

EXXON NUCLEAR COMPANY, Inc.

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February 16, 1983

File

LB/LAN:009:83

Mr. G. A. Schwenk
Core Performance Branch
U.S. Nuclear Regulatory Commission
Washington, D.C.

Subject: Stability Audit Calculation Input; Equilibrium 9x9 Reload
Core Cross-Section Reduction; 2-Dimensional

Reference: Letter to G.A. Schwenk from L.A. Nielsen dated February 8,
1982.

Enclosed is a tape containing collapsed 2-dimensional cross-sections for the 9x9 equilibrium reload core described in Reference 1. A listing of the cross-sections on the tape is given in Attachment #14. These cross-sections are flux-weighted and describe the equilibrium 9x9 core with seven radial regions and eight axial regions. The data is in the COTRAN cross-section format.

The cross-section data presented in Attachment #14 was derived in a fashion similar to that used in the Cycle 9 Reload Analysis. Prior to performance of stability calculations, the axial power distribution of each radial region calculated by the stability model must be compatible with that provided on the "0" type cards. This can be accomplished by slight adjustments in the nodal cross-section values found in Attachment #14 or by adjusting top and bottom leakage terms in your model. In order to properly predict reactivity effects consistent with XTGBWR, further normalization of the cross-sections may be required to insure that a change in core reactivity of +0.00493 $\Delta K/K$ results from a +50 psia change in core pressure. This latter normalization is also required prior to the stability calculation.

Axial and radial region information is given below:

Axial Region Dimensions

Region	Axial Region Height (Inches)
1 (top)	6
2	24
3	24
4	24
5	24
6	18
7	18
8 (bottom)	6

Y601

8302230155 830216
PDR TOPRP EMVEXN
C PDR

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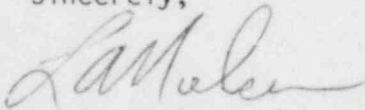
Radial Region Information

<u>Region</u>	<u>Relative Assembly Power</u>	<u>Number of Assemblies (1/4 Core)</u>
1	1.464	1
2	1.300 to 1.463	33
3	1.200 to 1.299	23
4	1.100 to 1.199	35
5	1.000 to 1.099	27
6	.999 excluding edge assemblies	41
7	edge assemblies	21

The file size on the tape is 2048 records and are in card images. The information is 1600 BPI and on Logical Unit #1. Please return the tape when you have completed the data transfer.

If you have any questions, please give me a call.

Sincerely,



L. A. Nielsen, Engineer
BWR Neutronics

LAN/mar

cc: P.J. Otaduy (ORNL)
J.R. Wojnarowski (CECo)
T.J. Rausch (CECo)

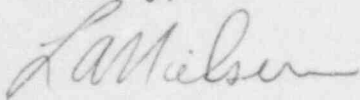
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cc: P.J. Otaduy (OR))
J.R. Wojnarowski (CECo)
T.J. Rausch (CECo)

bcc: JC Chandler
SE Jensen
TL Krynski
JL Maryott
LC O'Malley
GF Owsley
GA Sofer
RB Stout
RI Wescott

ATTACHMENT 14

Collapsed Cross-Sections for 9x9 Equilibrium
Two Dimensional Core

1 *8 CROSS SECTIONS FOR 7 RADIAL REGIONS FOR THE EQUILIBRIUM 9X9 ENC RELOAD

CROSS SECTIONS FOR 7 RADIAL REGIONS FOR THE EQUILIBRIUM 9X9 ENC RELOAD

CROSS SECTIONS ARE COLLAPSED TO 3 AXIAL REGIONS

ALL CROSS SECTIONS ARE FROM XTGBWR AND ARE FLUX WEIGHTED

THIS IS POWER=1.464 REGION 1 ASSEMBLY 9X9 EQ

1 ASSEMBLY

1	1	0	.80616	.00000	.27639				
1	1	1	1.3603	1.5717	1.7893	1.3622	1.5807	1.8054	
1	1	2	.29809	.41784	.62137	.30571	.43385	.64917	
1	1	3	.62557E=02	.58176E=02	.52234E=02	.99633E=02	.94509E=02	.86975E=02	
1	1	4	.34466E=01	.32161E=01	.29921E=01	.42230E=01	.39776E=01	.37224E=01	
1	1	5	.24861E=02	.23119E=02	.20615E=02	.25153E=02	.23303E=02	.20657E=02	
1	1	6	.36622E=01	.36020E=01	.35026E=01	.40313E=01	.39304E=01	.37762E=01	
1	1	7	.18463	.17240	.15460	.18680	.17378	.15491	
1	1	8	2.8308	2.7751	2.6874	3.1160	3.0282	2.8974	
1	1	9	.22031E=01	.15814E=01	.11216E=01	.19441E=01	.13209E=01	.86701E=02	
2	1	0	.79017	.00000	1.0117				
2	1	1	1.3747	1.5921	1.8157	1.3769	1.6013	1.8324	
2	1	2	.29284	.40153	.57440	.30090	.41881	.60300	
2	1	3	.80447E=02	.74445E=02	.66403E=02	.14999E=01	.13458E=01	.11750E=01	
2	1	4	.60464E=01	.56542E=01	.51876E=01	.66609E=01	.61034E=01	.54231E=01	
2	1	5	.48238E=02	.45789E=02	.41967E=02	.48343E=02	.45409E=02	.41052E=02	
2	1	6	.86560E=01	.82683E=01	.76943E=01	.10179	.95970E=01	.87470E=01	
2	1	7	.37434	.35614	.32745	.37514	.35318	.32031	
2	1	8	6.8580	6.5147	6.0254	8.0646	7.5516	6.8498	
2	1	9	.20490E=01	.14445E=01	.10078E=01	.17996E=01	.11962E=01	.76804E=02	
3	1	0	.74298	.00000	1.3456				
3	1	1	1.3752	1.5929	1.8166	1.3774	1.6021	1.8333	
3	1	2	.29456	.40400	.57772	.30282	.42152	.60660	
3	1	3	.81598E=02	.75338E=02	.66921E=02	.14970E=01	.13444E=01	.11740E=01	
3	1	4	.60062E=01	.56234E=01	.51638E=01	.66266E=01	.60785E=01	.54045E=01	
3	1	5	.46579E=02	.44156E=02	.40393E=02	.46725E=02	.43844E=02	.39572E=02	
3	1	6	.84910E=01	.81360E=01	.76063E=01	.99860E=01	.94535E=01	.86634E=01	
3	1	7	.35985	.34192	.31378	.36098	.33950	.30741	
3	1	8	6.6861	6.3699	5.9184	7.8633	7.4014	6.7410	
3	1	9	.20371E=01	.14354E=01	.10017E=01	.17892E=01	.11885E=01	.76309E=02	
4	1	0	.66772	.00000	1.4721				
4	1	1	1.3753	1.5930	1.8168	1.3775	1.6023	1.8336	
4	1	2	.29489	.40440	.57815	.30315	.42194	.60703	
4	1	3	.81593E=02	.75302E=02	.66855E=02	.14905E=01	.13390E=01	.11693E=01	
4	1	4	.59444E=01	.55667E=01	.51139E=01	.65692E=01	.60286E=01	.53639E=01	
4	1	5	.45891E=02	.43480E=02	.39752E=02	.46045E=02	.43186E=02	.38959E=02	
4	1	6	.83713E=01	.80260E=01	.75101E=01	.98470E=01	.93292E=01	.85582E=01	
4	1	7	.35415	.33632	.30848	.35533	.33405	.30232	
4	1	8	6.5821	6.2743	5.8347	7.7424	7.2930	6.6490	
4	1	9	.20366E=01	.14353E=01	.10017E=01	.17886E=01	.11883E=01	.76300E=02	
5	1	0	.54050	.00000	1.6438				
5	1	1	1.3754	1.5932	1.8171	1.3776	1.6025	1.8336	
5	1	2	.29519	.40478	.57854	.30347	.42233	.60743	
5	1	3	.81398E=02	.75112E=02	.66669E=02	.14792E=01	.13295E=01	.11614E=01	
5	1	4	.58470E=01	.54761E=01	.50329E=01	.64782E=01	.59487E=01	.52982E=01	
5	1	5	.45015E=02	.42626E=02	.38949E=02	.45176E=02	.42349E=02	.38185E=02	
5	1	6	.81960E=01	.78615E=01	.73614E=01	.96424E=01	.91410E=01	.83928E=01	
5	1	7	.34704	.32938	.30194	.34827	.32724	.29602	
5	1	8	6.4353	6.1369	5.7111	7.5710	7.1358	6.5112	
5	1	9	.20376E=01	.14365E=01	.10027E=01	.17895E=01	.11891E=01	.76367E=02	

CROSS SECTIONS FOR 7 RADIAL REGIONS FOR THE EQUILIBRIUM 9X9 ENC RELOAD

6	1	0	.32941	.00000	2.0034				
6	1	1	1.3756	1.5934	1.8173	1.3778	1.6027	1.8340	
6	1	2	.29555	.40523	.57902	.30385	.42280	.60792	
6	1	3	.81179E-02	.74910E-02	.66480E-02	.14637E-01	.13167E-01	.11508E-01	
6	1	4	.57210E-01	.53605E-01	.49309E-01	.63604E-01	.58467E-01	.52154E-01	
6	1	5	.43861E-02	.41506E-02	.37906E-02	.44029E-02	.41251E-02	.37177E-02	
6	1	6	.79509E-01	.76301E-01	.71507E-01	.93560E-01	.88757E-01	.81571E-01	
6	1	7	.33772	.32034	.29350	.33901	.31836	.28785	
6	1	8	6.2324	5.9461	5.5381	7.3339	6.9168	6.3176	
6	1	9	.20388E-01	.14377E-01	.10037E-01	.17905E-01	.11901E-01	.76431E-02	
7	1	0	.61451E-01	.00000	2.1572				
7	1	1	1.3753	1.5930	1.8168	1.3775	1.6022	1.8335	
7	1	2	.29478	.40427	.57800	.30304	.42180	.60689	
7	1	3	.80283E-02	.74227E-02	.66016E-02	.14547E-01	.13092E-01	.11451E-01	
7	1	4	.56784E-01	.53128E-01	.48817E-01	.63195E-01	.58042E-01	.51762E-01	
7	1	5	.44483E-02	.42132E-02	.38531E-02	.44627E-02	.41842E-02	.37757E-02	
7	1	6	.79477E-01	.76149E-01	.71204E-01	.93482E-01	.88501E-01	.81127E-01	
7	1	7	.34343	.32603	.29913	.34454	.32378	.29312	
7	1	8	6.2524	5.9562	5.5351	7.3542	6.9224	6.3064	
7	1	9	.20477E-01	.14448E-01	.10086E-01	.17984E-01	.11962E-01	.76829E-02	
8	1	0	.00000	.00000	.48953				
8	1	1	1.3604	1.5718	1.7894	1.3623	1.5807	1.8055	
8	1	2	.29838	.41816	.62150	.30606	.43425	.64940	
8	1	3	.62271E-02	.57864E-02	.51958E-02	.97357E-02	.92491E-02	.85291E-02	
8	1	4	.33348E-01	.31182E-01	.29083E-01	.41149E-01	.38878E-01	.36516E-01	
8	1	5	.24293E-02	.22548E-02	.20095E-02	.24579E-02	.22729E-02	.20136E-02	
8	1	6	.34541E-01	.34189E-01	.33421E-01	.38033E-01	.37320E-01	.36049E-01	
8	1	7	.18031	.16805	.15060	.18243	.16939	.15091	
8	1	8	2.6661	2.6304	2.5608	2.9357	2.8713	2.7622	
8	1	9	.22054E-01	.15843E-01	.11237E-01	.19460E-01	.13232E-01	.86853E-02	

REGION 2 CROSS-SECTIONS POWER 1.300 TO 1.461 9X9 EQ

33 ASSEMBLIES

1	2	0	.78392	.00000	.25196				
1	2	1	1.3604	1.5718	1.7894	1.3623	1.5807	1.8055	
1	2	2	.29828	.41803	.62138	.30592	.43408	.64922	
1	2	3	.62788E-02	.58368E-02	.52378E-02	.99862E-02	.94674E-02	.87070E-02	
1	2	4	.34514E-01	.32214E-01	.29979E-01	.42276E-01	.39822E-01	.37267E-01	
1	2	5	.24837E-02	.23093E-02	.20589E-02	.25130E-02	.23278E-02	.20631E-02	
1	2	6	.36707E-01	.36112E-01	.35123E-01	.40417E-01	.39419E-01	.37885E-01	
1	2	7	.18433	.17210	.15429	.18651	.17348	.15461	
1	2	8	2.8333	2.7784	2.6914	3.1196	3.0328	2.9029	
1	2	9	.22009E-01	.15796E-01	.11203E-01	.19422E-01	.13193E-01	.86597E-02	
2	2	0	.76728	.00000	.93361				
2	2	1	1.3748	1.5923	1.8160	1.3770	1.6016	1.8327	
2	2	2	.29303	.40170	.57437	.30108	.41894	.60291	
2	2	3	.80580E-02	.74584E-02	.66435E-02	.14978E-01	.13440E-01	.11731E-01	
2	2	4	.60092E-01	.56237E-01	.51657E-01	.66260E-01	.60761E-01	.54045E-01	
2	2	5	.47690E-02	.45251E-02	.41451E-02	.47803E-02	.44888E-02	.40563E-02	
2	2	6	.85645E-01	.81879E-01	.76269E-01	.10075	.95091E-01	.86762E-01	
2	2	7	.36965	.35156	.32307	.37051	.34873	.31615	
2	2	8	6.7749	6.4414	5.9636	7.9698	7.4807	6.7840	
2	2	9	.20472E-01	.14432E-01	.10070E-01	.17979E-01	.11950E-01	.76731E-02	
3	2	0	.71793	.00000	1.2532				
3	2	1	1.3754	1.5932	1.8171	1.3776	1.6024	1.8338	
3	2	2	.29502	.40456	.57816	.30329	.42210	.60702	
3	2	3	.81752E-02	.75446E-02	.66949E-02	.14923E-01	.13408E-01	.11706E-01	
3	2	4	.59470E-01	.55748E-01	.51302E-01	.65717E-01	.60358E-01	.53766E-01	
3	2	5	.45831E-02	.43422E-02	.39687E-02	.45986E-02	.43133E-02	.38903E-02	
3	2	6	.83685E-01	.80279E-01	.75133E-01	.98432E-01	.93326E-01	.85641E-01	

CROSS SECTIONS FOR 7 RADIAL REGIONS FOR THE EQUILIBRIUM 9X9 ENC RELOAD

3	2	7	.35348	.33569	.30782	.35466	.33345	.30774
3	2	8	6.5755	6.2722	5.8344	7.7343	7.2916	6.6504
3	2	9	.20349E=01	.14337E=01	.10008E=01	.17871E=01	.11869E=01	.76223E=02
4	2	0	.63917	.00000	1.3795			
4	2	1	1.3756	1.5934	1.8174	1.3778	1.6027	1.8341
4	2	2	.29538	.40503	.57864	.30368	.42258	.60751
4	2	3	.81751E=02	.75411E=02	.66877E=02	.14844E=01	.13343E=01	.11650E=01
4	2	4	.58774E=01	.55115E=01	.50752E=01	.65069E=01	.59801E=01	.53319E=01
4	2	5	.45030E=02	.42635E=02	.38939E=02	.45191E=02	.42364E=02	.38185E=02
4	2	6	.82247E=01	.78949E=01	.73951E=01	.96748E=01	.91811E=01	.84339E=01
4	2	7	.34684	.32919	.30165	.34808	.32709	.29580
4	2	8	6.4515	6.1576	5.7329	7.5889	7.1608	6.5381
4	2	9	.20342E=01	.14335E=01	.10008E=01	.17864E=01	.11866E=01	.76212E=02
5	2	0	.50655	.00000	1.5500			
5	2	1	1.3757	1.5936	1.8176	1.3779	1.6029	1.8343
5	2	2	.29570	.40542	.57905	.30401	.42299	.60792
5	2	3	.81537E=02	.75205E=02	.66677E=02	.14714E=01	.13235E=01	.11560E=01
5	2	4	.57730E=01	.54146E=01	.49890E=01	.64093E=01	.58946E=01	.52620E=01
5	2	5	.44069E=02	.41696E=02	.38055E=02	.44234E=02	.41441E=02	.37329E=02
5	2	6	.80259E=01	.77065E=01	.72227E=01	.94416E=01	.89647E=01	.82410E=01
5	2	7	.33907	.32159	.29448	.34033	.31962	.28886
5	2	8	6.2863	6.0019	5.5911	7.3953	6.9818	6.3793
5	2	9	.20354E=01	.14348E=01	.10019E=01	.17874E=01	.11876E=01	.76285E=02
6	2	0	.28862	.00000	1.8894			
6	2	1	1.3758	1.5938	1.8178	1.3780	1.6030	1.8346
6	2	2	.29596	.40576	.57941	.30429	.42334	.60828
6	2	3	.81250E=02	.74955E=02	.66460E=02	.14553E=01	.13102E=01	.11450E=01
6	2	4	.56519E=01	.53024E=01	.48888E=01	.62959E=01	.57956E=01	.51808E=01
6	2	5	.43023E=02	.40681E=02	.37111E=02	.43190E=02	.40440E=02	.36412E=02
6	2	6	.77867E=01	.74773E=01	.70101E=01	.91610E=01	.87005E=01	.80016E=01
6	2	7	.33071	.31348	.28692	.33199	.31162	.28152
6	2	8	6.0915	5.8162	5.4199	7.1667	6.7677	6.1865
6	2	9	.20373E=01	.14366E=01	.10033E=01	.17890E=01	.11890E=01	.76382E=02
7	2	0	.43612E=01	.00000	1.9962			
7	2	1	1.3754	1.5932	1.8171	1.3776	1.6025	1.8338
7	2	2	.29505	.40461	.57820	.30332	.42214	.60706
7	2	3	.80345E=02	.74273E=02	.66016E=02	.14502E=01	.13057E=01	.11419E=01
7	2	4	.56380E=01	.52799E=01	.48594E=01	.62818E=01	.57753E=01	.51578E=01
7	2	5	.43959E=02	.41613E=02	.38031E=02	.44103E=02	.41333E=02	.37277E=02
7	2	6	.78489E=01	.75233E=01	.70365E=01	.92321E=01	.87463E=01	.80209E=01
7	2	7	.33903	.32171	.29497	.34014	.31954	.28912
7	2	8	6.1668	5.8776	5.4638	7.2536	6.8330	6.2281
7	2	9	.20466E=01	.14439E=01	.10082E=01	.17974E=01	.11953E=01	.76786E=02
8	2	0	.00000	.00000	.45477			
8	2	1	1.3604	1.5719	1.7895	1.3623	1.5808	1.8056
8	2	2	.29858	.41837	.62151	.30628	.43449	.64945
8	2	3	.62510E=02	.58068E=02	.52115E=02	.97652E=02	.92723E=02	.85452E=02
8	2	4	.33444E=01	.31280E=01	.29183E=01	.41243E=01	.38968E=01	.36596E=01
8	2	5	.24275E=02	.22529E=02	.20074E=02	.24563E=02	.22711E=02	.20116E=02
8	2	6	.34669E=01	.34321E=01	.33555E=01	.38185E=01	.37477E=01	.36209E=01
8	2	7	.18007	.16780	.15034	.18220	.16916	.15067
8	2	8	2.6725	2.6372	2.5680	2.9434	2.8797	2.7711
8	2	9	.22032E=01	.15825E=01	.11223E=01	.19440E=01	.13215E=01	.86737E=02

REGION 3 CROSS-SECTIONS POWERS 1,200 TO 1,299 9X9 EQ

23 ASSEMBLIES

1	3	0	.75556	.00000	.26839			
1	3	1	1.3610	1.5727	1.7904	1.3629	1.5816	1.8065
1	3	2	.30085	.42077	.62198	.30888	.43739	.65057
1	3	3	.65371E=02	.60563E=02	.54064E=02	.10358E=01	.97617E=02	.89162E=02

CROSS SECTIONS FOR 7 RADIAL REGIONS FOR THE EQUILIBRIUM 9X9 ENC RELOAD

1	3	4	.36311E=01	.34021E=01	.31781E=01	.44040E=01	.41480E=01	.38739E=01
1	3	5	.24905E=02	.23148E=02	.20607E=02	.25208E=02	.23342E=02	.20657E=02
1	3	6	.39168E=01	.38609E=01	.37640E=01	.43254E=01	.42304E=01	.40784E=01
1	3	7	.18374	.17145	.15343	.18598	.17290	.15382
1	3	8	2.9821	2.9313	2.8480	3.2931	3.2118	3.0858
1	3	9	.21769E=01	.15594E=01	.11051E=01	.19200E=01	.13013E=01	.85314E=02
2	3	0	.73621	.00000	.91051			
2	3	1	1.3759	1.5939	1.8179	1.3781	1.6031	1.8347
2	3	2	.29566	.40516	.57815	.30391	.42262	.60685
2	3	3	.82489E=02	.76022E=02	.67316E=02	.14960E=01	.13440E=01	.11721E=01
2	3	4	.59070E=01	.55552E=01	.51348E=01	.65341E=01	.60173E=01	.53777E=01
2	3	5	.44715E=02	.42330E=02	.38635E=02	.44898E=02	.42091E=02	.37919E=02
2	3	6	.82301E=01	.79141E=01	.74256E=01	.96902E=01	.92147E=01	.84800E=01
2	3	7	.34358	.32608	.29862	.34497	.32423	.29308
2	3	8	6.4364	6.1546	5.7404	7.5783	7.1661	6.3554
2	3	9	.20270E=01	.14273E=01	.99650E=02	.17798E=01	.11813E=01	.75860E=02
3	3	0	.68982	.00000	1.1830			
3	3	1	1.3786	1.5950	1.8195	1.3789	1.6043	1.8362
3	3	2	.29759	.40781	.58108	.30600	.42544	.60991
3	3	3	.83562E=02	.76814E=02	.67749E=02	.14841E=01	.13361E=01	.11651E=01
3	3	4	.57903E=01	.54640E=01	.50774E=01	.64276E=01	.59386E=01	.53306E=01
3	3	5	.42312E=02	.39984E=02	.36382E=02	.42541E=02	.39828E=02	.35785E=02
3	3	6	.78989E=01	.76273E=01	.71879E=01	.92955E=01	.88899E=01	.82266E=01
3	3	7	.32291	.30599	.27942	.32464	.30479	.27483
3	3	8	6.1262	5.8834	5.5130	7.2095	6.8573	6.3096
3	3	9	.20149E=01	.14181E=01	.99071E=02	.17690E=01	.11732E=01	.75372E=02
4	3	0	.59285	.00000	1.2841			
4	3	1	1.3768	1.5953	1.8198	1.3791	1.6046	1.8366
4	3	2	.29796	.40829	.58155	.30638	.42593	.61038
4	3	3	.83458E=02	.76693E=02	.67603E=02	.14720E=01	.13263E=01	.11567E=01
4	3	4	.57000E=01	.53819E=01	.50069E=01	.63433E=01	.58664E=01	.52734E=01
4	3	5	.41308E=02	.39000E=02	.35446E=02	.41541E=02	.38860E=02	.34879E=02
4	3	6	.77040E=01	.74423E=01	.70164E=01	.90637E=01	.86753E=01	.80335E=01
4	3	7	.31474	.29800	.27184	.31649	.29692	.26748
4	3	8	5.9636	5.7301	5.3720	7.0162	6.6795	6.1507
4	3	9	.20150E=01	.14185E=01	.99125E=02	.17690E=01	.11735E=01	.75403E=02
5	3	0	.44876	.00000	1.4168			
5	3	1	1.3770	1.5955	1.8201	1.3792	1.6048	1.8369
5	3	2	.29824	.40865	.58193	.30668	.42631	.61075
5	3	3	.83104E=02	.76366E=02	.67315E=02	.14541E=01	.13113E=01	.11441E=01
5	3	4	.55750E=01	.52650E=01	.49015E=01	.62262E=01	.57632E=01	.51881E=01
5	3	5	.40150E=02	.37860E=02	.34369E=02	.40381E=02	.37732E=02	.33829E=02
5	3	6	.74493E=01	.71933E=01	.67799E=01	.87624E=01	.83861E=01	.77653E=01
5	3	7	.30555	.28897	.26330	.30729	.28798	.25915
5	3	8	5.7581	5.5308	5.1842	6.7732	6.4479	5.9377
5	3	9	.20173E=01	.14207E=01	.99306E=02	.17710E=01	.11753E=01	.75531E=02
6	3	0	.22403	.00000	1.6895			
6	3	1	1.3771	1.5956	1.8203	1.3793	1.6049	1.8371
6	3	2	.29839	.40885	.58216	.30683	.42651	.61097
6	3	3	.82647E=02	.75976E=02	.67008E=02	.14339E=01	.12942E=01	.11301E=01
6	3	4	.54421E=01	.51388E=01	.47848E=01	.61014E=01	.56517E=01	.50937E=01
6	3	5	.39051E=02	.36785E=02	.33368E=02	.39278E=02	.36663E=02	.32847E=02
6	3	6	.71752E=01	.69210E=01	.65178E=01	.84395E=01	.80693E=01	.74666E=01
6	3	7	.29700	.28060	.25548	.29871	.27966	.25148
6	3	8	5.5421	5.3176	4.9804	6.5186	6.1999	5.7053
6	3	9	.20207E=01	.14239E=01	.99528E=02	.17740E=01	.11778E=01	.75696E=02
7	3	0	.24435E=01	.00000	1.7394			
7	3	1	1.3765	1.5948	1.8191	1.3787	1.6041	1.8359
7	3	2	.29728	.40740	.58071	.30566	.42502	.60954
7	3	3	.81669E=02	.75257E=02	.66557E=02	.14337E=01	.12932E=01	.11300E=01
7	3	4	.54633E=01	.51446E=01	.47711E=01	.61200E=01	.56563E=01	.50837E=01

CROSS SECTIONS FOR 7 RADIAL REGIONS FOR THE EQUILIBRIUM 9X9 ENC RELOAD

7	3	5	.40406E-02	.38124E-02	.34682E-02	.40603E-02	.37951E-02	.34088E-02
7	3	6	.73219E-01	.70451E-01	.66185E-01	.86167E-01	.82092E-01	.75714E-01
7	3	7	.30888	.29222	.26678	.31036	.29088	.26220
7	3	8	5.6894	5.4443	5.0852	6.6956	6.3439	5.8172
7	3	9	.20311E-01	.14318E-01	.10006E-01	.17833E-01	.11847E-01	.76131E-02
8	3	0	.00000	.00000	.42263			
8	3	1	1.3610	1.5726	1.7903	1.3629	1.5816	1.8064
8	3	2	.30077	.42070	.62206	.30879	.43731	.65064
8	3	3	.64556E-02	.59801E-02	.53447E-02	.10019E-01	.94703E-02	.86818E-02
8	3	4	.34559E-01	.32430E-01	.30365E-01	.42347E-01	.40029E-01	.37557E-01
8	3	5	.24148E-02	.22389E-02	.19920E-02	.24443E-02	.22578E-02	.19969E-02
8	3	6	.36062E-01	.35785E-01	.35082E-01	.39815E-01	.39199E-01	.37998E-01
8	3	7	.17824	.16591	.14839	.18042	.16732	.14877
8	3	8	2.7481	2.7193	2.6566	3.0341	2.9787	2.8773
8	3	9	.21841E-01	.15664E-01	.11102E-01	.19263E-01	.13072E-01	.85711E-02

REGION=4 CROSS=SECTIONS POWER 1.100 TO 1.199 9X9 EQ

35 ASSEMBLIES

1	4	0	.72090	.00000	.24377			
1	4	1	1.3616	1.5735	1.7914	1.3635	1.5825	1.8075
1	4	2	.30221	.42201	.62139	.31041	.43887	.65025
1	4	3	.67276E-02	.62166E-02	.55301E-02	.10641E-01	.99934E-02	.90920E-02
1	4	4	.37433E-01	.35140E-01	.32888E-01	.45127E-01	.42489E-01	.39619E-01
1	4	5	.24891E-02	.23126E-02	.20561E-02	.25205E-02	.23330E-02	.20620E-02
1	4	6	.40552E-01	.40011E-01	.39048E-01	.44881E-01	.43968E-01	.42456E-01
1	4	7	.18277	.17046	.15232	.18509	.17198	.15278
1	4	8	3.0591	3.0115	2.9309	3.3855	3.3092	3.1866
1	4	9	.21592E-01	.15447E-01	.10939E-01	.19036E-01	.12883E-01	.84377E-02
2	4	0	.70098	.00000	.79582			
2	4	1	1.3769	1.5954	1.8200	1.3792	1.6048	1.8368
2	4	2	.29761	.40768	.58057	.30595	.42520	.60920
2	4	3	.83760E-02	.76901E-02	.67842E-02	.14853E-01	.13368E-01	.11655E-01
2	4	4	.57566E-01	.54400E-01	.50703E-01	.63949E-01	.59164E-01	.53235E-01
2	4	5	.41973E-02	.39648E-02	.36037E-02	.42198E-02	.39499E-02	.35458E-02
2	4	6	.78246E-01	.75617E-01	.71299E-01	.92046E-01	.88145E-01	.81633E-01
2	4	7	.31977	.30296	.27640	.32145	.30180	.27195
2	4	8	6.0566	5.8233	5.4610	7.1249	6.7882	6.2524
2	4	9	.20126E-01	.14168E-01	.98944E-02	.17667E-01	.11720E-01	.75261E-02
3	4	0	.64373	.00000	1.0511			
3	4	1	1.3781	1.5971	1.8222	1.3804	1.6064	1.8391
3	4	2	.29973	.41070	.58400	.30823	.42838	.61271
3	4	3	.84950E-02	.77594E-02	.68260E-02	.14676E-01	.13225E-01	.11539E-01
3	4	4	.55993E-01	.53071E-01	.49819E-01	.62500E-01	.58009E-01	.52512E-01
3	4	5	.39108E-02	.36825E-02	.33300E-02	.39379E-02	.36765E-02	.32853E-02
3	4	6	.73832E-01	.71621E-01	.67796E-01	.86706E-01	.83533E-01	.77793E-01
3	4	7	.29526	.27902	.25334	.29726	.27854	.24993
3	4	8	5.6559	5.4627	5.1461	6.6423	6.3713	5.9049
3	4	9	.19991E-01	.14080E-01	.98330E-02	.17545E-01	.11643E-01	.74739E-02
4	4	0	.55326	.00000	1.1571			
4	4	1	1.3784	1.5975	1.8228	1.3807	1.6069	1.8397
4	4	2	.30020	.41134	.58472	.30871	.42904	.61342
4	4	3	.84851E-02	.77396E-02	.68053E-02	.14513E-01	.13082E-01	.11416E-01
4	4	4	.54915E-01	.52055E-01	.48934E-01	.61492E-01	.57114E-01	.51795E-01
4	4	5	.37817E-02	.35541E-02	.32063E-02	.38088E-02	.35497E-02	.31650E-02
4	4	6	.71251E-01	.69081E-01	.65358E-01	.83634E-01	.80578E-01	.75036E-01
4	4	7	.28487	.26874	.24345	.28687	.26838	.24030
4	4	8	5.4442	5.2565	4.9503	6.3905	6.1315	5.6833
4	4	9	.19989E-01	.14088E-01	.98411E-02	.17542E-01	.11649E-01	.74786E-02
5	4	0	.40754	.00000	1.2963			
5	4	1	1.3786	1.5978	1.8232	1.3809	1.6072	1.8401

CROSS SECTIONS FOR 7 RADIAL REGIONS FOR THE EQUILIBRIUM 9X9 ENC RELOAD

5	4	2	.30051	.41179	.58520	.30905	.42950	.61388
5	4	3	.84385E=02	.76937E=02	.67643E=02	.14278E=01	.12874E=01	.11238E=01
5	4	4	.53444E=01	.50635E=01	.47629E=01	.60111E=01	.55860E=01	.50738E=01
5	4	5	.36382E=02	.34106E=02	.30689E=02	.36644E=02	.34068E=02	.30300E=02
5	4	6	.67988E=01	.65755E=01	.62074E=01	.79778E=01	.76709E=01	.71295E=01
5	4	7	.27366	.25754	.23272	.27559	.25722	.22975
5	4	8	5.1859	4.9959	4.6948	6.0854	5.8279	5.3922
5	4	9	.20020E=01	.14122E=01	.98673E=02	.17569E=01	.11675E=01	.74974E=02
6	4	0	.18759	.00000	1.5598			
6	4	1	1.3786	1.5979	1.8233	1.3810	1.6073	1.8402
6	4	2	.30062	.41194	.58537	.30916	.42965	.61405
6	4	3	.83773E=02	.76429E=02	.67237E=02	.14035E=01	.12662E=01	.11059E=01
6	4	4	.51973E=01	.49198E=01	.46258E=01	.58726E=01	.54588E=01	.49629E=01
6	4	5	.35204E=02	.32933E=02	.29582E=02	.35452E=02	.32891E=02	.29203E=02
6	4	6	.64866E=01	.62515E=01	.58829E=01	.76109E=01	.72934E=01	.67580E=01
6	4	7	.26471	.24860	.22426	.26655	.24825	.22136
6	4	8	4.9455	4.7476	4.4477	5.8029	5.5389	5.1093
6	4	9	.20068E=01	.14163E=01	.98976E=02	.17610E=01	.11709E=01	.75200E=02
7	4	0	.17652E=01	.00000	1.5990			
7	4	1	1.3778	1.5967	1.8217	1.3801	1.6061	1.8386
7	4	2	.29937	.41019	.58342	.30784	.42784	.61213
7	4	3	.82768E=02	.75865E=02	.66904E=02	.14073E=01	.12705E=01	.11103E=01
7	4	4	.52436E=01	.49574E=01	.46389E=01	.59149E=01	.54914E=01	.49745E=01
7	4	5	.36773E=02	.34513E=02	.31158E=02	.36991E=02	.34417E=02	.30700E=02
7	4	6	.66915E=01	.64434E=01	.60577E=01	.78617E=01	.75149E=01	.69486E=01
7	4	7	.27832	.26211	.23758	.27993	.26135	.23406
7	4	8	5.1395	4.9262	4.6082	6.0384	5.7455	5.2860
7	4	9	.20176E=01	.14232E=01	.99447E=02	.17708E=01	.11769E=01	.75597E=02
8	4	0	.00000	.00000	.41290			
8	4	1	1.3616	1.5735	1.7913	1.3635	1.5824	1.8074
8	4	2	.30230	.42214	.62156	.31049	.43900	.65043
8	4	3	.66507E=02	.61441E=02	.54718E=02	.10275E=01	.96783E=02	.88387E=02
8	4	4	.35460E=01	.33347E=01	.31294E=01	.43228E=01	.40860E=01	.38293E=01
8	4	5	.23966E=02	.22192E=02	.19711E=02	.24270E=02	.22392E=02	.19771E=02
8	4	6	.36938E=01	.36707E=01	.36044E=01	.40877E=01	.40331E=01	.39181E=01
8	4	7	.17601	.16362	.14605	.17826	.16510	.14652
8	4	8	2.7872	2.7634	2.7059	3.0843	3.0362	2.9413
8	4	9	.21658E=01	.15513E=01	.10986E=01	.19094E=01	.12938E=01	.84737E=02

REGION 5 CROSS SECTIONS POWER 1.000 TO 1.099 9X9 EQ

27 ASSEMBLIES

1	5	0	.69317	.00000	.24623			
1	5	1	1.3621	1.5743	1.7922	1.3640	1.5832	1.8083
1	5	2	.30340	.42314	.62101	.31178	.44027	.65018
1	5	3	.68829E=02	.63484E=02	.56331E=02	.10857E=01	.10168E=01	.92232E=02
1	5	4	.38430E=01	.36139E=01	.33882E=01	.46092E=01	.43389E=01	.40409E=01
1	5	5	.24878E=02	.23107E=02	.20527E=02	.25202E=02	.23322E=02	.20595E=02
1	5	6	.41719E=01	.41209E=01	.40272E=01	.46267E=01	.45406E=01	.43925E=01
1	5	7	.18198	.16966	.15144	.18436	.17125	.15197
1	5	8	3.1238	3.0801	3.0033	3.4644	3.3937	3.2756
1	5	9	.21448E=01	.15325E=01	.10846E=01	.18901E=01	.12774E=01	.83579E=02
2	5	0	.67091	.00000	.76962			
2	5	1	1.3779	1.5968	1.8218	1.3802	1.6062	1.8387
2	5	2	.29930	.41006	.58323	.30776	.42769	.61190
2	5	3	.84933E=02	.77638E=02	.68282E=02	.14778E=01	.13308E=01	.11600E=01
2	5	4	.56486E=01	.53505E=01	.50171E=01	.62956E=01	.58387E=01	.52794E=01
2	5	5	.39875E=02	.37576E=02	.34017E=02	.40137E=02	.37498E=02	.33543E=02
2	5	6	.75262E=01	.72953E=01	.69020E=01	.88430E=01	.85094E=01	.79179E=01
2	5	7	.30155	.28516	.25918	.30349	.28453	.25555
2	5	8	5.7758	5.5733	5.2468	6.7865	6.5009	6.0191

CROSS SECTIONS FOR 7 RADIAL REGIONS FOR THE EQUILIBRIUM 9x9 ENC RELOAD

2	5	9	.19999E=01	.14081E=01	.98361E=02	.17553E=01	.11644E=01	.74770E=02
3	5	0	.60797	.00000	.99803			
3	5	1	1.3792	1.5987	1.8244	1.3816	1.6081	1.8414
3	5	2	.30124	.41282	.58629	.30981	.43055	.61493
3	5	3	.86233E=02	.78317E=02	.68579E=02	.14600E=01	.13144E=01	.11447E=01
3	5	4	.54879E=01	.52020E=01	.49135E=01	.61465E=01	.57055E=01	.51941E=01
3	5	5	.36909E=02	.34600E=02	.31110E=02	.37218E=02	.34610E=02	.30767E=02
3	5	6	.70460E=01	.68365E=01	.64789E=01	.82626E=01	.79788E=01	.74503E=01
3	5	7	.27628	.26010	.23492	.27855	.26015	.23231
3	5	8	5.3463	5.1697	4.8794	6.2695	6.0335	5.6109
3	5	9	.19856E=01	.13994E=01	.97826E=02	.17423E=01	.11567E=01	.74301E=02
4	5	0	.50953	.00000	1.0880			
4	5	1	1.3795	1.5991	1.8250	1.3819	1.6086	1.8420
4	5	2	.30164	.41340	.58695	.31023	.43114	.61557
4	5	3	.85983E=02	.77979E=02	.68214E=02	.14412E=01	.12970E=01	.11290E=01
4	5	4	.53744E=01	.50894E=01	.48120E=01	.60401E=01	.56091E=01	.51119E=01
4	5	5	.35589E=02	.33264E=02	.29813E=02	.35896E=02	.33286E=02	.29498E=02
4	5	6	.67704E=01	.65522E=01	.61947E=01	.79352E=01	.76475E=01	.71272E=01
4	5	7	.26583	.24957	.22469	.26808	.24970	.22230
4	5	8	5.1247	4.9440	4.6563	6.0066	5.7706	5.3572
4	5	9	.19868E=01	.14015E=01	.98029E=02	.17432E=01	.11583E=01	.74442E=02
5	5	0	.35373	.00000	1.2005			
5	5	1	1.3797	1.5994	1.8253	1.3820	1.6088	1.8423
5	5	2	.30185	.41371	.58730	.31045	.43145	.61590
5	5	3	.85234E=02	.77301E=02	.67621E=02	.14136E=01	.12723E=01	.11074E=01
5	5	4	.52184E=01	.49345E=01	.46653E=01	.58933E=01	.54722E=01	.49933E=01
5	5	5	.34173E=02	.31831E=02	.28433E=02	.34467E=02	.31852E=02	.28134E=02
5	5	6	.64275E=01	.61903E=01	.58258E=01	.75315E=01	.72258E=01	.67050E=01
5	5	7	.25500	.23860	.21410	.25714	.23871	.21182
5	5	8	4.8594	4.6661	4.3749	5.6942	5.4467	5.0351
5	5	9	.19923E=01	.14067E=01	.98444E=02	.17480E=01	.11626E=01	.74748E=02
6	5	0	.13768	.00000	1.4066			
6	5	1	1.3796	1.5993	1.8252	1.3820	1.6088	1.8422
6	5	2	.30182	.41367	.58726	.31042	.43141	.61587
6	5	3	.84372E=02	.76635E=02	.67127E=02	.13871E=01	.12493E=01	.10883E=01
6	5	4	.50685E=01	.47879E=01	.45217E=01	.57520E=01	.53422E=01	.48772E=01
6	5	5	.33129E=02	.30794E=02	.27460E=02	.33405E=02	.30804E=02	.27161E=02
6	5	6	.61251E=01	.58711E=01	.54999E=01	.71778E=01	.68533E=01	.63299E=01
6	5	7	.24731	.23091	.20685	.24932	.23094	.20456
6	5	8	4.6327	4.4270	4.1314	5.4290	5.1677	4.7549
6	5	9	.19994E=01	.14124E=01	.98838E=02	.17542E=01	.11673E=01	.75049E=02
7	5	0	.89212E=02	.00000	1.4059			
7	5	1	1.3786	1.5979	1.8233	1.3809	1.6073	1.8402
7	5	2	.30052	.41180	.58516	.30905	.42949	.61382
7	5	3	.83320E=02	.76110E=02	.66952E=02	.13924E=01	.12564E=01	.10970E=01
7	5	4	.51237E=01	.48445E=01	.45519E=01	.58028E=01	.53918E=01	.49030E=01
7	5	5	.34824E=02	.32542E=02	.29218E=02	.35065E=02	.32493E=02	.28835E=02
7	5	6	.63588E=01	.61087E=01	.57334E=01	.74636E=01	.71286E=01	.65875E=01
7	5	7	.26195	.24573	.22156	.26371	.24532	.21862
7	5	8	4.8499	4.6406	4.3359	5.6927	5.4154	4.9819
7	5	9	.20107E=01	.14191E=01	.99213E=02	.17645E=01	.11732E=01	.75378E=02
8	5	0	.00000	.00000	.38427			
8	5	1	1.3620	1.5740	1.7920	1.3639	1.5830	1.8081
8	5	2	.30322	.42300	.62125	.31156	.44008	.65036
8	5	3	.67661E=02	.62414E=02	.55473E=02	.10412E=01	.97866E=02	.89166E=02
8	5	4	.35990E=01	.33891E=01	.31851E=01	.43746E=01	.41351E=01	.38730E=01
8	5	5	.23855E=02	.22075E=02	.19588E=02	.24165E=02	.22280E=02	.19654E=02
8	5	6	.37445E=01	.37248E=01	.36617E=01	.41504E=01	.41010E=01	.39901E=01
8	5	7	.17469	.16226	.14469	.17697	.16378	.14519
8	5	8	2.8092	2.7889	2.7351	3.1137	3.0706	2.9803
8	5	9	.21550E=01	.5423E=01	.10917E=01	.18992E=01	.12856E=01	.84144E=02

CROSS SECTIONS FOR 7 RADIAL REGIONS FOR THE EQUILIBRIUM 9X9 ENC RELOAD

REGION 6 CROSS-SECTIONS POWER UP TO .999 NO EDGE ASSYS 9X9 EQ

41 ASSEMBLIES

1	6	0	.55394	.00000	.18907				
1	6	1	1.3625	1.5747	1.7927	1.3644	1.5837	1.8088	
1	6	2	.30425	.42397	.62085	.31275	.44127	.65023	
1	6	3	.69726E=02	.64236E=02	.56910E=02	.10979E=01	.10266E=01	.92961E=02	
1	6	4	.38936E=01	.36656E=01	.34413E=01	.46587E=01	.43859E=01	.40830E=01	
1	6	5	.24835E=02	.23058E=02	.20468E=02	.25165E=02	.23278E=02	.20541E=02	
1	6	6	.42376E=01	.41893E=01	.40980E=01	.47055E=01	.46235E=01	.44781E=01	
1	6	7	.18124	.16890	.15064	.18366	.17052	.15119	
1	6	8	3.1583	3.1174	3.0436	3.5070	3.4405	3.3258	
1	6	9	.21364E=01	.15256E=01	.10793E=01	.18821E=01	.12710E=01	.83113E=02	
2	6	0	.52488	.00000	.59149				
2	6	1	1.3785	1.5977	1.8230	1.3808	1.6071	1.8399	
2	6	2	.30049	.41172	.58509	.30903	.42944	.61360	
2	6	3	.85594E=02	.78026E=02	.68491E=02	.14701E=01	.13245E=01	.11545E=01	
2	6	4	.55458E=01	.52634E=01	.49568E=01	.62005E=01	.57625E=01	.52301E=01	
2	6	5	.38286E=02	.36012E=02	.32507E=02	.38583E=02	.35989E=02	.32107E=02	
2	6	6	.72954E=01	.70863E=01	.67198E=01	.85657E=01	.82696E=01	.77196E=01	
2	6	7	.28791	.27184	.24642	.29011	.27164	.24337	
2	6	8	5.5637	5.3818	5.0801	6.5325	6.2805	5.8359	
2	6	9	.19924E=01	.14031E=01	.98032E=02	.17485E=01	.11600E=01	.74487E=02	
3	6	0	.44327	.00000	.75157				
3	6	1	1.3800	1.5998	1.8259	1.3824	1.6093	1.8429	
3	6	2	.30230	.41430	.58788	.31092	.43207	.61648	
3	6	3	.86905E=02	.78663E=02	.68689E=02	.14508E=01	.13058E=01	.11361E=01	
3	6	4	.53781E=01	.51016E=01	.48410E=01	.60443E=01	.56200E=01	.51343E=01	
3	6	5	.35197E=02	.32879E=02	.29441E=02	.35544E=02	.32947E=02	.29174E=02	
3	6	6	.67767E=01	.65768E=01	.62380E=01	.79390E=01	.76789E=01	.71838E=01	
3	6	7	.26170	.24562	.22098	.26426	.24611	.21897	
3	6	8	5.1050	4.9409	4.6699	5.9806	5.7689	5.3780	
3	6	9	.19780E=01	.13947E=01	.97564E=02	.17354E=01	.11525E=01	.74065E=02	
4	6	0	.31950	.00000	.81189				
4	6	1	1.3803	1.6003	1.8265	1.3827	1.6097	1.8435	
4	6	2	.30264	.41480	.58845	.31127	.43257	.61703	
4	6	3	.86552E=02	.78247E=02	.68234E=02	.14305E=01	.12867E=01	.11185E=01	
4	6	4	.52639E=01	.49847E=01	.47336E=01	.59370E=01	.55166E=01	.50472E=01	
4	6	5	.33890E=02	.31535E=02	.28132E=02	.34236E=02	.31614E=02	.27892E=02	
4	6	6	.64954E=01	.62779E=01	.59330E=01	.76054E=01	.73304E=01	.68360E=01	
4	6	7	.25144	.23511	.21076	.25398	.23568	.20895	
4	6	8	4.8814	4.7067	4.4336	5.7157	5.4959	5.1084	
4	6	9	.19801E=01	.13975E=01	.97842E=02	.17371E=01	.11547E=01	.74262E=02	
5	6	0	.16179	.00000	.87323				
5	6	1	1.3804	1.6004	1.8267	1.3828	1.6099	1.8438	
5	6	2	.30277	.41500	.58868	.31141	.43277	.61724	
5	6	3	.85689E=02	.77490E=02	.67587E=02	.14021E=01	.12612E=01	.10962E=01	
5	6	4	.51140E=01	.48344E=01	.45888E=01	.57958E=01	.53835E=01	.49301E=01	
5	6	5	.32565E=02	.30192E=02	.26842E=02	.32898E=02	.30269E=02	.26615E=02	
5	6	6	.61647E=01	.59245E=01	.55686E=01	.72169E=01	.69181E=01	.64175E=01	
5	6	7	.24143	.22495	.20096	.24387	.22550	.19925	
5	6	8	4.6291	4.4386	4.1587	5.4193	5.1831	4.7927	
5	6	9	.19868E=01	.14035E=01	.98310E=02	.17429E=01	.11596E=01	.74613E=02	
6	6	0	.38939E=01	.00000	.95652				
6	6	1	1.3803	1.6002	1.8265	1.3827	1.6097	1.8435	
6	6	2	.30265	.41483	.58848	.31129	.43260	.61705	
6	6	3	.84720E=02	.76761E=02	.67073E=02	.13758E=01	.12386E=01	.10777E=01	
6	6	4	.49736E=01	.46973E=01	.44519E=01	.56632E=01	.52618E=01	.48196E=01	
6	6	5	.31668E=02	.29311E=02	.26025E=02	.31983E=02	.29375E=02	.25793E=02	
6	6	6	.58898E=01	.56325E=01	.52683E=01	.68965E=01	.65771E=01	.60706E=01	

CROSS SECTIONS FOR 7 RADIAL REGIONS FOR THE EQUILIBRIUM 9X9 ENC RELOAD

6	6	7	.23500	.21857	.19500	.23731	.21902	.19325
6	6	8	4.4271	4.2234	3.9373	5.1839	4.9317	4.5369
6	6	9	.19048E=01	.14099E=01	.98738E=02	.17501E=01	.11649E=01	.74942E=02
7	6	0	.78770E=03	.00000	.90767			
7	6	1	1.3791	1.5986	1.8243	1.3815	1.6081	1.8412
7	6	2	.30137	.41297	.58642	.30995	.43071	.61509
7	6	3	.83656E=02	.76259E=02	.66975E=02	.13820E=01	.12473E=01	.10866E=01
7	6	4	.50333E=01	.47633E=01	.44900E=01	.57186E=01	.53200E=01	.48519E=01
7	6	5	.33425E=02	.31150E=02	.27876E=02	.33701E=02	.31152E=02	.27558E=02
7	6	6	.61426E=01	.58984E=01	.55359E=01	.72056E=01	.68858E=01	.63678E=01
7	6	7	.25016	.23410	.21042	.25219	.23408	.20800
7	6	8	4.6595	4.4582	4.1668	5.4660	5.2046	4.7930
7	6	9	.20063E=01	.14165E=01	.99061E=02	.17605E=01	.11708E=01	.75237E=02
8	6	0	.00000	.00000	.25685			
8	6	1	1.3622	1.5744	1.7923	1.3641	1.5833	1.8084
8	6	2	.30397	.42376	.62121	.31242	.44099	.65052
8	6	3	.68369E=02	.63011E=02	.55937E=02	.10503E=01	.98597E=02	.89706E=02
8	6	4	.36307E=01	.34227E=01	.32211E=01	.44061E=01	.41660E=01	.39016E=01
8	6	5	.23792E=02	.22008E=02	.19518E=02	.24105E=02	.22215E=02	.19585E=02
8	6	6	.37875E=01	.37706E=01	.37105E=01	.42022E=01	.41569E=01	.40493E=01
8	6	7	.17390	.16146	.14387	.17618	.16298	.14437
8	6	8	2.8301	2.8125	2.7616	3.1399	3.1006	3.0138
8	6	9	.21483E=01	.15367E=01	.10875E=01	.18929E=01	.12805E=01	.83769E=02

REGION=7 CROSS=SECTIONS POWER ARE ALL EDGE ASSEMBLIES 9X9 EQ

21 ASSEMBLIES

1	7	0	.38207	.00000	.84457E=01			
1	7	1	1.3627	1.5751	1.7932	1.3646	1.5840	1.8093
1	7	2	.30484	.42448	.62046	.31342	.44190	.64995
1	7	3	.70444E=02	.64831E=02	.57369E=02	.11075E=01	.10344E=01	.93541E=02
1	7	4	.39107E=01	.36849E=01	.34638E=01	.46757E=01	.44032E=01	.40998E=01
1	7	5	.24765E=02	.22982E=02	.20388E=02	.25099E=02	.23207E=02	.20465E=02
1	7	6	.42754E=01	.42294E=01	.41403E=01	.47529E=01	.46746E=01	.45321E=01
1	7	7	.18037	.16800	.14972	.18280	.16964	.15029
1	7	8	3.1741	3.1359	3.0648	3.5286	3.4660	3.3547
1	7	9	.21296E=01	.15201E=01	.10751E=01	.18757E=01	.12658E=01	.82738E=02
2	7	0	.34444	.00000	.27277			
2	7	1	1.3791	1.5986	1.8242	1.3814	1.6080	1.8411
2	7	2	.30142	.41298	.58636	.31000	.43073	.61503
2	7	3	.86000E=02	.78207E=02	.68556E=02	.14609E=01	.13168E=01	.11477E=01
2	7	4	.54093E=01	.51459E=01	.48712E=01	.60731E=01	.56589E=01	.51599E=01
2	7	5	.36729E=02	.34478E=02	.31033E=02	.37059E=02	.34507E=02	.30702E=02
2	7	6	.70462E=01	.68557E=01	.65116E=01	.82663E=01	.80033E=01	.74895E=01
2	7	7	.27465	.25890	.23407	.27712	.25910	.23157
2	7	8	5.3412	5.1779	4.8976	6.2982	6.0446	5.6331
2	7	9	.19872E=01	.14000E=01	.97833E=02	.17437E=01	.11572E=01	.74306E=02
3	7	0	.24316	.00000	.32721			
3	7	1	1.3808	1.6009	1.8274	1.3831	1.6104	1.8444
3	7	2	.30324	.41563	.58931	.31190	.43342	.61786
3	7	3	.87319E=02	.78781E=02	.68653E=02	.14397E=01	.12953E=01	.11262E=01
3	7	4	.52353E=01	.49705E=01	.47419E=01	.59108E=01	.55042E=01	.50531E=01
3	7	5	.33568E=02	.31238E=02	.27854E=02	.33955E=02	.31363E=02	.27661E=02
3	7	6	.65060E=01	.63132E=01	.59888E=01	.76117E=01	.73718E=01	.69047E=01
3	7	7	.24791	.23190	.20784	.25077	.23283	.20639
3	7	8	4.8670	4.7138	4.4588	5.6942	5.5043	5.1407
3	7	9	.19728E=01	.13922E=01	.97436E=02	.17306E=01	.11502E=01	.73936E=02
4	7	0	.10844	.00000	.33327			
4	7	1	1.3811	1.6013	1.8280	1.3835	1.6108	1.8450
4	7	2	.30351	.41605	.58981	.31218	.43384	.61833
4	7	3	.86909E=02	.78329E=02	.68159E=02	.14193E=01	.12761E=01	.11082E=01

CROSS SECTIONS FOR 7 RADIAL REGIONS FOR THE EQUILIBRIUM 9x9 ENC RELOAD

4	7	4	.51295E=01	.48591E=01	.46377E=01	.58113E=01	.54055E=01	.49685E=01
4	7	5	.32359E=02	.29980E=02	.26627E=02	.32745E=02	.30116E=02	.26458E=02
4	7	6	.62397E=01	.60245E=01	.56904E=01	.72966E=01	.70351E=01	.65635E=01
4	7	7	.23849	.22215	.19833	.24134	.22315	.19707
4	7	8	4.6576	4.49C1	4.2299	5.4465	5.2433	4.6790
4	7	9	.19755E=01	.13954E=01	.97755E=02	.17329E=01	.11527E=01	.74166E=02
5	7	0	.15153E=01	.00000	.32457			
5	7	1	1.3812	1.6015	1.8281	1.3836	1.6110	1.8452
5	7	2	.30359	.41617	.58995	.31226	.43396	.61847
5	7	3	.86005E=02	.77550E=02	.67502E=02	.13914E=01	.12509E=01	.10863E=01
5	7	4	.49898E=01	.47180E=01	.45003E=01	.56796E=01	.52804E=01	.48573E=01
5	7	5	.31139E=02	.28739E=02	.25437E=02	.31514E=02	.28873E=02	.25281E=02
5	7	6	.59307E=01	.56912E=01	.53447E=01	.69342E=01	.66460E=01	.61656E=01
5	7	7	.22936	.21283	.18937	.23212	.21383	.18820
5	7	8	4.4240	4.2394	3.9711	5.1727	4.9507	4.5811
5	7	9	.19826E=01	.14017E=01	.98242E=02	.17391E=01	.11579E=01	.74531E=02
6	7	0	.23994E=03	.00000	.32053			
6	7	1	1.3810	1.6013	1.8279	1.3834	1.6108	1.8450
6	7	2	.30348	.41600	.58975	.31215	.43379	.61828
6	7	3	.84942E=02	.76741E=02	.66933E=02	.13625E=01	.12260E=01	.10660E=01
6	7	4	.48419E=01	.45738E=01	.43563E=01	.55398E=01	.51523E=01	.47409E=01
6	7	5	.30154E=02	.27773E=02	.24544E=02	.30513E=02	.27899E=02	.24388E=02
6	7	6	.56383E=01	.53807E=01	.50253E=01	.65936E=01	.62833E=01	.57961E=01
6	7	7	.22228	.20583	.18284	.22493	.20676	.18168
6	7	8	4.2095	4.0110	3.7361	4.9228	4.6838	4.3092
6	7	9	.19915E=01	.14087E=01	.98712E=02	.17469E=01	.11637E=01	.74893E=02
7	7	0	.00000	.00000	.29613			
7	7	1	1.3798	1.5995	1.8255	1.3821	1.6090	1.8424
7	7	2	.30221	.41412	.58761	.31083	.43189	.61623
7	7	3	.83876E=02	.76272E=02	.66919E=02	.13689E=01	.12356E=01	.10786E=01
7	7	4	.48964E=01	.46411E=01	.43960E=01	.55903E=01	.52117E=01	.47747E=01
7	7	5	.31861E=02	.29602E=02	.26396E=02	.32177E=02	.29660E=02	.26150E=02
7	7	6	.58859E=01	.56505E=01	.53019E=01	.68974E=01	.65972E=01	.61043E=01
7	7	7	.23705	.22125	.19822	.23939	.22168	.19637
7	7	8	4.4376	4.2474	3.9708	5.2003	4.9590	4.5717
7	7	9	.20028E=01	.14150E=01	.98974E=02	.17573E=01	.11694E=01	.75143E=02
8	7	0	.00000	.00000	.88587E=01			
8	7	1	1.3625	1.5747	1.7928	1.3644	1.5837	1.8089
8	7	2	.30458	.42429	.62086	.31310	.44163	.65027
8	7	3	.69106E=02	.63628E=02	.56416E=02	.10602E=01	.99418E=02	.90334E=02
8	7	4	.36430E=01	.34373E=01	.32393E=01	.44184E=01	.41790E=01	.39149E=01
8	7	5	.23709E=02	.21921E=02	.19426E=02	.24025E=02	.22131E=02	.19496E=02
8	7	6	.38195E=01	.38049E=01	.37467E=01	.42423E=01	.42004E=01	.40954E=01
8	7	7	.17292	.16047	.14288	.17522	.16200	.14339
8	7	8	2.8425	2.8273	2.7789	3.1570	3.1212	3.0375
8	7	9	.21414E=01	.15310E=01	.10830E=01	.18864E=01	.12753E=01	.83383E=02

A

MMMM	M	M	MMMM		M	MMMM		M	M	M	M	M
M	M	M	M	M	M	M	M	M	M	M	M	M
M	M	M	M	M	M	M	M	M	M	M	M	M
MMMM	M	M	M	M	MMMM	M	M	MMMM	MMMM	M	M	M
M	M	M	M	M	M	M	M	M	M	M	M	M
K	M	M	M	M	M	M	M	M	M	M	M	M
MMMM	M	M	MMMM		MM	M		MM	MM	MMMM		