54192E-05	4.62053E+00	2.73989E-03
FP39U	4.24586E-05	2.33314E+00	2.09552E-03

ZONE MATERIAL 5

ZONE 1

VOLUME (LITERS) = 6.23325E+02

TOTAL POWER (MWT) = 1.54309E-01

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	5.93819E-03	5.13506E+02	1.54309E-01

ZONE MATERIAL 5
 ZONE 2
 VOLUME (LITERS) = 5.47389E+02
 TOTAL POWER (MWT) = 1.16843E-01
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	6.29285E-03	4.50948E+02	1.16843E-01

ZONE MATERIAL 5
 ZONE 3
 VOLUME (LITERS) = 7.02413E+02
 TOTAL POWER (MWT) = 9.54443E-02
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	6.38757E-03	5.78650E+02	9.54443E-02

ZONE MATERIAL 6
 ZONE 4
 VOLUME (LITERS) = 5.01652E+02
 TOTAL POWER (MWT) = 2.38107E-02
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	3.76856E-03	4.13270E+02	2.38107E-02

ZONE MATERIAL 7
 ZONE 1
 VOLUME (LITERS) = 3.15692E+02
 TOTAL POWER (MWT) = 7.81520E-02
 CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	3.00749E-03	2.60073E+02	7.81520E-02

ZONE MATERIAL 7

ZONE 2

VOLUME (LITERS) = 1.73717E+02

TOTAL POWER (MWT) = 3.70809E-02

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	1.99707E-03	1.43111E+02	3.70809E-02

ZONE MATERIAL 7

ZONE 3

VOLUME (LITERS) = 1.89933E+02

TOTAL POWER (MWT) = 2.58081E-02

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	1.72720E-03	1.56470E+02	2.58081E-02

ZONE MATERIAL 7

ZONE 4

VOLUME (LITERS) = 1.34214E+02

TOTAL POWER (MWT) = 6.37041E-03

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	1.00825E-03	1.10568E+02	6.37041E-03

ZONE MATERIAL 7

ZONE 5

VOLUME (LITERS) = 1.65536E+03

TOTAL POWER (MWT) = 1.98169E-02

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
NA23	1.07950E-02	1.36371E+03	1.98169E-02

ZONE MATERIAL 8

ZONE 1

VOLUME (LITERS) = 1.93923E+02

TOTAL POWER (MWT) = 1.80389E+00

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	7.37007E-03	1.58015E+03	1.80389E+00

ZONE MATERIAL 8

ZONE 2

VOLUME (LITERS) = 1.70299E+02

TOTAL POWER (MWT) = 1.39986E+00

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	7.81024E-03	1.38766E+03	1.39986E+00

ZONE MATERIAL 8

ZONE 3

VOLUME (LITERS) = 2.18528E+02

TOTAL POWER (MWT) = 1.15227E+00

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	7.92781E-03	1.78056E+03	1.15227E+00

ZONE MATERIAL 9

ZONE 4

VOLUME (LITERS) = 1.68309E+02

TOTAL POWER (MWT) = 2.62404E-01

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	5.04408E-03	1.37145E+03	2.62404E-01

ZONE MATERIAL 10

ZONE 1

VOLUME (LITERS) = 1.73597E+02

TOTAL POWER (MWT) = 1.61481E+00

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	6.59756E-03	1.41454E+03	1.61481E+00

ZONE MATERIAL 10

ZONE 2

VOLUME (LITERS) = 1.43857E+02

TOTAL POWER (MWT) = 1.18250E+00

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	6.59756E-03	1.17220E+03	1.18250E+00

ZONE MATERIAL 10

ZONE 3

VOLUME (LITERS) = 1.81860E+02

TOTAL POWER (MWT) = 9.58927E-01

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	6.59756E-03	1.48187E+03	9.58927E-01

ZONE MATERIAL 10

ZONE 4

VOLUME (LITERS) = 2.20145E+02

TOTAL POWER (MWT) = 3.43220E-01

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	6.59756E-03	1.79383E+03	3.43220E-01

ZONE MATERIAL 10

ZONE 5

VOLUME (LITERS) = 1.65536E+03

TOTAL POWER (MWT) = 5.83519E-01

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
SS304	4.30650E-02	1.34885E+04	5.83519E-01

ZONE MATERIAL 11

ZONE 1

VOLUME (LITERS) = 1.13314E+00

TOTAL POWER (MWT) = 2.39871E+00

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
B10	1.95225E-04	7.93884E+00	2.39871E+00

ZONE MATERIAL 12

ZONE 2

VOLUME (LITERS) = 9.39013E-01

TOTAL POWER (MWT) = 1.72789E+00

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
B10	1.97355E-04	6.65055E+00	1.72789E+00

ZONE MATERIAL 13

ZONE 3

VOLUME (LITERS) = 1.18708E+00

TOTAL POWER (MWT) = 1.42840E+00

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
B10	2.03007E-04	8.64827E+00	1.42840E+00

ZONE MATERIAL 21

ZONE 1

VOLUME (LITERS) = 3.19535E+02

TOTAL POWER (MWT) = 2.90432E+02

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
016	5.89644E-03	3.54854E+02	4.05125E-02
U238	2.51677E-03	2.25356E+03	5.01282E+01
PU239	2.84247E-04	2.55531E+02	2.02729E+02
PU240	1.10301E-04	9.95956E+01	1.54507E+01
PU241	2.12058E-05	1.92274E+01	2.20732E+01
PU242	0.	0.	0.
FP25R	0.	0.	0.
FP39R	0.	0.	0.
FP25S	0.	0.	0.
FP39S	0.	0.	0.
FP25U	0.	0.	0.
FP39U	0.	0.	0.

ZONE MATERIAL 22

ZONE 2

VOLUME (LITERS) = 2.80608E+02

TOTAL POWER (MWT) = 2.43066E+02

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
016	6.25159E-03	3.11773E+02	3.38880E-02
U238	2.63272E-03	1.95352E+03	4.04505E+01
PU239	3.24533E-04	2.41822E+02	1.70674E+02
PU240	1.25943E-04	9.42385E+01	1.35486E+01
PU241	2.42204E-05	1.81986E+01	1.83488E+01
PU242	0.	0.	0.
FP25R	0.	0.	0.
FP39R	0.	0.	0.
FP25S	0.	0.	0.
FP39S	0.	0.	0.
FP25U	0.	0.	0.
FP39U	0.	0.	0.

ZONE MATERIAL 23

ZONE 3

VOLUME (LITERS) = 3.60121E+02

TOTAL POWER (MWT) = 2.27544E+02

CUMMULATIVE BURNUP (MWD/TONNE) = 0.

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
O16	6.35252E-03	4.00499E+02	2.89975E-02
U238	2.59683E-03	2.43593E+03	3.32613E+01
PU239	3.82850E-04	3.60644E+02	1.63514E+02
PU240	1.48559E-04	1.40527E+02	1.32245E+01
PU241	2.85772E-05	2.71446E+01	1.75156E+01
PU242	0.	0.	0.
FP25R	0.	0.	0.
FP39R	0.	0.	0.
FP25S	0.	0.	0.
FP39S	0.	0.	0.
FP25U	0.	0.	0.
FP39U	0.	0.	0.

ZONE MATERIAL 31

ZONE 1

VOLUME (LITERS) = 6.39071E+02

TOTAL POWER (MWT) = 5.91711E+02

CUMMULATIVE BURNUP (MWD/TONNE) = 3.85736E+04

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
O16	1.17929E-02	7.09708E+02	8.10253E-02
U238	4.76246E-03	4.26439E+03	9.48570E+01
PU239	5.93805E-04	5.33948E+02	4.23510E+02
PU240	2.32925E-04	2.10320E+02	3.26486E+01
PU241	3.76260E-05	3.41157E+01	3.91651E+01
PU242	2.72658E-05	2.48254E+00	3.03934E-01
FP25R	1.64636E-07	9.32622E-02	4.14610E-03
FP39R	2.66411E-05	1.50515E+00	6.77110E-02
FP25S	1.23806E-05	5.70933E+00	6.23464E-02
FP39S	7.97246E-05	3.66454E+01	4.46622E-01
FP25U	5.08132E-05	2.16743E+01	5.55629E-02
FP39U	2.98440E-04	1.29329E+02	5.08854E-01

ZONE MATERIAL 32

ZONE 2

VOLUME (LITERS) = 5.61217E+02

TOTAL POWER (MWT) = 4.84220E+02

CUMMULATIVE BURNUP (MWD/TONNE) = 3.71813E+04

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
O16	1.25032E-02	6.23547E+02	6.77761E-02
U238	5.00824E-03	3.71620E+03	7.69685E+01
PU239	6.56911E-04	4.89490E+02	3.45473E+02
PU240	2.62384E-04	1.96332E+02	2.82265E+01
PU241	4.27893E-05	3.21507E+01	3.24161E+01
PU242	2.74383E-06	2.07025E+00	2.36114E-01
FP25R	1.68105E-07	7.89135E-02	2.96843E-03
FP39R	2.73416E-06	1.28008E+00	4.88305E-02
FP25S	1.26415E-05	4.83097E+00	4.49670E-02
FP39S	8.18208E-05	3.11659E+01	3.23861E-01
FP25U	5.18841E-05	1.83397E+01	4.01682E-02
FP39U	3.06287E-04	1.09983E+02	3.70844E-01

ZONE MATERIAL 33

ZONE 3

VOLUME (LITERS) = 7.20157E+02

TOTAL POWER (MWT) = 4.43006E+02

CUMMULATIVE BURNUP (MWD/TONNE) = 2.68936E+04

ELEMENT	ZONE CONCENTRATION (NUCLEI/BARN-CM)	MASS (KG)	POWER (MWT)
O16	1.27035E-02	8.00904E+02	5.79884E-02
U238	5.02821E-03	4.71667E+03	6.44035E+01
PU239	7.47532E-04	7.04165E+02	3.19269E+02
PU240	3.04117E-04	2.87575E+02	2.70719E+01
PU241	5.14852E-05	4.89041E+01	3.15564E+01
PU242	2.12272E-06	2.02473E+00	1.51713E-01
FP25R	1.12213E-07	6.65916E-02	1.59033E-03
FP39R	2.05010E-06	1.21338E+00	2.93942E-02
FP25S	8.43340E-06	4.07665E+00	2.41303E-02
FP39S	6.13501E-05	2.95419E+01	1.95209E-01
FP25U	3.46334E-05	1.54760E+01	2.15255E-02
FP39U	2.29657E-04	1.04252E+02	2.23418E-01

* * * REACTION RATES EDIT * * *

TIME (DAYS) = 350.00

ZONE 1

REACTION RATES (REACTIONS PER SEC)

NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N,ALPHA)+(N,PROTON)
B10	1.30621E+18	0.	0.	0.	0.
O16	1.83005E+17	0.	0.	0.	0.
NA23	2.08297E+17	0.	0.	0.	0.
SS304	2.79147E+18	0.	0.	0.	0.
U239	2.66118E+19	3.75455E+18	1.06553E+19	1.82191E+17	0.
PU239	4.76851E+18	1.93259E+19	5.65960E+19	3.03819E+15	0.
PU240	1.94245E+18	1.45929E+18	4.46204E+18	2.95724E+15	0.
PU241	3.20236E+17	1.89459E+18	5.70152E+18	1.73095E+15	0.
PU242	1.17437E+16	8.99085E+15	2.78094E+16	0.	0.
FP239	4.96632E+15	0.	0.	0.	0.
FP39R	7.65359E+15	0.	0.	0.	0.
FP25S	7.46805E+15	0.	0.	0.	0.
FP39S	5.04831E+17	0.	0.	0.	0.
FP25U	6.65549E+15	0.	0.	0.	0.
FP39U	5.75174E+17	0.	0.	0.	0.
TOTAL	3.94465E+19	2.64433E+19	7.74426E+19	1.89918E+17	0.

ZONE 2

REACTION RATES (REACTIONS PER SEC)

NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N,ALPHA)+(N,PROTON)
B10	9.40915E+17	0.	0.	0.	0.
O16	1.53080E+17	0.	0.	0.	0.
NA23	1.37924E+17	0.	0.	0.	0.
SS304	2.10858E+18	0.	0.	0.	0.
U238	2.02574E+19	3.08671E+18	8.76354E+18	1.50885E+17	0.
PU239	3.77270E+18	1.59340E+19	4.67113E+19	2.67926E+15	0.
PU240	1.55951E+18	1.27051E+18	3.88835E+18	2.63973E+15	0.
PU241	2.59977E+17	1.57075E+18	4.73098E+18	1.55548E+15	0.
PU242	8.34047E+15	7.00669E+15	2.16945E+16	0.	0.
FP25R	3.55568E+15	0.	0.	0.	0.
FP39R	5.51947E+16	0.	0.	0.	0.
FP25S	5.38628E+16	0.	0.	0.	0.
FP39S	3.66071E+17	0.	0.	0.	0.
FP25U	4.81147E+15	0.	0.	0.	0.
FP39U	4.19177E+17	0.	0.	0.	0.
TOTAL	3.01444E+19	2.18689E+19	6.41159E+19	1.57759E+17	0.

ZONE 3

REACTION RATES (REACTIONS PER SEC)

NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N,ALPHA)+(N,PROTON)
B10	7.77825E+17	0.	0.	0.	0.
O16	1.30979E+17	0.	0.	0.	0.
NA23	1.08648E+17	0.	0.	0.	0.
SS304	1.72386E+18	0.	0.	0.	0.
U238	1.62990E+19	2.58656E+18	7.34472E+18	1.26795E+17	0.
PU239	3.48591E+18	1.49055E+19	4.37191E+19	2.59858E+15	0.
PU240	1.46331E+18	1.22661E+18	3.75643E+18	2.59125E+15	0.
PU241	2.49695E+17	1.51842E+18	4.57513E+18	1.56501E+15	0.
PU242	5.18794E+15	4.50708E+15	1.39658E+16	0.	0.
FP25R	1.90495E+15	0.	0.	0.	0.
FP39R	3.32252E+16	0.	0.	0.	0.
FP25S	2.89048E+15	0.	0.	0.	0.
FP39S	2.20650E+17	0.	0.	0.	0.
FP25U	2.57839E+16	0.	0.	0.	0.
FP39U	2.52537E+17	0.	0.	0.	0.
TOTAL	2.48074E+19	2.02416E+19	5.94094E+19	1.33549E+17	0.

ZONE 4

REACTION RATES (REACTIONS PER SEC)

NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N,ALPHA)+(N,PROTON)
O16	2.08100E+16	0.	0.	0.	0.
NA23	2.70438E+15	0.	0.	0.	0.
SS304	4.94511E+17	0.	0.	0.	0.
U238	1.09414E+19	5.73122E+17	1.61867E+18	2.55342E+16	0.
PU239	1.99049E+17	5.26209E+17	1.52436E+18	2.80444E+13	0.
PU240	3.26691E+15	5.24590E+14	1.57969E+15	6.79979E+11	0.
PU241	1.92514E+13	9.50542E+13	2.86870E+14	2.67452E+10	0.
PU242	6.71585E+10	1.83048E+10	5.56064E+10	0.	0.
FP25R	2.85218E+14	0.	0.	0.	0.
FP39R	3.64911E+14	0.	0.	0.	0.
FP25S	4.25448E+15	0.	0.	0.	0.
FP39S	2.42037E+15	0.	0.	0.	0.
FP25U	3.28192E+15	0.	0.	0.	0.
FP39U	2.36863E+15	0.	0.	0.	0.
TOTAL	1.16991E+19	1.09995E+18	3.14490E+18	2.55630E+16	0.

ZONE 5

REACTION RATES (REACTIONS PER SEC)

NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N,ALPHA)+(N,PROTON)
NA23	1.77569E+16	0.	0.	0.	0.
SS304	4.76462E+17	0.	0.	0.	0.
TOTAL	4.94219E+17	0.	0.	0.	0.

CORE

REACTION RATES (REACTIONS PER SEC)

NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N,ALPHA)+(N,PROTON)
B10	3.02495E+18	0.	0.	0.	0.
O16	4.67064E+17	0.	0.	0.	0.
NA23	4.54868E+17	0.	0.	0.	0.
SS304	6.62392E+18	0.	0.	0.	0.
U238	6.31682E+19	9.42782E+18	2.67636E+19	4.59871E+17	0.
PU239	1.20271E+19	5.01654E+19	1.47026E+20	8.31602E+15	0.
PU240	4.96527E+18	3.95641E+18	1.21068E+19	8.18822E+15	0.
PU241	8.29909E+17	4.98375E+18	1.50076E+19	4.85145E+15	0.
PU242	2.52721E+16	2.05046E+16	6.34698E+16	0.	0.
FP25R	1.04269E+16	0.	0.	0.	0.
FP39R	1.64956E+17	0.	0.	0.	0.
FP25S	1.57448E+17	0.	0.	0.	0.
FP39S	1.09155E+18	0.	0.	0.	0.
FP25U	1.40454E+17	0.	0.	0.	0.
FP39U	1.24689E+18	0.	0.	0.	0.
TOTAL	9.43983E+19	6.85539E+19	2.00968E+20	4.81227E+17	0.

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REACTION RATES (REACTIONS PER SEC)

NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N,ALPHA)+(N,PROTON)
O16	2.08100E+16	0.	0.	0.	0.
NA23	2.70438E+16	0.	0.	0.	0.
SS304	4.94511E+17	0.	0.	0.	0.
U238	1.09414E+19	5.73122E+17	1.61867E+18	2.55342E+16	0.
PU239	1.99049E+17	5.26203E+17	1.52436E+18	2.80444E+13	0.
PU240	3.26691E+15	5.24590E+14	1.57969E+15	5.79979E+11	0.
PU241	1.92514E+13	9.60542E+13	2.86870E+14	2.67452E+10	0.
PU242	8.71585E+10	1.83048E+10	5.56064E+10	0.	0.
FP25R	2.85218E+14	0.	0.	0.	0.
FP39R	3.64911E+14	0.	0.	0.	0.
FP25S	4.25448E+15	0.	0.	0.	0.
FP39S	2.42037E+15	0.	0.	0.	0.
FP25U	3.28192E+15	0.	0.	0.	0.
FP39U	2.36863E+15	0.	0.	0.	0.
TOTAL	1.16991E+19	1.09995E+18	3.14490E+18	2.55630E+16	0.

REFLECTOR

REACTION RATES (REACTIONS PER SEC)

NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N,ALPHA)+(N,PROTON)
NA23	1.77569E+16	0.	0.	0.	0.
SS304	4.76462E+17	0.	0.	0.	0.
TOTAL	4.94219E+17	0.	0.	0.	0.

REACTOR

REACTION RATES (REACTIONS PER SEC)

NUCLIDE	CAPTURE	FISSION	FISSION SOURCE	(N,2N)	(N,ALPHA)+(N,PROTON)
B10	3.02495E+18	0.	0.	0.	0.
O16	4.87874E+17	0.	0.	0.	0.
NA23	4.99669E+17	0.	0.	0.	0.
SS304	7.59489E+18	0.	0.	0.	0.
U238	7.41096E+19	1.00009E+19	2.83822E+19	4.85405E+17	0.
PU239	1.22262E+19	5.06916E+19	1.48551E+20	8.34407E+15	0.
PU240	4.96854E+18	3.95694E+18	1.21084E+19	8.18890E+15	0.
PU241	8.29928E+17	4.98385E+18	1.50079E+19	4.85147E+15	0.
PU242	2.52722E+16	2.05046E+16	6.34698E+16	0.	0.
FP25R	1.07122E+16	0.	0.	0.	0.
FP39R	1.65321E+17	0.	0.	0.	0.
FP25S	1.61703E+17	0.	0.	0.	0.
FP39S	1.09397E+18	0.	0.	0.	0.
FP25U	1.43735E+17	0.	0.	0.	0.
FP39U	1.24926E+18	0.	0.	0.	0.
TOTAL	1.06592E+20	6.96538E+19	2.04113E+20	5.06789E+17	0.

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