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REVISION NO. 002

PAGE NO. 1 OF 303

TITLE: MCGUIRE 2 CYCLE 8
CORE OPERATING LIMITS REPORT

DATE

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McGuire Nuclear Station COLR

McGuire Unit 2 Cycle 8

Core Operating Limits Report

April 1993

Revision 2

Duke Power Company

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McGuire 2 Cycle 8 Core Operating Limits Report

REVISION LOG

<u>Revision</u>	<u>Effective Date</u>	<u>Effective Pages</u>
Original Issue	21 February 1992	Pages 1 - 303
Revision 1	8 January 1993	Pages 1 -3A, 11, 12, 16, 252 - 278, and A1 - A39
Revision 2	21 April 1993	Pages 1-3A, 189-197, 270- 278, 300

McGuire 2 Cycle 8 Core Operating Limits Report

Insertion Sheet for Revision 2

Remove Pages

Pages 1 - 3A, 189-197, 270-
278 and 300

Insert Rev. 2 Pages

Pages 1 - 3A, 189-197, 270-278, and 300

TABLE 2 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-Q VALUES (F-SUB-Q OP MARGIN)

MQ (3-D) AT: 100% POWER 355 EFPD THIS IS THE 18-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.4770	1.2569	1.4772	1.1872	1.2754	1.1914	1.3029	1.4563
9 *	1.2593	1.4068	1.2161	1.3256	1.1418	1.2049	1.1762	1.5731
10 *	1.4516	1.2153	1.3639	1.2041	1.3008	1.2010	1.3249	1.4942
11 *	1.1881	1.3266	1.2845	1.3932	1.2283	1.3293	1.3457	1.8153
12 *	1.2910	1.1424	1.3008	1.2285	1.3467	1.3003	1.5913	
13 *	1.1920	1.2046	1.2009	1.3295	1.3000	1.5283	1.7979	
14 *	1.3030	1.1763	1.3249	1.3459	1.5907	1.7973		
15 *	1.4567	1.5737	1.4943	1.8154				

MC (3-D) AT: 100% POWER 355 EFPD THIS IS THE 17-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.3919	1.1679	1.3981	1.1090	1.2121	1.1026	1.1921	1.2423
9 *	1.1701	1.3163	1.1340	1.2497	1.0494	1.1214	1.0644	1.3982
10 *	1.3739	1.1332	1.2856	1.1925	1.2252	1.1052	1.2026	1.2586
11 *	1.1099	1.2507	1.1928	1.3083	1.1258	1.2207	1.1766	1.5809
12 *	1.2269	1.0499	1.2252	1.1260	1.2681	1.1458	1.4189	
13 *	1.1031	1.1210	1.1051	1.2209	1.1456	1.3745	1.5960	
14 *	1.1922	1.0645	1.2026	1.1767	1.4184	1.5954		
15 *	1.2426	1.3988	1.2587	1.5809				

TABLE 2 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-Q VALUES (F-SUB-Q OP MARGIN)

MQ (3-D) AT: 100% POWER 355 EFPD THIS IS THE 16-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A
8 *	1.4333	1.1717	1.4491	1.1216	1.2651	1.1370	1.2104	1.2180
9 *	1.1739	1.3570	1.1451	1.3043	1.0576	1.1497	1.0552	1.3978
10 *	1.4240	1.1443	1.3388	1.2361	1.2677	1.1014	1.2105	1.2303
11 *	1.1225	1.3054	1.2364	1.3539	1.1274	1.2358	1.1623	1.5715
12 *	1.2805	1.0581	1.2676	1.1275	1.3095	1.1377	1.4257	
13 *	1.1376	1.1494	1.1013	1.2360	1.1375	1.3835	1.6144	
14 *	1.2105	1.0553	1.2106	1.1625	1.4252	1.6139		
15 *	1.2183	1.3984	1.2304	1.5715				

MQ (3-D) AT: 100% POWER 355 EFPD THIS IS THE 15-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A
8 *	1.4387	1.2038	1.4384	1.1608	1.2857	1.1485	1.2091	1.1963
9 *	1.2061	1.3588	1.1763	1.3264	1.0920	1.1556	1.0781	1.3867
10 *	1.4134	1.1755	1.3566	1.2445	1.2596	1.1239	1.2020	1.2508
11 *	1.1617	1.3274	1.2449	1.3641	1.1582	1.2305	1.1670	1.5557
12 *	1.3013	1.0925	1.2595	1.1584	1.3209	1.1651	1.4204	
13 *	1.1491	1.1552	1.1238	1.2307	1.1649	1.3767	1.6211	
14 *	1.2093	1.0781	1.2020	1.1671	1.4199	1.6205		
15 *	1.1966	1.3873	1.2509	1.5557				

TABLE 2 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-Q VALUES (F-SUB-Q OP MARGIN)

MQ (3-D) AT: 100% POWER 355 EFPD THIS IS THE 14-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.4660	1.2418	1.4520	1.2171	1.3437	1.1966	1.2514	1.2278
9 *	1.2442	1.3690	1.2125	1.3727	1.1481	1.1996	1.1303	1.4311
10 *	1.4268	1.2117	1.3864	1.2678	1.2724	1.1543	1.2322	1.3083
11 *	1.2180	1.3738	1.2682	1.3807	1.2006	1.2371	1.1895	1.5851
12 *	1.3600	1.1487	1.2724	1.2007	1.3599	1.2119	1.4448	
13 *	1.1972	1.1993	1.1542	1.2373	1.2117	1.4081	1.6674	
14 *	1.2515	1.1304	1.2323	1.1897	1.4443	1.6668		
15 *	1.2281	1.4317	1.3084	1.5852				

MQ (3-D) AT: 100% POWER 355 EFPD THIS IS THE 13-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.5173	1.2717	1.5123	1.2771	1.4244	1.2696	1.3230	1.2923
9 *	1.2741	1.4189	1.2660	1.4431	1.2050	1.2669	1.1935	1.5112
10 *	1.4860	1.2652	1.4525	1.3259	1.3257	1.2030	1.2857	1.3789
11 *	1.2781	1.4443	1.3263	1.4293	1.2325	1.2713	1.2334	1.6554
12 *	1.4418	1.2057	1.3256	1.2327	1.4190	1.2496	1.4827	
13 *	1.2703	1.2665	1.2029	1.2715	1.2494	1.4487	1.7201	
14 *	1.3231	1.1936	1.2858	1.2335	1.4822	1.7196		
15 *	1.2925	1.5119	1.3790	1.6554				

TABLE 2 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-Q VALUES (F-SUB-Q OP MARGIN)

MQ (3-D) AT: 100% POWER 355 EFPD THIS IS THE 12-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.5833	1.3224	1.3920	1.3399	1.5090	1.3460	1.4001	1.3636
9 *	1.3249	1.4913	1.3251	1.5260	1.2645	1.3379	1.2532	1.5983
10 *	1.5644	1.3242	1.5331	1.3981	1.3957	1.2574	1.3517	1.4451
11 *	1.3409	1.5272	1.3985	1.5016	1.2802	1.3281	1.2850	1.7436
12 *	1.5274	1.2651	1.3956	1.2804	1.4777	1.2908	1.5487	
13 *	1.3466	1.3375	1.2572	1.3284	1.2906	1.5039	1.8000	
14 *	1.4003	1.2533	1.3518	1.2851	1.5482	1.7994		
15 *	1.3639	1.5990	1.4452	1.7436				

MQ (3-D) AT: 100% POWER 355 EFPD THIS IS THE 11-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.6757	1.3811	1.6889	1.4042	1.6026	1.4281	1.4840	1.4415
9 *	1.3837	1.5816	1.3871	1.6224	1.3250	1.4168	1.3090	1.6930
10 *	1.6596	1.3862	1.6287	1.4842	1.4804	1.3145	1.4299	1.5068
11 *	1.4053	1.6237	1.4846	1.5923	1.3363	1.4020	1.3407	1.8482
12 *	1.6221	1.3257	1.4804	1.3365	1.5625	1.3429	1.6358	
13 *	1.4289	1.4164	1.3144	1.4022	1.3426	1.5829	1.9060	
14 *	1.4842	1.3091	1.4300	1.3409	1.6352	1.9054		
15 *	1.4419	1.6937	1.5069	1.8482				

TABLE 2 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-Q VALUES (F-SUB-Q OP MARGIN)

MQ (3-D) AT: 100% POWER 355 EFPD THIS IS THE 10-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.8464	1.4507	1.8542	1.4691	1.7597	1.5701	1.6306	1.5795
9 *	1.4534	1.7399	1.4537	1.7805	1.3851	1.5521	1.3715	1.8591
10 *	1.8221	1.4527	1.7898	1.6309	1.6257	1.3743	1.5599	1.5763
11 *	1.4702	1.7819	1.6314	1.7542	1.4045	1.5398	1.4027	2.0182
12 *	1.7811	1.3858	1.6256	1.4047	1.7215	1.4083	1.7992	
13 *	1.5709	1.5517	1.3742	1.5400	1.4081	1.7371	2.1028	
14 *	1.6308	1.3716	1.5600	1.4029	1.7986	2.1021		
15 *	1.5799	1.8598	1.5764	2.0183				

MQ (3-D) AT: 100% POWER 355 EFPD THIS IS THE 9-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.8664	1.4520	1.8814	1.4789	1.8003	1.6218	1.7061	1.6763
9 *	1.4548	1.7644	1.4586	1.8128	1.4036	1.6096	1.4170	1.9674
10 *	1.8488	1.4576	1.8154	1.6632	1.6709	1.4080	1.6414	1.6403
11 *	1.4800	1.8142	1.6637	1.7935	1.4301	1.6079	1.4539	2.1466
12 *	1.8222	1.4044	1.6709	1.4303	1.7915	1.4576	1.8996	
13 *	1.6226	1.6091	1.4079	1.6082	1.4573	1.8338	2.2243	
14 *	1.7063	1.4172	1.6415	1.4541	1.8989	2.2235		
15 *	1.6767	1.9682	1.6404	2.1467				

TABLE 2 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-Q VALUES (F-SUB-Q OP MARGIN)

MQ (3-D) AT: 100% POWER 355 EFPD THIS IS THE 8-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.7929	1.3890	1.8080	1.4141	1.7243	1.5489	1.6199	1.5800
9 *	1.3916	1.6959	1.3960	1.7414	1.3398	1.5381	1.3418	1.8585
10 *	1.7766	1.3951	1.7459	1.5982	1.6060	1.3440	1.5623	1.5521
11 *	1.4152	1.7427	1.5987	1.7242	1.3686	1.5427	1.3903	2.0293
12 *	1.7453	1.3405	1.6059	1.3688	1.7224	1.3962	1.8226	
13 *	1.5496	1.5376	1.3438	1.5430	1.3960	1.7598	2.1302	
14 *	1.6200	1.3420	1.5624	1.3905	1.8220	2.1295		
15 *	1.5804	1.8593	1.5522	2.0293				

MQ (3-D) AT: 100% POWER 355 EFPD THIS IS THE 7-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.7077	1.3089	1.7005	1.3226	1.6232	1.4562	1.5222	1.4819
9 *	1.3114	1.6009	1.3079	1.6370	1.2531	1.4449	1.2557	1.7489
10 *	1.6710	1.3070	1.6423	1.5033	1.5083	1.2552	1.4647	1.4540
11 *	1.3236	1.6383	1.5038	1.6269	1.2869	1.4496	1.2972	1.9093
12 *	1.6430	1.2538	1.5083	1.2870	1.6397	1.3116	1.7069	
13 *	1.4569	1.4444	1.2551	1.4499	1.3114	1.6518	2.0011	
14 *	1.5224	1.2558	1.4648	1.2974	1.7063	2.0004		
15 *	1.4823	1.7496	1.4541	1.9093				

TABLE 2 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-Q VALUES (F-SUB-Q OP MARGIN)

MQ (3-D) AT: 100% POWER 355 EFPD THIS IS THE 6-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.5383	1.2226	1.6004	1.2396	1.5308	1.3710	1.4327	1.3919
9 *	1.2249	1.5050	1.2247	1.5421	1.1741	1.3592	1.1768	1.6483
10 *	1.5726	1.2239	1.5463	1.4129	1.4177	1.1742	1.3754	1.3644
11 *	1.2405	1.5433	1.4133	1.5277	1.2003	1.2568	1.2123	1.7998
12 *	1.5495	1.1747	1.4176	1.2004	1.5299	1.2206	1.6013	
13 *	1.3716	1.3588	1.1741	1.3570	1.2204	1.5449	1.8841	
14 *	1.4328	1.1769	1.3754	1.2124	1.6007	1.8835		
15 *	1.3922	1.6489	1.3645	1.7998				

MQ (3-D) AT: 100% POWER 355 EFPD THIS IS THE 5-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.5037	1.1468	1.5116	1.1656	1.4468	1.2931	1.3517	1.3115
9 *	1.1490	1.4195	1.1510	1.4563	1.1034	1.2815	1.1062	1.5579
10 *	1.4854	1.1502	1.4602	1.3309	1.3360	1.1021	1.2950	1.2848
11 *	1.1665	1.4575	1.3313	1.4387	1.1236	1.2739	1.1367	1.7022
12 *	1.4645	1.1039	1.3359	1.1237	1.4331	1.1402	1.5069	
13 *	1.2938	1.2811	1.1020	1.2741	1.1400	1.4504	1.7796	
14 *	1.3519	1.1063	1.2950	1.1368	1.5064	1.7790		
15 *	1.3118	1.5586	1.2849	1.7022				

TABLE 2 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-Q VALUES (F-SUB-Q OP MARGIN)

MQ (3-D) AT: 100% POWER 355 EFPD THIS IS THE 4-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A
8 *	1.4201	1.0804	1.4283	1.0977	1.3625	1.2151	1.2738	1.2395
9 *	1.0825	1.3387	1.0842	1.3718	1.0380	1.2053	1.0425	1.4751
10 *	1.4036	1.0835	1.3760	1.2502	1.2571	1.0376	1.2203	1.2162
11 *	1.0985	1.3729	1.2506	1.3534	1.0562	1.1984	1.0711	1.6169
12 *	1.3791	1.0385	1.2571	1.0564	1.3464	1.0721	1.4247	
13 *	1.2157	1.2049	1.0375	1.1986	1.0719	1.3700	1.6891	
14 *	1.2739	1.0426	1.2204	1.0713	1.4241	1.6885		
15 *	1.2398	1.4757	1.2163	1.6169				

MQ (3-D) AT: 100% POWER 355 EFPD THIS IS THE 3-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A
8 *	1.3593	1.0374	1.3676	1.0534	1.2971	1.1566	1.2202	1.2003
9 *	1.0394	1.2769	1.0405	1.3061	.9957	1.1493	1.0052	1.4242
10 *	1.3439	1.0398	1.3105	1.1866	1.1966	.9979	1.1692	1.1802
11 *	1.0542	1.3071	1.1869	1.2863	1.0120	1.1440	1.0311	1.5664
12 *	1.3129	.9962	1.1965	1.0122	1.2780	1.0277	1.3677	
13 *	1.1571	1.1490	.9978	1.1442	1.0276	1.3136	1.6248	
14 *	1.2203	1.0053	1.1693	1.0312	1.3672	1.6243		
15 *	1.2006	1.4248	1.1803	1.5664				

TABLE 2 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-Q VALUES (F-SUB-Q OP MARGIN)

MQ (3-D) AT: 100% POWER 355 EFPD THIS IS THE 2-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.3768	1.0717	1.3841	1.0857	1.2988	1.1653	1.2443	1.2639
9 *	1.0737	1.2862	1.0730	1.3102	1.0263	1.1613	1.0482	1.4783
10 *	1.3601	1.0723	1.3153	1.1895	1.2009	1.0350	1.1962	1.2489
11 *	1.0865	1.3113	1.1899	1.2881	1.0437	1.1631	1.0764	1.6384
12 *	1.3146	1.0268	1.2008	1.0439	1.2807	1.0664	1.4103	
13 *	1.1659	1.1609	1.0349	1.1633	1.0662	1.3507	1.6777	
14 *	1.2444	1.0483	1.1963	1.0765	1.4098	1.6771		
15 *	1.2642	1.4789	1.2490	1.6385				

MQ (3-D) AT: 100% POWER 355 EFPD THIS IS THE 1-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.7451	1.3664	1.7526	1.3785	1.6238	1.4907	1.6143	1.7630
9 *	1.3690	1.6257	1.3648	1.6480	1.3237	1.4795	1.3727	1.9845
10 *	1.7222	1.3639	1.6589	1.5110	1.5041	1.3327	1.5600	1.7615
11 *	1.3795	1.6493	1.5115	1.6146	1.3463	1.4988	1.4588	2.2445
12 *	1.6436	1.3244	1.5041	1.3465	1.6050	1.4345	1.8836	
13 *	1.4914	1.4790	1.3325	1.4991	1.4343	1.7879	2.2597	
14 *	1.6144	1.3729	1.5601	1.4589	1.8830	2.2589		
15 *	1.7634	1.9853	1.7616	2.2445				

TABLE 3 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-C VALUES (F-SUB-Q RPS MARGIN)

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 18-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A
8 *	1.9953	1.6992	1.8928	1.5319	1.6557	1.5542	1.7006	1.8878
9 *	1.7025	1.8490	1.5577	1.7102	1.4788	1.5682	1.5317	2.0268
10 *	1.8600	1.5566	1.7510	1.6476	1.6692	1.5468	1.7112	1.9141
11 *	1.5331	1.7116	1.6481	1.8552	1.6560	1.7920	1.7207	2.2881
12 *	1.6759	1.4796	1.6691	1.6563	1.8048	1.7413	2.1093	
13 *	1.5549	1.5677	1.5466	1.7923	1.7410	2.0265	2.3474	
14 *	1.7008	1.5318	1.7113	1.7209	2.1085	1.3466		
15 *	1.8883	2.0276	1.9142	2.2882				

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 17-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A
8 *	1.5519	1.3047	1.4756	1.1765	1.2927	1.1788	1.2743	1.3178
9 *	1.3072	1.4303	1.1954	1.3260	1.1162	1.1962	1.1355	1.4771
10 *	1.4500	1.1946	1.3584	1.2576	1.2920	1.1686	1.2720	1.3196
11 *	1.1774	1.3271	1.2579	1.4382	1.2503	1.3531	1.2298	1.6366
12 *	1.3084	1.1168	1.2919	1.2505	1.3950	1.2583	1.5466	
13 *	1.1794	1.1958	1.1685	1.3533	1.2581	1.4968	1.7157	
14 *	1.2744	1.1356	1.2721	1.2299	1.5461	1.7152		
15 *	1.3181	1.4777	1.3197	1.6366				

TABLE 3 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-C VALUES (F-SUB-Q RPS MARGIN)

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 16-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.5292	1.2450	1.4604	1.1262	1.2838	1.1530	1.2255	1.2225
9 *	1.2474	1.4155	1.1439	1.3190	1.0631	1.1630	1.0606	1.4006
10 *	1.4350	1.1431	1.3495	1.2417	1.2722	1.0995	1.2130	1.2156
11 *	1.1271	1.3200	1.2420	1.4269	1.1867	1.3038	1.1446	1.5466
12 *	1.2994	1.0637	1.2722	1.1868	1.3699	1.1799	1.4791	
13 *	1.1535	1.1627	1.0994	1.3040	1.1797	1.4322	1.6548	
14 *	1.2257	1.0607	1.2130	1.1447	1.4785	1.6542		
15 *	1.2228	1.4011	1.2157	1.5467				

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 15-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.6121	1.7891	1.5498	1.1720	1.3652	1.2137	1.2728	1.2458
9 *	1.2916	1.5039	1.1909	1.4070	1.1012	1.2180	1.0818	1.4452
10 *	1.5229	1.1901	1.4383	1.3202	1.3452	1.1275	1.2531	1.2340
11 *	1.1729	1.4081	1.3206	1.5195	1.2236	1.3546	1.1675	1.5981
12 *	1.3818	1.1018	1.3451	1.2238	1.4418	1.2080	1.5368	
13 *	1.2143	1.2176	1.1274	1.3549	1.2078	1.4852	1.7358	
14 *	1.2729	1.0819	1.2531	1.1676	1.5363	1.7352		
15 *	1.2461	1.4458	1.2341	1.5981				

TABLE 3 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-C VALUES (F-SUB-Q RPS MARGIN)

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 14-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.7121	1.3115	1.6157	1.2667	1.4950	1.3183	1.3679	1.3234
9 *	1.3140	1.5494	1.2842	1.5456	1.1856	1.3185	1.1496	1.5479
10 *	1.6172	1.2833	1.5718	1.4375	1.4427	1.2048	1.3428	1.3081
11 *	1.2677	1.5469	1.4379	1.5608	1.2737	1.4016	1.2419	1.7162
12 *	1.5132	1.1862	1.4427	1.2739	1.5659	1.2870	1.6296	
13 *	1.3190	1.3181	1.2047	1.4018	1.2867	1.5952	1.8708	
14 *	1.3680	1.1497	1.3428	1.2420	1.6290	1.8702		
15 *	1.3237	1.5485	1.3082	1.7162				

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 13-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.7690	1.3747	1.7692	1.3850	1.6691	1.4639	1.5052	1.4426
9 *	1.3773	1.6579	1.3715	1.6895	1.3063	1.4606	1.2542	1.6977
10 *	1.7385	1.3706	1.6999	1.5492	1.5456	1.2999	1.4743	1.4234
11 *	1.3861	1.6908	1.5497	1.6639	1.3258	1.4737	1.3265	1.8830
12 *	1.6894	1.3069	1.5456	1.3260	1.6384	1.3376	1.7089	
13 *	1.4646	1.4601	1.2998	1.4739	1.3374	1.6659	1.9676	
14 *	1.5053	1.2543	1.4744	1.3266	1.7083	1.9670		
15 *	1.4429	1.6984	1.4235	1.8830				

TABLE 3 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-C VALUES (F-SUB-Q RPS MARGIN)

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 12-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.9463	1.5031	1.9608	1.5254	1.8570	1.6562	1.6912	1.6062
9 *	1.5059	1.8353	1.5084	1.8792	1.4359	1.6370	1.3966	1.8994
10 *	1.9268	1.5074	1.8897	1.7181	1.7071	1.4183	1.6316	1.5738
11 *	1.5265	1.8806	1.7186	1.8368	1.4406	1.6066	1.4361	2.0761
12 *	1.8796	1.4366	1.7070	1.4408	1.7852	1.4386	1.8568	
13 *	1.6571	1.6364	1.4181	1.6068	1.4383	1.8004	2.1426	
14 *	1.6914	1.3967	1.6317	1.4363	1.8562	2.1419		
15 *	1.6065	1.9001	1.5739	2.0761				

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 11-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	2.2134	1.6948	2.2323	1.7200	2.1034	1.8695	1.9310	1.8228
9 *	1.6981	2.0900	1.7038	2.1376	1.6150	1.8444	1.5771	2.1569
10 *	2.1936	1.7027	2.1560	1.9565	1.9373	1.5892	1.8382	1.7663
11 *	1.7213	2.1393	1.9571	2.0872	1.6153	1.8047	1.5978	2.3326
12 *	2.1290	1.6158	1.9372	1.6155	2.0136	1.5992	2.0770	
13 *	1.8704	1.8438	1.5890	1.8050	1.5990	2.0090	2.4016	
14 *	1.9312	1.5772	1.8383	1.5980	2.0763	2.4009		
15 *	1.8232	2.1578	1.7665	2.3327				

TABLE 3 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-C VALUES (F-SUB-Q RPS MARGIN)

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 10-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	2.5524	1.9419	2.5632	1.9611	2.4206	2.1429	2.1964	2.0932
9 *	1.9456	2.4071	1.9451	2.4582	1.8385	2.1100	1.7887	2.4642
10 *	2.5188	1.9437	2.4771	2.2498	2.2225	1.8020	2.0831	2.0206
11 *	1.9626	2.4602	2.2505	2.4066	1.8484	2.0661	1.8073	2.6424
12 *	2.4500	1.8395	2.2224	1.8487	2.3255	1.8242	2.3722	
13 *	2.1440	2.1093	1.8018	2.0665	1.8238	2.2992	2.7533	
14 *	2.1966	1.7889	2.0833	1.8075	2.3714	2.7524		
15 *	2.0937	2.4652	2.0208	2.6424				

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 9-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	2.5658	2.0121	2.5864	2.0504	2.4867	2.2498	2.3464	2.2662
9 *	2.0159	2.4286	2.0201	2.4981	1.9499	2.2312	1.9438	2.6710
10 *	2.5416	2.0188	2.4975	2.2983	2.3138	1.9439	2.2510	2.2032
11 *	2.0519	2.5001	2.2989	2.4763	1.9791	2.2169	1.9741	2.8853
12 *	2.5170	1.9509	2.3137	1.9794	2.4771	1.9893	2.5809	
13 *	2.2509	2.2305	1.9437	2.2173	1.9890	2.4993	3.0009	
14 *	2.3467	1.9439	2.2511	1.9743	2.5800	2.9999		
15 *	2.2667	2.6721	2.2033	2.8853				

TABLE 3 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-C VALUES (F-SUB-Q RPS MARGIN)

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 8-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

*								
8 *	2.4151	1.8848	2.4349	1.9216	2.3410	2.1204	2.2111	2.1214
*								
9 *	1.8884	2.2868	1.8930	2.3529	1.8297	2.1093	1.8325	2.4955
*								
10 *	2.3926	1.8917	2.3521	2.1622	2.1766	1.8405	2.1383	2.0795
*								
11 *	1.9230	2.3548	2.1628	2.3305	1.8648	2.1083	1.8908	2.7190
*								
12 *	2.3696	1.8306	2.1765	1.8651	2.3374	1.9042	2.4734	
*								
13 *	2.1214	2.1087	1.8403	2.1086	1.9039	2.3872	2.8673	
*								
14 *	2.2114	1.8326	2.1384	1.8910	2.4725	2.8663		
*								
15 *	2.1219	2.4965	2.0796	2.7191				

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 7-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

*								
8 *	2.2380	1.7271	2.2108	1.7364	2.1124	1.9075	1.9756	1.8936
*								
9 *	1.7304	2.0879	1.7182	2.1285	1.6506	1.8955	1.6333	2.2322
*								
10 *	2.1724	1.7171	2.1347	1.9657	1.9764	1.6521	1.9063	1.8522
*								
11 *	1.7377	2.1302	1.9663	2.1286	1.7071	1.9128	1.6892	2.4267
*								
12 *	2.1381	1.6514	1.9763	1.7074	2.1737	1.7323	2.2144	
*								
13 *	1.9084	1.8949	1.6519	1.9131	1.7320	2.1613	2.5677	
*								
14 *	1.9759	1.6335	1.9065	1.6894	2.2136	2.5669		
*								
15 *	1.8940	2.2331	1.8524	2.4268				

TABLE 3 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-C VALUES (F-SUB-Q RPS MARGIN)

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 6-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A
8 *	1.9787	1.5269	1.9730	1.5426	1.8897	1.7067	1.7732	1.6968
9 *	1.5298	1.8602	1.5247	1.9017	1.4656	1.6961	1.4588	2.0080
10 *	1.9388	1.5237	1.9058	1.7506	1.7601	1.4702	1.7044	1.6567
11 *	1.5438	1.9032	1.7511	1.8930	1.5061	1.6964	1.5001	2.1807
12 *	1.9127	1.4664	1.7600	1.5064	1.9131	1.5230	1.9723	
13 *	1.7075	1.6956	1.4700	1.6967	1.5227	1.9116	2.2960	
14 *	1.7734	1.4589	1.7045	1.5002	1.9716	2.2952		
15 *	1.6972	2.0088	1.6568	2.1807				

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 5-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A
8 *	1.7701	1.3616	1.7758	1.3809	1.7023	1.5329	1.5998	1.5327
9 *	1.3642	1.6708	1.3637	1.7115	1.3109	1.5223	1.3113	1.8208
10 *	1.7451	1.3628	1.7146	1.5700	1.5790	1.3130	1.5316	1.4948
11 *	1.3819	1.7128	1.5704	1.6965	1.3394	1.5126	1.3400	1.9775
12 *	1.7230	1.3115	1.5790	1.3396	1.7010	1.3496	1.7665	
13 *	1.5337	1.5219	1.3129	1.5129	1.3493	1.7053	2.0685	
14 *	1.6000	1.3114	1.5317	1.3402	1.7659	2.0679		
15 *	1.5330	1.8215	1.4949	1.9775				

TABLE 3 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-C VALUES (F-SUB-Q RPS MARGIN)

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 4-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.6107	1.2335	1.6197	1.2530	1.5495	1.3911	1.4550	1.3977
9 *	1.2359	1.5198	1.2369	1.5572	1.1882	1.3816	1.1903	1.6646
10 *	1.5916	1.2361	1.5603	1.4231	1.4334	1.1902	1.3908	1.3646
11 *	1.2539	1.5585	1.4235	1.5390	1.2100	1.3697	1.2135	1.8118
12 *	1.5683	1.1888	1.4333	1.2102	1.5363	1.2177	1.6061	
13 *	1.3918	1.3811	1.1900	1.3700	1.2175	1.5476	1.8896	
14 *	1.4551	1.1904	1.3909	1.2136	1.6055	1.8889		
15 *	1.3980	1.6652	1.3647	1.8118				

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 3-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.5039	1.1524	1.5128	1.1701	1.4384	1.2893	1.3575	1.3179
9 *	1.1546	1.4139	1.1552	1.4462	1.1086	1.2825	1.1168	1.5665
10 *	1.4865	1.1544	1.4498	1.3166	1.3296	1.1139	1.2979	1.2898
11 *	1.1710	1.4474	1.3170	1.4263	1.1274	1.2741	1.1369	1.7124
12 *	1.4559	1.1092	1.3296	1.1275	1.4205	1.1365	1.5039	
13 *	1.2900	1.2821	1.1138	1.2743	1.1363	1.4472	1.7755	
14 *	1.3577	1.1169	1.2979	1.1370	1.5033	1.7749		
15 *	1.3182	1.5671	1.2899	1.7125				

TABLE 3 (cont.)

CORE OPERATING LIMITS REPORT

M-SUB-C VALUES (F-SUB-Q RPS MARGIN)

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 2-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.4938	1.1643	1.5016	1.1798	1.4123	1.2719	1.3550	1.3592
9 *	1.1665	1.3963	1.1654	1.4230	1.1174	1.2684	1.1394	1.5932
10 *	1.4756	1.1646	1.4273	1.2936	1.3076	1.1291	1.2997	1.3375
11 *	1.1807	1.4241	1.2940	1.4003	1.1367	1.2681	1.1615	1.7570
12 *	1.4295	1.1179	1.3075	1.1369	1.3943	1.1540	1.5200	
13 *	1.2725	1.2680	1.1290	1.2683	1.1538	1.4583	1.7995	
14 *	1.3552	1.1395	1.2998	1.1616	1.5195	1.7089		
15 *	1.3595	1.5939	1.3376	1.7570				

MC (3-D) AT: 118% POWER 355 EFPD THIS IS THE 1-TH LEVEL OF 18

WHERE: LEVEL 18 = TOP OF CORE
LEVEL 1 = BOTTOM OF CORE

	H	G	F	E	D	C	B	A

8 *	1.8678	1.4611	1.8759	1.4747	1.7414	1.6019	1.7282	1.8683
9 *	1.4639	1.7407	1.4593	1.7654	1.4184	1.5908	1.4641	2.1062
10 *	1.8434	1.4583	1.7757	1.6191	1.6143	1.4276	1.6664	1.8597
11 *	1.4758	1.7668	1.6196	1.7307	1.4429	1.6061	1.5484	2.3727
12 *	1.7626	1.4191	1.6142	1.4431	1.7221	1.5262	1.9993	
13 *	1.6027	1.5903	1.4275	1.6064	1.5259	1.9002	2.3899	
14 *	1.7284	1.4643	1.6664	1.5485	1.9986	2.3891		
15 *	1.8687	2.1071	1.8598	2.3727				

TABLE 6 (cont.)

CORE OPERATING LIMITS REPORT

M-DELTA-H VALUES (F-DELTA-H MARGIN)

MH (2-D) AT: 100% POWER 355 EFPD

	H	G	F	E	D	C	B	A
8 *	1.4202	1.1289	1.4396	1.1087	1.2945	1.1599	1.2227	1.2162
9 *	1.1311	1.3435	1.1192	1.3266	1.0453	1.1624	1.0386	1.4085
10 *	1.4147	1.1185	1.3518	1.2416	1.2582	1.0666	1.2016	1.2095
11 *	1.1095	1.3277	1.2420	1.3459	1.0921	1.2131	1.1141	1.5660
12 *	1.3103	1.0458	1.2582	1.0922	1.3114	1.1049	1.4189	
13 *	1.1605	1.1620	1.0665	1.2133	1.1047	1.3707	1.6365	
14 *	1.2228	1.0387	1.2017	1.1142	1.4184	1.6359		
15 *	1.2165	1.4091	1.2096	1.5660				

MH (2-D) AT: 75% POWER 355 EFPD

	H	G	F	E	D	C	B	A
8 *	1.6793	1.3252	1.6823	1.3070	1.4849	1.3446	1.4142	1.4094
9 *	1.3278	1.5629	1.3311	1.5344	1.2118	1.3444	1.1992	1.6421
10 *	1.6532	1.3302	1.5748	1.4432	1.4497	1.2201	1.3685	1.3752
11 *	1.3080	1.5356	1.4436	1.5479	1.2598	1.3936	1.2541	1.7781
12 *	1.5030	1.2124	1.4496	1.2600	1.4804	1.2580	1.6385	
13 *	1.3452	1.3440	1.2200	1.3939	1.2578	1.5794	1.9118	
14 *	1.4144	1.1993	1.3685	1.2542	1.6379	1.9111		
15 *	1.4097	1.6428	1.3752	1.7781				