

```

BLOCK=OLD
DATASET=ISOTXS
BLOCK=STP027,3
DATASET=A.STP027
01      0      0      0      1      0      0      0      0      0      0      1
02      0      1      0      2      0      0      0      0      0      0      0
03      1      0      1      0      0      1      0      0      0      0      0
DATASET=A.DIF3D
01      RINSC LEU 9/30/98
02      20000900000 0
03      0      0      0      0      150      0      0      8      0      0      50
04      0      0      1      1      01      000      10      000      0      0      0000      0      won't print power with 1111
04      0      0      0      01      000      11      000      0      0      0000      0
05      1.0E-6      5.0E-4      5.0E-4
05      1.0E-4      5.0E-2      5.0E-2
06      1.00000E-0      0.001      0.004      2.000+6      1.0000
DATASET=A.HMG4C
01      RINSC LEU Eq. Core at step 9c, rearrange 4 innermost FAs ALL RODS 100% OUT 2-2010
02      500000      1      0      0      0      0      0      0
DATASET=A.NIP3
01      RINSC LEU STARTUP CORE
01      ALL CONTROL BLADES FULL OUT
01      REG ROD FULL OUT
02      1 25000      1
03      44
04      2      2      2      2      2
06      H2ORFO 0.0      113.03      0      70 0.0      160.0
06      TCB1 0.0      113.03      0      70 0.0      29.527
06      TCB2 11.43      101.60      5      66 0.0      52.387
06      TC1 0.0      113.03      0      70 0.0      26.987
06      TC2 13.97      99.06      6      65 26.987      49.847
06      GSBOX 26.352      86.678      5      61 52.387      63.187
06      SHIELD 27.940      85.090      8      60 53.977      61.597
06      GRID 26.085      86.945      2      4 63.822      135.146
06      GBOX 26.085      86.945      4      64 63.822      135.146
06      H2ORFI 26.720      86.310      4      64 64.457      134.511
06      AXREFT 26.773      86.257      45      64 64.51      134.458
06      AXREFB 26.773      86.257      4      9 64.51      134.458
06      POST1 26.085      34.545      4      64 63.822      72.282
06      POST2 26.085      34.545      4      64 126.686      135.146
06      POST3 78.485      86.945      4      64 63.822      72.282
06      POST4 78.485      86.945      4      64 126.686      135.146
06      GRAF1 44.857      68.173      7      62 64.51      72.282
01 moved 5 Be to core boundary E8 D8 C8 E2 C2 11/98
06      BEEC8 44.857      68.173      7      62 118.914      126.686
06      BE-E2 44.857      52.629      7      62 72.282      80.054
06      BE-C2 60.401      68.173      7      62 72.282      80.054
06      GRAF5 34.545      42.317      7      62 64.51      126.686
06      BEF5A 34.545      42.317      9      59 80.054      118.914      Be
06      GRAF6 70.713      78.485      7      62 64.51      126.686
06      BEF6A 70.713      78.485      9      59 80.054      118.914      Be
01 move 2 BE away BE1 26.773      34.545      9      59 72.282      126.686      126.686
06      GRAG1 26.773      34.545      9      59 72.282      126.686      G
01 move 2 Be away BE2 78.485      86.257      9      59 72.282      126.686      126.686
06      GRAG2 78.485      86.257      9      59 72.282      126.686      G
06      FC 78.485      86.257      68      70 126.686      134.458
06      CIC 26.773      34.545      68      70 126.686      134.458
01 RBBL1S to BE-F9 11/98
06      BE-F9 34.545      42.317      9      59 126.686      134.458
01 RBBL2S to BE-E9 updated from rinsc info 8/98
01 removed RB box 11/98 06 RBBL2E 45.351      52.135      9      59 126.686      134.458      134.458
01 removed 06 RB2 45.351      52.135      9      59 127.0417      134.1023
06      G-E9 44.857      52.629      9      59 126.686      134.458
06      RBBL3S 52.629      60.401      9      59 126.686      134.458
06      RBBL3E 53.123      59.907      9      59 126.686      134.458
06      RB3 53.123      59.907      9      59 127.0417      134.1023
06      RBBL4S 60.401      68.173      9      59 126.686      134.458
06      RBBL4E 60.895      67.679      9      59 126.686      134.458
06      RB4 60.895      67.679      9      59 127.0417      134.1023
06      RBBL5S 70.713      78.485      9      59 126.686      134.458
06      RBBL5E 71.207      77.991      9      59 126.686      134.458
06      RB5 71.207      77.991      9      59 127.0417      134.1023
06      E3A 44.857      52.629      9      21 80.054      87.826
06      E4A 44.857      52.629      9      21 87.826      95.598
06      E5A 44.857      52.629      9      21 95.598      103.370
06      E6A 44.857      52.629      9      21 103.370      111.142
06      E7A 44.857      52.629      9      21 111.142      118.914
06      D3A 52.629      60.401      9      21 80.054      87.826
06      D4A 52.629      60.401      9      21 87.826      95.598
06      D6A 52.629      60.401      9      21 103.370      111.142
06      D7A 52.629      60.401      9      21 111.142      118.914

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06	C3A	60.401	68.173	9	21	80.054	87.826
06	C4A	60.401	68.173	9	21	87.826	95.598
06	C5A	60.401	68.173	9	21	95.598	103.370
06	C6A	60.401	68.173	9	21	103.370	111.142
06	C7A	60.401	68.173	9	21	111.142	118.914
06	E3B	44.857	52.629	21	33	80.054	87.826
06	E4B	44.857	52.629	21	33	87.826	95.598
06	E5B	44.857	52.629	21	33	95.598	103.370
06	E6B	44.857	52.629	21	33	103.370	111.142
06	E7B	44.857	52.629	21	33	111.142	118.914
06	D3B	52.629	60.401	21	33	80.054	87.826
06	D4B	52.629	60.401	21	33	87.826	95.598
06	D6B	52.629	60.401	21	33	103.370	111.142
06	D7B	52.629	60.401	21	33	111.142	118.914
06	C3B	60.401	68.173	21	33	80.054	87.826
06	C4B	60.401	68.173	21	33	87.826	95.598
06	C5B	60.401	68.173	21	33	95.598	103.370
06	C6B	60.401	68.173	21	33	103.370	111.142
06	C7B	60.401	68.173	21	33	111.142	118.914
06	E3C	44.857	52.629	33	45	80.054	87.826
06	E4C	44.857	52.629	33	45	87.826	95.598
06	E5C	44.857	52.629	33	45	95.598	103.370
06	E6C	44.857	52.629	33	45	103.370	111.142
06	E7C	44.857	52.629	33	45	111.142	118.914
06	D3C	52.629	60.401	33	45	80.054	87.826
06	D4C	52.629	60.401	33	45	87.826	95.598
06	D6C	52.629	60.401	33	45	103.370	111.142
06	D7C	52.629	60.401	33	45	111.142	118.914
06	C3C	60.401	68.173	33	45	80.054	87.826
06	C4C	60.401	68.173	33	45	87.826	95.598
06	C5C	60.401	68.173	33	45	95.598	103.370
06	C6C	60.401	68.173	33	45	103.370	111.142
06	C7C	60.401	68.173	33	45	111.142	118.914
06	E3D	44.857	52.629	45	59	80.054	87.826
06	E4D	44.857	52.629	45	59	87.826	95.598
06	E5D	44.857	52.629	45	59	95.598	103.370
06	E6D	44.857	52.629	45	59	103.370	111.142
06	E7D	44.857	52.629	45	59	111.142	118.914
06	D3D	52.629	60.401	45	59	80.054	87.826
06	D4D	52.629	60.401	45	59	87.826	95.598
06	D6D	52.629	60.401	45	59	103.370	111.142
06	D7D	52.629	60.401	45	59	111.142	118.914
06	C3D	60.401	68.173	45	59	80.054	87.826
06	C4D	60.401	68.173	45	59	87.826	95.598
06	C5D	60.401	68.173	45	59	95.598	103.370
06	C6D	60.401	68.173	45	59	103.370	111.142
06	C7D	60.401	68.173	45	59	111.142	118.914
06	S1	44.857	45.7015	9	59	80.054	118.914
06	S2	51.7845	52.629	9	59	80.054	118.914
06	S3	52.629	53.4735	9	59	80.054	118.914
06	S4	59.5565	60.401	9	59	80.054	118.914
06	S5	60.401	61.2455	9	59	80.054	118.914
06	S6	67.3285	68.173	9	59	80.054	118.914
06	G1	42.317	44.857	9	59	64.51	70.086
06	G2	42.317	44.857	9	59	98.090	100.878
06	G3	42.317	44.857	9	59	128.882	134.458
06	G4	68.173	70.713	9	59	64.51	70.086
06	G5	68.173	70.713	9	59	98.090	100.878
06	G6	68.173	70.713	9	59	128.882	134.458
06	TRAP	52.629	60.401	9	59	95.598	103.370
01	flux trap size different 9/98 **						
01	06	HOLE	54.8265	58.2035	9	59	97.7955 101.1725
06	HOLE	54.6861	58.3439	9	59	97.6551	101.3130
01	G1 to G6 CR guide tubes						
06	CNTL10	68.173	70.713	7	63	100.878	128.882
06	CNTL20	68.173	70.713	7	63	70.086	98.090
06	CNTL30	42.317	44.857	7	63	70.086	98.090
06	CNTL40	42.317	44.857	7	63	100.878	128.882
06	CNTL11I	68.173	70.713	63	70	100.878	128.882
06	CNTL21I	68.173	70.713	63	70	70.086	98.090
06	CNTL31I	42.317	44.857	63	70	70.086	98.090
06	CNTL41I	42.317	44.857	63	70	100.878	128.882
06	BLADE1	69.11915	69.76685	63	70	101.507	128.253
06	BLADE2	69.11915	69.76685	63	70	70.715	97.461
06	BLADE3	43.26315	43.91085	63	70	70.715	97.461
06	BLADE4	43.26315	43.91085	63	70	101.507	128.253
06	REGOUT	52.629	60.401	7	70	72.282	80.054
01	make the reg rod fully out 9/98 **						
06	REGIN1	52.629	60.401	63	70	72.282	80.054
06	ROD1	53.816	59.214	63	70	73.46925	78.86675
06	REGIN2	54.451	58.579	63	70	74.10425	78.23175

07	E3	E3A	E3B	E3C	E3D					
07	E4	E4A	E4B	E4C	E4D					
07	E5	E5A	E5B	E5C	E5D					
07	E6	E6A	E6B	E6C	E6D					
07	E7	E7A	E7B	E7C	E7D					
07	D3	D3A	D3B	D3C	D3D					
07	D4	D4A	D4B	D4C	D4D					
07	D6	D6A	D6B	D6C	D6D					
07	D7	D7A	D7B	D7C	D7D					
07	C3	C3A	C3B	C3C	C3D					
07	C4	C4A	C4B	C4C	C4D					
07	C5	C5A	C5B	C5C	C5D					
07	C6	C6A	C6B	C6C	C6D					
07	C7	C7A	C7B	C7C	C7D					
07	FUEL	E3A	E3B	E3C	E3D					
07	FUEL	E4A	E4B	E4C	E4D					
07	FUEL	E5A	E5B	E5C	E5D					
07	FUEL	E6A	E6B	E6C	E6D					
07	FUEL	E7A	E7B	E7C	E7D					
07	FUEL	D3A	D3B	D3C	D3D					
07	FUEL	D4A	D4B	D4C	D4D					
07	FUEL	D6A	D6B	D6C	D6D					
07	FUEL	D7A	D7B	D7C	D7D					
07	FUEL	C3A	C3B	C3C	C3D					
07	FUEL	C4A	C4B	C4C	C4D					
07	FUEL	C5A	C5B	C5C	C5D					
07	FUEL	C6A	C6B	C6C	C6D					
07	FUEL	C7A	C7B	C7C	C7D					
09	X	1	11.430000	1	13.970000	1	26.085000			
09	X	1	26.352000	1	26.720000	1	26.773000			
09	X	1	27.940000	1	34.545000	1	35.039000			
09	X	1	41.823000	1	42.317000	1	43.263150			
09	X	2	43.910850	1	44.857000	2	45.351000			
09	X	1	45.701500	9	51.784500	2	52.135000			
09	X	2	52.629000	2	53.123000	2	53.473500			
09	X	2	53.816000	4	54.451000	2	54.686100			
09	X	4	58.343900	2	58.579000	4	59.214000			
09	X	2	59.556500	2	59.907000	2	60.401000			
09	X	2	60.895000	2	61.245500	9	67.328500			
09	X	2	67.679000	2	68.173000	1	69.119150			
09	X	2	69.766850	1	70.713000	1	71.207000			
09	X	1	77.991000	1	78.485000	1	85.090000			
09	X	1	86.257000	1	86.310000	1	86.678000			
09	X	1	86.945000	1	99.060000	1	101.600000			
09	X	1	113.030000							
09	Y	1	26.987	1	29.527	3	49.847			
09	Y	1	52.387	1	53.977	2	61.597			
09	Y	1	63.187	1	63.822	1	64.457			
09	Y	1	64.51	3	70.086	1	70.715			
09	Y	1	72.282	1	73.46925	2	74.10425			
09	Y	3	78.23175	2	78.86675					
09	Y	4	80.054	4	82.8145	2	85.0655			
09	Y	4	87.826	8	90.5865	5	92.8375			
09	Y	6	95.598	5	97.461	2	97.6551			
09	Y	2	98.090	2	100.878	2	101.3130			
09	Y	2	101.507							
09	Y	6	103.370	8	106.1305	6	108.3815			
09	Y	5	111.142	6	113.9025	6	116.1535			
09	Y	4	118.914							
09	Y	1	119.2697	3	126.3303	1	126.686			
09	Y	1	127.0417	1	128.253					
09	Y	1	128.882	1	134.1023					
09	Y	1	134.458	1	134.511	1	135.146			
09	Y	4	160.0							
09	Z	2	13.36	1	26.22					
09	Z	1	28.45	1	29.72					
09	Z	1	32.26	1	34.16	1	35.75			
09	Z	1	37.0175	42	88.690625	6	95.44			
09	Z	2	96.0725							
09	Z	1	97.35	1	103.38	1	107.503			
09	Z	1	110.510	1	116.08	1	117.35			
09	Z	1	119.89	2	137.39	2	158.94			
13	MEAT	USF4	0	1.75523E-03	U8F4	0	7.04193E-03	ALF4	0	3.88984E-02
13	MEAT	SIF4	0	5.94365E-03						
13	MEAT	FU6B	0	1.00000E-10	FP9B	0	1.00000E-10	FP0B	0	1.00000E-10
13	MEAT	FP1B	0	1.00000E-10	FP2B	0	1.00000E-10	FXEB	0	1.00000E-10
13	MEAT	FPMB	0	1.00000E-10	FSMB	0	1.00000E-10	FI5B	0	1.00000E-10
13	MEAT	PPF1	0	1.00000E-10	ODUM	0	1.00000E-10			
13	CLAD	ALF4	0	6.02669E-02	B10F	0	2.98636E-07	B11F	0	1.21115E-06
13	MOD	HF4	0	6.68610E-02	OF4	0	3.34305E-02			
14	NEWF	MEAT	0.14380		CLAD	0.21570		MOD	0.64050	

Material composition from EOC at 105 days of rbsc3-step9a run 5-2010

Material composition from EOC at 105 days of rbsc3-step9a run 5-2010

13	MTE6A	U5F4	0	1.58373E-03FU6B	0	3.06029E-05U8F4	0	7.02503E-03	\$	E6A	step9a	105 days
13	MTE6A	FP9B	0	6.31377E-07FP0B	0	5.19054E-08FP1B	0	5.12163E-06				
13	MTE6A	FP2B	0	5.36697E-07FXEB	0	1.21467E-08FI5B	0	2.10612E-08				
13	MTE6A	FPMB	0	2.84145E-08FSMB	0	1.30876E-07PPF1	0	1.55424E-04				
13	MTE6A	ODUM	0	7.35675E-06								
13	MTE6B	U5F4	0	1.50633E-03FU6B	0	4.49026E-05U8F4	0	7.01599E-03	\$	E6B	step9a	105 days
13	MTE6B	FP9B	0	9.15160E-07FP0B	0	1.10688E-07FP1B	0	8.13143E-06				
13	MTE6B	FP2B	0	1.31161E-06FXEB	0	1.34791E-08FI5B	0	3.03331E-08				
13	MTE6B	FPMB	0	4.10139E-08FSMB	0	1.25821E-07PPF1	0	2.25994E-04				
13	MTE6B	ODUM	0	1.04166E-05								
13	MTE6C	U5F4	0	1.50501E-03FU6B	0	4.51328E-05U8F4	0	7.01599E-03	\$	E6C	step9a	105 days
13	MTE6C	FP9B	0	9.18915E-07FP0B	0	1.11725E-07FP1B	0	8.17942E-06				
13	MTE6C	FP2B	0	1.32733E-06FXEB	0	1.34910E-08FI5B	0	3.04722E-08				
13	MTE6C	FPMB	0	4.12051E-08FSMB	0	1.25730E-07PPF1	0	2.27142E-04				
13	MTE6C	ODUM	0	1.04694E-05								
13	MTE6D	U5F4	0	1.58004E-03FU6B	0	3.12914E-05U8F4	0	7.02503E-03	\$	E6D	step9a	105 days
13	MTE6D	FP9B	0	6.43526E-07FP0B	0	5.40688E-08FP1B	0	5.26878E-06				
13	MTE6D	FP2B	0	5.65953E-07FXEB	0	1.22281E-08FI5B	0	2.14673E-08				
13	MTE6D	FPMB	0	2.89659E-08FSMB	0	1.30730E-07PPF1	0	1.58853E-04				
13	MTE6D	ODUM	0	7.49791E-06								
13	MTE7A	U5F4	0	1.66912E-03FU6B	0	1.52684E-05U8F4	0	7.03407E-03	\$	E7A	step9a	105 days
13	MTE7A	FP9B	0	3.15730E-07FP0B	0	1.32135E-08FP1B	0	2.65278E-06				
13	MTE7A	FP2B	0	1.33275E-07FXEB	0	1.19624E-08FI5B	0	1.91356E-08				
13	MTE7A	FPMB	0	2.57789E-08FSMB	0	1.36419E-07PPF1	0	7.80668E-05				
13	MTE7A	ODUM	0	3.32955E-06								
13	MTE7B	U5F4	0	1.62921E-03FU6B	0	2.25800E-05U8F4	0	7.02990E-03	\$	E7B	step9a	105 days
13	MTE7B	FP9B	0	4.74374E-07FP0B	0	2.93275E-08FP1B	0	4.41217E-06				
13	MTE7B	FP2B	0	3.34402E-07FXEB	0	1.37281E-08FI5B	0	2.79228E-08				
13	MTE7B	FPMB	0	3.76683E-08FSMB	0	1.34471E-07PPF1	0	1.14499E-04				
13	MTE7B	ODUM	0	4.50730E-06								
13	MTE7C	U5F4	0	1.62851E-03FU6B	0	2.27024E-05U8F4	0	7.02990E-03	\$	E7C	step9a	105 days
13	MTE7C	FP9B	0	4.76676E-07FP0B	0	2.96314E-08FP1B	0	4.44263E-06				
13	MTE7C	FP2B	0	3.38693E-07FXEB	0	1.37490E-08FI5B	0	2.80675E-08				
13	MTE7C	FPMB	0	3.78644E-08FSMB	0	1.34423E-07PPF1	0	1.15125E-04				
13	MTE7C	ODUM	0	4.52705E-06								
13	MTE7D	U5F4	0	1.66704E-03FU6B	0	1.56495E-05U8F4	0	7.03407E-03	\$	E7D	step9a	105 days
13	MTE7D	FP9B	0	3.22747E-07FP0B	0	1.38394E-08FP1B	0	2.74332E-06				
13	MTE7D	FP2B	0	1.41391E-07FXEB	0	1.20807E-08FI5B	0	1.95911E-08				
13	MTE7D	FPMB	0	2.63950E-08FSMB	0	1.36439E-07PPF1	0	7.99861E-05				
13	MTE7D	ODUM	0	3.39242E-06								
13	MTD3A	U5F4	0	1.60362E-03FU6B	0	2.69743E-05U8F4	0	7.02782E-03	\$	D3A	step9a	105 days
13	MTD3A	FP9B	0	5.61885E-07FP0B	0	4.06898E-08FP1B	0	4.33630E-06				
13	MTD3A	FP2B	0	3.98873E-07FXEB	0	1.14645E-08FI5B	0	1.80946E-08				
13	MTD3A	FPMB	0	2.43971E-08FSMB	0	1.32656E-07PPF1	0	1.37378E-04				
13	MTD3A	ODUM	0	6.62399E-06								
13	MTD3B	U5F4	0	1.53470E-03FU6B	0	3.96405E-05U8F4	0	7.01947E-03	\$	D3B	step9a	105 days
13	MTD3B	FP9B	0	8.22879E-07FP0B	0	8.76634E-08FP1B	0	7.03547E-06				
13	MTD3B	FP2B	0	9.90542E-07FXEB	0	1.29771E-08FI5B	0	2.60994E-08				
13	MTD3B	FPMB	0	3.52587E-08FSMB	0	1.28199E-07PPF1	0	2.00146E-04				
13	MTD3B	ODUM	0	9.25800E-06								
13	MTD3C	U5F4	0	1.53352E-03FU6B	0	3.98401E-05U8F4	0	7.01947E-03	\$	D3C	step9a	105 days
13	MTD3C	FP9B	0	8.26286E-07FP0B	0	8.84771E-08FP1B	0	7.07858E-06				
13	MTD3C	FP2B	0	1.00236E-06FXEB	0	1.29923E-08FI5B	0	2.62225E-08				
13	MTD3C	FPMB	0	3.54263E-08FSMB	0	1.28122E-07PPF1	0	2.01154E-04				
13	MTD3C	ODUM	0	9.30181E-06								
13	MTD3D	U5F4	0	1.60042E-03FU6B	0	2.75654E-05U8F4	0	7.02712E-03	\$	D3D	step9a	105 days
13	MTD3D	FP9B	0	5.72684E-07FP0B	0	4.23700E-08FP1B	0	4.46252E-06				
13	MTD3D	FP2B	0	4.20188E-07FXEB	0	1.15577E-08FI5B	0	1.84611E-08				
13	MTD3D	FPMB	0	2.48936E-08FSMB	0	1.32538E-07PPF1	0	1.40327E-04				
13	MTD3D	ODUM	0	6.74444E-06								
13	MTD4A	U5F4	0	1.44611E-03FU6B	0	5.55014E-05U8F4	0	7.01043E-03	\$	D4A	step9a	105 days
13	MTD4A	FP9B	0	1.07462E-06FP0B	0	1.61433E-07FP1B	0	8.21905E-06				
13	MTD4A	FP2B	0	1.68505E-06FXEB	0	1.15348E-08FI5B	0	2.08519E-08				
13	MTD4A	FPMB	0	2.81857E-08FSMB	0	1.21495E-07PPF1	0	2.79715E-04				
13	MTD4A	ODUM	0	1.57942E-05								
13	MTD4B	U5F4	0	1.31530E-03FU6B	0	7.99235E-05U8F4	0	6.99305E-03	\$	D4B	step9a	105 days
13	MTD4B	FP9B	0	1.47086E-06FP0B	0	3.17643E-07FP1B	0	1.21085E-05				
13	MTD4B	FP2B	0	3.93060E-06FXEB	0	1.22031E-08FI5B	0	2.87775E-08				
13	MTD4B	FPMB	0	3.90264E-08FSMB	0	1.12232E-07PPF1	0	3.97552E-04				
13	MTD4B	ODUM	0	2.42872E-05								
13	MTD4C	U5F4	0	1.31321E-03FU6B	0	8.02990E-05U8F4	0	6.99305E-03	\$	D4C	step9a	105 days
13	MTD4C	FP9B	0	1.47538E-06FP0B	0	3.20146E-07FP1B	0	1.21634E-05				
13	MTD4C	FP2B	0	3.97337E-06FXEB	0	1.22045E-08FI5B	0	2.88915E-08				
13	MTD4C	FPMB	0	3.91836E-08FSMB	0	1.12079E-07PPF1	0	3.99367E-04				
13	MTD4C	ODUM	0	2.44409E-05								
13	MTD4D	U5F4	0	1.44033E-03FU6B	0	5.65737E-05U8F4	0	7.00974E-03	\$	D4D	step9a	105 days
13	MTD4D	FP9B	0	1.09138E-06FP0B	0	1.66975E-07FP1B	0	8.40195E-06				
13	MTD4D	FP2B	0	1.76335E-06FXEB	0	1.15779E-08FI5B	0	2.11565E-08				

13	MTD4D	FPMB	0	2.86022E-08FSMB	0	1.21182E-07PPF1	0	2.84937E-04		
13	MTD4D	ODUM	0	1.61161E-05						
13	MTD6A	U5F4	0	1.42865E-03FU6B	0	5.88755E-05U8F4	0	7.00765E-03	\$	D6A step9a 105 days
13	MTD6A	FP9B	0	1.12775E-06FP0B	0	1.79923E-07FP1B	0	8.76704E-06		
13	MTD6A	FP2B	0	1.93338E-06FXEB	0	1.16280E-08FI5B	0	2.16843E-08		
13	MTD6A	FPMB	0	2.93227E-08FSMB	0	1.20223E-07PPF1	0	2.95675E-04		
13	MTD6A	ODUM	0	1.67983E-05						
13	MTD6B	U5F4	0	1.29228E-03FU6B	0	8.45271E-05U8F4	0	6.98957E-03	\$	D6B step9a 105 days
13	MTD6B	FP9B	0	1.53046E-06FP0B	0	3.49917E-07FP1B	0	1.27058E-05		
13	MTD6B	FP2B	0	4.44033E-06FXEB	0	1.21885E-08FI5B	0	2.98248E-08		
13	MTD6B	FPMB	0	4.04701E-08FSMB	0	1.10501E-07PPF1	0	4.18498E-04		
13	MTD6B	ODUM	0	2.61836E-05						
13	MTD6C	U5F4	0	1.29013E-03FU6B	0	8.49374E-05U8F4	0	6.98957E-03	\$	D6C step9a 105 days
13	MTD6C	FP9B	0	1.53505E-06FP0B	0	3.52705E-07FP1B	0	1.27629E-05		
13	MTD6C	FP2B	0	4.48978E-06FXEB	0	1.21892E-08FI5B	0	2.99451E-08		
13	MTD6C	FPMB	0	4.06363E-08FSMB	0	1.10341E-07PPF1	0	4.20487E-04		
13	MTD6C	ODUM	0	2.63623E-05						
13	MTD6D	U5F4	0	1.42211E-03FU6B	0	6.01043E-05U8F4	0	7.00765E-03	\$	D6D step9a 105 days
13	MTD6D	FP9B	0	1.14604E-06FP0B	0	1.86474E-07FP1B	0	8.97288E-06		
13	MTD6D	FP2B	0	2.03004E-06FXEB	0	1.16690E-08FI5B	0	2.20195E-08		
13	MTD6D	FPMB	0	2.97809E-08FSMB	0	1.19854E-07PPF1	0	3.01634E-04		
13	MTD6D	ODUM	0	1.71801E-05						
13	MTD7A	U5F4	0	1.59159E-03FU6B	0	2.93602E-05U8F4	0	7.02573E-03	\$	D7A step9a 105 days
13	MTD7A	FP9B	0	6.10960E-07FP0B	0	4.78303E-08FP1B	0	4.80911E-06		
13	MTD7A	FP2B	0	4.83150E-07FXEB	0	1.18581E-08FI5B	0	1.95612E-08		
13	MTD7A	FPMB	0	2.63860E-08FSMB	0	1.32357E-07PPF1	0	1.48547E-04		
13	MTD7A	ODUM	0	7.10570E-06						
13	MTD7B	U5F4	0	1.51857E-03FU6B	0	4.29541E-05U8F4	0	7.01739E-03	\$	D7B step9a 105 days
13	MTD7B	FP9B	0	8.89152E-07FP0B	0	1.01627E-07FP1B	0	7.65925E-06		
13	MTD7B	FP2B	0	1.17615E-06FXEB	0	1.32691E-08FI5B	0	2.79694E-08		
13	MTD7B	FPMB	0	3.78067E-08FSMB	0	1.27643E-07PPF1	0	2.15243E-04		
13	MTD7B	ODUM	0	9.98957E-06						
13	MTD7C	U5F4	0	1.51739E-03FU6B	0	4.31822E-05U8F4	0	7.01669E-03	\$	D7C step9a 105 days
13	MTD7C	FP9B	0	8.92907E-07FP0B	0	1.02608E-07FP1B	0	7.70723E-06		
13	MTD7C	FP2B	0	1.19082E-06FXEB	0	1.32844E-08FI5B	0	2.81092E-08		
13	MTD7C	FPMB	0	3.79972E-08FSMB	0	1.27559E-07PPF1	0	2.16377E-04		
13	MTD7C	ODUM	0	1.00410E-05						
13	MTD7D	U5F4	0	1.58776E-03FU6B	0	3.00730E-05U8F4	0	7.02503E-03	\$	D7D step9a 105 days
13	MTD7D	FP9B	0	6.23519E-07FP0B	0	4.99826E-08FP1B	0	4.96106E-06		
13	MTD7D	FP2B	0	5.11627E-07FXEB	0	1.19583E-08FI5B	0	2.00014E-08		
13	MTD7D	FPMB	0	2.69833E-08FSMB	0	1.32197E-07PPF1	0	1.52079E-04		
13	MTD7D	ODUM	0	7.25174E-06						
13	MTC3A	U5F4	0	1.67622E-03FU6B	0	1.39548E-05U8F4	0	7.03477E-03	\$	C3A step9a 105 days
13	MTC3A	FP9B	0	2.91113E-07FP0B	0	1.11439E-08FP1B	0	2.34882E-06		
13	MTC3A	FP2B	0	1.07566E-07FXEB	0	1.15271E-08FI5B	0	1.75772E-08		
13	MTC3A	FPMB	0	2.36725E-08FSMB	0	1.36523E-07PPF1	0	7.15577E-05		
13	MTC3A	ODUM	0	3.11252E-06						
13	MTC3B	U5F4	0	1.63936E-03FU6B	0	2.06752E-05U8F4	0	7.03060E-03	\$	C3B step9a 105 days
13	MTC3B	FP9B	0	4.39235E-07FP0B	0	2.48693E-08FP1B	0	3.95960E-06		
13	MTC3B	FP2B	0	2.73560E-07FXEB	0	1.33630E-08FI5B	0	2.57121E-08		
13	MTC3B	FPMB	0	3.46725E-08FSMB	0	1.34993E-07PPF1	0	1.05181E-04		
13	MTC3B	ODUM	0	4.20417E-06						
13	MTC3C	U5F4	0	1.63873E-03FU6B	0	2.07816E-05U8F4	0	7.03060E-03	\$	C3C step9a 105 days
13	MTC3C	FP9B	0	4.41280E-07FP0B	0	2.51154E-08FP1B	0	3.98616E-06		
13	MTC3C	FP2B	0	2.76926E-07FXEB	0	1.33839E-08FI5B	0	2.58387E-08		
13	MTC3C	FPMB	0	3.48442E-08FSMB	0	1.34958E-07PPF1	0	1.05723E-04		
13	MTC3C	ODUM	0	4.22135E-06						
13	MTC3D	U5F4	0	1.67448E-03FU6B	0	1.42691E-05U8F4	0	7.03477E-03	\$	C3D step9a 105 days
13	MTC3D	FP9B	0	2.97156E-07FP0B	0	1.16273E-08FP1B	0	2.42225E-06		
13	MTC3D	FP2B	0	1.13498E-07FXEB	0	1.16363E-08FI5B	0	1.79534E-08		
13	MTC3D	FPMB	0	2.41808E-08FSMB	0	1.36586E-07PPF1	0	7.31363E-05		
13	MTC3D	ODUM	0	3.16530E-06						
13	MTC4A	U5F4	0	1.59402E-03FU6B	0	2.87337E-05U8F4	0	7.02643E-03	\$	C4A step9a 105 days
13	MTC4A	FP9B	0	5.98846E-07FP0B	0	4.62357E-08FP1B	0	4.72510E-06		
13	MTC4A	FP2B	0	4.59861E-07FXEB	0	1.19889E-08FI5B	0	2.02267E-08		
13	MTC4A	FPMB	0	2.72809E-08FSMB	0	1.31592E-07PPF1	0	1.46134E-04		
13	MTC4A	ODUM	0	6.97427E-06						
13	MTC4B	U5F4	0	1.52072E-03FU6B	0	4.22163E-05U8F4	0	7.01808E-03	\$	C4B step9a 105 days
13	MTC4B	FP9B	0	8.72323E-07FP0B	0	9.91933E-08FP1B	0	7.58762E-06		
13	MTC4B	FP2B	0	1.13609E-06FXEB	0	1.33943E-08FI5B	0	2.91732E-08		
13	MTC4B	FPMB	0	3.94305E-08FSMB	0	1.26843E-07PPF1	0	2.12816E-04		
13	MTC4B	ODUM	0	9.81572E-06						
13	MTC4C	U5F4	0	1.51961E-03FU6B	0	4.24249E-05U8F4	0	7.01808E-03	\$	C4C step9a 105 days
13	MTC4C	FP9B	0	8.75869E-07FP0B	0	1.00090E-07FP1B	0	7.63213E-06		
13	MTC4C	FP2B	0	1.14937E-06FXEB	0	1.34068E-08FI5B	0	2.93039E-08		
13	MTC4C	FPMB	0	3.96092E-08FSMB	0	1.26759E-07PPF1	0	2.13860E-04		
13	MTC4C	ODUM	0	9.86161E-06						

13	MTC4D	U5F4	0	1.59068E-03FU6B	0	2.93338E-05U8F4	0	7.02643E-03	\$	C4D	step9a	105 days
13	MTC4D	FP9B	0	6.09854E-07FP0B	0	4.80542E-08FP1B	0	4.85334E-06				
13	MTC4D	FP2B	0	4.83220E-07FXEB	0	1.20695E-08FI5B	0	2.06001E-08				
13	MTC4D	FPMB	0	2.77879E-08FSMB	0	1.31474E-07PPF1	0	1.49117E-04				
13	MTC4D	ODUM	0	7.09666E-06								
13	MTC5A	U5F4	0	1.50494E-03FU6B	0	4.46530E-05U8F4	0	7.01739E-03	\$	C5A	step9a	105 days
13	MTC5A	FP9B	0	8.66203E-07FP0B	0	1.06919E-07FP1B	0	7.08762E-06				
13	MTC5A	FP2B	0	1.12385E-06FXEB	0	1.19910E-08FI5B	0	2.20716E-08				
13	MTC5A	FPMB	0	2.98088E-08FSMB	0	1.24875E-07PPF1	0	2.26453E-04				
13	MTC5A	ODUM	0	1.17288E-05								
13	MTC5B	U5F4	0	1.39659E-03FU6B	0	6.47191E-05U8F4	0	7.00417E-03	\$	C5B	step9a	105 days
13	MTC5B	FP9B	0	1.21293E-06FP0B	0	2.17559E-07FP1B	0	1.07385E-05				
13	MTC5B	FP2B	0	2.66266E-06FXEB	0	1.28776E-08FI5B	0	3.09193E-08				
13	MTC5B	FPMB	0	4.18776E-08FSMB	0	1.17497E-07PPF1	0	3.24576E-04				
13	MTC5B	ODUM	0	1.73296E-05								
13	MTC5C	U5F4	0	1.39492E-03FU6B	0	6.50243E-05U8F4	0	7.00417E-03	\$	C5C	step9a	105 days
13	MTC5C	FP9B	0	1.21704E-06FP0B	0	2.19367E-07FP1B	0	1.07914E-05				
13	MTC5C	FP2B	0	2.69207E-06FXEB	0	1.28825E-08FI5B	0	3.10473E-08				
13	MTC5C	FPMB	0	4.20535E-08FSMB	0	1.17371E-07PPF1	0	3.26106E-04				
13	MTC5C	ODUM	0	1.74270E-05								
13	MTC5D	U5F4	0	1.50021E-03FU6B	0	4.55271E-05U8F4	0	7.01669E-03	\$	C5D	step9a	105 days
13	MTC5D	FP9B	0	8.80389E-07FP0B	0	1.10744E-07FP1B	0	7.25382E-06				
13	MTC5D	FP2B	0	1.17656E-06FXEB	0	1.20466E-08FI5B	0	2.24277E-08				
13	MTC5D	FPMB	0	3.02935E-08FSMB	0	1.24652E-07PPF1	0	2.30751E-04				
13	MTC5D	ODUM	0	1.19492E-05								
13	MTC6A	U5F4	0	1.50967E-03FU6B	0	4.40675E-05U8F4	0	7.01739E-03	\$	C6A	step9a	105 days
13	MTC6A	FP9B	0	8.77469E-07FP0B	0	1.04889E-07FP1B	0	6.89736E-06				
13	MTC6A	FP2B	0	1.08853E-06FXEB	0	1.16801E-08FI5B	0	2.04645E-08				
13	MTC6A	FPMB	0	2.76363E-08FSMB	0	1.25348E-07PPF1	0	2.22594E-04				
13	MTC6A	ODUM	0	1.15932E-05								
13	MTC6B	U5F4	0	1.40229E-03FU6B	0	6.40362E-05U8F4	0	7.00417E-03	\$	C6B	step9a	105 days
13	MTC6B	FP9B	0	1.23171E-06FP0B	0	2.14847E-07FP1B	0	1.05299E-05				
13	MTC6B	FP2B	0	2.59152E-06FXEB	0	1.26871E-08FI5B	0	2.90716E-08				
13	MTC6B	FPMB	0	3.93700E-08FSMB	0	1.17969E-07PPF1	0	3.19944E-04				
13	MTC6B	ODUM	0	1.71120E-05								
13	MTC6C	U5F4	0	1.40056E-03FU6B	0	6.43588E-05U8F4	0	7.00417E-03	\$	C6C	step9a	105 days
13	MTC6C	FP9B	0	1.23616E-06FP0B	0	2.16739E-07FP1B	0	1.05862E-05				
13	MTC6C	FP2B	0	2.62197E-06FXEB	0	1.26933E-08FI5B	0	2.91975E-08				
13	MTC6C	FPMB	0	3.95431E-08FSMB	0	1.17844E-07PPF1	0	3.21544E-04				
13	MTC6C	ODUM	0	1.72135E-05								
13	MTC6D	U5F4	0	1.50424E-03FU6B	0	4.50605E-05U8F4	0	7.01669E-03	\$	C6D	step9a	105 days
13	MTC6D	FP9B	0	8.93324E-07FP0B	0	1.09152E-07FP1B	0	7.08693E-06				
13	MTC6D	FP2B	0	1.14791E-06FXEB	0	1.17455E-08FI5B	0	2.08414E-08				
13	MTC6D	FPMB	0	2.81502E-08FSMB	0	1.25070E-07PPF1	0	2.27483E-04				
13	MTC6D	ODUM	0	1.18421E-05								
13	MTC7A	U5F4	0	1.67017E-03FU6B	0	1.50869E-05U8F4	0	7.03407E-03	\$	C7A	step9a	105 days
13	MTC7A	FP9B	0	3.12399E-07FP0B	0	1.29200E-08FP1B	0	2.60925E-06				
13	MTC7A	FP2B	0	1.29458E-07FXEB	0	1.19033E-08FI5B	0	1.89089E-08				
13	MTC7A	FPMB	0	2.54729E-08FSMB	0	1.36460E-07PPF1	0	7.71488E-05				
13	MTC7A	ODUM	0	3.29951E-06								
13	MTC7B	U5F4	0	1.63060E-03FU6B	0	2.23248E-05U8F4	0	7.02990E-03	\$	C7B	step9a	105 days
13	MTC7B	FP9B	0	4.69103E-07FP0B	0	2.86752E-08FP1B	0	4.35070E-06				
13	MTC7B	FP2B	0	3.25800E-07FXEB	0	1.36794E-08FI5B	0	2.76092E-08				
13	MTC7B	FPMB	0	3.72441E-08FSMB	0	1.34548E-07PPF1	0	1.13241E-04				
13	MTC7B	ODUM	0	4.46648E-06								
13	MTC7C	U5F4	0	1.62990E-03FU6B	0	2.24451E-05U8F4	0	7.02990E-03	\$	C7C	step9a	105 days
13	MTC7C	FP9B	0	4.71370E-07FP0B	0	2.89708E-08FP1B	0	4.38074E-06				
13	MTC7C	FP2B	0	3.29972E-07FXEB	0	1.37003E-08FI5B	0	2.77517E-08				
13	MTC7C	FPMB	0	3.74374E-08FSMB	0	1.34506E-07PPF1	0	1.13853E-04				
13	MTC7C	ODUM	0	4.48588E-06								
13	MTC7D	U5F4	0	1.66808E-03FU6B	0	1.54631E-05U8F4	0	7.03407E-03	\$	C7D	step9a	105 days
13	MTC7D	FP9B	0	3.19318E-07FP0B	0	1.35306E-08FP1B	0	2.69847E-06				
13	MTC7D	FP2B	0	1.37344E-07FXEB	0	1.20216E-08FI5B	0	1.93588E-08				
13	MTC7D	FPMB	0	2.60807E-08FSMB	0	1.36481E-07PPF1	0	7.90403E-05				
13	MTC7D	ODUM	0	3.36175E-06								
01	water	in Be, G and Radiation Basket	different from Ken's setup	9/98								
13	FALSI	ALF4	0	3.88984E-02SIF4	0	5.94365E-03						
13	H2OBE	BE-H	0	6.68610E-02BE-O	0	3.34305E-02						
13	H2OG	G-H	0	6.68610E-02G-O	0	3.34305E-02						
13	H2ORB	RB-H	0	6.68610E-02RB-O	0	3.34305E-02						
13	H2OR	HH2O	0	6.68610E-02OH2O	0	3.34305E-02						
01	13	different	Graphite density	9/98								
01	13	GRAF	GRAF	0	8.52340E-02							
13	GRAF	GRAF	0	8.02300E-02								
13	H2OS	HS4	0	6.68610E-02OS4	0	3.34305E-02						
13	H2OCR	CRH	0	6.68610E-02CRO	0	3.34305E-02						

13	ALS	ALS4	0	6.02669E-02B10S	0	2.98636E-07B11S	0	1.21115E-06
13	ALCR	CRAL	0	6.02669E-02B10S	0	2.98636E-07B11S	0	1.21115E-06
13	ALB	ALB	0	6.02669E-02B10B	0	2.98636E-07B11B	0	1.21115E-06
13	ALBX	ALB	0	5.60774E-02SIB	0	4.06809E-03MGB	0	2.01411E-04
13	LEAD	PBS	0	3.29620E-02				
13	BE	BET	0	1.23640E-01				
13	ALP	ALT	0	6.02669E-02				
14	FE3A	MTE3A	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE3A	FALSI	0.14380					
14	FE3B	MTE3B	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE3B	FALSI	0.14380					
14	FE3C	MTE3C	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE3C	FALSI	0.14380					
14	FE3D	MTE3D	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE3D	FALSI	0.14380					
14	FE7A	MTE7A	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE7A	FALSI	0.14380					
14	FE7B	MTE7B	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE7B	FALSI	0.14380					
14	FE7C	MTE7C	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE7C	FALSI	0.14380					
14	FE7D	MTE7D	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE7D	FALSI	0.14380					
14	FC3A	MTC3A	0.14380	CLAD	0.21570	MOD	0.64050	
14	FC3A	FALSI	0.14380					
14	FC3B	MTC3B	0.14380	CLAD	0.21570	MOD	0.64050	
14	FC3B	FALSI	0.14380					
14	FC3C	MTC3C	0.14380	CLAD	0.21570	MOD	0.64050	
14	FC3C	FALSI	0.14380					
14	FC3D	MTC3D	0.14380	CLAD	0.21570	MOD	0.64050	
14	FC3D	FALSI	0.14380					
14	FC7A	MTC7A	0.14380	CLAD	0.21570	MOD	0.64050	
14	FC7A	FALSI	0.14380					
14	FC7B	MTC7B	0.14380	CLAD	0.21570	MOD	0.64050	
14	FC7B	FALSI	0.14380					
14	FC7C	MTC7C	0.14380	CLAD	0.21570	MOD	0.64050	
14	FC7C	FALSI	0.14380					
14	FC7D	MTC7D	0.14380	CLAD	0.21570	MOD	0.64050	
14	FC7D	FALSI	0.14380					
14	FE4A	MTE4A	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE4A	FALSI	0.14380					
14	FE4B	MTE4B	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE4B	FALSI	0.14380					
14	FE4C	MTE4C	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE4C	FALSI	0.14380					
14	FE4D	MTE4D	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE4D	FALSI	0.14380					
14	FE5A	MTE5A	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE5A	FALSI	0.14380					
14	FE5B	MTE5B	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE5B	FALSI	0.14380					
14	FE5C	MTE5C	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE5C	FALSI	0.14380					
14	FE5D	MTE5D	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE5D	FALSI	0.14380					
14	FE6A	MTE6A	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE6A	FALSI	0.14380					
14	FE6B	MTE6B	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE6B	FALSI	0.14380					
14	FE6C	MTE6C	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE6C	FALSI	0.14380					
14	FE6D	MTE6D	0.14380	CLAD	0.21570	MOD	0.64050	
14	FE6D	FALSI	0.14380					
14	FD3A	MTD3A	0.14380	CLAD	0.21570	MOD	0.64050	
14	FD3A	FALSI	0.14380					
14	FD3B	MTD3B	0.14380	CLAD	0.21570	MOD	0.64050	
14	FD3B	FALSI	0.14380					
14	FD3C	MTD3C	0.14380	CLAD	0.21570	MOD	0.64050	
14	FD3C	FALSI	0.14380					
14	FD3D	MTD3D	0.14380	CLAD	0.21570	MOD	0.64050	
14	FD3D	FALSI	0.14380					
14	FD4A	MTD4A	0.14380	CLAD	0.21570	MOD	0.64050	
14	FD4A	FALSI	0.14380					
14	FD4B	MTD4B	0.14380	CLAD	0.21570	MOD	0.64050	
14	FD4B	FALSI	0.14380					



14	FD4C	MTD4C	0.14380	CLAD	0.21570	MOD	0.64050
14	FD4C	FALSI	0.14380				
14	FD4D	MTD4D	0.14380	CLAD	0.21570	MOD	0.64050
14	FD4D	FALSI	0.14380				
14	FD6A	MTD6A	0.14380	CLAD	0.21570	MOD	0.64050
14	FD6A	FALSI	0.14380				
14	FD6B	MTD6B	0.14380	CLAD	0.21570	MOD	0.64050
14	FD6B	FALSI	0.14380				
14	FD6C	MTD6C	0.14380	CLAD	0.21570	MOD	0.64050
14	FD6C	FALSI	0.14380				
14	FD6D	MTD6D	0.14380	CLAD	0.21570	MOD	0.64050
14	FD6D	FALSI	0.14380				
14	FD7A	MTD7A	0.14380	CLAD	0.21570	MOD	0.64050
14	FD7A	FALSI	0.14380				
14	FD7B	MTD7B	0.14380	CLAD	0.21570	MOD	0.64050
14	FD7B	FALSI	0.14380				
14	FD7C	MTD7C	0.14380	CLAD	0.21570	MOD	0.64050
14	FD7C	FALSI	0.14380				
14	FD7D	MTD7D	0.14380	CLAD	0.21570	MOD	0.64050
14	FD7D	FALSI	0.14380				
14	FC4A	MTC4A	0.14380	CLAD	0.21570	MOD	0.64050
14	FC4A	FALSI	0.14380				
14	FC4B	MTC4B	0.14380	CLAD	0.21570	MOD	0.64050
14	FC4B	FALSI	0.14380				
14	FC4C	MTC4C	0.14380	CLAD	0.21570	MOD	0.64050
14	FC4C	FALSI	0.14380				
14	FC4D	MTC4D	0.14380	CLAD	0.21570	MOD	0.64050
14	FC4D	FALSI	0.14380				
14	FC5A	MTC5A	0.14380	CLAD	0.21570	MOD	0.64050
14	FC5A	FALSI	0.14380				
14	FC5B	MTC5B	0.14380	CLAD	0.21570	MOD	0.64050
14	FC5B	FALSI	0.14380				
14	FC5C	MTC5C	0.14380	CLAD	0.21570	MOD	0.64050
14	FC5C	FALSI	0.14380				
14	FC5D	MTC5D	0.14380	CLAD	0.21570	MOD	0.64050
14	FC5D	FALSI	0.14380				
14	FC6A	MTC6A	0.14380	CLAD	0.21570	MOD	0.64050
14	FC6A	FALSI	0.14380				
14	FC6B	MTC6B	0.14380	CLAD	0.21570	MOD	0.64050
14	FC6B	FALSI	0.14380				
14	FC6C	MTC6C	0.14380	CLAD	0.21570	MOD	0.64050
14	FC6C	FALSI	0.14380				
14	FC6D	MTC6D	0.14380	CLAD	0.21570	MOD	0.64050
14	FC6D	FALSI	0.14380				
14	ME3A	FE3A	1.00000				
14	ME3B	FE3B	1.00000				
14	ME3C	FE3C	1.00000				
14	ME3D	FE3D	1.00000				
14	ME7A	FE7A	1.00000				
14	ME7B	FE7B	1.00000				
14	ME7C	FE7C	1.00000				
14	ME7D	FE7D	1.00000				
14	MC3A	FC3A	1.00000				
14	MC3B	FC3B	1.00000				
14	MC3C	FC3C	1.00000				
14	MC3D	FC3D	1.00000				
14	MC7A	FC7A	1.00000				
14	MC7B	FC7B	1.00000				
14	MC7C	FC7C	1.00000				
14	MC7D	FC7D	1.00000				
14	ME4A	FE4A	1.00000				
14	ME4B	FE4B	1.00000				
14	ME4C	FE4C	1.00000				
14	ME4D	FE4D	1.00000				
14	ME5A	FE5A	1.00000				
14	ME5B	FE5B	1.00000				
14	ME5C	FE5C	1.00000				
14	ME5D	FE5D	1.00000				
14	ME6A	FE6A	1.00000				
14	ME6B	FE6B	1.00000				
14	ME6C	FE6C	1.00000				
14	ME6D	FE6D	1.00000				
14	MD3A	FD3A	1.00000				
14	MD3B	FD3B	1.00000				
14	MD3C	FD3C	1.00000				
14	MD3D	FD3D	1.00000				
14	MD4A	FD4A	1.00000				
14	MD4B	FD4B	1.00000				
14	MD4C	FD4C	1.00000				

```

14      MD4D  FD4D  1.00000
14      MD6A  FD6A  1.00000
14      MD6B  FD6B  1.00000
14      MD6C  FD6C  1.00000
14      MD6D  FD6D  1.00000
14      MD7A  FD7A  1.00000
14      MD7B  FD7B  1.00000
14      MD7C  FD7C  1.00000
14      MD7D  FD7D  1.00000
14      MC4A  FC4A  1.00000
14      MC4B  FC4B  1.00000
14      MC4C  FC4C  1.00000
14      MC4D  FC4D  1.00000
14      MC5A  FC5A  1.00000
14      MC5B  FC5B  1.00000
14      MC5C  FC5C  1.00000
14      MC5D  FC5D  1.00000
14      MC6A  FC6A  1.00000
14      MC6B  FC6B  1.00000
14      MC6C  FC6C  1.00000
14      MC6D  FC6D  1.00000
01 Be block, Graphite block, and Be plug composition are different 9/18
01 14      BEBLK H2OBE 0.04178 BE 0.95822
01 14      BETRP H2OBE 0.03873 BE 0.96127
01 14      REFGR H2OG 0.14165 ALB 0.07113 GRAF 0.78722
14      BEBLK H2OBE 0.04620 BE 0.95380
14      BETPI H2OBE 0.08942 BE 0.91058
14      BETPO H2OBE 0.02478 BE 0.97522
14      REFGR H2OG 0.07348 ALB 0.03922 GRAF 0.88730
01 sideplate composition is different 9/98
01 14      SIDES H2OS 0.32360 ALS 0.67640
14      SIDES H2OS 0.29235 ALS 0.70765
14      AXH2O H2ORB 0.77100 ALB 0.05315 ALBX 0.17585
14      CNTL H2OS 0.76496 ALS 0.23504
01 Reg rod out composition is different 9/98
01 14      REGO H2OS 0.68347 ALS 0.31653
14      REGO H2OCR 0.84580 ALCR 0.15420
14      REGI1 H2OCR 0.16000 ALCR 0.84000
14      REGI2 H2OCR 0.91000 ALCR 0.09000
14      ROD CRSS 0 1.81655E-02MNSS 0 1.44994E-03FESS 0 5.75879E-02
14      ROD NISS 0 7.81564E-03
01 CNTL0 use detail CR xs for water, composition same 9/98
14      CNTLO H2OCR 0.76496 ALCR 0.23504
14      CNTLI H2OS 0.53238 ALS 0.46762
14      BLADE B10C 0 7.92800E-03B11C 0 3.21530E-02C12C 0 1.00200E-02
14      BLADE ALC 0 3.81090E-02
14      POSTS H2ORB 0.50 ALB 0.50
14      BLOK1 H2ORB 0.04316 ALS 0.95684
14      BLOK2 H2ORB 0.57127 ALS 0.42873
14      BLOK3 H2ORB 0.01065 BE 0.98935
01 plug not used 14 PLUG ALP 1.0
14      GBOX H2ORB 0.37264 ALB 0.62726
14      GRID H2ORB 0.60 ALB 0.40
14      REFH2OH2OR 1.0
14      GUIDE ALCR 1.0
14      BOX ALB 1.0
14      SHIELDLEAD 1.0
14      THERM GRAF 1.0
15      SIDES S1 S2 S3 S4 S5 S6
15      REFH2OH2ORFOH2ORFIFC RB3 RB4 RB5 CIC
15      BETPO TRAP
15      BETPI HOLE
15      REGO REGOUT
15      REGI1 REGIN1
15      REGI2 REGIN2
15      ROD ROD1
01 removed RBBL2S & RBBL2E, replace with G-E9
15      BLOK1 RBBL3SRBBL4SRBBL5S
15      BLOK2 RBBL3ERBBL4ERBBL5E
15      BEBLK BEF5A BEF6A BEEC8 BE-E2
15      BEBLK BE-C2 BE-F9
15      GRID GRID
15      AXH2O AXREFTAXREFB
15      GUIDE G1 G2 G3 G4 G5 G6
15      CNTLO CNTL1OCNTL2OCNTL3OCNTL4O
15      CNTLI CNTL1ICNTL2ICNTL3ICNTL4I
15      BLADE BLADE1BLADE2BLADE3BLADE4
15      REFGR GRAF1 GRAF5 GRAF6 GRAG1 GRAG2
15      REFGR G-E9
15      GBOX GSBOX
15      SHIELDSHIELD

```

```
15    THERM TC1    TC2
15    POSTS POST3 POST4 POST1 POST2
15    BOX    GBOX  TCB1  TCB2
15    1 move E4 to D4, E5
15    ME4A   E5A
15    ME4B   E5B
15    ME4C   E5C
15    ME4D   E5D
```

```
Take E5 out
15    ME5A   D4A
15    ME5B   D4B
15    ME5C   D4C
15    ME5D   D4D
```

```
2 MOVE E6 TO E5, D6
15    ME6A   D6A
15    ME6B   D6B
15    ME6C   D6C
15    ME6D   D6D
```

```
3 MOVE D3 TO E4
15    MD3A   E4A
15    MD3B   E4B
15    MD3C   E4C
15    MD3D   E4D
```

```
TAKE D4 OUT
15    MD4A   D4A
15    MD4B   D4B
15    MD4C   D4C
15    MD4D   D4D
```

```
TAKE D6 OUT
15    MD6A   D6A
15    MD6B   D6B
15    MD6C   D6C
15    MD6D   D6D
```

```
4 MOVE D7 TO C6
15    MD7A   D7A
15    MD7B   D7B
15    MD7C   D7C
15    MD7D   D7D
15    MD7A   C6A
15    MD7B   C6B
15    MD7C   C6C
15    MD7D   C6D
```

```
5 Move C4 to D4
15    MC4A   D4A
15    MC4B   D4B
15    MC4C   D4C
15    MC4D   D4D
```

```
TAKE C5 OUT
15    MC5A   C5A
15    MC5B   C5B
15    MC5C   C5C
15    MC5D   C5D
```

```
6 MOVE C6 TO D6, C5
15    MC6A   C5A
15    MC6B   C5B
15    MC6C   C5C
15    MC6D   C5D
```

```
7 MOVE E7 TO E6
15    ME7A   E6A
15    ME7B   E6B
15    ME7C   E6C
15    ME7D   E6D
```

```
8 MOVE C3 TO C4
15    MC3A   C4A
15    MC3B   C4B
15    MC3C   C4C
15    MC3D   C4D
```

```
9 MOVE C7 TO D7
15    MC7A   D7A
```

15 MC7B D7B  
15 MC7C D7C  
15 MC7D D7D

10 MOVE E3 TO D3  
15 ME3A D3A  
15 ME3B D3B  
15 ME3C D3C  
15 ME3D D3D

34 BLADE -4.11428E-01 3 2.57877E+00 4  
34 BLADE 9.15215E+01 5 2.02441E+03 6  
34 BLADE 4.19631E+05 7  
35 ADJB 0.0 .44189 0.0 .44189 0.0 .44189 3  
35 ADJB 0.0 .10218 0.0 .10218 0.0 .10218 4  
35 ADJB 0.0 .08354 0.0 .08354 0.0 .08354 5  
35 ADJB 0.0 .07663 0.0 .07663 0.0 .07663 6  
35 ADJB 0.0 .07598 0.0 .07598 0.0 .07598 7  
36 ADJB BLADE

DATASET=A.BURN

01 RINSC LEU  
core3+4 new fuel, 2MW 100 days rundown  
02 0280000 0 0.001 1.000 1.0000 1 1  
03 0 0.0 0.0 0.001 -1.000 1 0  
09 U235 1U236  
09 U235 2XE135 2.4200-03 PM149 1.0666-02  
09 U235 2I135 6.2966-02 ETFP 1.000  
09 U235 5U234  
09 U236 1DUMP  
09 U236 2XE135 1.5847-03 PM149 1.3691-02  
09 U236 2I135 5.6307-02 ETFP 1.000  
09 U236 5U235  
09 U238 1PU239  
09 U238 2XE135 2.8000-04 PM149 1.6100-02  
09 U238 2I135 6.8349-02 ETFP 1.000  
09 U238 5DUMP  
09 PU239 1PU240  
09 PU239 2XE135 1.1524-02 PM149 1.2390-02  
09 PU239 2I135 6.4494-02 ETFP 1.000  
09 PU239 5DUMP  
09 PU239 8U235  
09 PU240 1PU241  
09 PU240 2XE135 6.9843-03 PM149 1.3690-02  
09 PU240 2I135 6.7476-02 ETFP 1.000  
09 PU240 8U236  
09 PU241 1PU242  
09 PU241 2XE135 2.3140-03 PM149 1.5240-02  
09 PU241 2I135 7.0698-02 ETFP 1.000  
09 PU241 8DUMP  
09 PU242 1DUMP  
09 PU242 2XE135 2.6448-03 PM149 1.6152-02  
09 PU242 2I135 6.9001-02 ETFP 1.000  
09 PU242 5PU241  
09 PU242 8U238  
09 XE135 6DUMP  
09 XE135 1DUMP  
09 I135 1DUMP  
09 I135 6XE135  
09 PM149 6SM149  
09 SM149 1DUMP  
09 ETFP 1DUMP  
09 DUMP 0  
10 U235 U5F4 0  
10 U236 FU6B 0  
10 U238 U8F4 0  
10 PU239 FP9B 0  
10 PU240 FP0B 0  
10 PU241 FP1B 0  
10 PU242 FP2B 0  
10 XE135 FXEB 0  
10 PM149 FPMB 0  
10 I135 FI5B 0  
10 SM149 FSMB 0  
10 ETFP PFP1 0  
10 DUMP ODUM 0  
24 U235 1 235.04  
24 U236 0 236.04  
24 U238 0 238.05  
24 PU239 1 239.05  
24 PU240 0 240.05  
24 PU241 1 241.06

24	PU242	0	242.06
24	XE135	0	134.90
24	I135	0	134.90
24	PM149	0	148.92
24	SM149	0	148.92
24	ETFP	0	100.00
24	DUMP	0	100.00
25	PU239	8U235	9.110-13
25	PU240	8U236	3.348-12
25	PU241	6DUMP	1.6633-9
25	PU241	8DUMP	1.665-12
25	PU242	8U238	5.842-14
25	XE135	6DUMP	2.0930-5
25	PM149	6SM149	3.6260-6
25	I135	6XE135	2.8740-5

35	NFC3A	MNEW	FMC3A	1	1
35	NFC3B	MNEW	FMC3B	1	1
35	NFC3C	MNEW	FMC3C	1	1
35	NFC3D	MNEW	FMC3D	1	1
35	NFC7A	MNEW	FMC7A	1	1
35	NFC7B	MNEW	FMC7B	1	1
35	NFC7C	MNEW	FMC7C	1	1
35	NFC7D	MNEW	FMC7D	1	1
35	NFE3A	MNEW	FME3A	1	1
35	NFE3B	MNEW	FME3B	1	1
35	NFE3C	MNEW	FME3C	1	1
35	NFE3D	MNEW	FME3D	1	1
35	NFE7A	MNEW	FME7A	1	1
35	NFE7B	MNEW	FME7B	1	1
35	NFE7C	MNEW	FME7C	1	1
35	NFE7D	MNEW	FME7D	1	1

8 MOVE C3 TO C4

35	PAC3A	MC3A	FMC3A	1	1
35	PAC3B	MC3B	FMC3B	1	1
35	PAC3C	MC3C	FMC3C	1	1
35	PAC3D	MC3D	FMC3D	1	1
35	PAC3A	MC3A	FMC4A	1	1
35	PAC3B	MC3B	FMC4B	1	1
35	PAC3C	MC3C	FMC4C	1	1
35	PAC3D	MC3D	FMC4D	1	1

10 E3 TO D3

35	PAE3A	ME3A	FME3A	1	1
35	PAE3B	ME3B	FME3B	1	1
35	PAE3C	ME3C	FME3C	1	1
35	PAE3D	ME3D	FME3D	1	1
35	PAE3A	ME3A	FMD3A	1	1
35	PAE3B	ME3B	FMD3B	1	1
35	PAE3C	ME3C	FMD3C	1	1
35	PAE3D	ME3D	FMD3D	1	1

7 E7 TO E6

35	PAE7A	ME7A	FME7A	1	1
35	PAE7B	ME7B	FME7B	1	1
35	PAE7C	ME7C	FME7C	1	1
35	PAE7D	ME7D	FME7D	1	1
35	PAE7A	ME7A	FME6A	1	1
35	PAE7B	ME7B	FME6B	1	1
35	PAE7C	ME7C	FME6C	1	1
35	PAE7D	ME7D	FME6D	1	1

1 E4 moved to D4, E5

35	PAE4A	ME4A	FME5A	1	1
35	PAE4B	ME4B	FME5B	1	1
35	PAE4C	ME4C	FME5C	1	1
35	PAE4D	ME4D	FME5D	1	1

Remove E5

35	PAE5A	ME5A	FMD4A	1	1
35	PAE5B	ME5B	FMD4B	1	1
35	PAE5C	ME5C	FMD4C	1	1
35	PAE5D	ME5D	FMD4D	1	1

2 E6 to E5, D6

35	PAE6A	ME6A	FMD6A	1	1
35	PAE6B	ME6B	FMD6B	1	1
35	PAE6C	ME6C	FMD6C	1	1
35	PAE6D	ME6D	FMD6D	1	1

3 D3 to E4					
35	PAD3A	MD3A	FMD3A	1	1
35	PAD3B	MD3B	FMD3B	1	1
35	PAD3C	MD3C	FMD3C	1	1
35	PAD3D	MD3D	FMD3D	1	1
35	PAD3A	MD3A	FME4A	1	1
35	PAD3B	MD3B	FME4B	1	1
35	PAD3C	MD3C	FME4C	1	1
35	PAD3D	MD3D	FME4D	1	1

REMOVE D4					
35	PAD4A	MD4A	FMD4A	1	1
35	PAD4B	MD4B	FMD4B	1	1
35	PAD4C	MD4C	FMD4C	1	1
35	PAD4D	MD4D	FMD4D	1	1

REMOVE D6					
35	PAD6A	MD6A	FMD6A	1	1
35	PAD6B	MD6B	FMD6B	1	1
35	PAD6C	MD6C	FMD6C	1	1
35	PAD6D	MD6D	FMD6D	1	1

4 D7 to C6					
35	PAD7A	MD7A	FMD7A	1	1
35	PAD7B	MD7B	FMD7B	1	1
35	PAD7C	MD7C	FMD7C	1	1
35	PAD7D	MD7D	FMD7D	1	1
35	PAD7A	MD7A	FMC6A	1	1
35	PAD7B	MD7B	FMC6B	1	1
35	PAD7C	MD7C	FMC6C	1	1
35	PAD7D	MD7D	FMC6D	1	1

5 C4 to D4					
35	PAC4A	MC4A	FMD4A	1	1
35	PAC4B	MC4B	FMD4B	1	1
35	PAC4C	MC4C	FMD4C	1	1
35	PAC4D	MC4D	FMD4D	1	1

REMOVE C5					
35	PAC5A	MC5A	FMC5A	1	1
35	PAC5B	MC5B	FMC5B	1	1
35	PAC5C	MC5C	FMC5C	1	1
35	PAC5D	MC5D	FMC5D	1	1

6 C6 TO D6, C5					
35	PAC6A	MC6A	FMC5A	1	1
35	PAC6B	MC6B	FMC5B	1	1
35	PAC6C	MC6C	FMC5C	1	1
35	PAC6D	MC6D	FMC5D	1	1

9 C7 TO D7					
35	PAC7A	MC7A	FMC7A	1	1
35	PAC7B	MC7B	FMC7B	1	1
35	PAC7C	MC7C	FMC7C	1	1
35	PAC7D	MC7D	FMC7D	1	1
35	PAC7A	MC7A	FMD7A	1	1
35	PAC7B	MC7B	FMD7B	1	1
35	PAC7C	MC7C	FMD7C	1	1
35	PAC7D	MC7D	FMD7D	1	1

45	FME3A	E3A			
45	FME3B	E3B			
45	FME3C	E3C			
45	FME3D	E3D			
45	FME4A	E4A			
45	FME4B	E4B			
45	FME4C	E4C			
45	FME4D	E4D			
45	FME5A	E5A			
45	FME5B	E5B			
45	FME5C	E5C			
45	FME5D	E5D			
45	FME6A	E6A			
45	FME6B	E6B			
45	FME6C	E6C			
45	FME6D	E6D			
45	FME7A	E7A			
45	FME7B	E7B			
45	FME7C	E7C			
45	FME7D	E7D			
45	FMD3A	D3A			
45	FMD3B	D3B			

45	FMD3C	D3C									
45	FMD3D	D3D									
45	FMD4A	D4A									
45	FMD4B	D4B									
45	FMD4C	D4C									
45	FMD4D	D4D									
45	FMD6A	D6A									
45	FMD6B	D6B									
45	FMD6C	D6C									
45	FMD6D	D6D									
45	FMD7A	D7A									
45	FMD7B	D7B									
45	FMD7C	D7C									
45	FMD7D	D7D									
45	FMC3A	C3A									
45	FMC3B	C3B									
45	FMC3C	C3C									
45	FMC3D	C3D									
45	FMC4A	C4A									
45	FMC4B	C4B									
45	FMC4C	C4C									
45	FMC4D	C4D									
45	FMC5A	C5A									
45	FMC5B	C5B									
45	FMC5C	C5C									
45	FMC5D	C5D									
45	FMC6A	C6A									
45	FMC6B	C6B									
45	FMC6C	C6C									
45	FMC6D	C6D									
45	FMC7A	C7A									
45	FMC7B	C7B									
45	FMC7C	C7C									
45	FMC7D	C7D									
26	U5F40	U5F40	FU6B0	U8F40	FP9B0	FP0B0	FP1B0	FP2B0	FXEB0	FPMB0	FSMB0
26	U5F40	FI5B0	PFFP10								
39	U5F40	5	7FU6B0	5	7U8F40	5	7				
39	FP9B0	5	7FP0B0	5	7FP1B0	5	7				
39	FP2B0	5	7FXEB0	5	7FPMB0	5	7				
39	FSMB0	5	7FI5B0	5	7PFP10	1	7				
40	U5F40	2	1.000000E-03	3FU6B0	2	1.000000E-03	3				
40	U8F40	2	1.000000E-03	3FP9B0	2	1.000000E-03	3				
40	FP0B0	2	1.000000E-03	3FP1B0	2	1.000000E-03	3				
40	FP2B0	2	1.000000E-03	3FXEB0	0	1.000000E-03	3				
40	FPMB0	0	1.000000E-03	3FSMB0	0	1.000000E-03	3				
40	FI5B0	0	1.000000E-03	3PFP10	0	1.000000E-03	3				
41	U5F40	U5F40	2.52427E-04	1.0000	U5F41	2.52090E-04	1.0000				
41	U5F40	U5F42	2.48755E-04	1.0000	U5F43	2.35673E-04	1.0000				
41	U5F40	U5F44	2.10551E-04	1.0000	U5F45	9.30573E-05	1.0000				
41	FU6B0	FU6B0	2.52427E-04	1.0000	FU6B1	2.52090E-04	1.0000				
41	FU6B0	FU6B2	2.48755E-04	1.0000	FU6B3	2.35673E-04	1.0000				
41	FU6B0	FU6B4	2.10551E-04	1.0000	FU6B5	9.30573E-05	1.0000				
41	U8F40	U8F40	2.52427E-04	1.0000	U8F41	2.52090E-04	1.0000				
41	U8F40	U8F42	2.48755E-04	1.0000	U8F43	2.35673E-04	1.0000				
41	U8F40	U8F44	2.10551E-04	1.0000	U8F45	9.30573E-05	1.0000				
41	FP9B0	FP9B0	2.52427E-04	1.0000	FP9B1	2.52090E-04	1.0000				
41	FP9B0	FP9B2	2.48755E-04	1.0000	FP9B3	2.35673E-04	1.0000				
41	FP9B0	FP9B4	2.10551E-04	1.0000	FP9B5	9.30573E-05	1.0000				
41	FP0B0	FP0B0	2.52427E-04	1.0000	FP0B1	2.52090E-04	1.0000				
41	FP0B0	FP0B2	2.48755E-04	1.0000	FP0B3	2.35673E-04	1.0000				
41	FP0B0	FP0B4	2.10551E-04	1.0000	FP0B5	9.30573E-05	1.0000				
41	FP1B0	FP1B0	2.52427E-04	1.0000	FP1B1	2.52090E-04	1.0000				
41	FP1B0	FP1B2	2.48755E-04	1.0000	FP1B3	2.35673E-04	1.0000				
41	FP1B0	FP1B4	2.10551E-04	1.0000	FP1B5	9.30573E-05	1.0000				
41	FP2B0	FP2B0	2.52427E-04	1.0000	FP2B1	2.52090E-04	1.0000				
41	FP2B0	FP2B2	2.48755E-04	1.0000							

41	PPF10	PPF14	2.10551E-04	1.0000	PPF15	9.30573E-05	0.5000
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