

Table 4-91. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J4

Assembly Number J4									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.041	608.3	0.7396	0.620	628.2	0.7396
2	0.000		0.7396	0.137	736.8	0.7396	2.033	810.9	0.7396
3	0.000		0.7396	0.191	818.5	0.7396	2.778	924.0	0.7396
4	0.000		0.7388	0.228	828.6	0.7388	3.235	928.7	0.7179
5	0.000		0.7158	0.252	862.9	0.7158	3.462	960.8	0.6808
6	0.000	Data Not	0.6834	0.268	886.6	0.6834	3.577	976.9	0.6362
7	0.000	Required	0.6445	0.282	907.9	0.6445	3.652	986.9	0.5889
8	0.000		0.6014	0.300	936.1	0.6014	3.723	995.7	0.5426
9	0.000		0.5549	0.336	995.4	0.5549	3.923	1023.5	0.4991
10	0.000		0.5090	0.355	1028.3	0.5090	3.939	1023.0	0.4597
11	0.000		0.4674	0.365	1046.1	0.4674	3.911	1016.5	0.4256
12	0.000		0.4312	0.363	1042.5	0.4312	3.854	1007.1	0.3962
13	0.000		0.4004	0.354	1026.5	0.4004	3.777	995.7	0.3708
14	0.000		0.3743	0.341	1004.0	0.3743	3.682	982.1	0.3487
15	0.000		0.3520	0.326	978.6	0.3520	3.561	964.8	0.3294
16	0.000		0.3331	0.310	952.2	0.3331	3.415	944.1	0.3125
17	0.000		0.3170	0.291	921.9	0.3170	3.236	919.2	0.2979
18	0.000		0.3032	0.269	888.1	0.3032	3.011	888.6	0.2853
19	0.000		0.2917	0.242	848.4	0.2917	2.725	851.1	0.2746
20	0.000		0.2823	0.201	791.7	0.2823	2.286	796.7	0.2659
21	0.000		0.2749	0.165	745.1	0.2749	1.877	749.0	0.2590
22	0.000		0.2693	0.130	702.4	0.2693	1.472	704.5	0.2537
23	0.000		0.2659	0.054	617.4	0.2659	0.625	619.6	0.2504
24	0.000		0.2643	0.032	594.5	0.2643	0.369	595.6	0.2489

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.224	625.5	0.7396	1.824	632.7	0.7396	2.191	631.5	0.7396
2	4.048	805.3	0.7396	6.134	849.0	0.7396	7.428	848.5	0.7396
3	5.655	935.7	0.7396	8.689	1018.8	0.7395	10.503	926.5	0.7392
4	6.709	960.0	0.7158	10.319	1043.2	0.7092	12.367	988.3	0.7088
5	7.262	1009.7	0.6762	11.097	1084.6	0.6652	13.199	1003.2	0.6649
6	7.534	1034.6	0.6284	11.405	1091.4	0.6142	13.511	1004.3	0.6143
7	7.676	1045.4	0.5782	11.520	1086.3	0.5626	13.630	1005.4	0.5631
8	7.776	1050.1	0.5300	11.591	1080.8	0.5146	13.722	1011.3	0.5154
9	8.083	1067.8	0.4861	11.969	1094.2	0.4717	14.183	1034.8	0.4726
10	8.056	1060.6	0.4470	11.917	1089.5	0.4337	14.164	1044.4	0.4347
11	7.952	1048.2	0.4136	11.782	1083.6	0.4011	14.060	1053.4	0.4023
12	7.805	1033.6	0.3850	11.602	1077.5	0.3732	13.906	1061.0	0.3741
13	7.646	1020.6	0.3603	11.411	1071.5	0.3490	13.739	1068.1	0.3497
14	7.489	1010.8	0.3388	11.214	1064.2	0.3279	13.561	1073.8	0.3284
15	7.314	1002.4	0.3199	10.976	1052.6	0.3093	13.334	1077.1	0.3096
16	7.087	989.9	0.3033	10.650	1034.8	0.2931	13.004	1075.9	0.2931
17	6.764	968.1	0.2889	10.185	1009.8	0.2788	12.508	1066.7	0.2784
18	6.320	935.9	0.2764	9.540	975.5	0.2664	11.787	1044.4	0.2657
19	5.737	894.1	0.2658	8.683	930.7	0.2559	10.793	1005.4	0.2548
20	4.839	833.3	0.2570	7.364	866.1	0.2471	9.218	936.7	0.2458
21	3.968	776.5	0.2502	6.041	802.0	0.2403	7.593	862.1	0.2387
22	3.092	722.6	0.2449	4.688	739.7	0.2352	5.893	784.0	0.2332
23	1.324	627.4	0.2416	2.017	634.3	0.2318	2.537	650.1	0.2298
24	0.769	598.9	0.2402	1.162	602.3	0.2306	1.454	610.4	0.2285

Table 4-91. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J4

Assembly Number J4						
Node No.	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.681	623.2	0.7396	3.170	609.6	0.7396
2	9.249	827.4	0.7396	11.013	758.1	0.7396
3	13.058	963.1	0.7396	15.341	826.7	0.7396
4	15.247	953.7	0.7103	17.721	807.3	0.7141
5	16.176	970.9	0.6675	18.723	815.9	0.6744
6	16.489	971.0	0.6180	19.088	822.1	0.6282
7	16.579	965.9	0.5676	19.228	828.1	0.5810
8	16.640	960.4	0.5205	19.343	834.6	0.5362
9	17.142	967.7	0.4782	19.955	848.1	0.4953
10	17.091	962.0	0.4407	19.929	851.2	0.4586
11	16.948	955.1	0.4084	19.789	851.5	0.4264
12	16.756	948.4	0.3805	19.588	850.4	0.3983
13	16.555	942.5	0.3562	19.371	848.4	0.3737
14	16.350	937.9	0.3350	19.149	846.3	0.3521
15	16.103	934.4	0.3162	18.890	844.9	0.3329
16	15.751	930.7	0.2997	18.529	843.8	0.3161
17	15.210	923.0	0.2851	17.976	842.3	0.3013
18	14.395	907.2	0.2723	17.129	838.4	0.2885
19	13.232	879.6	0.2614	15.891	829.3	0.2777
20	11.344	830.7	0.2522	13.790	804.1	0.2689
21	9.343	775.7	0.2449	11.476	768.4	0.2619
22	7.206	716.4	0.2392	8.867	717.6	0.2558
23	3.078	622.1	0.2356	3.760	622.3	0.2513
24	1.742	593.5	0.2338	2.094	592.7	0.2483

Table 4-92. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J5

Assembly Number J5									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.047	615.8	0.7396	0.572	621.5	0.7396
2	0.000		0.7396	0.158	767.7	0.7396	1.898	787.2	0.7396
3	0.000		0.7396	0.220	865.5	0.7396	2.629	893.6	0.7396
4	0.000		0.7306	0.262	877.7	0.7306	3.106	903.8	0.7237
5	0.000		0.7010	0.285	912.6	0.7010	3.366	940.3	0.6896
6	0.000	Data Not	0.6621	0.300	936.1	0.6621	3.510	960.8	0.6469
7	0.000	Required	0.6178	0.309	950.6	0.6178	3.602	974.2	0.6000
8	0.000		0.5716	0.317	963.7	0.5716	3.678	985.4	0.5527
9	0.000		0.5263	0.337	997.1	0.5263	3.874	1015.0	0.5079
10	0.000		0.4848	0.338	998.8	0.4848	3.880	1015.8	0.4674
11	0.000		0.4488	0.334	992.0	0.4488	3.835	1008.8	0.4325
12	0.000		0.4181	0.327	980.2	0.4181	3.759	997.2	0.4027
13	0.000		0.3917	0.318	965.3	0.3917	3.668	983.6	0.3769
14	0.000		0.3687	0.309	950.6	0.3687	3.568	968.7	0.3547
15	0.000		0.3489	0.299	934.6	0.3489	3.465	953.7	0.3354
16	0.000		0.3316	0.289	918.8	0.3316	3.353	937.6	0.3185
17	0.000		0.3163	0.278	901.8	0.3163	3.221	918.9	0.3038
18	0.000		0.3031	0.264	880.6	0.3031	3.044	894.2	0.2908
19	0.000		0.2915	0.243	849.9	0.2915	2.797	861.2	0.2797
20	0.000		0.2820	0.206	798.4	0.2820	2.374	807.8	0.2704
21	0.000		0.2745	0.170	751.4	0.2745	1.963	759.1	0.2631
22	0.000		0.2686	0.135	708.3	0.2686	1.547	712.7	0.2575
23	0.000		0.2651	0.057	620.6	0.2651	0.661	623.1	0.2539
24	0.000		0.2634	0.034	596.5	0.2634	0.390	597.5	0.2524

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.253	634.4	0.7396	1.972	648.2	0.7396	2.426	649.7	0.7396
2	4.195	846.0	0.7396	6.724	924.9	0.7396	8.336	936.6	0.7396
3	5.939	1008.3	0.7396	9.590	1145.5	0.7348	11.799	1033.4	0.7335
4	7.113	1042.7	0.7103	11.358	1164.4	0.6975	13.771	1093.7	0.6950
5	7.729	1102.0	0.6657	12.110	1192.2	0.6457	14.528	1095.2	0.6426
6	8.008	1125.5	0.6133	12.323	1178.6	0.5893	14.703	1083.7	0.5860
7	8.126	1130.1	0.5604	12.334	1157.0	0.5354	14.689	1076.2	0.5323
8	8.192	1128.3	0.5114	12.313	1139.6	0.4876	14.668	1076.2	0.4848
9	8.470	1142.8	0.4679	12.622	1145.8	0.4461	15.052	1098.9	0.4435
10	8.396	1128.6	0.4297	12.493	1134.9	0.4096	14.951	1107.5	0.4074
11	8.233	1108.1	0.3972	12.279	1124.9	0.3786	14.767	1116.8	0.3764
12	8.016	1084.0	0.3696	12.011	1115.0	0.3521	14.532	1127.1	0.3499
13	7.771	1058.3	0.3460	11.715	1105.2	0.3293	14.270	1137.9	0.3269
14	7.511	1032.4	0.3258	11.393	1093.4	0.3096	13.976	1146.8	0.3070
15	7.239	1005.6	0.3084	11.033	1076.9	0.2925	13.632	1151.9	0.2896
16	6.944	977.6	0.2933	10.612	1053.7	0.2777	13.208	1151.0	0.2744
17	6.600	946.1	0.2802	10.099	1023.4	0.2648	12.655	1138.2	0.2611
18	6.164	909.1	0.2689	9.439	984.7	0.2537	11.900	1108.4	0.2495
19	5.597	865.4	0.2592	8.579	936.5	0.2442	10.876	1059.0	0.2396
20	4.719	807.2	0.2511	7.262	868.8	0.2362	9.269	977.2	0.2311
21	3.867	754.6	0.2448	5.947	803.0	0.2301	7.619	891.0	0.2247
22	3.017	706.2	0.2400	4.619	740.4	0.2254	5.916	804.0	0.2199
23	1.297	621.3	0.2368	1.996	634.9	0.2223	2.561	658.2	0.2166
24	0.758	595.9	0.2356	1.159	603.1	0.2212	1.481	615.5	0.2155

Table 4-92. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J5

Assembly Number J5						
Node No.	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.719	596.8	0.7396	3.513	642.8	0.7396
2	9.441	711.6	0.7396	12.288	907.5	0.7396
3	13.364	750.0	0.7361	17.008	957.3	0.7340
4	15.589	785.4	0.7014	19.516	997.9	0.6981
5	16.509	809.0	0.6539	20.508	1008.5	0.6502
6	16.810	827.8	0.6022	20.845	1013.9	0.5988
7	16.898	843.4	0.5526	20.930	1013.4	0.5498
8	16.966	857.2	0.5078	20.988	1011.9	0.5055
9	17.457	874.1	0.4676	21.550	1022.6	0.4660
10	17.383	878.5	0.4316	21.446	1018.1	0.4305
11	17.194	877.7	0.4002	21.207	1010.6	0.3994
12	16.933	873.5	0.3729	20.885	1001.6	0.3725
13	16.634	867.6	0.3491	20.515	991.2	0.3490
14	16.294	860.3	0.3284	20.098	980.1	0.3284
15	15.895	851.7	0.3102	19.615	968.1	0.3104
16	15.405	841.5	0.2943	19.031	954.8	0.2948
17	14.765	828.3	0.2805	18.277	939.0	0.2809
18	13.888	810.1	0.2683	17.248	918.4	0.2687
19	12.690	784.8	0.2578	15.837	890.3	0.2582
20	10.819	748.0	0.2491	13.595	843.5	0.2493
21	8.869	708.3	0.2420	11.189	789.5	0.2420
22	6.833	666.5	0.2361	8.594	728.1	0.2361
23	2.924	601.9	0.2316	3.658	627.1	0.2316
24	1.668	582.3	0.2290	2.066	596.8	0.2290

Table 4-93. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J6

Assembly Number J6									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.042	609.6	0.7396	0.560	620.6	0.7396
2	0.000		0.7396	0.141	742.6	0.7396	1.835	780.3	0.7396
3	0.000		0.7396	0.195	824.8	0.7396	2.517	879.0	0.7396
4	0.000		0.7382	0.233	835.6	0.7382	2.964	887.0	0.7266
5	0.000		0.7146	0.256	868.8	0.7146	3.222	922.4	0.6950
6	0.000	Data Not	0.6815	0.273	894.2	0.6815	3.380	944.4	0.6548
7	0.000	Required	0.6418	0.288	917.2	0.6418	3.494	960.1	0.6100
8	0.000		0.5982	0.302	939.3	0.5982	3.595	974.2	0.5638
9	0.000		0.5524	0.329	983.6	0.5524	3.812	1005.8	0.5189
10	0.000		0.5084	0.336	995.4	0.5084	3.838	1009.0	0.4778
11	0.000		0.4695	0.338	998.8	0.4695	3.811	1004.1	0.4421
12	0.000		0.4357	0.334	992.0	0.4357	3.748	994.2	0.4113
13	0.000		0.4068	0.326	978.6	0.4068	3.663	981.5	0.3848
14	0.000		0.3820	0.316	962.0	0.3820	3.562	966.6	0.3619
15	0.000		0.3605	0.304	942.5	0.3605	3.443	949.4	0.3419
16	0.000		0.3420	0.290	920.4	0.3420	3.304	929.8	0.3247
17	0.000		0.3261	0.274	895.7	0.3261	3.134	906.2	0.3097
18	0.000		0.3125	0.255	867.3	0.3125	2.918	877.0	0.2968
19	0.000		0.3009	0.230	831.4	0.3009	2.642	841.1	0.2858
20	0.000		0.2915	0.192	779.8	0.2915	2.217	788.9	0.2768
21	0.000		0.2840	0.159	737.6	0.2840	1.824	743.2	0.2697
22	0.000		0.2782	0.126	697.7	0.2782	1.438	701.0	0.2642
23	0.000		0.2747	0.053	616.4	0.2747	0.615	618.7	0.2608
24	0.000		0.2730	0.032	594.5	0.2730	0.364	595.1	0.2593

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.187	628.1	0.7396	1.848	640.6	0.7396	2.266	642.1	0.7396
2	3.928	816.4	0.7396	6.232	885.6	0.7396	7.714	899.6	0.7396
3	5.517	955.8	0.7396	8.874	1083.4	0.7381	10.948	995.4	0.7369
4	6.618	987.1	0.7172	10.606	1113.7	0.7054	12.926	1065.8	0.7029
5	7.253	1046.6	0.6777	11.459	1156.5	0.6585	13.812	1075.6	0.6551
6	7.600	1077.8	0.6292	11.808	1157.0	0.6050	14.134	1067.6	0.6013
7	7.796	1091.6	0.5781	11.940	1144.2	0.5522	14.243	1060.7	0.5485
8	7.930	1097.2	0.5291	12.013	1132.2	0.5039	14.317	1061.0	0.5005
9	8.258	1116.4	0.4846	12.388	1141.4	0.4611	14.766	1083.1	0.4582
10	8.231	1107.2	0.4450	12.312	1131.8	0.4234	14.716	1091.0	0.4208
11	8.109	1090.9	0.4111	12.142	1122.4	0.3911	14.575	1099.8	0.3886
12	7.928	1071.1	0.3822	11.910	1112.5	0.3634	14.372	1108.7	0.3610
13	7.716	1050.1	0.3575	11.645	1102.4	0.3395	14.136	1117.7	0.3371
14	7.483	1028.8	0.3362	11.347	1090.0	0.3189	13.861	1124.9	0.3163
15	7.225	1006.9	0.3177	11.000	1073.4	0.3009	13.527	1129.0	0.2981
16	6.926	982.3	0.3016	10.577	1050.6	0.2854	13.097	1126.8	0.2822
17	6.559	952.8	0.2877	10.041	1020.5	0.2718	12.520	1114.0	0.2683
18	6.092	916.6	0.2758	9.344	980.9	0.2602	11.730	1085.5	0.2563
19	5.498	872.9	0.2657	8.448	931.3	0.2503	10.674	1038.3	0.2460
20	4.614	813.6	0.2574	7.120	863.3	0.2420	9.063	960.0	0.2374
21	3.776	760.1	0.2509	5.819	797.9	0.2358	7.437	877.9	0.2308
22	2.952	711.0	0.2460	4.526	736.9	0.2311	5.781	794.8	0.2259
23	1.273	623.4	0.2427	1.961	633.7	0.2279	2.509	655.1	0.2226
24	0.745	597.1	0.2415	1.141	602.6	0.2268	1.453	613.8	0.2214

Table 4-93. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J6

Assembly Number J6						
Node No.	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.893	642.1	0.7396	3.731	647.7	0.7396
2	10.047	920.0	0.7396	13.058	932.3	0.7396
3	14.173	1016.3	0.7357	18.031	987.9	0.7345
4	16.521	1088.4	0.7000	20.687	1033.6	0.6983
5	17.501	1107.5	0.6507	21.725	1042.5	0.6490
6	17.812	1105.3	0.5959	22.004	1037.6	0.5945
7	17.882	1097.3	0.5427	22.018	1029.1	0.5417
8	17.924	1090.8	0.4949	22.012	1021.8	0.4943
9	18.424	1101.2	0.4530	22.558	1028.8	0.4529
10	18.331	1092.4	0.4163	22.412	1020.8	0.4166
11	18.132	1080.7	0.3848	22.145	1010.6	0.3855
12	17.865	1068.0	0.3576	21.804	999.7	0.3587
13	17.568	1056.0	0.3341	21.432	988.7	0.3355
14	17.243	1046.2	0.3137	21.035	978.3	0.3153
15	16.868	1038.3	0.2958	20.593	968.8	0.2976
16	16.392	1029.5	0.2801	20.051	959.5	0.2820
17	15.737	1014.8	0.2663	19.320	948.8	0.2683
18	14.809	989.3	0.2543	18.277	933.0	0.2563
19	13.527	949.0	0.2439	16.813	908.5	0.2460
20	11.526	883.5	0.2353	14.456	862.6	0.2374
21	9.446	813.2	0.2287	11.918	807.1	0.2306
22	7.286	741.9	0.2238	9.176	741.8	0.2256
23	3.137	632.2	0.2207	3.925	632.1	0.2223
24	1.796	599.7	0.2195	2.223	599.3	0.2211

Table 4-94. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J7

Assembly Number J7									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.040	607.1	0.7396	0.481	611.2	0.7396
2	0.000		0.7396	0.134	732.5	0.7396	1.585	744.8	0.7396
3	0.000		0.7396	0.185	809.0	0.7396	2.191	828.0	0.7396
4	0.000		0.7396	0.220	865.5	0.7396	2.610	890.4	0.7391
5	0.000		0.7191	0.243	849.9	0.7191	2.872	872.0	0.7150
6	0.000	Data Not	0.6895	0.258	871.7	0.6895	3.051	896.2	0.6814
7	0.000	Required	0.6535	0.270	889.6	0.6535	3.188	915.0	0.6414
8	0.000		0.6136	0.282	907.9	0.6136	3.310	932.0	0.5979
9	0.000		0.5708	0.304	942.5	0.5708	3.536	964.3	0.5533
10	0.000		0.5289	0.308	949.0	0.5289	3.576	970.2	0.5109
11	0.000		0.4912	0.306	945.8	0.4912	3.560	967.9	0.4733
12	0.000		0.4582	0.302	939.3	0.4582	3.511	960.6	0.4408
13	0.000		0.4295	0.295	928.2	0.4295	3.443	950.9	0.4128
14	0.000		0.4049	0.288	917.2	0.4049	3.368	940.1	0.3885
15	0.000		0.3831	0.281	906.4	0.3831	3.289	928.9	0.3671
16	0.000		0.3638	0.274	895.7	0.3638	3.205	917.0	0.3484
17	0.000		0.3468	0.267	885.1	0.3468	3.104	902.8	0.3319
18	0.000		0.3317	0.258	871.7	0.3317	2.963	883.1	0.3174
19	0.000		0.3186	0.240	845.6	0.3186	2.751	855.1	0.3049
20	0.000		0.3076	0.205	797.1	0.3076	2.357	805.6	0.2943
21	0.000		0.2988	0.172	753.9	0.2988	1.968	759.5	0.2860
22	0.000		0.2921	0.137	710.7	0.2921	1.566	714.7	0.2794
23	0.000		0.2879	0.058	621.7	0.2879	0.673	624.2	0.2754
24	0.000		0.2860	0.035	597.6	0.2860	0.396	598.1	0.2735

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.099	627.1	0.7396	1.815	647.8	0.7396	2.273	650.5	0.7396
2	3.643	811.4	0.7396	6.111	914.1	0.7396	7.716	934.5	0.7396
3	5.137	947.0	0.7396	8.690	1124.4	0.7383	10.904	1034.8	0.7363
4	6.200	977.4	0.7229	10.360	1147.4	0.7059	12.799	1101.7	0.7016
5	6.836	1035.7	0.6869	11.157	1179.8	0.6599	13.599	1102.6	0.6540
6	7.198	1065.6	0.6419	11.466	1169.0	0.6084	13.859	1087.6	0.6014
7	7.412	1078.4	0.5937	11.573	1147.6	0.5579	13.930	1076.8	0.5506
8	7.563	1083.3	0.5467	11.634	1129.8	0.5117	13.985	1075.0	0.5045
9	7.898	1101.9	0.5028	11.994	1134.7	0.4702	14.415	1096.2	0.4634
10	7.880	1092.0	0.4630	11.912	1122.2	0.4328	14.360	1104.4	0.4264
11	7.766	1075.4	0.4286	11.734	1109.8	0.4005	14.211	1113.4	0.3944
12	7.589	1054.2	0.3990	11.490	1097.0	0.3727	13.997	1122.7	0.3667
13	7.378	1031.1	0.3738	11.205	1083.1	0.3488	13.741	1131.9	0.3428
14	7.148	1006.6	0.3521	10.892	1067.7	0.3282	13.449	1138.5	0.3220
15	6.905	981.3	0.3334	10.546	1048.8	0.3104	13.114	1142.0	0.3040
16	6.641	954.4	0.3171	10.153	1025.7	0.2950	12.710	1138.5	0.2882
17	6.334	924.6	0.3030	9.680	996.8	0.2816	12.193	1124.6	0.2744
18	5.942	889.6	0.2908	9.071	960.4	0.2700	11.491	1095.9	0.2624
19	5.422	848.5	0.2803	8.271	915.4	0.2601	10.533	1048.7	0.2522
20	4.594	794.0	0.2715	7.025	852.4	0.2517	9.005	969.9	0.2434
21	3.790	745.2	0.2645	5.783	791.2	0.2451	7.439	887.1	0.2365
22	2.981	700.3	0.2593	4.526	733.3	0.2403	5.818	802.9	0.2316
23	1.289	619.4	0.2556	1.967	632.7	0.2368	2.534	658.5	0.2280
24	0.752	594.7	0.2542	1.144	602.2	0.2356	1.469	616.0	0.2268

Table 4-94. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J7

Assembly Number J7						
Node No.	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.536	592.8	0.7396	3.029	610.0	0.7396
2	8.691	692.1	0.7396	10.457	758.4	0.7396
3	12.299	727.2	0.7385	14.602	829.5	0.7396
4	14.426	758.6	0.7075	16.921	809.8	0.7113
5	15.367	778.3	0.6644	17.918	816.4	0.6716
6	15.736	793.9	0.6168	18.309	819.0	0.6271
7	15.902	807.7	0.5701	18.494	821.3	0.5832
8	16.039	819.9	0.5269	18.658	824.5	0.5420
9	16.582	837.0	0.4875	19.296	836.0	0.5038
10	16.560	842.0	0.4513	19.303	839.5	0.4686
11	16.418	843.1	0.4192	19.173	841.0	0.4369
12	16.195	841.7	0.3911	18.945	840.3	0.4087
13	15.923	839.2	0.3666	18.660	838.8	0.3840
14	15.611	836.2	0.3453	18.330	836.6	0.3624
15	15.250	832.2	0.3266	17.949	834.1	0.3434
16	14.813	827.2	0.3103	17.486	831.0	0.3267
17	14.246	819.7	0.2960	16.876	825.8	0.3123
18	13.462	807.6	0.2837	16.016	816.8	0.2995
19	12.371	788.3	0.2729	14.789	800.8	0.2886
20	10.604	754.7	0.2638	12.749	769.8	0.2793
21	8.757	717.1	0.2564	10.559	732.5	0.2716
22	6.812	676.0	0.2503	8.189	688.7	0.2650
23	2.943	607.1	0.2457	3.510	611.9	0.2598
24	1.679	584.9	0.2425	1.975	587.7	0.2557



Table 4-95. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J8

Assembly Number J8									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.036	602.1	0.7396	0.450	607.9	0.7396
2	0.000		0.7396	0.120	712.6	0.7396	1.480	731.8	0.7396
3	0.000		0.7396	0.166	779.7	0.7396	2.040	807.5	0.7396
4	0.000		0.7396	0.198	829.6	0.7396	2.427	863.7	0.7396
5	0.000		0.7313	0.220	817.5	0.7313	2.675	847.2	0.7223
6	0.000	Data Not	0.7073	0.237	841.3	0.7073	2.852	870.0	0.6930
7	0.000	Required	0.6757	0.251	861.5	0.6757	2.997	889.2	0.6569
8	0.000		0.6388	0.265	882.1	0.6388	3.132	907.3	0.6167
9	0.000		0.5977	0.290	920.4	0.5977	3.366	939.5	0.5739
10	0.000		0.5553	0.296	929.8	0.5553	3.417	946.6	0.5317
11	0.000		0.5159	0.297	931.4	0.5159	3.412	945.6	0.4936
12	0.000		0.4810	0.294	926.6	0.4810	3.370	939.5	0.4602
13	0.000		0.4506	0.288	917.2	0.4506	3.303	930.0	0.4312
14	0.000		0.4243	0.280	904.9	0.4243	3.220	918.4	0.4062
15	0.000		0.4016	0.271	891.2	0.4016	3.120	904.6	0.3843
16	0.000		0.3817	0.260	874.7	0.3817	3.000	888.3	0.3652
17	0.000		0.3644	0.247	855.7	0.3644	2.854	868.8	0.3485
18	0.000		0.3495	0.230	831.4	0.3495	2.670	845.1	0.3341
19	0.000		0.3367	0.210	803.8	0.3367	2.434	815.3	0.3218
20	0.000		0.3262	0.177	760.3	0.3262	2.062	770.8	0.3117
21	0.000		0.3178	0.150	726.5	0.3178	1.720	731.6	0.3038
22	0.000		0.3111	0.124	695.3	0.3111	1.373	693.7	0.2975
23	0.000		0.3069	0.054	617.4	0.3069	0.593	616.3	0.2936
24	0.000		0.3048	0.033	595.5	0.3048	0.348	593.4	0.2918

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	0.994	618.7	0.7396	1.619	635.9	0.7396	2.049	644.6	0.7396
2	3.284	775.9	0.7396	5.422	857.6	0.7396	6.920	904.1	0.7396
3	4.615	888.0	0.7396	7.729	1034.5	0.7396	9.834	1089.8	0.7396
4	5.580	981.4	0.7324	9.320	1066.9	0.7178	11.700	1083.7	0.7120
5	6.203	968.1	0.7032	10.200	1115.4	0.6791	12.617	1094.9	0.6705
6	6.610	1003.2	0.6643	10.644	1122.6	0.6326	13.022	1083.1	0.6225
7	6.887	1023.9	0.6200	10.874	1113.5	0.5844	13.214	1071.7	0.5736
8	7.096	1035.7	0.5744	11.028	1102.9	0.5384	13.359	1069.0	0.5276
9	7.471	1058.7	0.5303	11.448	1111.6	0.4959	13.845	1088.9	0.4857
10	7.493	1053.9	0.4892	11.420	1102.0	0.4571	13.841	1096.2	0.4475
11	7.411	1041.4	0.4533	11.285	1091.9	0.4231	13.733	1104.4	0.4139
12	7.260	1023.9	0.4222	11.077	1081.2	0.3938	13.556	1114.0	0.3848
13	7.068	1004.2	0.3955	10.823	1069.7	0.3684	13.331	1123.1	0.3596
14	6.847	983.0	0.3725	10.528	1056.1	0.3464	13.059	1130.3	0.3376
15	6.598	960.6	0.3526	10.182	1038.6	0.3274	12.725	1134.1	0.3183
16	6.310	936.0	0.3353	9.766	1015.9	0.3108	12.301	1131.5	0.3015
17	5.966	907.9	0.3204	9.252	986.6	0.2964	11.742	1117.4	0.2868
18	5.539	874.7	0.3075	8.599	949.1	0.2841	10.993	1087.9	0.2741
19	5.008	836.0	0.2966	7.777	902.9	0.2737	10.010	1040.3	0.2633
20	4.217	784.1	0.2877	6.562	840.0	0.2651	8.512	961.9	0.2542
21	3.477	737.8	0.2807	5.391	780.7	0.2586	7.020	880.5	0.2474
22	2.742	695.4	0.2754	4.226	725.7	0.2538	5.502	799.4	0.2424
23	1.189	617.4	0.2718	1.841	629.8	0.2503	2.404	657.8	0.2387
24	0.692	593.6	0.2704	1.069	600.6	0.2489	1.394	616.0	0.2374

Table 4-95. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J8

Assembly Number J8						
Node No.	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.533	622.4	0.7396	2.899	596.6	0.7396
2	8.711	822.2	0.7396	10.048	705.4	0.7396
3	12.424	970.0	0.7396	14.197	759.3	0.7396
4	14.803	993.7	0.7120	16.730	745.8	0.7144
5	15.869	1021.4	0.6706	17.851	751.8	0.6755
6	16.251	1017.1	0.6223	18.278	756.7	0.6303
7	16.380	1005.3	0.5731	18.458	762.3	0.5846
8	16.465	994.2	0.5272	18.602	768.9	0.5418
9	16.973	998.3	0.4854	19.211	780.2	0.5025
10	16.918	988.9	0.4478	19.197	784.8	0.4668
11	16.760	979.8	0.4148	19.059	787.1	0.4353
12	16.534	971.0	0.3862	18.840	787.9	0.4076
13	16.265	963.2	0.3613	18.571	787.9	0.3832
14	15.955	956.5	0.3397	18.258	787.6	0.3616
15	15.586	950.4	0.3207	17.884	787.0	0.3426
16	15.118	942.7	0.3040	17.411	786.4	0.3258
17	14.493	931.3	0.2895	16.774	785.1	0.3113
18	13.634	912.7	0.2770	15.886	781.8	0.2990
19	12.485	885.4	0.2666	14.693	776.8	0.2894
20	10.662	834.4	0.2576	12.835	772.9	0.2837
21	8.779	777.0	0.2505	10.907	767.9	0.2815
22	6.821	717.2	0.2452	8.579	727.8	0.2773
23	2.951	622.8	0.2414	3.679	626.5	0.2716
24	1.687	594.1	0.2398	2.057	594.3	0.2664

Table 4-96. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J9

Assembly Number J9									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.039	605.8	0.7396	0.466	609.5	0.7396
2	0.000		0.7396	0.129	725.3	0.7396	1.544	739.6	0.7396
3	0.000		0.7396	0.180	801.2	0.7396	2.148	822.1	0.7396
4	0.000		0.7396	0.215	857.3	0.7396	2.570	884.5	0.7396
5	0.000		0.7210	0.238	842.7	0.7210	2.836	867.5	0.7166
6	0.000	Data Not	0.6926	0.254	865.8	0.6926	3.019	892.0	0.6839
7	0.000	Required	0.6577	0.267	885.1	0.6577	3.162	911.5	0.6446
8	0.000		0.6186	0.279	903.3	0.6186	3.291	929.5	0.6017
9	0.000		0.5763	0.301	937.7	0.5763	3.522	962.6	0.5572
10	0.000		0.5344	0.306	945.8	0.5344	3.565	968.7	0.5147
11	0.000		0.4964	0.305	944.1	0.4964	3.552	966.8	0.4769
12	0.000		0.4630	0.301	937.7	0.4630	3.503	959.5	0.4442
13	0.000		0.4340	0.294	926.6	0.4340	3.430	949.0	0.4159
14	0.000		0.4090	0.287	915.7	0.4090	3.343	936.4	0.3914
15	0.000		0.3871	0.278	901.8	0.3871	3.242	922.1	0.3701
16	0.000		0.3679	0.268	886.6	0.3679	3.124	905.6	0.3514
17	0.000		0.3511	0.256	868.8	0.3511	2.979	885.8	0.3352
18	0.000		0.3365	0.240	845.6	0.3365	2.796	861.5	0.3212
19	0.000		0.3240	0.221	818.9	0.3240	2.558	830.7	0.3092
20	0.000		0.3137	0.188	774.5	0.3137	2.173	783.7	0.2992
21	0.000		0.3054	0.158	736.3	0.3054	1.810	741.6	0.2913
22	0.000		0.2988	0.128	700.0	0.2988	1.443	701.4	0.2852
23	0.000		0.2948	0.055	618.5	0.2948	0.624	619.4	0.2813
24	0.000		0.2928	0.033	595.5	0.2928	0.368	595.4	0.2796

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.074	626.0	0.7396	1.786	647.2	0.7396	2.249	651.6	0.7396
2	3.581	808.4	0.7396	6.049	914.1	0.7396	7.677	941.2	0.7396
3	5.075	943.9	0.7396	8.652	1129.6	0.7383	10.907	1046.7	0.7360
4	6.148	1055.7	0.7235	10.354	1156.5	0.7056	12.841	1116.5	0.7009
5	6.795	1034.9	0.6877	11.171	1191.1	0.6594	13.657	1116.2	0.6527
6	7.170	1066.3	0.6431	11.490	1179.6	0.6078	13.918	1098.3	0.6000
7	7.395	1080.0	0.5952	11.604	1157.2	0.5575	13.985	1084.0	0.5493
8	7.557	1085.5	0.5484	11.668	1137.7	0.5115	14.035	1079.8	0.5035
9	7.901	1104.8	0.5046	12.030	1141.2	0.4702	14.462	1099.5	0.4626
10	7.888	1095.2	0.4646	11.946	1127.3	0.4328	14.400	1106.3	0.4258
11	7.776	1078.4	0.4300	11.763	1113.5	0.4006	14.244	1114.6	0.3938
12	7.597	1056.9	0.4003	11.511	1099.5	0.3728	14.021	1123.7	0.3662
13	7.377	1033.0	0.3750	11.212	1084.6	0.3489	13.751	1132.8	0.3423
14	7.130	1007.7	0.3532	10.875	1067.8	0.3283	13.436	1139.8	0.3216
15	6.857	981.2	0.3343	10.491	1047.6	0.3104	13.063	1143.3	0.3035
16	6.547	952.5	0.3180	10.043	1022.9	0.2950	12.606	1140.4	0.2877
17	6.183	920.9	0.3040	9.501	992.0	0.2816	12.021	1126.8	0.2739
18	5.740	884.8	0.2919	8.827	953.5	0.2702	11.255	1098.3	0.2619
19	5.192	843.7	0.2817	7.986	906.8	0.2604	10.255	1050.8	0.2517
20	4.375	789.7	0.2732	6.743	843.3	0.2522	8.728	971.2	0.2432
21	3.603	741.9	0.2666	5.535	783.0	0.2461	7.195	888.0	0.2366
22	2.838	698.1	0.2616	4.335	727.3	0.2415	5.634	804.4	0.2318
23	1.233	618.7	0.2581	1.891	630.5	0.2382	2.464	659.6	0.2283
24	0.722	594.6	0.2568	1.103	601.1	0.2370	1.434	617.0	0.2271

Table 4-96. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J9

Assembly Number J9						
Node No.	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.805	632.2	0.7396	3.607	643.7	0.7396
2	9.727	867.7	0.7396	12.593	910.3	0.7396
3	13.720	942.0	0.7362	17.380	959.6	0.7353
4	15.979	1000.1	0.7014	19.939	1002.8	0.7004
5	16.918	1023.1	0.6537	20.983	1018.4	0.6528
6	17.240	1034.7	0.6012	21.342	1023.9	0.6005
7	17.350	1043.0	0.5504	21.469	1026.5	0.5496
8	17.443	1051.3	0.5041	21.578	1028.9	0.5032
9	17.984	1073.7	0.4629	22.220	1044.3	0.4620
10	17.934	1076.1	0.4260	22.163	1043.2	0.4253
11	17.766	1073.7	0.3940	21.965	1038.6	0.3935
12	17.512	1067.6	0.3663	21.663	1031.3	0.3660
13	17.200	1059.3	0.3424	21.289	1022.0	0.3421
14	16.829	1048.4	0.3216	20.848	1011.5	0.3215
15	16.386	1034.9	0.3034	20.325	999.7	0.3034
16	15.840	1018.0	0.2875	19.688	986.4	0.2876
17	15.139	996.4	0.2737	18.875	970.3	0.2737
18	14.210	966.9	0.2616	17.793	948.8	0.2617
19	12.979	926.7	0.2514	16.341	918.7	0.2513
20	11.080	865.7	0.2427	14.051	867.8	0.2426
21	9.122	801.1	0.2361	11.614	809.5	0.2358
22	7.085	734.7	0.2311	8.989	743.4	0.2307
23	3.068	629.4	0.2278	3.863	632.7	0.2273
24	1.762	598.0	0.2265	2.194	599.8	0.2261

Table 4-97. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J10

Assembly Number J10									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.039	605.8	0.7396	0.467	609.6	0.7396
2	0.000		0.7396	0.130	726.7	0.7396	1.549	740.2	0.7396
3	0.000		0.7396	0.181	802.8	0.7396	2.155	823.0	0.7396
4	0.000		0.7396	0.216	858.9	0.7396	2.577	885.5	0.7396
5	0.000		0.7208	0.239	844.2	0.7208	2.844	868.5	0.7163
6	0.000	Data Not	0.6922	0.254	865.8	0.6922	3.027	893.2	0.6834
7	0.000	Required	0.6571	0.267	885.1	0.6571	3.170	912.7	0.6439
8	0.000		0.6179	0.279	903.3	0.6179	3.298	930.6	0.6009
9	0.000		0.5755	0.302	939.3	0.5755	3.528	963.4	0.5563
10	0.000		0.5335	0.306	945.8	0.5335	3.571	969.7	0.5138
11	0.000		0.4956	0.305	944.1	0.4956	3.558	967.7	0.4760
12	0.000		0.4622	0.301	937.7	0.4622	3.508	960.3	0.4433
13	0.000		0.4333	0.295	928.2	0.4333	3.436	949.8	0.4151
14	0.000		0.4083	0.287	915.7	0.4083	3.350	937.5	0.3906
15	0.000		0.3864	0.278	901.8	0.3864	3.250	923.3	0.3692
16	0.000		0.3672	0.268	886.6	0.3672	3.133	907.0	0.3506
17	0.000		0.3505	0.256	868.8	0.3505	2.990	887.4	0.3344
18	0.000		0.3360	0.241	847.0	0.3360	2.809	863.2	0.3204
19	0.000		0.3234	0.221	818.9	0.3234	2.573	832.8	0.3083
20	0.000		0.3131	0.188	774.5	0.3131	2.186	785.3	0.2983
21	0.000		0.3049	0.158	736.3	0.3049	1.821	743.0	0.2905
22	0.000		0.2983	0.128	700.0	0.2983	1.452	702.4	0.2844
23	0.000		0.2943	0.055	618.5	0.2943	0.628	619.8	0.2805
24	0.000		0.2923	0.033	595.5	0.2923	0.370	595.6	0.2787

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.078	626.3	0.7396	1.792	647.5	0.7396	2.250	650.5	0.7396
2	3.594	809.5	0.7396	6.069	915.3	0.7396	7.682	936.9	0.7396
3	5.093	945.6	0.7396	8.679	1131.5	0.7381	10.915	1041.2	0.7360
4	6.169	1058.3	0.7231	10.383	1158.2	0.7053	12.851	1110.6	0.7009
5	6.816	1037.0	0.6872	11.198	1192.4	0.6589	13.669	1111.5	0.6526
6	7.189	1068.1	0.6423	11.514	1180.7	0.6071	13.930	1094.6	0.5999
7	7.413	1081.6	0.5943	11.625	1157.8	0.5567	13.997	1081.3	0.5491
8	7.572	1086.9	0.5474	11.686	1138.3	0.5107	14.046	1077.7	0.5032
9	7.914	1106.0	0.5036	12.047	1142.0	0.4693	14.472	1097.4	0.4623
10	7.899	1096.1	0.4637	11.961	1128.0	0.4321	14.408	1104.1	0.4255
11	7.786	1079.1	0.4291	11.776	1114.1	0.3998	14.251	1112.8	0.3935
12	7.606	1057.5	0.3995	11.523	1100.1	0.3721	14.027	1121.8	0.3659
13	7.386	1033.5	0.3742	11.224	1085.1	0.3483	13.755	1130.3	0.3421
14	7.139	1008.0	0.3525	10.886	1068.2	0.3277	13.440	1137.5	0.3213
15	6.866	981.3	0.3336	10.503	1048.1	0.3099	13.067	1140.7	0.3033
16	6.558	952.8	0.3174	10.057	1023.4	0.2945	12.611	1137.5	0.2875
17	6.196	921.2	0.3034	9.517	992.6	0.2811	12.028	1124.0	0.2737
18	5.755	885.1	0.2913	8.845	953.9	0.2697	11.263	1095.2	0.2618
19	5.208	843.8	0.2811	8.005	907.3	0.2599	10.264	1047.9	0.2517
20	4.390	790.0	0.2726	6.761	843.7	0.2518	8.738	969.1	0.2430
21	3.615	742.0	0.2660	5.551	783.6	0.2456	7.203	886.1	0.2365
22	2.848	698.3	0.2610	4.347	727.6	0.2410	5.640	803.1	0.2317
23	1.237	618.7	0.2575	1.897	630.7	0.2377	2.466	658.9	0.2282
24	0.724	594.6	0.2562	1.107	601.3	0.2365	1.435	616.5	0.2271

Table 4-97. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J10

Assembly Number J10						
Node No.	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.838	636.6	0.7396	3.636	643.2	0.7396
2	9.840	887.4	0.7396	12.695	908.7	0.7396
3	13.862	965.5	0.7357	17.505	957.2	0.7350
4	16.120	1024.6	0.7003	20.067	1000.9	0.6996
5	17.046	1045.3	0.6519	21.103	1017.2	0.6514
6	17.353	1054.2	0.5988	21.453	1023.6	0.5987
7	17.452	1060.5	0.5477	21.573	1026.8	0.5475
8	17.538	1067.8	0.5014	21.677	1029.5	0.5011
9	18.075	1090.0	0.4603	22.316	1045.1	0.4599
10	18.023	1092.4	0.4235	22.257	1044.0	0.4233
11	17.855	1090.2	0.3916	22.058	1039.3	0.3916
12	17.601	1084.1	0.3640	21.754	1031.6	0.3642
13	17.289	1076.1	0.3402	21.379	1022.1	0.3405
14	16.919	1065.2	0.3196	20.937	1011.3	0.3199
15	16.475	1051.3	0.3015	20.414	999.7	0.3019
16	15.929	1033.9	0.2857	19.776	986.3	0.2861
17	15.227	1011.4	0.2719	18.962	970.2	0.2723
18	14.296	980.9	0.2600	17.879	948.8	0.2603
19	13.062	939.4	0.2497	16.424	918.7	0.2500
20	11.155	876.1	0.2411	14.127	867.9	0.2413
21	9.186	809.3	0.2345	11.681	809.8	0.2346
22	7.136	740.7	0.2297	9.043	743.7	0.2295
23	3.092	631.9	0.2263	3.888	632.8	0.2262
24	1.777	599.6	0.2251	2.210	599.9	0.2249

Table 4-98. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J11

Assembly Number J11									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.035	600.9	0.7396	0.401	602.1	0.7396
2	0.000		0.7396	0.114	704.2	0.7396	1.300	707.6	0.7396
3	0.000		0.7396	0.154	761.7	0.7396	1.772	769.0	0.7396
4	0.000		0.7396	0.182	804.3	0.7396	2.104	814.9	0.7396
5	0.000		0.7382	0.201	791.7	0.7382	2.336	803.4	0.7363
6	0.000	Data Not	0.7184	0.216	812.0	0.7184	2.527	827.2	0.7141
7	0.000	Required	0.6911	0.231	832.8	0.6911	2.706	850.0	0.6841
8	0.000		0.6582	0.246	854.2	0.6582	2.890	874.2	0.6481
9	0.000		0.6203	0.271	891.2	0.6203	3.177	913.2	0.6074
10	0.000		0.5793	0.279	903.3	0.5793	3.282	928.1	0.5643
11	0.000		0.5397	0.282	907.9	0.5397	3.318	933.2	0.5238
12	0.000		0.5040	0.280	904.9	0.5040	3.306	931.7	0.4876
13	0.000		0.4725	0.276	898.7	0.4725	3.260	925.2	0.4560
14	0.000		0.4450	0.269	888.1	0.4450	3.190	915.5	0.4286
15	0.000		0.4212	0.262	877.7	0.4212	3.101	903.1	0.4049
16	0.000		0.4004	0.253	864.4	0.4004	2.994	888.4	0.3841
17	0.000		0.3820	0.242	848.4	0.3820	2.861	870.6	0.3660
18	0.000		0.3661	0.228	828.6	0.3661	2.689	848.0	0.3502
19	0.000		0.3523	0.210	803.8	0.3523	2.463	819.2	0.3368
20	0.000		0.3409	0.179	762.9	0.3409	2.097	775.0	0.3257
21	0.000		0.3317	0.151	727.7	0.3317	1.759	736.2	0.3169
22	0.000		0.3245	0.123	694.1	0.3245	1.418	699.1	0.3100
23	0.000		0.3200	0.053	616.4	0.3200	0.620	619.2	0.3056
24	0.000		0.3179	0.032	594.5	0.3179	0.365	595.2	0.3036

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	0.916	615.4	0.7396	1.534	635.0	0.7396	1.885	628.2	0.7396
2	2.976	758.5	0.7396	5.059	848.5	0.7396	6.288	831.4	0.7396
3	4.128	854.8	0.7396	7.158	1018.0	0.7396	8.941	987.3	0.7396
4	4.973	934.4	0.7373	8.648	1055.0	0.7203	10.756	1004.9	0.7180
5	5.561	923.9	0.7132	9.540	1111.9	0.6843	11.753	1034.6	0.6804
6	6.007	960.9	0.6797	10.068	1127.9	0.6409	12.278	1033.7	0.6358
7	6.378	989.9	0.6400	10.417	1123.6	0.5956	12.595	1024.6	0.5897
8	6.713	1013.3	0.5976	10.704	1114.3	0.5520	12.861	1018.6	0.5458
9	7.214	1047.5	0.5548	11.244	1121.8	0.5111	13.448	1032.0	0.5048
10	7.348	1052.3	0.5127	11.309	1108.5	0.4721	13.522	1034.6	0.4665
11	7.348	1046.4	0.4747	11.226	1092.7	0.4374	13.453	1038.6	0.4321
12	7.252	1032.8	0.4415	11.034	1074.7	0.4071	13.278	1043.5	0.4022
13	7.089	1014.3	0.4129	10.762	1054.6	0.3810	13.020	1047.6	0.3762
14	6.875	991.9	0.3883	10.426	1032.7	0.3585	12.694	1050.5	0.3536
15	6.622	967.0	0.3670	10.038	1008.9	0.3390	12.308	1051.1	0.3340
16	6.331	940.0	0.3488	9.594	982.7	0.3221	11.853	1047.9	0.3169
17	5.991	910.5	0.3329	9.071	952.3	0.3076	11.293	1037.1	0.3020
18	5.577	877.2	0.3192	8.430	916.0	0.2950	10.574	1014.9	0.2891
19	5.066	839.7	0.3077	7.640	873.4	0.2845	9.646	976.9	0.2781
20	4.299	789.7	0.2981	6.476	816.3	0.2756	8.234	912.3	0.2688
21	3.581	745.2	0.2905	5.362	763.2	0.2690	6.836	843.9	0.2618
22	2.861	703.3	0.2847	4.252	714.4	0.2639	5.409	773.8	0.2565
23	1.262	621.9	0.2806	1.881	626.3	0.2600	2.394	648.8	0.2526
24	0.739	596.4	0.2789	1.098	598.8	0.2586	1.392	610.7	0.2512

Table 4-98. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J11

Assembly Number J11						
Node No.	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.429	630.6	0.7396	3.129	632.4	0.7396
2	8.307	862.2	0.7396	10.854	863.7	0.7396
3	11.843	1034.1	0.7396	15.186	984.3	0.7396
4	14.053	1029.9	0.7146	17.657	951.8	0.7134
5	15.134	1046.1	0.6751	18.777	957.2	0.6741
6	15.629	1040.3	0.6289	19.250	954.1	0.6284
7	15.890	1029.5	0.5820	19.476	949.3	0.5820
8	16.105	1019.9	0.5379	19.661	945.1	0.5381
9	16.725	1026.1	0.4974	20.335	952.6	0.4979
10	16.752	1017.2	0.4598	20.328	947.9	0.4607
11	16.631	1007.5	0.4264	20.163	941.8	0.4279
12	16.404	997.9	0.3972	19.889	935.3	0.3992
13	16.104	990.2	0.3718	19.541	928.8	0.3741
14	15.755	986.0	0.3497	19.147	922.7	0.3523
15	15.368	985.8	0.3304	18.724	917.9	0.3331
16	14.915	986.2	0.3134	18.246	914.5	0.3161
17	14.325	980.8	0.2985	17.625	910.4	0.3012
18	13.500	961.8	0.2854	16.734	901.7	0.2882
19	12.369	926.6	0.2743	15.459	882.9	0.2769
20	10.586	865.7	0.2649	13.357	842.9	0.2674
21	8.752	799.5	0.2578	11.099	792.6	0.2601
22	6.839	731.9	0.2526	8.634	731.7	0.2546
23	2.982	627.5	0.2491	3.721	627.6	0.2509
24	1.709	596.8	0.2479	2.102	596.3	0.2494



Table 4-99. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J12

Assembly Number J12									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.043	610.8	0.7396	0.535	617.4	0.7396
2	0.000		0.7396	0.145	748.4	0.7396	1.772	770.4	0.7396
3	0.000		0.7396	0.202	836.1	0.7396	2.451	867.0	0.7396
4	0.000		0.7371	0.241	847.0	0.7371	2.903	876.8	0.7310
5	0.000		0.7123	0.264	880.6	0.7123	3.167	912.7	0.7011
6	0.000	Data Not	0.6777	0.280	904.9	0.6777	3.331	935.6	0.6619
7	0.000	Required	0.6368	0.292	923.5	0.6368	3.448	952.1	0.6173
8	0.000		0.5926	0.303	940.9	0.5926	3.550	966.8	0.5708
9	0.000		0.5472	0.326	978.6	0.5472	3.764	998.2	0.5254
10	0.000		0.5044	0.329	983.6	0.5044	3.787	1001.6	0.4837
11	0.000		0.4669	0.327	980.2	0.4669	3.756	996.7	0.4475
12	0.000		0.4345	0.322	971.9	0.4345	3.691	986.7	0.4165
13	0.000		0.4068	0.314	958.7	0.4068	3.605	973.9	0.3898
14	0.000		0.3828	0.305	944.1	0.3828	3.506	959.3	0.3667
15	0.000		0.3619	0.294	926.6	0.3619	3.393	943.1	0.3466
16	0.000		0.3438	0.283	909.5	0.3438	3.265	924.9	0.3292
17	0.000		0.3281	0.269	888.1	0.3281	3.109	903.2	0.3140
18	0.000		0.3145	0.252	862.9	0.3145	2.908	875.9	0.3009
19	0.000		0.3028	0.229	830.0	0.3028	2.648	842.1	0.2897
20	0.000		0.2933	0.193	781.1	0.2933	2.233	790.8	0.2805
21	0.000		0.2857	0.160	738.8	0.2857	1.844	745.6	0.2732
22	0.000		0.2798	0.128	700.0	0.2798	1.456	702.9	0.2676
23	0.000		0.2761	0.055	618.5	0.2761	0.624	619.4	0.2641
24	0.000		0.2744	0.033	595.5	0.2744	0.368	595.4	0.2626

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.180	630.2	0.7396	1.874	644.9	0.7396	2.321	648.2	0.7396
2	3.936	826.6	0.7396	6.358	906.0	0.7396	7.944	929.1	0.7396
3	5.558	973.6	0.7396	9.073	1116.4	0.7373	11.269	1029.7	0.7355
4	6.679	1006.0	0.7169	10.814	1142.4	0.7030	13.239	1097.4	0.6995
5	7.316	1065.9	0.6765	11.631	1178.6	0.6545	14.065	1100.1	0.6498
6	7.656	1095.5	0.6273	11.936	1171.5	0.6002	14.325	1086.4	0.5951
7	7.842	1107.4	0.5759	12.029	1152.7	0.5474	14.384	1076.2	0.5423
8	7.965	1111.0	0.5271	12.071	1136.7	0.4996	14.420	1074.4	0.4949
9	8.283	1129.2	0.4828	12.423	1143.4	0.4575	14.843	1095.9	0.4531
10	8.242	1118.0	0.4434	12.327	1132.6	0.4202	14.772	1103.5	0.4162
11	8.106	1099.8	0.4097	12.139	1122.4	0.3882	14.614	1112.8	0.3845
12	7.907	1077.1	0.3811	11.890	1112.7	0.3608	14.399	1123.4	0.3573
13	7.675	1052.9	0.3567	11.608	1103.1	0.3374	14.151	1134.1	0.3337
14	7.419	1027.6	0.3357	11.288	1091.0	0.3170	13.862	1143.9	0.3132
15	7.140	1001.4	0.3175	10.918	1073.9	0.2995	13.511	1150.0	0.2953
16	6.826	973.0	0.3019	10.474	1050.1	0.2842	13.065	1149.3	0.2796
17	6.454	941.1	0.2883	9.926	1018.7	0.2709	12.479	1137.2	0.2660
18	5.993	904.2	0.2766	9.230	978.3	0.2595	11.689	1107.8	0.2542
19	5.413	860.8	0.2668	8.347	928.8	0.2499	10.642	1058.4	0.2440
20	4.547	803.4	0.2586	7.038	861.1	0.2418	9.042	976.4	0.2355
21	3.725	752.0	0.2522	5.756	796.3	0.2356	7.427	890.7	0.2290
22	2.912	704.7	0.2474	4.478	735.9	0.2311	5.778	804.6	0.2242
23	1.256	620.9	0.2441	1.941	633.4	0.2279	2.510	658.9	0.2209
24	0.734	595.7	0.2429	1.128	602.4	0.2268	1.454	616.2	0.2197

Table 4-99. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J12

Assembly Number J12						
Node No.	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.808	622.8	0.7396	3.692	652.8	0.7396
2	9.757	826.0	0.7396	12.928	957.0	0.7396
3	13.821	898.0	0.7367	17.915	1022.7	0.7342
4	16.188	965.9	0.7022	20.647	1079.2	0.6978
5	17.232	1005.5	0.6540	21.772	1092.2	0.6483
6	17.621	1029.7	0.6004	22.120	1085.6	0.5939
7	17.758	1044.7	0.5478	22.184	1074.0	0.5414
8	17.849	1055.4	0.4999	22.214	1064.4	0.4941
9	18.384	1077.5	0.4576	22.792	1071.1	0.4525
10	18.312	1077.3	0.4203	22.663	1062.2	0.4160
11	18.119	1070.4	0.3882	22.399	1051.1	0.3846
12	17.849	1059.5	0.3606	22.043	1037.9	0.3577
13	17.535	1046.6	0.3369	21.636	1023.8	0.3343
14	17.173	1032.6	0.3162	21.178	1009.4	0.3141
15	16.741	1017.2	0.2982	20.646	994.7	0.2964
16	16.201	999.7	0.2825	19.995	978.6	0.2810
17	15.496	978.0	0.2687	19.157	959.7	0.2674
18	14.542	949.0	0.2567	18.028	935.5	0.2556
19	13.266	909.9	0.2465	16.512	903.2	0.2455
20	11.301	851.1	0.2380	14.146	852.0	0.2370
21	9.270	789.0	0.2313	11.634	794.6	0.2303
22	7.161	725.6	0.2263	8.956	731.7	0.2253
23	3.090	626.6	0.2230	3.840	628.6	0.2221
24	1.770	596.7	0.2217	2.183	598.1	0.2208

Table 4-100. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J13

Assembly Number J13									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.043	610.8	0.7396	0.537	617.7	0.7396
2	0.000		0.7396	0.146	749.9	0.7396	1.777	770.9	0.7396
3	0.000		0.7396	0.203	837.7	0.7396	2.459	868.2	0.7396
4	0.000		0.7370	0.241	847.0	0.7370	2.912	878.1	0.7307
5	0.000		0.7120	0.265	882.1	0.7120	3.176	914.0	0.7006
6	0.000	Data Not	0.6772	0.281	906.4	0.6772	3.340	936.8	0.6612
7	0.000	Required	0.6362	0.293	925.1	0.6362	3.457	953.4	0.6165
8	0.000		0.5919	0.304	942.5	0.5919	3.558	967.9	0.5699
9	0.000		0.5464	0.326	978.6	0.5464	3.771	999.4	0.5245
10	0.000		0.5036	0.330	985.3	0.5036	3.794	1002.6	0.4829
11	0.000		0.4661	0.328	981.9	0.4661	3.763	997.7	0.4468
12	0.000		0.4338	0.322	971.9	0.4338	3.696	987.6	0.4158
13	0.000		0.4061	0.314	958.7	0.4061	3.611	974.9	0.3891
14	0.000		0.3822	0.305	944.1	0.3822	3.512	960.3	0.3661
15	0.000		0.3614	0.295	928.2	0.3614	3.401	944.2	0.3459
16	0.000		0.3433	0.283	909.5	0.3433	3.273	926.1	0.3286
17	0.000		0.3277	0.269	888.1	0.3277	3.119	904.7	0.3134
18	0.000		0.3141	0.252	862.9	0.3141	2.920	877.7	0.3003
19	0.000		0.3024	0.229	830.0	0.3024	2.660	843.8	0.2891
20	0.000		0.2929	0.193	781.1	0.2929	2.244	792.3	0.2798
21	0.000		0.2853	0.161	740.1	0.2853	1.853	746.6	0.2725
22	0.000		0.2794	0.128	700.0	0.2794	1.463	703.7	0.2669
23	0.000		0.2758	0.055	618.5	0.2758	0.627	619.7	0.2634
24	0.000		0.2741	0.033	595.5	0.2741	0.370	595.6	0.2619

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.184	630.5	0.7396	1.880	645.1	0.7396	2.325	647.8	0.7396
2	3.950	827.9	0.7396	6.380	907.4	0.7396	7.958	926.8	0.7396
3	5.577	975.5	0.7396	9.102	1118.5	0.7371	11.289	1027.1	0.7355
4	6.701	1008.0	0.7165	10.846	1144.4	0.7027	13.261	1094.3	0.6994
5	7.339	1068.3	0.6759	11.662	1180.2	0.6540	14.088	1097.7	0.6495
6	7.678	1097.8	0.6265	11.963	1172.5	0.5995	14.347	1084.9	0.5947
7	7.861	1109.1	0.5751	12.053	1153.7	0.5467	14.405	1075.3	0.5418
8	7.982	1112.6	0.5261	12.092	1137.5	0.4989	14.440	1074.1	0.4944
9	8.298	1130.6	0.4819	12.442	1144.2	0.4567	14.861	1095.5	0.4526
10	8.255	1119.0	0.4426	12.344	1133.3	0.4195	14.788	1103.2	0.4158
11	8.117	1100.5	0.4090	12.154	1123.2	0.3876	14.628	1112.5	0.3841
12	7.917	1077.9	0.3804	11.904	1113.5	0.3603	14.411	1122.7	0.3568
13	7.684	1053.4	0.3560	11.620	1103.7	0.3369	14.162	1133.7	0.3334
14	7.428	1028.0	0.3350	11.300	1091.5	0.3166	13.872	1143.3	0.3129
15	7.149	1001.6	0.3170	10.930	1074.5	0.2990	13.520	1149.0	0.2950
16	6.836	973.3	0.3013	10.486	1050.5	0.2837	13.074	1148.4	0.2794
17	6.466	941.4	0.2878	9.940	1019.0	0.2705	12.489	1136.0	0.2658
18	6.006	904.3	0.2761	9.246	978.8	0.2592	11.700	1106.3	0.2539
19	5.426	860.9	0.2663	8.364	929.4	0.2495	10.654	1056.9	0.2439
20	4.559	803.5	0.2581	7.054	861.7	0.2414	9.053	975.0	0.2353
21	3.735	752.1	0.2517	5.769	796.7	0.2353	7.437	890.0	0.2288
22	2.920	704.8	0.2469	4.488	736.2	0.2307	5.786	804.2	0.2240
23	1.259	620.9	0.2436	1.945	633.5	0.2275	2.513	658.7	0.2207
24	0.737	595.8	0.2425	1.131	602.4	0.2264	1.456	616.0	0.2195

Table 4-100. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J13

Assembly Number J13						
Node No.	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.583	592.2	0.7396	3.314	635.8	0.7396
2	8.940	693.1	0.7396	11.582	877.3	0.7396
3	12.723	732.4	0.7378	16.129	924.6	0.7358
4	14.957	768.1	0.7054	18.610	958.6	0.7025
5	15.953	792.1	0.6604	19.652	965.1	0.6577
6	16.342	811.1	0.6106	19.996	958.7	0.6088
7	16.500	826.0	0.5620	20.090	949.8	0.5615
8	16.614	838.0	0.5174	20.161	943.8	0.5183
9	17.130	852.7	0.4770	20.750	954.0	0.4795
10	17.075	855.5	0.4406	20.781	966.1	0.4447
11	16.900	853.1	0.4086	20.597	964.8	0.4130
12	16.650	848.0	0.3807	20.284	955.9	0.3850
13	16.360	841.7	0.3563	19.921	945.8	0.3606
14	16.025	834.8	0.3352	19.511	935.5	0.3394
15	15.623	827.2	0.3166	19.031	924.9	0.3208
16	15.117	818.2	0.3005	18.440	913.5	0.3046
17	14.455	806.8	0.2863	17.675	899.8	0.2905
18	13.577	793.9	0.2742	16.654	881.3	0.2782
19	12.456	783.1	0.2643	15.320	854.4	0.2680
20	10.629	751.6	0.2555	13.131	810.6	0.2590
21	8.751	716.6	0.2486	10.813	760.6	0.2519
22	6.762	673.8	0.2425	8.306	705.6	0.2456
23	2.904	605.1	0.2377	3.539	618.0	0.2408
24	1.659	584.1	0.2348	1.999	591.6	0.2377

Table 4-101. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J14

Assembly Number J14									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.049	618.3	0.7396	0.562	620.0	0.7396
2	0.000		0.7396	0.162	773.7	0.7396	1.830	776.4	0.7396
3	0.000		0.7396	0.222	868.9	0.7396	2.498	871.4	0.7396
4	0.000		0.7297	0.260	874.7	0.7297	2.919	876.4	0.7299
5	0.000		0.7006	0.281	906.4	0.7006	3.141	906.2	0.7001
6	0.000	Data Not	0.6629	0.292	923.5	0.6629	3.261	922.9	0.6618
7	0.000	Required	0.6204	0.298	933.0	0.6204	3.336	933.5	0.6186
8	0.000		0.5762	0.303	940.9	0.5762	3.401	943.0	0.5739
9	0.000		0.5329	0.320	968.6	0.5329	3.581	969.0	0.5302
10	0.000		0.4930	0.319	966.9	0.4930	3.584	969.7	0.4901
11	0.000		0.4582	0.314	958.7	0.4582	3.542	963.7	0.4551
12	0.000		0.4283	0.306	945.8	0.4283	3.474	954.1	0.4250
13	0.000		0.4027	0.297	931.4	0.4027	3.395	943.0	0.3990
14	0.000		0.3803	0.288	917.2	0.3803	3.315	931.8	0.3762
15	0.000		0.3606	0.280	904.9	0.3606	3.241	921.6	0.3561
16	0.000		0.3433	0.273	894.2	0.3433	3.172	912.1	0.3385
17	0.000		0.3279	0.269	888.1	0.3279	3.101	902.0	0.3227
18	0.000		0.3141	0.263	879.1	0.3141	2.999	887.7	0.3088
19	0.000		0.3017	0.249	858.6	0.3017	2.822	863.9	0.2965
20	0.000		0.2913	0.214	809.2	0.2913	2.443	816.0	0.2862
21	0.000		0.2830	0.179	762.9	0.2830	2.049	768.9	0.2779
22	0.000		0.2766	0.141	715.5	0.2766	1.622	720.9	0.2714
23	0.000		0.2727	0.059	622.7	0.2727	0.692	626.1	0.2674
24	0.000		0.2709	0.035	597.6	0.2709	0.403	598.8	0.2656

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.129	621.3	0.7396	1.719	631.4	0.7396	2.116	637.7	0.7396
2	3.712	786.6	0.7396	5.742	839.9	0.7396	7.135	875.1	0.7396
3	5.185	905.4	0.7396	8.135	1002.6	0.7396	10.094	1042.2	0.7396
4	6.182	929.3	0.7253	9.698	1026.5	0.7170	11.911	1034.6	0.7136
5	6.740	978.8	0.6915	10.471	1065.3	0.6779	12.727	1047.0	0.6729
6	7.035	1005.6	0.6486	10.796	1070.8	0.6308	13.034	1041.8	0.6249
7	7.196	1019.1	0.6014	10.923	1064.5	0.5814	13.146	1037.4	0.5751
8	7.305	1026.1	0.5542	10.998	1058.3	0.5339	13.229	1039.7	0.5278
9	7.601	1044.8	0.5099	11.357	1069.9	0.4906	13.668	1063.1	0.4848
10	7.564	1038.3	0.4700	11.286	1063.6	0.4519	13.628	1072.3	0.4465
11	7.440	1025.2	0.4358	11.119	1055.7	0.4186	13.490	1081.0	0.4134
12	7.264	1008.1	0.4065	10.891	1046.3	0.3900	13.288	1088.9	0.3848
13	7.067	989.9	0.3812	10.637	1036.1	0.3653	13.056	1095.5	0.3600
14	6.863	971.1	0.3594	10.369	1024.7	0.3439	12.804	1100.4	0.3384
15	6.661	952.1	0.3405	10.093	1011.7	0.3253	12.532	1101.7	0.3195
16	6.457	932.4	0.3239	9.796	995.6	0.3090	12.221	1097.4	0.3030
17	6.227	909.9	0.3092	9.445	975.1	0.2948	11.826	1084.0	0.2885
18	5.919	881.5	0.2964	8.972	947.9	0.2824	11.265	1057.8	0.2758
19	5.472	845.8	0.2853	8.294	911.2	0.2716	10.441	1015.8	0.2648
20	4.684	794.5	0.2760	7.129	854.4	0.2623	9.013	944.5	0.2555
21	3.882	746.5	0.2686	5.907	795.5	0.2552	7.483	867.8	0.2481
22	3.039	700.5	0.2628	4.607	736.2	0.2497	5.828	787.5	0.2425
23	1.304	619.0	0.2593	1.985	633.0	0.2461	2.513	651.5	0.2389
24	0.750	593.9	0.2577	1.136	601.6	0.2447	1.434	611.4	0.2375

Table 4-101. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J14

Assembly Number J14						
Node No.	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.557	616.5	0.7396	3.280	634.9	0.7396
2	8.793	799.7	0.7396	11.446	878.9	0.7396
3	12.499	933.8	0.7396	16.003	1010.5	0.7396
4	14.712	939.9	0.7151	18.541	983.7	0.7127
5	15.712	972.3	0.6752	19.607	993.2	0.6724
6	16.105	987.8	0.6278	19.963	987.9	0.6251
7	16.258	995.3	0.5785	20.048	978.1	0.5762
8	16.362	999.2	0.5311	20.092	969.5	0.5296
9	16.879	1013.7	0.4880	20.643	974.3	0.4873
10	16.814	1009.0	0.4496	20.522	966.4	0.4497
11	16.628	1000.1	0.4165	20.269	956.9	0.4172
12	16.369	989.7	0.3880	19.938	946.9	0.3891
13	16.082	979.7	0.3632	19.580	937.1	0.3647
14	15.784	971.4	0.3416	19.214	927.8	0.3434
15	15.476	965.0	0.3227	18.841	919.1	0.3247
16	15.125	957.9	0.3061	18.426	910.5	0.3083
17	14.663	946.2	0.2915	17.887	900.4	0.2938
18	13.978	924.9	0.2786	17.086	885.3	0.2810
19	12.951	891.1	0.2675	15.874	861.7	0.2699
20	11.173	835.9	0.2580	13.753	819.9	0.2605
21	9.240	776.7	0.2505	11.393	770.6	0.2530
22	7.136	715.8	0.2448	8.766	714.4	0.2472
23	3.052	621.9	0.2411	3.721	621.1	0.2435
24	1.722	593.5	0.2396	2.079	593.1	0.2419

Table 4-102. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J15

Assembly Number J15									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.052	622.1	0.7396	0.722	639.6	0.7396
2	0.000		0.7396	0.179	799.7	0.7396	2.415	864.9	0.7396
3	0.000		0.7396	0.253	922.1	0.7396	3.342	1014.9	0.7363
4	0.000		0.7157	0.302	939.3	0.7157	3.873	1020.8	0.7013
5	0.000		0.6769	0.327	980.2	0.6769	4.073	1051.3	0.6526
6	0.000	Data Not	0.6297	0.338	998.8	0.6297	4.113	1056.4	0.5979
7	0.000	Required	0.5796	0.345	1010.9	0.5796	4.105	1053.8	0.5444
8	0.000		0.5306	0.353	1024.8	0.5306	4.106	1052.5	0.4961
9	0.000		0.4852	0.377	1067.8	0.4852	4.257	1075.3	0.4539
10	0.000		0.4444	0.381	1075.2	0.4444	4.223	1068.4	0.4171
11	0.000		0.4094	0.379	1071.5	0.4094	4.150	1055.7	0.3859
12	0.000		0.3796	0.372	1058.7	0.3796	4.053	1039.8	0.3592
13	0.000		0.3540	0.361	1038.9	0.3540	3.941	1022.3	0.3363
14	0.000		0.3324	0.347	1014.3	0.3324	3.816	1003.4	0.3167
15	0.000		0.3139	0.331	986.9	0.3139	3.677	982.9	0.2997
16	0.000		0.2981	0.314	958.7	0.2981	3.517	959.7	0.2848
17	0.000		0.2844	0.295	928.2	0.2844	3.325	932.3	0.2720
18	0.000		0.2728	0.271	891.2	0.2728	3.088	899.7	0.2609
19	0.000		0.2630	0.243	849.9	0.2630	2.788	859.9	0.2514
20	0.000		0.2550	0.202	793.0	0.2550	2.330	802.4	0.2436
21	0.000		0.2487	0.164	743.8	0.2487	1.900	752.0	0.2375
22	0.000		0.2439	0.128	700.0	0.2439	1.476	705.2	0.2329
23	0.000		0.2410	0.053	616.4	0.2410	0.624	619.6	0.2300
24	0.000		0.2397	0.032	594.5	0.2397	0.369	595.6	0.2287

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.447	639.5	0.7396	2.103	639.9	0.7396	2.477	633.0	0.7396
2	4.896	873.6	0.7396	7.235	891.6	0.7396	8.582	862.6	0.7396
3	6.917	975.1	0.7347	10.277	999.2	0.7326	12.125	935.2	0.7333
4	8.123	1082.8	0.6968	12.004	1093.2	0.6926	14.043	985.9	0.6943
5	8.592	1129.2	0.6439	12.610	1119.5	0.6379	14.696	998.8	0.6411
6	8.681	1137.8	0.5854	12.680	1115.8	0.5788	14.780	1002.6	0.5835
7	8.641	1132.2	0.5294	12.586	1105.4	0.5235	14.703	1007.4	0.5292
8	8.599	1124.6	0.4806	12.504	1097.8	0.4755	14.651	1015.8	0.4816
9	8.811	1135.4	0.4387	12.780	1110.0	0.4344	15.015	1040.9	0.4404
10	8.693	1120.6	0.4027	12.637	1105.2	0.3990	14.905	1050.5	0.4049
11	8.510	1101.5	0.3722	12.426	1099.9	0.3689	14.726	1059.9	0.3746
12	8.291	1080.8	0.3464	12.179	1094.6	0.3433	14.511	1069.3	0.3486
13	8.059	1060.8	0.3243	11.922	1089.8	0.3212	14.285	1078.6	0.3262
14	7.820	1042.2	0.3053	11.647	1083.1	0.3021	14.036	1086.4	0.3066
15	7.564	1023.4	0.2888	11.326	1071.0	0.2853	13.735	1092.5	0.2893
16	7.268	1002.1	0.2744	10.926	1051.9	0.2706	13.340	1094.0	0.2741
17	6.900	975.1	0.2618	10.410	1025.4	0.2576	12.797	1085.8	0.2607
18	6.426	940.1	0.2509	9.729	989.5	0.2465	12.039	1062.8	0.2491
19	5.816	896.3	0.2416	8.839	943.1	0.2370	11.007	1021.7	0.2390
20	4.889	834.1	0.2339	7.480	875.9	0.2290	9.383	949.5	0.2306
21	3.985	775.7	0.2280	6.106	808.6	0.2228	7.696	871.1	0.2240
22	3.080	720.8	0.2235	4.703	743.1	0.2182	5.927	788.1	0.2191
23	1.313	626.4	0.2206	2.013	635.0	0.2152	2.537	650.8	0.2159
24	0.764	598.4	0.2195	1.159	602.5	0.2141	1.450	610.2	0.2147

Table 4-102. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J15

Assembly Number J15						
Node No.	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.691	586.4	0.7396	3.225	614.4	0.7396
2	9.396	668.6	0.7396	11.337	780.9	0.7396
3	13.288	697.1	0.7353	15.803	812.2	0.7366
4	15.404	722.7	0.6996	18.146	839.4	0.7034
5	16.191	740.6	0.6513	19.018	849.8	0.6583
6	16.383	755.3	0.5993	19.243	853.9	0.6095
7	16.396	767.7	0.5499	19.270	855.6	0.5626
8	16.417	778.0	0.5060	19.300	856.7	0.5202
9	16.871	790.8	0.4672	19.819	864.9	0.4820
10	16.791	795.2	0.4330	19.729	863.6	0.4482
11	16.615	795.6	0.4031	19.528	860.5	0.4184
12	16.390	794.2	0.3769	19.267	856.0	0.3921
13	16.153	792.6	0.3539	18.991	851.2	0.3689
14	15.930	796.3	0.3341	18.727	846.1	0.3487
15	15.799	821.4	0.3181	18.560	841.7	0.3322
16	15.754	875.6	0.3059	18.550	846.0	0.3199
17	15.467	917.6	0.2939	18.480	873.1	0.3096
18	14.706	917.1	0.2812	17.730	874.5	0.2969
19	13.569	899.6	0.2701	16.456	857.2	0.2851
20	11.615	846.9	0.2602	14.197	820.1	0.2748
21	9.511	785.0	0.2517	11.692	773.8	0.2660
22	7.266	719.8	0.2446	8.923	717.2	0.2584
23	3.075	621.8	0.2396	3.746	621.3	0.2528
24	1.725	592.1	0.2359	2.074	592.4	0.2484



Table 4-103. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J16

Assembly Number J16									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.037	603.4	0.7396	0.434	605.8	0.7396
2	0.000		0.7396	0.123	716.8	0.7396	1.417	722.6	0.7396
3	0.000		0.7396	0.168	782.8	0.7396	1.934	791.1	0.7396
4	0.000		0.7396	0.198	829.6	0.7396	2.290	841.7	0.7396
5	0.000		0.7307	0.218	814.7	0.7307	2.528	827.0	0.7278
6	0.000	Data Not	0.7070	0.233	835.6	0.7070	2.714	850.8	0.7014
7	0.000	Required	0.6761	0.246	854.2	0.6761	2.881	872.9	0.6676
8	0.000		0.6402	0.260	874.7	0.6402	3.046	895.1	0.6289
9	0.000		0.6001	0.284	911.0	0.6001	3.313	932.1	0.5865
10	0.000		0.5584	0.291	921.9	0.5584	3.397	944.2	0.5435
11	0.000		0.5195	0.292	923.5	0.5195	3.418	947.4	0.5041
12	0.000		0.4849	0.289	918.8	0.4849	3.393	943.9	0.4693
13	0.000		0.4546	0.284	911.0	0.4546	3.338	936.0	0.4390
14	0.000		0.4283	0.277	900.3	0.4283	3.261	925.2	0.4129
15	0.000		0.4055	0.269	888.1	0.4055	3.168	912.1	0.3901
16	0.000		0.3854	0.259	873.2	0.3854	3.056	896.8	0.3702
17	0.000		0.3678	0.247	855.7	0.3678	2.917	878.0	0.3528
18	0.000		0.3526	0.233	835.6	0.3526	2.739	854.4	0.3378
19	0.000		0.3394	0.214	809.2	0.3394	2.510	825.1	0.3250
20	0.000		0.3284	0.183	768.0	0.3284	2.139	779.9	0.3144
21	0.000		0.3197	0.155	732.6	0.3197	1.794	740.0	0.3059
22	0.000		0.3128	0.126	697.7	0.3128	1.440	701.3	0.2993
23	0.000		0.3085	0.054	617.4	0.3085	0.622	619.3	0.2951
24	0.000		0.3064	0.032	594.5	0.3064	0.366	595.3	0.2933

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.000	621.2	0.7396	1.652	639.4	0.7396	2.030	633.8	0.7396
2	3.275	783.3	0.7396	5.483	869.3	0.7396	6.803	855.4	0.7396
3	4.544	893.4	0.7396	7.721	1047.0	0.7396	9.586	1012.5	0.7396
4	5.445	981.7	0.7317	9.223	1073.9	0.7158	11.362	1013.5	0.7135
5	6.034	964.8	0.7028	10.050	1119.1	0.6767	12.255	1032.3	0.6732
6	6.446	999.1	0.6649	10.494	1125.3	0.6308	12.686	1028.5	0.6265
7	6.764	1022.8	0.6219	10.765	1116.2	0.5839	12.929	1020.6	0.5791
8	7.037	1040.1	0.5775	10.980	1105.0	0.5392	13.133	1017.5	0.5343
9	7.482	1069.3	0.5339	11.462	1112.1	0.4977	13.675	1034.6	0.4930
10	7.568	1069.6	0.4926	11.484	1099.9	0.4591	13.715	1039.7	0.4549
11	7.532	1060.2	0.4559	11.376	1086.3	0.4252	13.632	1047.0	0.4212
12	7.409	1044.1	0.4241	11.169	1070.6	0.3957	13.450	1054.3	0.3920
13	7.225	1023.4	0.3968	10.890	1053.2	0.3704	13.194	1061.0	0.3667
14	6.998	999.9	0.3734	10.554	1033.6	0.3485	12.876	1066.4	0.3447
15	6.736	974.1	0.3532	10.170	1012.0	0.3296	12.502	1069.3	0.3256
16	6.438	946.5	0.3356	9.728	987.3	0.3133	12.057	1068.4	0.3088
17	6.089	916.4	0.3205	9.202	957.7	0.2991	11.503	1060.2	0.2943
18	5.663	882.1	0.3075	8.555	922.1	0.2870	10.783	1038.9	0.2815
19	5.139	843.1	0.2964	7.754	879.5	0.2766	9.849	1001.3	0.2707
20	4.354	791.3	0.2872	6.573	822.2	0.2680	8.416	933.9	0.2616
21	3.617	745.3	0.2801	5.434	767.9	0.2614	6.984	861.6	0.2545
22	2.875	702.4	0.2746	4.290	717.3	0.2564	5.508	786.8	0.2493
23	1.253	620.8	0.2707	1.877	626.8	0.2527	2.413	653.0	0.2455
24	0.732	595.7	0.2691	1.093	599.0	0.2514	1.400	612.9	0.2442

Table 4-103. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly J16

Assembly Number J16						
Node No.	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.384	604.9	0.7396	3.032	626.7	0.7396
2	8.125	745.1	0.7396	10.477	836.3	0.7396
3	11.524	847.8	0.7396	14.638	948.1	0.7396
4	13.643	854.5	0.7179	17.015	920.0	0.7172
5	14.709	882.0	0.6803	18.117	924.9	0.6802
6	15.241	898.5	0.6360	18.621	921.1	0.6369
7	15.554	910.1	0.5903	18.893	915.6	0.5921
8	15.808	918.4	0.5462	19.120	912.0	0.5489
9	16.440	933.7	0.5047	19.815	920.4	0.5081
10	16.476	933.1	0.4663	19.837	918.5	0.4705
11	16.363	927.9	0.4325	19.698	915.1	0.4371
12	16.141	921.1	0.4030	19.438	910.0	0.4079
13	15.841	913.7	0.3774	19.094	904.2	0.3826
14	15.480	906.6	0.3552	18.688	898.3	0.3605
15	15.060	899.0	0.3359	18.222	892.3	0.3412
16	14.559	889.8	0.3189	17.670	885.6	0.3243
17	13.929	877.5	0.3041	16.970	876.7	0.3095
18	13.095	859.4	0.2912	16.029	863.1	0.2964
19	11.987	832.5	0.2801	14.745	841.3	0.2853
20	10.259	789.0	0.2707	12.683	801.5	0.2758
21	8.486	741.5	0.2633	10.501	755.4	0.2682
22	6.627	691.6	0.2574	8.149	703.3	0.2621
23	2.871	612.6	0.2532	3.494	617.0	0.2577
24	1.639	588.1	0.2511	1.969	590.7	0.2554

Table 4-104. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly K1

Assembly Number K1									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.048	617.1	0.7396	0.573	621.6	0.7396
2	0.000		0.7396	0.184	807.8	0.7396	2.142	820.9	0.7396
3	0.000		0.7396	0.256	927.9	0.7396	2.968	946.4	0.7396
4	0.000		0.7151	0.301	938.3	0.7151	3.465	954.0	0.7129
5	0.000		0.6763	0.324	975.8	0.6763	3.702	988.9	0.6717
6	0.000	Data Not	0.6294	0.334	992.7	0.6294	3.802	1003.9	0.6226
7	0.000	Required	0.5799	0.340	1002.9	0.5799	3.848	1010.7	0.5715
8	0.000		0.5318	0.343	1008.1	0.5318	3.883	1016.2	0.5229
9	0.000		0.4875	0.359	1036.1	0.4875	4.038	1040.2	0.4790
10	0.000		0.4485	0.357	1032.5	0.4485	4.020	1037.4	0.4404
11	0.000		0.4151	0.351	1022.0	0.4151	3.959	1027.9	0.4075
12	0.000		0.3867	0.342	1006.3	0.3867	3.872	1014.4	0.3793
13	0.000		0.3621	0.332	989.3	0.3621	3.774	999.5	0.3551
14	0.000		0.3411	0.322	972.5	0.3411	3.676	984.9	0.3341
15	0.000		0.3229	0.312	956.0	0.3229	3.586	971.7	0.3160
16	0.000		0.3069	0.304	943.1	0.3069	3.502	959.4	0.3000
17	0.000		0.2926	0.299	935.1	0.2926	3.415	946.4	0.2858
18	0.000		0.2797	0.292	924.0	0.2797	3.293	928.3	0.2732
19	0.000		0.2684	0.276	899.2	0.2684	3.090	899.8	0.2621
20	0.000		0.2588	0.237	841.7	0.2588	2.680	845.9	0.2528
21	0.000		0.2512	0.198	788.0	0.2512	2.244	791.9	0.2453
22	0.000		0.2453	0.155	732.8	0.2453	1.770	737.3	0.2395
23	0.000		0.2419	0.058	621.7	0.2419	0.685	625.6	0.2360
24	0.000		0.2404	0.034	596.6	0.2404	0.397	598.3	0.2345

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.217	630.2	0.7396	1.911	645.0	0.7396	2.366	650.0	0.7396
2	4.562	864.8	0.7396	7.200	945.0	0.7396	8.904	964.1	0.7396
3	6.430	1035.6	0.7375	10.114	1057.4	0.7329	12.312	1031.0	0.7317
4	7.588	1062.4	0.7037	11.728	1144.3	0.6938	14.078	1075.5	0.6919
5	8.121	1112.6	0.6553	12.334	1158.9	0.6406	14.686	1076.1	0.6384
6	8.304	1127.1	0.5998	12.449	1145.3	0.5827	14.773	1067.7	0.5806
7	8.341	1125.5	0.5451	12.395	1127.4	0.5278	14.704	1063.3	0.5261
8	8.344	1119.9	0.4958	12.331	1114.4	0.4795	14.651	1066.6	0.4783
9	8.561	1130.8	0.4530	12.594	1123.3	0.4380	14.996	1091.2	0.4371
10	8.458	1115.9	0.4158	12.450	1115.3	0.4022	14.885	1101.3	0.4014
11	8.282	1096.0	0.3845	12.233	1107.4	0.3717	14.703	1112.1	0.3710
12	8.060	1073.2	0.3578	11.967	1099.0	0.3457	14.471	1122.7	0.3448
13	7.817	1049.3	0.3351	11.675	1089.7	0.3234	14.212	1133.1	0.3222
14	7.570	1025.2	0.3156	11.368	1078.5	0.3042	13.931	1141.3	0.3027
15	7.327	1001.2	0.2987	11.046	1063.8	0.2874	13.624	1146.1	0.2856
16	7.079	976.1	0.2841	10.693	1044.7	0.2729	13.266	1144.5	0.2706
17	6.803	947.9	0.2712	10.277	1019.7	0.2602	12.814	1133.1	0.2575
18	6.443	913.8	0.2600	9.729	987.2	0.2491	12.184	1107.4	0.2460
19	5.940	872.5	0.2502	8.973	945.2	0.2394	11.284	1063.9	0.2360
20	5.093	816.0	0.2419	7.724	882.4	0.2313	9.769	988.1	0.2275
21	4.221	763.3	0.2353	6.407	817.9	0.2248	8.135	905.3	0.2207
22	3.299	712.8	0.2302	5.001	753.3	0.2198	6.352	816.3	0.2155
23	1.294	618.8	0.2270	1.986	634.3	0.2164	2.540	656.3	0.2120
24	0.741	593.7	0.2258	1.133	602.3	0.2152	1.444	613.7	0.2108

Table 4-104. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly K1

Assembly Number K1						
Node No.	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	3.020	645.9	0.7396	3.714	631.8	0.7396
2	11.394	950.8	0.7396	13.872	854.3	0.7396
3	15.592	1027.4	0.7312	18.721	888.4	0.7324
4	17.684	1091.4	0.6906	21.060	921.1	0.6939
5	18.357	1104.7	0.6365	21.813	931.9	0.6426
6	18.398	1095.3	0.5787	21.883	935.9	0.5874
7	18.257	1080.7	0.5243	21.757	937.9	0.5349
8	18.142	1068.4	0.4769	21.653	939.4	0.4885
9	18.514	1073.7	0.4362	22.104	950.4	0.4480
10	18.349	1063.0	0.4011	21.924	948.3	0.4127
11	18.108	1051.5	0.3710	21.650	943.7	0.3825
12	17.816	1039.8	0.3452	21.314	937.6	0.3564
13	17.504	1029.7	0.3229	20.955	931.2	0.3339
14	17.180	1021.5	0.3035	20.583	924.7	0.3142
15	16.834	1014.2	0.2865	20.194	918.9	0.2969
16	16.433	1006.1	0.2717	19.749	913.0	0.2817
17	15.910	993.0	0.2586	19.175	906.2	0.2683
18	15.158	970.9	0.2470	18.344	895.8	0.2566
19	14.063	936.7	0.2370	17.122	879.4	0.2465
20	12.203	879.2	0.2285	14.994	845.7	0.2380
21	10.161	816.0	0.2216	12.607	804.4	0.2313
22	7.891	746.7	0.2164	9.830	747.4	0.2259
23	3.148	629.9	0.2130	3.926	631.2	0.2223
24	1.771	597.9	0.2117	2.181	597.9	0.2204

Table 4-105. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly K2

Assembly Number K2									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.036	602.2	0.7396	0.427	605.2	0.7396
2	0.000		0.7396	0.138	738.5	0.7396	1.597	746.2	0.7396
3	0.000		0.7396	0.191	818.8	0.7396	2.221	832.2	0.7396
4	0.000		0.7392	0.227	827.6	0.7392	2.637	841.2	0.7386
5	0.000		0.7171	0.248	857.5	0.7171	2.895	875.1	0.7139
6	0.000	Data Not	0.6860	0.264	881.1	0.6860	3.073	899.0	0.6798
7	0.000	Required	0.6486	0.276	899.2	0.6486	3.215	918.8	0.6393
8	0.000		0.6074	0.288	917.7	0.6074	3.342	936.6	0.5953
9	0.000		0.5638	0.308	949.5	0.5638	3.562	968.5	0.5503
10	0.000		0.5216	0.313	957.7	0.5216	3.610	975.5	0.5077
11	0.000		0.4839	0.312	956.0	0.4839	3.604	974.7	0.4700
12	0.000		0.4509	0.308	949.5	0.4509	3.560	968.2	0.4373
13	0.000		0.4225	0.301	938.3	0.4225	3.490	958.0	0.4092
14	0.000		0.3979	0.293	925.6	0.3979	3.401	945.1	0.3848
15	0.000		0.3764	0.284	911.5	0.3764	3.296	930.0	0.3636
16	0.000		0.3576	0.273	894.6	0.3576	3.173	912.8	0.3451
17	0.000		0.3413	0.259	873.6	0.3413	3.023	892.3	0.3291
18	0.000		0.3272	0.243	850.3	0.3272	2.839	867.7	0.3152
19	0.000		0.3151	0.224	823.4	0.3151	2.610	837.9	0.3033
20	0.000		0.3049	0.193	781.4	0.3049	2.248	793.1	0.2934
21	0.000		0.2967	0.166	746.6	0.2967	1.898	751.8	0.2855
22	0.000		0.2900	0.138	712.1	0.2900	1.525	710.0	0.2792
23	0.000		0.2859	0.055	618.6	0.2859	0.600	617.0	0.2754
24	0.000		0.2841	0.033	595.6	0.2841	0.348	593.4	0.2737

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	0.993	621.2	0.7396	1.666	642.2	0.7396	2.095	644.5	0.7396
2	3.700	818.1	0.7396	6.227	925.0	0.7396	7.830	934.5	0.7396
3	5.204	953.6	0.7396	8.770	1128.1	0.7380	10.885	1007.5	0.7364
4	6.214	976.1	0.7222	10.288	1131.3	0.7058	12.565	1053.9	0.7027
5	6.800	1027.0	0.6862	10.979	1152.1	0.6608	13.256	1053.9	0.6566
6	7.140	1053.2	0.6417	11.253	1139.0	0.6104	13.491	1042.5	0.6058
7	7.355	1065.2	0.5939	11.363	1118.4	0.5609	13.570	1033.5	0.5560
8	7.515	1070.7	0.5472	11.436	1101.7	0.5150	13.635	1031.3	0.5104
9	7.846	1089.4	0.5033	11.793	1106.7	0.4736	14.060	1050.9	0.4693
10	7.851	1082.1	0.4634	11.739	1095.4	0.4362	14.034	1059.2	0.4324
11	7.763	1068.4	0.4288	11.592	1084.3	0.4038	13.921	1069.2	0.4002
12	7.603	1049.3	0.3990	11.369	1072.5	0.3759	13.735	1080.3	0.3724
13	7.396	1027.1	0.3736	11.089	1059.0	0.3518	13.491	1091.2	0.3483
14	7.154	1003.0	0.3517	10.763	1043.8	0.3311	13.196	1100.7	0.3273
15	6.882	977.4	0.3328	10.388	1025.4	0.3131	12.846	1108.4	0.3090
16	6.575	950.0	0.3164	9.954	1003.2	0.2975	12.421	1111.2	0.2929
17	6.215	919.7	0.3022	9.431	975.4	0.2839	11.881	1105.9	0.2789
18	5.784	885.4	0.2900	8.787	940.4	0.2723	11.174	1086.6	0.2667
19	5.264	846.7	0.2797	7.996	897.7	0.2623	10.258	1049.5	0.2562
20	4.494	795.4	0.2711	6.831	839.2	0.2541	8.841	978.6	0.2473
21	3.750	748.9	0.2644	5.681	783.2	0.2477	7.389	900.3	0.2404
22	2.979	704.6	0.2591	4.493	729.7	0.2428	5.848	817.2	0.2352
23	1.185	616.5	0.2555	1.807	626.7	0.2391	2.372	658.3	0.2312
24	0.683	592.8	0.2541	1.038	598.4	0.2379	1.361	615.7	0.2299

Table 4-105. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly K2

Assembly Number K2						
Node No.	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.484	609.6	0.7396	3.106	624.0	0.7396
2	9.349	777.0	0.7396	11.639	828.0	0.7396
3	12.952	822.2	0.7386	15.878	862.5	0.7392
4	14.932	868.5	0.7077	18.107	894.4	0.7096
5	15.787	895.0	0.6648	19.033	903.7	0.6687
6	16.122	911.6	0.6166	19.375	904.7	0.6223
7	16.269	923.0	0.5685	19.508	902.8	0.5757
8	16.382	931.2	0.5236	19.606	900.8	0.5317
9	16.896	946.6	0.4823	20.181	908.9	0.4909
10	16.863	945.3	0.4450	20.125	905.8	0.4540
11	16.722	940.5	0.4125	19.949	901.2	0.4217
12	16.497	933.8	0.3843	19.683	895.8	0.3935
13	16.215	927.3	0.3599	19.358	890.2	0.3691
14	15.887	921.7	0.3386	18.987	884.7	0.3478
15	15.507	916.6	0.3200	18.567	879.5	0.3292
16	15.047	910.7	0.3037	18.064	874.0	0.3128
17	14.452	901.6	0.2894	17.414	867.1	0.2984
18	13.649	885.9	0.2769	16.521	855.8	0.2858
19	12.573	860.3	0.2661	15.297	837.5	0.2749
20	10.867	816.0	0.2571	13.301	803.0	0.2658
21	9.071	766.5	0.2498	11.149	762.6	0.2583
22	7.115	710.6	0.2439	8.720	712.0	0.2522
23	2.863	616.5	0.2396	3.489	617.3	0.2477
24	1.616	589.9	0.2375	1.941	590.3	0.2452

Table 4-106. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly K3

Assembly Number K3									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.045	613.3	0.7396	0.524	615.9	0.7396
2	0.000		0.7396	0.169	784.6	0.7396	1.955	794.4	0.7396
3	0.000		0.7396	0.233	887.9	0.7396	2.711	905.7	0.7396
4	0.000		0.7226	0.274	896.2	0.7226	3.191	915.4	0.7198
5	0.000		0.6896	0.296	930.3	0.6896	3.454	953.0	0.6835
6	0.000	Data Not	0.6483	0.309	951.2	0.6483	3.604	975.2	0.6386
7	0.000	Required	0.6026	0.318	965.9	0.6026	3.706	990.5	0.5901
8	0.000		0.5558	0.327	980.9	0.5558	3.794	1003.8	0.5416
9	0.000		0.5110	0.346	1013.3	0.5110	3.992	1034.5	0.4965
10	0.000		0.4702	0.348	1016.7	0.4702	4.010	1037.2	0.4560
11	0.000		0.4350	0.345	1011.5	0.4350	3.977	1032.0	0.4211
12	0.000		0.4047	0.339	1001.2	0.4047	3.912	1021.8	0.3913
13	0.000		0.3786	0.331	987.6	0.3786	3.830	1009.2	0.3656
14	0.000		0.3559	0.322	972.5	0.3559	3.739	995.4	0.3433
15	0.000		0.3363	0.314	959.3	0.3363	3.642	980.6	0.3241
16	0.000		0.3191	0.305	944.7	0.3191	3.537	964.9	0.3073
17	0.000		0.3040	0.296	930.3	0.3040	3.411	946.2	0.2925
18	0.000		0.2906	0.283	910.0	0.2906	3.242	921.8	0.2796
19	0.000		0.2790	0.263	879.6	0.2790	3.002	888.6	0.2685
20	0.000		0.2693	0.227	827.6	0.2693	2.585	834.0	0.2591
21	0.000		0.2616	0.190	777.4	0.2616	2.163	782.4	0.2516
22	0.000		0.2555	0.151	727.9	0.2555	1.714	731.0	0.2458
23	0.000		0.2519	0.058	621.7	0.2519	0.669	623.9	0.2422
24	0.000		0.2503	0.034	596.6	0.2503	0.389	597.5	0.2408

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.218	636.0	0.7396	1.994	655.8	0.7396	2.442	648.5	0.7396
2	4.553	892.0	0.7396	7.495	1001.7	0.7396	9.165	954.1	0.7396
3	6.416	1079.7	0.7360	10.471	1127.6	0.7288	12.610	1014.2	0.7286
4	7.578	1107.0	0.7002	12.049	1212.0	0.6850	14.332	1055.6	0.6852
5	8.124	1157.0	0.6502	12.591	1211.1	0.6287	14.873	1055.3	0.6294
6	8.337	1168.5	0.5949	12.670	1183.3	0.5706	14.920	1046.0	0.5718
7	8.418	1164.7	0.5414	12.616	1155.9	0.5175	14.844	1039.6	0.5190
8	8.465	1157.2	0.4931	12.561	1135.6	0.4710	14.790	1039.9	0.4727
9	8.724	1168.3	0.4507	12.842	1140.0	0.4309	15.145	1061.5	0.4327
10	8.654	1152.3	0.4136	12.711	1128.0	0.3958	15.045	1070.7	0.3978
11	8.504	1131.5	0.3820	12.501	1116.3	0.3659	14.870	1081.2	0.3678
12	8.298	1106.9	0.3552	12.233	1104.4	0.3404	14.637	1091.8	0.3421
13	8.060	1080.3	0.3323	11.928	1091.6	0.3185	14.366	1102.2	0.3200
14	7.804	1052.9	0.3126	11.592	1076.6	0.2995	14.061	1111.8	0.3008
15	7.530	1024.3	0.2957	11.221	1058.7	0.2832	13.713	1118.9	0.2840
16	7.231	993.9	0.2810	10.799	1036.4	0.2690	13.302	1122.4	0.2694
17	6.884	960.5	0.2683	10.291	1008.0	0.2567	12.781	1118.3	0.2565
18	6.449	921.8	0.2573	9.646	972.2	0.2459	12.079	1100.7	0.2452
19	5.890	877.6	0.2478	8.811	927.2	0.2367	11.124	1064.5	0.2354
20	5.024	819.2	0.2398	7.533	864.2	0.2289	9.593	992.2	0.2271
21	4.162	765.9	0.2335	6.233	802.1	0.2228	7.977	909.3	0.2205
22	3.269	715.6	0.2287	4.878	741.5	0.2181	6.246	820.1	0.2155
23	1.294	620.3	0.2253	1.952	630.6	0.2147	2.517	658.3	0.2120
24	0.746	594.9	0.2241	1.120	600.4	0.2136	1.438	614.9	0.2108

Table 4-106. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly K3

Assembly Number K3						
Node No.	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.902	619.2	0.7396	3.735	647.2	0.7396
2	10.941	820.0	0.7396	13.924	928.5	0.7396
3	15.018	875.0	0.7310	18.823	980.8	0.7306
4	17.113	937.0	0.6906	21.247	1029.5	0.6905
5	17.877	976.3	0.6380	22.084	1040.6	0.6384
6	18.057	1000.6	0.5827	22.226	1034.8	0.5837
7	18.056	1014.5	0.5307	22.155	1024.2	0.5320
8	18.047	1023.0	0.4842	22.087	1015.3	0.4859
9	18.497	1041.2	0.4435	22.580	1021.8	0.4456
10	18.381	1038.1	0.4077	22.418	1014.9	0.4102
11	18.160	1029.3	0.3772	22.136	1005.8	0.3799
12	17.866	1017.7	0.3509	21.766	994.6	0.3538
13	17.528	1005.2	0.3283	21.348	983.0	0.3312
14	17.155	992.7	0.3086	20.893	971.2	0.3116
15	16.737	979.9	0.2915	20.392	959.5	0.2945
16	16.246	965.6	0.2765	19.809	946.6	0.2796
17	15.625	948.0	0.2633	19.077	931.4	0.2664
18	14.788	924.7	0.2518	18.088	910.9	0.2549
19	13.640	892.5	0.2418	16.727	883.0	0.2448
20	11.788	841.6	0.2334	14.512	837.5	0.2364
21	9.797	786.0	0.2266	12.096	787.4	0.2296
22	7.621	724.8	0.2212	9.394	729.6	0.2242
23	3.057	622.1	0.2176	3.763	624.6	0.2206
24	1.725	593.5	0.2161	2.104	595.1	0.2189



Table 4-107. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly K4

Assembly Number K4									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.043	610.9	0.7396	0.510	614.4	0.7396
2	0.000		0.7396	0.165	778.5	0.7396	1.910	788.2	0.7396
3	0.000		0.7396	0.228	879.4	0.7396	2.648	895.9	0.7396
4	0.000		0.7255	0.268	887.1	0.7255	3.116	904.9	0.7226
5	0.000		0.6940	0.291	922.4	0.6940	3.376	941.5	0.6879
6	0.000	Data Not	0.6538	0.304	943.1	0.6538	3.532	964.3	0.6445
7	0.000	Required	0.6087	0.314	959.3	0.6087	3.642	980.6	0.5969
8	0.000		0.5621	0.323	974.2	0.5621	3.736	994.7	0.5489
9	0.000		0.5172	0.342	1006.3	0.5172	3.939	1026.0	0.5035
10	0.000		0.4762	0.344	1009.8	0.4762	3.963	1029.8	0.4627
11	0.000		0.4404	0.341	1004.6	0.4404	3.935	1025.4	0.4274
12	0.000		0.4099	0.335	994.4	0.4099	3.873	1015.8	0.3972
13	0.000		0.3836	0.328	982.5	0.3836	3.789	1002.7	0.3711
14	0.000		0.3606	0.318	965.9	0.3606	3.691	988.0	0.3486
15	0.000		0.3409	0.308	949.5	0.3409	3.580	971.4	0.3291
16	0.000		0.3237	0.297	931.9	0.3237	3.451	952.4	0.3122
17	0.000		0.3087	0.283	910.0	0.3087	3.293	929.7	0.2975
18	0.000		0.2957	0.267	885.6	0.2957	3.096	902.0	0.2847
19	0.000		0.2844	0.246	854.6	0.2844	2.843	867.8	0.2737
20	0.000		0.2751	0.211	805.5	0.2751	2.438	816.1	0.2647
21	0.000		0.2676	0.178	761.8	0.2676	2.041	768.3	0.2574
22	0.000		0.2616	0.144	719.4	0.2616	1.622	720.8	0.2517
23	0.000		0.2581	0.055	618.6	0.2581	0.634	620.5	0.2482
24	0.000		0.2565	0.033	595.6	0.2565	0.370	595.7	0.2468

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.182	633.4	0.7396	1.926	651.5	0.7396	2.355	644.5	0.7396
2	4.421	878.6	0.7396	7.234	977.3	0.7396	8.833	933.3	0.7396
3	6.209	1053.4	0.7378	10.101	1096.2	0.7310	12.166	993.6	0.7308
4	7.329	1077.4	0.7043	11.657	1182.3	0.6899	13.873	1036.1	0.6900
5	7.880	1127.4	0.6570	12.241	1189.1	0.6360	14.466	1038.7	0.6367
6	8.125	1143.2	0.6034	12.380	1167.4	0.5794	14.579	1031.3	0.5806
7	8.241	1144.3	0.5505	12.378	1143.7	0.5266	14.556	1025.3	0.5281
8	8.317	1141.1	0.5021	12.360	1125.2	0.4799	14.540	1025.8	0.4816
9	8.598	1155.0	0.4591	12.665	1129.9	0.4392	14.918	1046.9	0.4411
10	8.547	1141.6	0.4215	12.554	1118.2	0.4035	14.837	1055.6	0.4056
11	8.412	1122.7	0.3893	12.359	1106.7	0.3731	14.677	1066.0	0.3752
12	8.216	1099.5	0.3618	12.099	1094.5	0.3471	14.453	1076.7	0.3490
13	7.981	1073.9	0.3384	11.794	1081.3	0.3247	14.182	1086.9	0.3265
14	7.718	1046.7	0.3184	11.448	1065.8	0.3054	13.869	1097.0	0.3069
15	7.429	1018.1	0.3011	11.058	1047.4	0.2887	13.504	1104.7	0.2898
16	7.103	987.5	0.2861	10.606	1024.9	0.2742	13.065	1108.7	0.2749
17	6.721	953.8	0.2732	10.060	996.3	0.2616	12.510	1105.9	0.2618
18	6.258	915.5	0.2620	9.382	960.1	0.2507	11.780	1090.0	0.2503
19	5.691	872.3	0.2525	8.537	915.4	0.2415	10.819	1055.3	0.2404
20	4.847	815.5	0.2446	7.285	853.8	0.2337	9.318	984.8	0.2321
21	4.021	763.7	0.2383	6.031	793.8	0.2277	7.758	905.0	0.2255
22	3.169	714.7	0.2335	4.735	736.1	0.2230	6.096	818.5	0.2204
23	1.254	619.8	0.2301	1.895	628.7	0.2197	2.458	657.9	0.2169
24	0.726	594.8	0.2290	1.091	599.4	0.2185	1.409	614.9	0.2157

Table 4-107. (Cont'd) Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly K4

Assembly Number K4						
Node No.	Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	2.625	593.8	0.7396	3.215	620.5	0.7396
2	9.900	706.0	0.7396	12.062	810.6	0.7396
3	13.631	736.7	0.7335	16.398	842.8	0.7348
4	15.569	768.4	0.6967	18.579	873.1	0.7004
5	16.298	787.7	0.6484	19.388	883.4	0.6548
6	16.502	800.9	0.5972	19.611	885.8	0.6059
7	16.542	810.1	0.5486	19.653	886.1	0.5591
8	16.574	817.2	0.5048	19.682	885.7	0.5162
9	17.023	827.9	0.4655	20.192	893.6	0.4774
10	16.949	829.0	0.4305	20.100	891.3	0.4427
11	16.774	826.7	0.3998	19.892	887.0	0.4121
12	16.527	823.2	0.3732	19.604	881.7	0.3854
13	16.238	820.5	0.3501	19.271	876.1	0.3622
14	15.944	823.4	0.3303	18.933	870.5	0.3422
15	15.751	849.7	0.3143	18.700	865.4	0.3258
16	15.674	907.9	0.3016	18.656	869.6	0.3130
17	15.382	952.9	0.2895	18.589	898.6	0.3022
18	14.645	951.6	0.2769	17.860	899.6	0.2896
19	13.583	934.1	0.2659	16.655	881.1	0.2778
20	11.752	879.2	0.2561	14.513	842.1	0.2675
21	9.768	813.7	0.2478	12.140	795.8	0.2589
22	7.597	741.6	0.2408	9.438	736.8	0.2514
23	3.034	626.2	0.2359	3.757	626.2	0.2463
24	1.704	594.4	0.2328	2.080	594.8	0.2427

Table 4-108. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly L1

Assembly Number L1									
Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.395	610.1	0.7396	1.125	635.4	0.7396
2	0.000		0.7396	1.507	773.7	0.7396	4.198	882.9	0.7396
3	0.000		0.7396	2.147	883.7	0.7396	5.904	1050.4	0.7371
4	0.000		0.7250	2.613	906.3	0.7250	7.002	1065.4	0.7039
5	0.000		0.6899	2.920	958.6	0.6899	7.569	1106.9	0.6564
6	0.000	Data Not	0.6447	3.119	994.3	0.6447	7.828	1116.7	0.6024
7	0.000	Required	0.5946	3.262	1020.8	0.5946	7.954	1113.9	0.5486
8	0.000		0.5441	3.376	1042.4	0.5441	8.046	1110.3	0.4995
9	0.000		0.4963	3.590	1084.4	0.4963	8.390	1131.8	0.4556
10	0.000		0.4534	3.611	1088.6	0.4534	8.348	1121.3	0.4169
11	0.000		0.4167	3.580	1082.4	0.4167	8.222	1105.7	0.3840
12	0.000		0.3855	3.519	1070.3	0.3855	8.044	1086.9	0.3561
13	0.000		0.3587	3.442	1055.2	0.3587	7.840	1066.8	0.3322
14	0.000		0.3360	3.356	1038.6	0.3360	7.621	1046.1	0.3118
15	0.000		0.3163	3.261	1020.6	0.3163	7.386	1024.9	0.2942
16	0.000		0.2993	3.152	1000.3	0.2993	7.123	1002.0	0.2788
17	0.000		0.2845	3.019	976.2	0.2845	6.808	975.7	0.2654
18	0.000		0.2718	2.846	945.7	0.2718	6.405	943.5	0.2539
19	0.000		0.2609	2.615	906.6	0.2609	5.881	904.1	0.2440
20	0.000		0.2519	2.235	846.0	0.2519	5.047	846.5	0.2356
21	0.000		0.2447	1.848	788.6	0.2447	4.169	788.6	0.2290
22	0.000		0.2391	1.430	731.1	0.2391	3.220	730.4	0.2240
23	0.000		0.2356	0.533	620.9	0.2356	1.229	623.3	0.2205
24	0.000		0.2342	0.322	597.2	0.2342	0.738	598.2	0.2193

Table 4-109. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly L2

Assembly Number L2									
Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.442	616.4	0.7396	1.222	640.9	0.7396
2	0.000		0.7396	1.710	807.2	0.7396	4.640	918.1	0.7396
3	0.000		0.7396	2.473	945.0	0.7396	6.643	1122.8	0.7330
4	0.000		0.7157	2.997	972.3	0.7157	7.853	1141.1	0.6932
5	0.000		0.6731	3.278	1023.8	0.6731	8.296	1168.7	0.6391
6	0.000	Data Not	0.6211	3.404	1047.8	0.6211	8.324	1151.9	0.5811
7	0.000	Required	0.5669	3.455	1057.7	0.5669	8.210	1124.3	0.5267
8	0.000		0.5159	3.483	1063.2	0.5159	8.096	1101.0	0.4791
9	0.000		0.4705	3.628	1092.1	0.4705	8.278	1107.0	0.4380
10	0.000		0.4309	3.593	1085.0	0.4309	8.114	1086.2	0.4025
11	0.000		0.3976	3.520	1070.5	0.3976	7.903	1064.4	0.3725
12	0.000		0.3691	3.432	1053.3	0.3691	7.672	1042.3	0.3470
13	0.000		0.3450	3.342	1035.9	0.3450	7.446	1021.7	0.3252
14	0.000		0.3241	3.258	1020.0	0.3241	7.233	1002.6	0.3064
15	0.000		0.3060	3.176	1004.8	0.3060	7.026	984.4	0.2901
16	0.000		0.2901	3.086	988.3	0.2901	6.807	966.1	0.2757
17	0.000		0.2763	2.970	967.5	0.2763	6.536	944.5	0.2631
18	0.000		0.2642	2.804	938.5	0.2642	6.167	917.0	0.2520
19	0.000		0.2538	2.568	898.9	0.2538	5.658	881.3	0.2424
20	0.000		0.2452	2.175	836.8	0.2452	4.828	827.3	0.2344
21	0.000		0.2384	1.774	778.1	0.2384	3.942	771.3	0.2280
22	0.000		0.2332	1.358	721.6	0.2332	3.010	716.0	0.2233
23	0.000		0.2301	0.510	618.3	0.2301	1.148	618.1	0.2203
24	0.000		0.2288	0.310	595.9	0.2288	0.691	595.1	0.2192

Table 4-110. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly M1

Assembly Number M1									
Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.445	616.8	0.7396	1.080	624.9	0.7396
2	0.000		0.7396	1.584	786.0	0.7396	3.841	821.5	0.7396
3	0.000		0.7396	2.155	884.7	0.7396	5.326	954.4	0.7396
4	0.000		0.7215	2.512	889.2	0.7215	6.298	974.6	0.7132
5	0.000		0.6872	2.716	922.9	0.6872	6.846	1024.8	0.6722
6	0.000	Data Not	0.6451	2.851	946.0	0.6451	7.163	1052.5	0.6228
7	0.000	Required	0.5995	2.964	965.7	0.5995	7.376	1068.1	0.5713
8	0.000		0.5537	3.078	986.1	0.5537	7.562	1079.4	0.5223
9	0.000		0.5101	3.286	1024.5	0.5101	7.926	1104.5	0.4780
10	0.000		0.4698	3.351	1036.8	0.4698	7.989	1104.1	0.4385
11	0.000		0.4340	3.371	1040.7	0.4340	7.963	1096.7	0.4044
12	0.000		0.4026	3.363	1039.1	0.4026	7.879	1084.5	0.3749
13	0.000		0.3753	3.336	1034.0	0.3753	7.759	1069.8	0.3495
14	0.000		0.3514	3.293	1025.8	0.3514	7.609	1053.1	0.3276
15	0.000		0.3306	3.233	1014.6	0.3306	7.430	1034.9	0.3085
16	0.000		0.3124	3.153	999.8	0.3124	7.210	1014.0	0.2918
17	0.000		0.2965	3.043	979.8	0.2965	6.927	988.6	0.2773
18	0.000		0.2827	2.886	952.1	0.2827	6.549	957.3	0.2646
19	0.000		0.2707	2.670	915.2	0.2707	6.051	918.8	0.2536
20	0.000		0.2607	2.326	859.7	0.2607	5.306	866.9	0.2443
21	0.000		0.2526	1.941	801.7	0.2526	4.416	805.9	0.2369
22	0.000		0.2462	1.521	743.0	0.2462	3.441	744.0	0.2312
23	0.000		0.2420	0.590	627.4	0.2420	1.358	629.8	0.2273
24	0.000		0.2398	0.365	601.9	0.2398	0.832	602.7	0.2258

Table 4-111. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly M2

Assembly Number M2									
Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.533	628.7	0.7396	1.338	643.5	0.7396
2	0.000		0.7396	1.929	844.4	0.7396	4.802	909.1	0.7396
3	0.000		0.7392	2.661	913.7	0.7392	6.668	1006.6	0.7324
4	0.000		0.7079	3.099	989.9	0.7079	7.727	1102.5	0.6926
5	0.000		0.6629	3.294	1026.0	0.6629	8.106	1132.7	0.6388
6	0.000	Data Not	0.6105	3.362	1038.9	0.6105	8.150	1128.8	0.5808
7	0.000	Required	0.5574	3.379	1042.2	0.5574	8.088	1115.7	0.5263
8	0.000		0.5085	3.392	1044.7	0.5085	8.029	1104.0	0.4785
9	0.000		0.4652	3.509	1067.5	0.4652	8.189	1111.0	0.4376
10	0.000		0.4275	3.488	1063.3	0.4275	8.082	1097.0	0.4022
11	0.000		0.3954	3.437	1053.4	0.3954	7.928	1080.5	0.3722
12	0.000		0.3680	3.371	1040.7	0.3680	7.747	1062.5	0.3466
13	0.000		0.3443	3.300	1027.2	0.3443	7.559	1044.4	0.3246
14	0.000		0.3238	3.227	1013.5	0.3238	7.370	1026.8	0.3057
15	0.000		0.3059	3.148	998.9	0.3059	7.173	1009.2	0.2891
16	0.000		0.2903	3.054	981.8	0.2903	6.951	990.5	0.2746
17	0.000		0.2765	2.933	960.3	0.2765	6.677	968.7	0.2618
18	0.000		0.2646	2.765	931.2	0.2646	6.312	941.3	0.2505
19	0.000		0.2543	2.537	893.3	0.2543	5.828	906.9	0.2408
20	0.000		0.2458	2.185	837.9	0.2458	5.099	858.7	0.2324
21	0.000		0.2389	1.799	781.3	0.2389	4.226	800.4	0.2257
22	0.000		0.2337	1.389	725.4	0.2337	3.275	740.3	0.2206
23	0.000		0.2305	0.531	620.6	0.2305	1.281	628.2	0.2173
24	0.000		0.2292	0.327	597.7	0.2292	0.784	601.8	0.2160

Table 4-112. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly M3

Assembly Number M3									
Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.417	613.0	0.7396	1.054	625.1	0.7396
2	0.000		0.7396	1.493	771.2	0.7396	3.755	822.2	0.7396
3	0.000		0.7396	2.034	862.9	0.7396	5.191	952.2	0.7396
4	0.000		0.7269	2.375	867.4	0.7269	6.120	968.8	0.7156
5	0.000		0.6963	2.577	899.8	0.6963	6.651	1016.5	0.6765
6	0.000	Data Not	0.6575	2.717	923.1	0.6575	6.972	1043.8	0.6289
7	0.000	Required	0.6142	2.837	943.6	0.6142	7.199	1060.3	0.5787
8	0.000		0.5697	2.957	964.5	0.5697	7.396	1072.3	0.5304
9	0.000		0.5262	3.163	1001.6	0.5262	7.764	1098.1	0.4861
10	0.000		0.4854	3.228	1013.7	0.4854	7.831	1098.5	0.4466
11	0.000		0.4489	3.249	1017.6	0.4489	7.808	1091.4	0.4121
12	0.000		0.4170	3.240	1015.9	0.4170	7.722	1079.1	0.3823
13	0.000		0.3890	3.211	1010.5	0.3890	7.596	1063.9	0.3566
14	0.000		0.3646	3.165	1002.0	0.3646	7.440	1046.8	0.3344
15	0.000		0.3432	3.103	990.7	0.3432	7.254	1028.0	0.3151
16	0.000		0.3245	3.022	976.1	0.3245	7.032	1007.0	0.2982
17	0.000		0.3082	2.914	956.9	0.3082	6.753	982.2	0.2835
18	0.000		0.2940	2.763	930.9	0.2940	6.383	951.3	0.2707
19	0.000		0.2818	2.555	896.2	0.2818	5.896	913.5	0.2596
20	0.000		0.2714	2.223	843.7	0.2714	5.166	862.3	0.2501
21	0.000		0.2631	1.853	789.0	0.2631	4.296	802.2	0.2427
22	0.000		0.2565	1.446	733.0	0.2565	3.339	741.1	0.2368
23	0.000		0.2521	0.554	623.3	0.2521	1.305	628.3	0.2328
24	0.000		0.2498	0.339	599.0	0.2498	0.793	601.5	0.2311

Table 4-113. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly M4

Assembly Number M4									
Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.354	604.6	0.7396	1.006	626.8	0.7396
2	0.000		0.7396	1.280	737.4	0.7396	3.583	827.8	0.7396
3	0.000		0.7396	1.749	813.4	0.7396	4.924	955.0	0.7396
4	0.000		0.7280	2.040	816.2	0.7280	5.756	964.7	0.7154
5	0.000		0.7016	2.212	842.0	0.7016	6.207	1004.8	0.6781
6	0.000	Data Not	0.6694	2.334	860.9	0.6694	6.473	1026.2	0.6337
7	0.000	Required	0.6336	2.440	877.7	0.6336	6.659	1038.3	0.5872
8	0.000		0.5965	2.544	894.4	0.5965	6.823	1047.5	0.5425
9	0.000		0.5593	2.720	923.6	0.5593	7.150	1070.9	0.5013
10	0.000		0.5233	2.777	933.3	0.5233	7.206	1070.8	0.4641
11	0.000		0.4896	2.796	936.5	0.4896	7.181	1063.9	0.4312
12	0.000		0.4585	2.790	935.5	0.4585	7.101	1052.4	0.4020
13	0.000		0.4302	2.766	931.4	0.4302	6.984	1038.1	0.3765
14	0.000		0.4051	2.725	924.5	0.4051	6.837	1022.1	0.3540
15	0.000		0.3828	2.669	915.1	0.3828	6.663	1004.7	0.3344
16	0.000		0.3630	2.596	903.0	0.3630	6.457	985.3	0.3172
17	0.000		0.3457	2.500	887.3	0.3457	6.201	962.6	0.3021
18	0.000		0.3305	2.368	866.2	0.3305	5.863	934.2	0.2889
19	0.000		0.3174	2.188	838.4	0.3174	5.415	898.5	0.2773
20	0.000		0.3064	1.901	795.9	0.3064	4.737	849.0	0.2676
21	0.000		0.2974	1.579	750.8	0.2974	3.932	791.9	0.2597
22	0.000		0.2897	1.222	703.8	0.2897	3.043	733.4	0.2533
23	0.000		0.2820	0.456	612.1	0.2820	1.176	625.5	0.2476
24	0.000		0.2775	0.275	591.9	0.2775	0.710	599.8	0.2450



Table 4-114. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly M5

Assembly Number M5									
Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (Gwd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.435	615.4	0.7396	1.192	638.2	0.7396
2	0.000		0.7396	1.572	784.0	0.7396	4.244	879.6	0.7396
3	0.000		0.7396	2.170	887.4	0.7396	5.849	1036.4	0.7374
4	0.000		0.7261	2.558	896.7	0.7261	6.815	1044.1	0.7051
5	0.000		0.6931	2.783	934.3	0.6931	7.270	1079.9	0.6594
6	0.000	Data Not	0.6510	2.923	958.5	0.6510	7.466	1088.8	0.6076
7	0.000	Required	0.6043	3.025	976.6	0.6043	7.563	1088.0	0.5560
8	0.000		0.5566	3.113	992.5	0.5566	7.642	1086.6	0.5084
9	0.000		0.5110	3.286	1024.5	0.5110	7.910	1101.9	0.4657
10	0.000		0.4696	3.315	1030.0	0.4696	7.897	1095.1	0.4279
11	0.000		0.4338	3.303	1027.7	0.4338	7.815	1083.9	0.3953
12	0.000		0.4030	3.266	1020.8	0.4030	7.688	1069.7	0.3675
13	0.000		0.3763	3.213	1010.9	0.3763	7.532	1053.6	0.3435
14	0.000		0.3532	3.148	998.9	0.3532	7.355	1036.5	0.3227
15	0.000		0.3330	3.071	984.9	0.3330	7.158	1018.4	0.3047
16	0.000		0.3154	2.978	968.2	0.3154	6.928	998.2	0.2889
17	0.000		0.3001	2.858	947.2	0.3001	6.643	974.5	0.2751
18	0.000		0.2868	2.695	919.4	0.2868	6.267	944.7	0.2631
19	0.000		0.2754	2.476	883.4	0.2754	5.771	907.4	0.2526
20	0.000		0.2658	2.136	830.5	0.2658	5.031	856.3	0.2436
21	0.000		0.2582	1.765	776.5	0.2582	4.163	797.0	0.2366
22	0.000		0.2524	1.368	722.7	0.2524	3.223	737.0	0.2313
23	0.000		0.2487	0.521	619.5	0.2487	1.257	626.9	0.2276
24	0.000		0.2472	0.319	596.8	0.2472	0.766	600.9	0.2263

Table 4-115. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly M6

Assembly Number M6									
Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.454	618.0	0.7396	1.241	641.5	0.7396
2	0.000		0.7396	1.652	797.2	0.7396	4.445	897.3	0.7396
3	0.000		0.7396	2.296	910.7	0.7396	6.161	1068.1	0.7352
4	0.000		0.7217	2.718	923.3	0.7217	7.189	1077.4	0.6995
5	0.000		0.6851	2.958	964.7	0.6851	7.643	1111.8	0.6502
6	0.000	Data Not	0.6394	3.095	989.2	0.6394	7.800	1115.1	0.5960
7	0.000	Required	0.5898	3.181	1004.9	0.5898	7.842	1107.9	0.5433
8	0.000		0.5406	3.248	1017.4	0.5406	7.861	1100.1	0.4954
9	0.000		0.4949	3.401	1046.4	0.4949	8.075	1110.0	0.4533
10	0.000		0.4542	3.406	1047.4	0.4542	8.008	1098.3	0.4165
11	0.000		0.4196	3.373	1041.0	0.4196	7.880	1083.1	0.3850
12	0.000		0.3898	3.318	1030.6	0.3898	7.715	1065.7	0.3582
13	0.000		0.3642	3.252	1018.1	0.3642	7.535	1048.1	0.3351
14	0.000		0.3420	3.180	1004.8	0.3420	7.347	1030.4	0.3152
15	0.000		0.3227	3.101	990.3	0.3227	7.147	1012.3	0.2979
16	0.000		0.3059	3.009	973.7	0.3059	6.922	992.8	0.2827
17	0.000		0.2912	2.889	952.6	0.2912	6.643	970.1	0.2694
18	0.000		0.2784	2.726	924.6	0.2784	6.274	941.4	0.2577
19	0.000		0.2674	2.505	888.1	0.2674	5.784	905.3	0.2476
20	0.000		0.2583	2.159	834.0	0.2583	5.047	855.5	0.2389
21	0.000		0.2510	1.781	778.8	0.2510	4.174	796.5	0.2321
22	0.000		0.2454	1.375	723.6	0.2454	3.225	736.5	0.2268
23	0.000		0.2420	0.522	619.6	0.2420	1.254	626.6	0.2234
24	0.000		0.2406	0.319	596.8	0.2406	0.763	600.6	0.2221

Table 4-116. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly M7

Assembly Number M7									
Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.299	597.4	0.7396	0.937	625.3	0.7396
2	0.000		0.7396	1.083	707.4	0.7396	3.348	822.6	0.7396
3	0.000		0.7396	1.489	770.5	0.7396	4.626	949.1	0.7396
4	0.000		0.7366	1.755	775.1	0.7366	5.453	962.2	0.7170
5	0.000		0.7153	1.926	799.5	0.7153	5.941	1007.7	0.6803
6	0.000	Data Not	0.6879	2.058	818.8	0.6879	6.256	1035.1	0.6365
7	0.000	Required	0.6567	2.177	836.7	0.6567	6.489	1052.5	0.5906
8	0.000		0.6229	2.297	855.1	0.6229	6.687	1064.6	0.5465
9	0.000		0.5878	2.482	884.4	0.5878	7.040	1091.2	0.5061
10	0.000		0.5530	2.556	896.4	0.5530	7.121	1092.3	0.4693
11	0.000		0.5200	2.589	901.8	0.5200	7.112	1085.6	0.4366
12	0.000		0.4894	2.592	902.3	0.4894	7.037	1073.3	0.4080
13	0.000		0.4611	2.574	899.3	0.4611	6.917	1057.3	0.3826
14	0.000		0.4352	2.540	893.8	0.4352	6.767	1039.5	0.3602
15	0.000		0.4120	2.491	885.9	0.4120	6.590	1020.2	0.3405
16	0.000		0.3914	2.426	875.4	0.3914	6.382	999.1	0.3232
17	0.000		0.3731	2.339	861.7	0.3731	6.124	974.5	0.3080
18	0.000		0.3569	2.217	842.8	0.3569	5.785	944.1	0.2946
19	0.000		0.3429	2.047	817.2	0.3429	5.336	906.6	0.2829
20	0.000		0.3311	1.777	778.2	0.3311	4.663	855.2	0.2728
21	0.000		0.3215	1.475	736.8	0.3215	3.868	796.5	0.2649
22	0.000		0.3131	1.138	693.2	0.3131	2.991	736.8	0.2583
23	0.000		0.3045	0.423	608.4	0.3045	1.155	626.6	0.2519
24	0.000		0.2990	0.252	589.4	0.2990	0.696	600.6	0.2487

Table 4-117. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly M8

Assembly Number M8									
Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.387	609.0	0.7396	1.099	633.3	0.7396
2	0.000		0.7396	1.400	756.3	0.7396	3.921	858.1	0.7396
3	0.000		0.7396	1.938	846.0	0.7396	5.428	1005.2	0.7395
4	0.000		0.7325	2.302	855.9	0.7325	6.382	1017.4	0.7104
5	0.000		0.7053	2.532	892.5	0.7053	6.888	1059.3	0.6685
6	0.000	Data Not	0.6691	2.692	918.9	0.6691	7.156	1076.3	0.6197
7	0.000	Required	0.6271	2.820	940.6	0.6271	7.321	1082.1	0.5697
8	0.000		0.5825	2.936	960.8	0.5825	7.457	1085.3	0.5228
9	0.000		0.5376	3.128	995.2	0.5376	7.768	1104.5	0.4800
10	0.000		0.4953	3.174	1003.7	0.4953	7.786	1099.9	0.4412
11	0.000		0.4578	3.172	1003.3	0.4578	7.720	1089.6	0.4076
12	0.000		0.4253	3.142	997.8	0.4253	7.598	1075.0	0.3788
13	0.000		0.3971	3.094	989.0	0.3971	7.441	1057.9	0.3539
14	0.000		0.3728	3.032	977.8	0.3728	7.260	1039.7	0.3324
15	0.000		0.3516	2.958	964.7	0.3516	7.057	1020.2	0.3138
16	0.000		0.3329	2.869	949.1	0.3329	6.822	998.7	0.2975
17	0.000		0.3167	2.754	929.4	0.3167	6.534	973.7	0.2832
18	0.000		0.3026	2.598	903.3	0.3026	6.158	943.0	0.2709
19	0.000		0.2905	2.388	869.4	0.2905	5.666	905.2	0.2601
20	0.000		0.2804	2.062	819.4	0.2804	4.937	853.8	0.2509
21	0.000		0.2723	1.706	768.3	0.2723	4.084	794.7	0.2436
22	0.000		0.2661	1.321	716.6	0.2661	3.160	735.3	0.2382
23	0.000		0.2621	0.502	617.3	0.2621	1.230	626.2	0.2342
24	0.000		0.2603	0.305	595.3	0.2603	0.748	600.6	0.2327

Table 4-118. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly M9

Assembly Number M9									
Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.410	612.1	0.7396	1.133	634.5	0.7396
2	0.000		0.7396	1.499	772.1	0.7396	4.064	864.3	0.7396
3	0.000		0.7396	2.116	877.6	0.7396	5.680	1017.3	0.7391
4	0.000		0.7270	2.566	898.0	0.7270	6.735	1030.7	0.7086
5	0.000		0.6931	2.860	947.5	0.6931	7.289	1070.8	0.6643
6	0.000	Data Not	0.6492	3.049	980.9	0.6492	7.547	1081.7	0.6126
7	0.000	Required	0.6000	3.181	1004.9	0.6000	7.671	1080.4	0.5601
8	0.000		0.5500	3.286	1024.5	0.5500	7.755	1077.1	0.5112
9	0.000		0.5027	3.466	1059.0	0.5027	8.014	1089.6	0.4673
10	0.000		0.4602	3.487	1063.1	0.4602	7.979	1080.7	0.4286
11	0.000		0.4238	3.461	1058.1	0.4238	7.869	1067.5	0.3957
12	0.000		0.3926	3.408	1047.8	0.3926	7.714	1051.6	0.3675
13	0.000		0.3659	3.340	1034.7	0.3659	7.535	1034.6	0.3433
14	0.000		0.3429	3.264	1020.4	0.3429	7.344	1017.4	0.3225
15	0.000		0.3231	3.179	1004.6	0.3231	7.137	999.4	0.3044
16	0.000		0.3058	3.081	986.7	0.3058	6.902	979.6	0.2886
17	0.000		0.2908	2.957	964.5	0.2908	6.614	956.4	0.2749
18	0.000		0.2779	2.792	935.8	0.2779	6.239	927.7	0.2630
19	0.000		0.2668	2.571	898.9	0.2668	5.746	891.8	0.2527
20	0.000		0.2576	2.224	843.9	0.2576	5.011	843.1	0.2439
21	0.000		0.2501	1.840	787.1	0.2501	4.145	786.4	0.2370
22	0.000		0.2443	1.427	730.4	0.2443	3.206	729.0	0.2317
23	0.000		0.2407	0.544	622.1	0.2407	1.247	623.9	0.2282
24	0.000		0.2392	0.334	598.5	0.2392	0.759	599.0	0.2269

Table 4-119. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly M10

Assembly Number M10									
Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.525	627.6	0.7396	1.334	644.0	0.7396
2	0.000		0.7396	1.928	844.2	0.7396	4.841	915.0	0.7396
3	0.000		0.7384	2.711	922.1	0.7384	6.813	1020.6	0.7319
4	0.000		0.7051	3.206	1009.6	0.7051	7.974	1125.4	0.6907
5	0.000		0.6570	3.443	1054.6	0.6570	8.401	1157.3	0.6346
6	0.000	Data Not	0.6012	3.535	1072.6	0.6012	8.445	1149.2	0.5742
7	0.000	Required	0.5455	3.566	1078.7	0.5455	8.363	1130.2	0.5181
8	0.000		0.4951	3.586	1082.7	0.4951	8.283	1113.7	0.4697
9	0.000		0.4511	3.708	1107.4	0.4511	8.423	1116.7	0.4286
10	0.000		0.4132	3.681	1101.9	0.4132	8.291	1099.6	0.3933
11	0.000		0.3811	3.621	1089.7	0.3811	8.112	1080.5	0.3635
12	0.000		0.3538	3.544	1074.4	0.3538	7.910	1060.9	0.3383
13	0.000		0.3304	3.465	1058.8	0.3304	7.705	1041.5	0.3166
14	0.000		0.3103	3.388	1043.9	0.3103	7.507	1023.2	0.2980
15	0.000		0.2927	3.311	1029.2	0.2927	7.310	1005.4	0.2818
16	0.000		0.2773	3.222	1012.5	0.2773	7.094	986.9	0.2675
17	0.000		0.2638	3.104	990.8	0.2638	6.825	965.4	0.2549
18	0.000		0.2521	2.934	960.5	0.2521	6.457	938.0	0.2439
19	0.000		0.2420	2.696	919.6	0.2420	5.953	902.4	0.2343
20	0.000		0.2336	2.319	858.6	0.2336	5.185	852.7	0.2262
21	0.000		0.2269	1.902	796.0	0.2269	4.266	793.1	0.2198
22	0.000		0.2218	1.466	735.6	0.2218	3.284	733.1	0.2149
23	0.000		0.2187	0.563	624.3	0.2187	1.283	625.5	0.2119
24	0.000		0.2173	0.350	600.3	0.2173	0.786	599.9	0.2107

Table 4-120. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly M11

Assembly Number M11									
	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.464	619.3	0.7396	1.231	639.3	0.7396
2	0.000		0.7396	1.720	808.5	0.7396	4.492	894.2	0.7396
3	0.000		0.7396	2.469	943.6	0.7396	6.415	1082.1	0.7350
4	0.000		0.7145	3.000	972.1	0.7145	7.645	1105.3	0.6976
5	0.000		0.6709	3.300	1027.2	0.6709	8.169	1142.3	0.6449
6	0.000	Data Not	0.6179	3.444	1054.7	0.6179	8.276	1136.1	0.5867
7	0.000	Required	0.5627	3.511	1067.9	0.5627	8.224	1116.4	0.5310
8	0.000		0.5110	3.554	1076.4	0.5110	8.155	1098.1	0.4820
9	0.000		0.4652	3.687	1103.1	0.4652	8.295	1099.3	0.4399
10	0.000		0.4255	3.663	1098.2	0.4255	8.158	1081.2	0.4038
11	0.000		0.3920	3.601	1085.7	0.3920	7.970	1061.4	0.3732
12	0.000		0.3635	3.520	1069.6	0.3635	7.756	1040.9	0.3473
13	0.000		0.3392	3.437	1053.4	0.3392	7.543	1021.2	0.3251
14	0.000		0.3182	3.360	1038.6	0.3182	7.342	1002.9	0.3060
15	0.000		0.3000	3.285	1024.3	0.3000	7.147	985.5	0.2893
16	0.000		0.2841	3.203	1009.0	0.2841	6.939	967.5	0.2747
17	0.000		0.2702	3.091	988.5	0.2702	6.680	947.0	0.2619
18	0.000		0.2581	2.928	959.4	0.2581	6.320	920.3	0.2506
19	0.000		0.2477	2.694	919.2	0.2477	5.822	885.7	0.2408
20	0.000		0.2391	2.320	858.7	0.2391	5.062	837.6	0.2327
21	0.000		0.2322	1.902	796.0	0.2322	4.153	780.3	0.2261
22	0.000		0.2269	1.465	735.5	0.2269	3.188	723.2	0.2211
23	0.000		0.2236	0.563	624.3	0.2236	1.243	621.8	0.2181
24	0.000		0.2222	0.349	600.1	0.2222	0.760	597.7	0.2169

Table 4-121. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly M12

Assembly Number M12									
Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.372	607.0	0.7396	1.110	636.1	0.7396
2	0.000		0.7396	1.368	751.2	0.7396	4.008	875.0	0.7396
3	0.000		0.7396	1.929	844.4	0.7396	5.616	1037.8	0.7380
4	0.000		0.7351	2.334	860.9	0.7351	6.661	1054.8	0.7062
5	0.000		0.7075	2.605	904.4	0.7075	7.223	1100.9	0.6610
6	0.000	Data Not	0.6698	2.796	936.5	0.6698	7.512	1116.9	0.6095
7	0.000	Required	0.6254	2.941	961.7	0.6254	7.670	1119.0	0.5583
8	0.000		0.5780	3.062	983.2	0.5780	7.779	1117.0	0.5107
9	0.000		0.5311	3.254	1018.5	0.5311	8.061	1131.9	0.4679
10	0.000		0.4875	3.288	1024.9	0.4875	8.040	1122.8	0.4294
11	0.000		0.4497	3.271	1021.7	0.4497	7.933	1108.0	0.3964
12	0.000		0.4172	3.223	1012.7	0.4172	7.768	1089.1	0.3682
13	0.000		0.3894	3.158	1000.7	0.3894	7.571	1068.2	0.3440
14	0.000		0.3653	3.081	986.7	0.3653	7.354	1046.5	0.3233
15	0.000		0.3445	2.993	970.9	0.3445	7.118	1024.1	0.3053
16	0.000		0.3265	2.892	953.1	0.3265	6.856	1000.3	0.2897
17	0.000		0.3108	2.767	931.6	0.3108	6.543	973.2	0.2761
18	0.000		0.2971	2.603	904.1	0.2971	6.144	940.4	0.2642
19	0.000		0.2855	2.386	869.1	0.2855	5.632	901.0	0.2540
20	0.000		0.2758	2.053	818.1	0.2758	4.886	848.7	0.2452
21	0.000		0.2681	1.691	766.2	0.2681	4.024	789.6	0.2384
22	0.000		0.2622	1.305	714.5	0.2622	3.100	730.7	0.2332
23	0.000		0.2586	0.494	616.4	0.2586	1.201	624.3	0.2294
24	0.000		0.2571	0.300	594.7	0.2571	0.729	599.3	0.2281



Table 4-122. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly M13

Assembly Number M13									
Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.438	615.8	0.7396	1.202	639.0	0.7396
2	0.000		0.7396	1.643	795.7	0.7396	4.430	896.4	0.7396
3	0.000		0.7396	2.391	928.7	0.7396	6.384	1090.4	0.7351
4	0.000		0.7176	2.935	960.6	0.7176	7.644	1115.7	0.6978
5	0.000		0.6758	3.249	1017.6	0.6758	8.171	1151.2	0.6453
6	0.000	Data Not	0.6242	3.400	1046.2	0.6242	8.261	1140.9	0.5877
7	0.000	Required	0.5697	3.470	1059.8	0.5697	8.184	1116.5	0.5328
8	0.000		0.5181	3.512	1068.0	0.5181	8.094	1095.1	0.4842
9	0.000		0.4719	3.642	1094.0	0.4719	8.217	1094.0	0.4425
10	0.000		0.4319	3.613	1088.1	0.4319	8.065	1074.4	0.4064
11	0.000		0.3980	3.546	1074.8	0.3980	7.862	1053.1	0.3760
12	0.000		0.3693	3.460	1057.9	0.3693	7.636	1031.8	0.3501
13	0.000		0.3447	3.374	1041.2	0.3447	7.415	1011.6	0.3280
14	0.000		0.3237	3.294	1026.0	0.3237	7.208	993.0	0.3090
15	0.000		0.3053	3.218	1011.8	0.3053	7.010	975.5	0.2924
16	0.000		0.2892	3.135	996.5	0.2892	6.800	957.6	0.2777
17	0.000		0.2751	3.024	976.4	0.2751	6.539	936.9	0.2649
18	0.000		0.2630	2.861	947.7	0.2630	6.177	910.2	0.2537
19	0.000		0.2525	2.626	907.9	0.2525	5.675	875.6	0.2440
20	0.000		0.2439	2.252	848.2	0.2439	4.910	827.5	0.2358
21	0.000		0.2370	1.839	787.0	0.2370	4.008	771.1	0.2294
22	0.000		0.2317	1.411	728.3	0.2317	3.062	715.7	0.2245
23	0.000		0.2284	0.542	621.9	0.2284	1.192	619.1	0.2214
24	0.000		0.2270	0.335	598.6	0.2270	0.728	596.1	0.2202

Table 4-123. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly M14

Assembly Number M14									
Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.420	613.4	0.7396	1.216	642.5	0.7396
2	0.000		0.7396	1.549	780.2	0.7396	4.409	907.1	0.7396
3	0.000		0.7396	2.207	894.2	0.7396	6.232	1096.0	0.7342
4	0.000		0.7236	2.675	916.1	0.7236	7.387	1116.2	0.6966
5	0.000		0.6874	2.966	966.1	0.6874	7.915	1155.8	0.6448
6	0.000	Data Not	0.6414	3.144	998.1	0.6414	8.091	1155.5	0.5886
7	0.000	Required	0.5909	3.260	1019.6	0.5909	8.125	1141.6	0.5351
8	0.000		0.5406	3.349	1036.5	0.5406	8.133	1128.1	0.4872
9	0.000		0.4936	3.518	1069.2	0.4936	8.339	1134.2	0.4452
10	0.000		0.4518	3.527	1071.0	0.4518	8.255	1118.8	0.4084
11	0.000		0.4162	3.489	1063.5	0.4162	8.102	1100.1	0.3772
12	0.000		0.3858	3.425	1051.1	0.3858	7.907	1079.1	0.3505
13	0.000		0.3597	3.346	1035.9	0.3597	7.691	1057.6	0.3277
14	0.000		0.3374	3.259	1019.4	0.3374	7.463	1036.0	0.3082
15	0.000		0.3181	3.163	1001.6	0.3181	7.221	1014.1	0.2912
16	0.000		0.3014	3.054	981.8	0.3014	6.952	990.7	0.2764
17	0.000		0.2869	2.920	958.0	0.2869	6.631	964.0	0.2635
18	0.000		0.2743	2.744	927.7	0.2743	6.221	931.7	0.2524
19	0.000		0.2636	2.512	889.2	0.2636	5.694	892.7	0.2427
20	0.000		0.2546	2.158	833.8	0.2546	4.927	840.9	0.2345
21	0.000		0.2476	1.772	777.5	0.2476	4.040	782.2	0.2281
22	0.000		0.2421	1.369	722.8	0.2421	3.106	724.6	0.2233
23	0.000		0.2387	0.526	620.1	0.2387	1.213	622.4	0.2200
24	0.000		0.2373	0.324	597.4	0.2373	0.744	598.5	0.2189

Table 4-124. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly M15

Assembly Number M15									
Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.404	611.3	0.7396	1.169	639.1	0.7396
2	0.000		0.7396	1.495	771.5	0.7396	4.241	890.4	0.7396
3	0.000		0.7396	2.153	884.3	0.7396	6.036	1071.2	0.7362
4	0.000		0.7259	2.645	911.1	0.7259	7.215	1093.2	0.7011
5	0.000		0.6903	2.960	965.0	0.6903	7.767	1131.9	0.6518
6	0.000	Data Not	0.6445	3.147	998.7	0.6445	7.940	1129.6	0.5972
7	0.000	Required	0.5939	3.264	1020.4	0.5939	7.958	1113.3	0.5442
8	0.000		0.5433	3.349	1036.5	0.5433	7.949	1098.0	0.4963
9	0.000		0.4961	3.512	1068.0	0.4961	8.137	1102.0	0.4541
10	0.000		0.4540	3.514	1068.4	0.4540	8.042	1086.4	0.4170
11	0.000		0.4182	3.470	1059.8	0.4182	7.884	1068.4	0.3854
12	0.000		0.3877	3.401	1046.4	0.3877	7.687	1048.5	0.3584
13	0.000		0.3616	3.320	1030.9	0.3616	7.476	1028.7	0.3353
14	0.000		0.3391	3.234	1014.8	0.3391	7.258	1009.1	0.3155
15	0.000		0.3198	3.142	997.8	0.3198	7.030	989.2	0.2983
16	0.000		0.3030	3.037	978.7	0.3030	6.778	968.2	0.2832
17	0.000		0.2884	2.909	956.1	0.2884	6.474	943.7	0.2702
18	0.000		0.2758	2.739	926.8	0.2758	6.083	913.9	0.2588
19	0.000		0.2651	2.514	889.6	0.2651	5.574	877.0	0.2490
20	0.000		0.2562	2.164	834.7	0.2562	4.828	828.2	0.2407
21	0.000		0.2490	1.779	778.5	0.2490	3.958	772.3	0.2342
22	0.000		0.2434	1.374	723.5	0.2434	3.042	717.4	0.2292
23	0.000		0.2400	0.528	620.3	0.2400	1.187	619.9	0.2260
24	0.000		0.2384	0.326	597.6	0.2384	0.726	596.7	0.2248

Table 4-125. Burnup and TH Feedback Parameters by 24 Axial Nodes for Assembly M16

Assembly Number M16									
Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	0.000		0.7396	0.420	613.4	0.7396	1.196	640.3	0.7396
2	0.000		0.7396	1.574	784.3	0.7396	4.397	901.7	0.7396
3	0.000		0.7396	2.287	909.1	0.7396	6.310	1095.6	0.7346
4	0.000		0.7207	2.815	939.8	0.7207	7.545	1119.2	0.6971
5	0.000		0.6815	3.134	996.3	0.6815	8.074	1154.3	0.6451
6	0.000	Data Not	0.6322	3.304	1027.9	0.6322	8.184	1144.1	0.5886
7	0.000	Required	0.5794	3.394	1045.1	0.5794	8.133	1120.6	0.5347
8	0.000		0.5282	3.453	1056.5	0.5282	8.066	1100.1	0.4868
9	0.000		0.4815	3.594	1084.3	0.4815	8.210	1100.6	0.4451
10	0.000		0.4407	3.575	1080.5	0.4407	8.076	1082.1	0.4089
11	0.000		0.4061	3.514	1068.4	0.4061	7.885	1061.7	0.3781
12	0.000		0.3767	3.431	1052.2	0.3767	7.665	1040.6	0.3520
13	0.000		0.3516	3.341	1034.9	0.3516	7.440	1020.2	0.3296
14	0.000		0.3301	3.252	1018.1	0.3301	7.218	1000.6	0.3104
15	0.000		0.3114	3.160	1001.1	0.3114	6.994	981.5	0.2937
16	0.000		0.2952	3.057	982.3	0.2952	6.749	961.3	0.2791
17	0.000		0.2811	2.930	959.8	0.2811	6.455	938.2	0.2663
18	0.000		0.2690	2.760	930.4	0.2690	6.070	909.4	0.2552
19	0.000		0.2586	2.531	892.3	0.2586	5.561	873.2	0.2456
20	0.000		0.2498	2.173	836.1	0.2498	4.807	824.6	0.2375
21	0.000		0.2429	1.779	778.5	0.2429	3.928	768.9	0.2311
22	0.000		0.2376	1.368	722.7	0.2376	3.005	714.3	0.2263
23	0.000		0.2342	0.524	619.8	0.2342	1.168	618.5	0.2232
24	0.000		0.2328	0.323	597.3	0.2328	0.712	595.8	0.2220

Table 4-126. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A1

Assembly Number A1									
Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	1.030	633.1	0.7396	2.184	636.0	0.7396
2	0.000		0.7396	4.390	934.7	0.7396	9.304	951.2	0.7396
3	0.000	Data Not	0.6731	5.669	992.3	0.7005	11.800	992.6	0.6976
4	0.000	Required	0.5398	5.257	952.1	0.5771	11.089	965.6	0.5733
5	0.000		0.4507	4.837	912.7	0.4798	10.380	939.8	0.4746
6	0.000		0.3904	4.909	919.3	0.4102	10.500	944.1	0.4045
7	0.000		0.3365	4.839	912.9	0.3478	10.411	942.4	0.3420
8	0.000		0.2994	4.413	875.0	0.3042	9.782	924.8	0.2977
9	0.000		0.2735	3.180	775.3	0.2717	7.396	833.4	0.2632
10	0.000		0.2641	0.859	613.9	0.2590	2.035	628.2	0.2494

Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	3.528	631.7	0.7396	4.698	615.9	0.7396	5.218	592.9	0.7396
2	14.835	910.2	0.7396	19.119	790.1	0.7396	21.191	703.6	0.7396
3	18.874	958.5	0.7011	23.972	797.6	0.7094	26.998	746.1	0.7136
4	18.389	975.0	0.5790	23.972	824.4	0.5969	28.714	875.9	0.6128
5	17.358	951.6	0.4788	23.412	851.2	0.4995	28.951	941.3	0.5146
6	16.942	913.9	0.4081	23.271	867.3	0.4245	28.405	906.6	0.4337
7	16.373	881.4	0.3470	22.859	876.6	0.3564	27.307	850.7	0.3627
8	15.484	864.4	0.3043	21.976	877.0	0.3073	25.746	798.9	0.3134
9	11.585	773.2	0.2701	16.852	808.1	0.2684	19.956	752.2	0.2766
10	3.125	611.5	0.2563	4.641	624.9	0.2528	5.488	609.4	0.2607

Table 4-126. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A1

Assembly Number A1									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.751	619.3	0.7396	7.088	586.8	0.7396	7.344	583.7	0.7396
2	26.467	788.4	0.7396	27.493	646.6	0.7396	28.253	634.5	0.7396
3	33.597	809.7	0.7150	34.796	648.9	0.7163	35.676	636.1	0.7172
4	35.785	830.9	0.6200	37.139	660.9	0.6247	38.123	645.4	0.6280
5	36.431	849.8	0.5253	38.011	678.6	0.5344	39.147	659.1	0.5406
6	36.342	871.4	0.4460	38.135	695.9	0.4587	39.439	674.5	0.4679
7	35.495	883.5	0.3744	37.441	708.4	0.3891	38.901	689.1	0.4006
8	33.574	866.2	0.3233	35.518	708.2	0.3381	37.034	694.4	0.3503
9	26.200	795.5	0.2860	27.696	672.3	0.2993	28.915	666.7	0.3108
10	7.267	621.4	0.2697	7.664	589.9	0.2820	7.994	589.1	0.2927

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.353	569.4	0.7396	7.474	572.7	0.7396	7.567	568.7	0.7396
2	28.281	592.2	0.7396	28.647	601.0	0.7396	28.921	587.9	0.7396
3	35.712	597.3	0.7173	36.139	603.8	0.7177	36.457	590.5	0.7181
4	38.168	606.6	0.6282	38.651	609.5	0.6298	39.018	595.0	0.6309
5	39.205	620.3	0.5409	39.771	617.7	0.5438	40.211	601.7	0.5461
6	39.510	634.2	0.4683	40.157	626.0	0.4724	40.684	609.7	0.4759
7	38.980	641.6	0.4011	39.695	633.0	0.4057	40.340	620.8	0.4106
8	37.110	638.5	0.3507	37.833	633.9	0.3552	38.572	629.7	0.3611
9	28.971	618.5	0.3112	29.534	617.6	0.3152	30.170	619.9	0.3210
10	8.008	575.6	0.2931	8.154	576.0	0.2967	8.320	576.7	0.3019

Table 4-126. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A1

Assembly Number A1						
Statepoint 13 (325 EFPD Cy 13)				Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.639	567.4	0.7396	7.676	565.9	0.7396
2	29.130	583.4	0.7396	29.236	579.0	0.7396
3	36.698	586.0	0.7183	36.816	580.9	0.7185
4	39.298	589.9	0.6318	39.435	583.9	0.6322
5	40.552	596.0	0.5478	40.723	589.4	0.5487
6	41.098	603.6	0.4786	41.313	596.6	0.4800
7	40.848	613.2	0.4147	41.125	606.7	0.4170
8	39.158	621.3	0.3660	39.499	617.4	0.3691
9	30.699	615.5	0.3262	31.031	615.9	0.3298
10	8.463	576.0	0.3067	8.554	576.4	0.3101

Table 4-127. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A2

Assembly Number A2									
Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	0.851	619.7	0.7396	1.972	633.7	0.7396
2	0.000		0.7396	3.793	874.0	0.7396	8.884	970.2	0.7396
3	0.000	Data Not	0.7173	5.727	1037.9	0.7099	12.495	1053.6	0.6952
4	0.000	Required	0.5836	6.238	1050.8	0.5737	12.770	1030.6	0.5584
5	0.000		0.4728	5.704	995.8	0.4616	12.057	1013.4	0.4497
6	0.000		0.4029	5.096	936.8	0.3906	11.229	992.9	0.3790
7	0.000		0.3475	4.562	888.0	0.3342	10.392	965.2	0.3217
8	0.000		0.3108	4.180	854.8	0.2958	9.649	933.5	0.2824
9	0.000		0.2842	2.979	760.1	0.2661	6.955	815.8	0.2520
10	0.000		0.2741	0.761	607.8	0.2547	1.784	619.3	0.2401

Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	2.873	607.0	0.7396	3.598	593.8	0.7396	4.967	651.5	0.7396
2	12.637	780.9	0.7396	15.335	696.9	0.7396	20.615	989.6	0.7396
3	17.124	797.6	0.7063	20.271	698.6	0.7137	26.916	1044.0	0.7003
4	17.747	818.6	0.5865	21.400	723.1	0.6080	28.266	1065.7	0.5867
5	17.174	827.3	0.4896	21.500	756.8	0.5236	28.174	1046.7	0.4973
6	16.240	820.7	0.4221	21.096	784.6	0.4600	27.231	995.4	0.4339
7	15.328	816.1	0.3666	20.576	805.7	0.3998	25.822	916.3	0.3777
8	15.072	846.5	0.3333	20.687	826.0	0.3575	24.857	829.2	0.3407
9	11.075	769.1	0.2949	15.854	781.3	0.3125	18.731	736.6	0.3004
10	2.821	609.0	0.2781	4.170	617.8	0.2933	4.971	606.8	0.2822



Table 4-127. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A2

Assembly Number A2									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.918	636.5	0.7396	7.366	596.1	0.7396	7.709	592.2	0.7396
2	27.140	852.7	0.7396	28.522	679.4	0.7396	29.556	663.5	0.7396
3	34.549	856.9	0.6981	36.185	683.2	0.7006	37.406	666.7	0.7023
4	36.330	877.6	0.5891	38.190	701.4	0.5967	39.574	681.8	0.6020
5	36.871	908.7	0.5015	38.972	721.4	0.5128	40.537	699.0	0.5212
6	36.572	941.6	0.4367	38.855	736.9	0.4495	40.578	714.4	0.4596
7	35.568	962.9	0.3771	37.955	746.0	0.3898	39.813	727.6	0.4004
8	34.134	938.3	0.3359	36.428	737.9	0.3469	38.271	726.1	0.3566
9	25.768	831.4	0.2947	27.487	690.4	0.3047	28.912	686.1	0.3138
10	7.014	630.6	0.2762	7.461	593.5	0.2856	7.838	593.1	0.2941

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.717	568.2	0.7396	7.819	570.6	0.7396	7.900	567.5	0.7396
2	29.581	587.5	0.7396	29.880	593.2	0.7396	30.113	583.5	0.7396
3	37.436	592.2	0.7023	37.783	595.7	0.7028	38.050	585.9	0.7032
4	39.612	599.8	0.6021	40.005	600.4	0.6036	40.316	589.9	0.6048
5	40.585	610.5	0.5214	41.047	607.3	0.5240	41.422	595.6	0.5261
6	40.637	621.3	0.4600	41.174	614.8	0.4637	41.623	602.5	0.4668
7	39.878	627.9	0.4009	40.483	621.7	0.4054	41.033	611.8	0.4098
8	38.335	625.8	0.3571	38.952	623.0	0.3615	39.577	618.8	0.3668
9	28.962	611.3	0.3142	29.458	610.8	0.3186	30.010	612.1	0.3244
10	7.851	574.6	0.2945	7.980	574.3	0.2986	8.126	574.9	0.3040

Table 4-127. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A2

Assembly Number A2						
Statepoint 13 (325 EFPD Cy 13)				Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.960	566.0	0.7396	7.990	564.6	0.7396
2	30.285	579.0	0.7396	30.368	574.7	0.7396
3	38.245	581.3	0.7035	38.339	576.9	0.7036
4	40.543	584.6	0.6057	40.653	579.4	0.6061
5	41.699	589.6	0.5276	41.837	584.0	0.5283
6	41.964	596.0	0.4691	42.139	590.1	0.4702
7	41.457	604.6	0.4133	41.686	598.9	0.4151
8	40.073	612.0	0.3713	40.361	608.5	0.3739
9	30.476	608.9	0.3297	30.766	609.1	0.3333
10	8.252	574.3	0.3091	8.333	574.8	0.3126

Table 4-128. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A3

Assembly Number A3									
Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	1.035	633.5	0.7396	2.238	639.4	0.7396
2	0.000		0.7396	4.519	949.0	0.7396	9.683	976.5	0.7396
3	0.000	Data Not	0.6901	6.244	1051.5	0.6885	12.669	1020.3	0.6851
4	0.000	Required	0.5500	6.185	1045.4	0.5491	12.449	1005.1	0.5494
5	0.000		0.4491	5.542	979.7	0.4451	11.688	994.1	0.4461
6	0.000		0.3860	5.028	930.4	0.3795	11.107	987.9	0.3780
7	0.000		0.3347	4.546	886.6	0.3262	10.565	982.4	0.3209
8	0.000		0.3003	4.046	843.5	0.2901	9.873	965.0	0.2808
9	0.000		0.2760	3.022	763.0	0.2627	7.364	843.9	0.2496
10	0.000		0.2670	0.818	611.3	0.2511	1.972	626.9	0.2367

Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	3.164	608.4	0.7396	4.344	616.4	0.7396	5.039	604.7	0.7396
2	13.575	790.6	0.7396	18.075	803.7	0.7396	20.808	755.7	0.7396
3	18.015	841.7	0.7040	23.410	813.8	0.7123	27.250	804.4	0.7153
4	18.537	889.8	0.5877	23.926	813.5	0.6021	29.592	952.8	0.6093
5	17.953	901.7	0.4873	23.434	818.6	0.5037	29.265	967.3	0.5065
6	17.098	883.3	0.4141	22.816	831.9	0.4293	28.207	928.6	0.4295
7	16.097	853.4	0.3511	22.013	843.2	0.3623	26.656	866.3	0.3622
8	15.011	828.6	0.3073	20.869	839.9	0.3136	24.666	801.1	0.3142
9	11.193	752.4	0.2734	15.896	777.5	0.2752	18.545	721.1	0.2770
10	2.960	606.8	0.2591	4.282	616.7	0.2594	5.029	603.7	0.2621

Table 4-128. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A3

Assembly Number A3									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.570	619.2	0.7396	6.899	586.1	0.7396	7.144	582.6	0.7396
2	25.966	782.4	0.7396	26.990	646.5	0.7396	27.741	633.5	0.7396
3	33.523	795.4	0.7167	34.705	647.7	0.7179	35.577	635.4	0.7188
4	36.240	811.9	0.6178	37.547	657.3	0.6225	38.510	643.5	0.6257
5	36.709	848.2	0.5208	38.238	674.6	0.5298	39.354	657.2	0.5360
6	36.457	886.6	0.4449	38.204	692.1	0.4575	39.491	672.9	0.4666
7	35.490	915.6	0.3755	37.415	706.7	0.3904	38.875	689.0	0.4019
8	33.342	907.7	0.3242	35.293	708.8	0.3394	36.826	695.9	0.3518
9	25.247	815.9	0.2840	26.783	675.6	0.2983	28.036	669.9	0.3106
10	6.997	628.0	0.2682	7.391	589.7	0.2809	7.717	588.8	0.2920

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.156	572.9	0.7396	7.292	574.4	0.7396	7.406	570.9	0.7396
2	27.776	600.5	0.7396	28.181	605.7	0.7396	28.514	594.1	0.7396
3	35.623	608.4	0.7189	36.085	607.3	0.7193	36.459	595.6	0.7197
4	38.566	618.2	0.6259	39.075	612.0	0.6276	39.497	600.0	0.6289
5	39.420	628.6	0.5363	40.011	620.3	0.5394	40.518	607.9	0.5420
6	39.564	635.3	0.4671	40.236	628.6	0.4711	40.837	616.6	0.4751
7	38.951	638.5	0.4023	39.682	634.7	0.4068	40.376	625.4	0.4117
8	36.899	636.0	0.3522	37.635	635.3	0.3566	38.383	630.5	0.3619
9	28.092	618.5	0.3110	28.680	620.0	0.3151	29.317	620.0	0.3205
10	7.732	576.7	0.2924	7.890	577.2	0.2963	8.063	577.3	0.3013

Table 4-128. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A3

Assembly Number A3						
Statepoint 13 (325 EFPD Cy 13)				Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.484	568.1	0.7396	7.522	566.1	0.7396
2	28.739	585.3	0.7396	28.845	579.0	0.7396
3	36.709	586.8	0.7199	36.826	580.5	0.7201
4	39.779	590.1	0.6298	39.912	583.2	0.6302
5	40.864	596.6	0.5438	41.034	589.2	0.5446
6	41.263	604.8	0.4779	41.483	597.4	0.4794
7	40.906	615.4	0.4159	41.197	609.2	0.4182
8	39.001	624.7	0.3670	39.369	622.0	0.3703
9	29.887	619.7	0.3261	30.252	621.4	0.3301
10	8.221	577.6	0.3066	8.324	578.3	0.3103

**Table 4-129. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A4**

<b>Assembly Number A4</b>									
	<b>Datapoint 1 (BOC Cy 9)</b>			<b>Datapoint 2 (167 EFPD Cy 9)</b>			<b>Datapoint 3 (BOC Cy 10)</b>		
<b>Node No.</b>	<b>Burnup (GWd/MTU)</b>	<b>Fuel Temp. (K)</b>	<b>Mod. Dens. (g/cm<sup>3</sup>)</b>	<b>Burnup (GWd/MTU)</b>	<b>Fuel Temp. (K)</b>	<b>Mod. Dens. (g/cm<sup>3</sup>)</b>	<b>Burnup (GWd/MTU)</b>	<b>Fuel Temp. (K)</b>	<b>Mod. Dens. (g/cm<sup>3</sup>)</b>
<b>EFPD</b>	<b>BOC Cy 9</b>	<b>BOC Cy 9</b>	<b>BOC Cy 9</b>	<b>167 Cy 9</b>	<b>167 Cy 9</b>	<b>167 Cy 9</b>	<b>BOC Cy 10</b>	<b>BOC Cy 10</b>	<b>BOC Cy 10</b>
1	0.000		0.7396	1.151	642.3	0.7396	2.433	645.0	0.7396
2	0.000		0.7396	5.023	1004.9	0.7396	10.476	1006.3	0.7396
3	0.000	Data Not	0.6690	6.841	1117.1	0.6667	13.523	1045.1	0.6684
4	0.000	Required	0.5178	6.767	1108.9	0.5167	13.279	1028.6	0.5254
5	0.000		0.4170	6.047	1030.9	0.4131	12.514	1024.3	0.4230
6	0.000		0.3567	5.449	970.6	0.3507	11.823	1015.5	0.3571
7	0.000		0.3087	4.907	919.2	0.3009	11.107	999.2	0.3031
8	0.000		0.2775	4.379	872.0	0.2673	10.252	969.2	0.2658
9	0.000		0.2548	3.067	766.8	0.2415	7.369	841.0	0.2366
10	0.000		0.2463	0.789	609.5	0.2314	1.907	624.8	0.2248

	<b>Datapoint 4 (222 EFPD Cy 10)</b>			<b>Datapoint 5 (BOC Cy 11)</b>			<b>Datapoint 6 (180 EFPD Cy 11)</b>		
<b>Node No.</b>	<b>Burnup (GWd/MTU)</b>	<b>Fuel Temp. (K)</b>	<b>Mod. Dens. (g/cm<sup>3</sup>)</b>	<b>Burnup (GWd/MTU)</b>	<b>Fuel Temp. (K)</b>	<b>Mod. Dens. (g/cm<sup>3</sup>)</b>	<b>Burnup (GWd/MTU)</b>	<b>Fuel Temp. (K)</b>	<b>Mod. Dens. (g/cm<sup>3</sup>)</b>
<b>EFPD</b>	<b>222 Cy 10</b>	<b>222 Cy 10</b>	<b>222 Cy 10</b>	<b>BOC Cy 11</b>	<b>BOC Cy 11</b>	<b>BOC Cy 11</b>	<b>180 Cy 11</b>	<b>180 Cy 11</b>	<b>180 Cy 11</b>
1	3.111	594.9	0.7396	4.013	602.6	0.7396	4.581	596.1	0.7396
2	13.319	721.5	0.7396	16.712	736.5	0.7396	19.032	722.9	0.7396
3	17.391	753.5	0.6893	21.419	741.7	0.7008	24.801	771.0	0.7064
4	18.025	804.7	0.5789	22.274	752.9	0.6022	27.080	879.9	0.6136
5	17.948	847.1	0.4905	22.517	769.4	0.5183	27.725	912.8	0.5258
6	17.340	852.4	0.4198	22.285	789.3	0.4478	27.142	883.6	0.4521
7	16.294	831.6	0.3556	21.620	810.0	0.3810	25.861	834.5	0.3843
8	15.396	828.9	0.3130	20.817	815.2	0.3316	24.939	825.3	0.3364
9	11.419	765.1	0.2791	15.983	770.0	0.2926	19.258	764.3	0.2974
10	2.932	608.5	0.2637	4.223	615.3	0.2758	5.116	612.1	0.2802

Table 4-129. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A4

Assembly Number A4									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	5.952	612.7	0.7396	6.483	603.2	0.7396	6.893	598.8	0.7396
2	23.935	769.9	0.7396	25.673	713.5	0.7396	26.970	692.4	0.7396
3	30.991	791.8	0.7104	33.063	719.0	0.7129	34.604	696.7	0.7146
4	34.261	836.1	0.6212	36.469	730.4	0.6274	38.122	707.5	0.6322
5	35.484	862.9	0.5336	37.879	746.6	0.5424	39.681	722.1	0.5497
6	35.319	883.0	0.4605	37.861	759.6	0.4704	39.802	735.9	0.4789
7	34.328	897.2	0.3923	36.937	765.5	0.4020	38.983	746.6	0.4108
8	33.201	887.1	0.3429	35.665	752.7	0.3515	37.652	740.6	0.3595
9	25.852	811.1	0.3024	27.639	695.9	0.3098	29.123	691.8	0.3169
10	7.001	625.1	0.2846	7.466	594.8	0.2917	7.859	594.4	0.2984

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	6.913	582.2	0.7396	7.113	581.8	0.7396	7.273	575.8	0.7396
2	27.034	635.5	0.7396	27.646	630.7	0.7396	28.125	610.0	0.7396
3	34.681	641.3	0.7147	35.389	632.2	0.7154	35.937	611.7	0.7160
4	38.206	647.7	0.6324	38.952	636.3	0.6344	39.557	617.0	0.6362
5	39.772	654.7	0.5499	40.592	644.0	0.5528	41.301	626.7	0.5560
6	39.897	659.6	0.4792	40.793	652.1	0.4824	41.607	636.7	0.4865
7	39.078	660.0	0.4110	40.022	657.1	0.4143	40.927	645.5	0.4188
8	37.740	652.4	0.3597	38.650	653.5	0.3626	39.574	647.5	0.3669
9	29.188	627.1	0.3171	29.870	629.8	0.3197	30.607	629.5	0.3237
10	7.876	578.7	0.2986	8.063	580.0	0.3012	8.266	580.1	0.3050

**Table 4-129. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A4**

Assembly Number A4						
Statepoint 13 (325 EFPD Cy 13)				Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.381	571.6	0.7396	7.434	568.9	0.7396
2	28.444	596.5	0.7396	28.597	587.7	0.7396
3	36.296	598.0	0.7164	36.466	589.2	0.7166
4	39.956	602.0	0.6374	40.146	592.5	0.6379
5	41.782	610.4	0.5582	42.019	600.3	0.5593
6	42.191	621.1	0.4900	42.497	611.7	0.4918
7	41.629	633.5	0.4231	42.027	627.0	0.4260
8	40.350	641.4	0.3715	40.821	639.4	0.3747
9	31.276	630.2	0.3281	31.709	633.0	0.3315
10	8.453	580.5	0.3093	8.576	581.6	0.3125



Table 4-130. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A5

Assembly Number A5									
Node No.	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	1.062	635.5	0.7396	2.162	632.2	0.7396
2	0.000		0.7396	4.591	956.6	0.7396	9.309	931.8	0.7396
3	0.000	Data Not	0.6795	6.262	1053.6	0.6864	12.267	981.1	0.6915
4	0.000	Required	0.5344	6.293	1056.8	0.5451	12.302	981.5	0.5578
5	0.000		0.4330	5.743	999.7	0.4392	11.776	983.7	0.4534
6	0.000		0.3706	5.210	947.6	0.3728	11.185	978.4	0.3835
7	0.000		0.3207	4.698	900.1	0.3195	10.488	961.7	0.3253
8	0.000		0.2877	4.214	857.7	0.2834	9.675	932.8	0.2851
9	0.000		0.2638	2.964	758.9	0.2560	6.982	818.8	0.2543
10	0.000		0.2549	0.754	607.4	0.2453	1.793	620.3	0.2422

Node No.	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	2.994	603.3	0.7396	4.186	617.1	0.7396	5.154	623.3	0.7396
2	12.909	770.9	0.7396	17.509	810.1	0.7396	21.278	844.1	0.7396
3	17.313	823.0	0.7093	22.824	820.3	0.7168	27.905	902.2	0.7139
4	18.209	877.8	0.5969	23.699	819.1	0.6095	29.540	968.3	0.6063
5	18.104	906.0	0.4963	23.684	824.2	0.5097	29.642	978.8	0.5041
6	17.345	894.7	0.4203	23.174	838.2	0.4322	28.711	941.2	0.4264
7	16.149	861.7	0.3556	22.239	853.2	0.3641	27.076	882.0	0.3597
8	15.138	849.0	0.3120	21.205	851.9	0.3153	25.244	819.1	0.3126
9	11.155	772.4	0.2779	16.084	789.6	0.2768	19.055	743.0	0.2756
10	2.861	610.5	0.2641	4.258	619.9	0.2615	5.068	607.3	0.2608

Table 4-130. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A5

Assembly Number A5									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.994	631.9	0.7396	7.369	590.0	0.7396	7.657	586.8	0.7396
2	27.554	839.6	0.7396	28.697	657.3	0.7396	29.560	645.2	0.7396
3	35.333	847.4	0.7113	36.672	659.7	0.7127	37.681	647.7	0.7139
4	37.182	857.4	0.6080	38.715	675.0	0.6137	39.866	660.3	0.6177
5	37.650	874.9	0.5103	39.429	694.7	0.5204	40.755	676.5	0.5277
6	37.126	894.7	0.4350	39.117	712.2	0.4483	40.617	692.8	0.4582
7	35.693	904.6	0.3682	37.840	725.3	0.3830	39.504	708.5	0.3947
8	33.423	883.2	0.3200	35.536	722.4	0.3342	37.228	711.3	0.3460
9	25.221	792.3	0.2814	26.821	680.7	0.2943	28.146	676.6	0.3054
10	6.784	619.3	0.2661	7.193	590.8	0.2779	7.537	590.3	0.2882

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.668	571.7	0.7396	7.825	576.8	0.7396	7.962	573.3	0.7396
2	29.598	603.6	0.7396	30.076	614.3	0.7396	30.476	601.5	0.7396
3	37.736	616.1	0.7139	38.299	617.6	0.7145	38.763	603.9	0.7150
4	39.934	631.4	0.6179	40.567	624.5	0.6199	41.099	610.3	0.6217
5	40.833	641.8	0.5281	41.551	633.3	0.5315	42.180	619.2	0.5347
6	40.703	649.1	0.4586	41.494	641.0	0.4627	42.213	627.8	0.4670
7	39.590	650.6	0.3951	40.428	645.9	0.3993	41.232	635.8	0.4042
8	37.309	644.5	0.3464	38.128	643.9	0.3502	38.968	639.3	0.3552
9	28.205	622.2	0.3058	28.824	623.2	0.3093	29.504	624.1	0.3141
10	7.552	576.7	0.2885	7.709	577.1	0.2917	7.885	577.6	0.2961

**Table 4-130. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A5**

Assembly Number A5						
Statepoint 13 (325 EFPD Cy 13)				Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	8.058	570.2	0.7396	8.103	567.4	0.7396
2	30.751	591.2	0.7396	30.881	583.5	0.7396
3	39.076	593.3	0.7153	39.222	585.3	0.7154
4	41.461	598.2	0.6228	41.632	589.4	0.6233
5	42.618	606.0	0.5369	42.832	596.5	0.5380
6	42.739	615.0	0.4704	43.011	606.0	0.4722
7	41.858	625.5	0.4086	42.207	618.7	0.4113
8	39.664	632.9	0.3601	40.081	630.3	0.3635
9	30.108	623.2	0.3191	30.495	625.3	0.3228
10	8.045	577.8	0.3007	8.149	578.5	0.3042

Table 4-131. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A6

Assembly Number A6									
Node No.	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	1.238	648.9	0.7396	2.475	641.8	0.7396
2	0.000		0.7396	5.335	1040.6	0.7396	10.558	982.1	0.7396
3	0.000	Data Not	0.6534	6.959	1130.4	0.6600	13.366	1018.6	0.6684
4	0.000	Required	0.5045	6.539	1083.7	0.5133	12.880	1012.3	0.5299
5	0.000		0.4098	5.810	1006.4	0.4143	12.047	1002.6	0.4306
6	0.000		0.3526	5.252	951.6	0.3536	11.391	993.4	0.3654
7	0.000		0.3066	4.734	903.4	0.3048	10.713	978.7	0.3111
8	0.000		0.2764	4.228	859.0	0.2715	9.894	950.7	0.2732
9	0.000		0.2542	2.976	759.8	0.2458	7.128	829.1	0.2436
10	0.000		0.2458	0.762	607.9	0.2357	1.837	622.3	0.2318

Node No.	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	3.740	627.3	0.7396	5.358	638.8	0.7396	5.898	594.3	0.7396
2	15.793	887.6	0.7396	21.588	888.9	0.7396	23.458	688.3	0.7396
3	20.375	954.0	0.6832	27.122	892.3	0.6890	29.525	704.3	0.6941
4	20.574	1004.6	0.5508	27.438	899.5	0.5590	30.393	741.1	0.5758
5	19.751	1005.3	0.4474	26.833	913.0	0.4541	30.166	767.3	0.4788
6	18.948	994.2	0.3777	26.290	929.5	0.3804	29.712	773.7	0.4063
7	18.041	977.2	0.3193	25.650	946.6	0.3169	28.949	765.0	0.3406
8	16.619	933.6	0.2788	24.247	947.9	0.2719	27.297	747.6	0.2933
9	12.153	823.8	0.2479	18.352	861.5	0.2369	20.761	705.1	0.2575
10	3.203	624.5	0.2356	5.095	641.3	0.2233	5.750	598.5	0.2426

Table 4-131. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A6

Assembly Number A6									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.596	585.9	0.7396	7.151	605.3	0.7396	7.585	601.2	0.7396
2	25.693	648.4	0.7396	27.469	717.3	0.7396	28.813	697.7	0.7396
3	32.199	652.9	0.6991	34.340	724.8	0.7023	35.955	703.9	0.7044
4	33.539	670.2	0.5920	35.916	745.1	0.6004	37.715	721.8	0.6067
5	33.893	691.9	0.5063	36.468	762.5	0.5173	38.425	737.6	0.5259
6	34.048	715.4	0.4428	36.721	771.3	0.4536	38.780	747.9	0.4627
7	33.841	737.4	0.3826	36.512	771.2	0.3921	38.621	753.1	0.4007
8	32.414	746.6	0.3359	34.952	759.3	0.3444	37.005	747.3	0.3522
9	25.160	718.2	0.2994	27.014	701.5	0.3066	28.553	697.0	0.3133
10	6.987	602.9	0.2820	7.471	596.1	0.2887	7.880	595.7	0.2951

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.603	579.8	0.7396	7.843	586.4	0.7396	8.045	580.2	0.7396
2	28.875	632.4	0.7396	29.604	645.1	0.7396	30.200	623.0	0.7396
3	36.037	645.6	0.7046	36.902	648.7	0.7056	37.600	625.7	0.7065
4	37.814	664.4	0.6070	38.758	657.2	0.6096	39.556	635.2	0.6123
5	38.536	677.9	0.5263	39.561	665.7	0.5294	40.471	646.1	0.5332
6	38.896	683.3	0.4631	39.971	671.2	0.4659	40.969	654.7	0.4701
7	38.734	679.6	0.4009	39.817	672.1	0.4034	40.883	661.4	0.4073
8	37.106	667.0	0.3523	38.126	665.2	0.3545	39.204	662.6	0.3581
9	28.625	634.8	0.3135	29.366	635.9	0.3154	30.204	639.3	0.3185
10	7.898	579.7	0.2953	8.096	581.1	0.2971	8.322	582.2	0.3000

Table 4-131. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A6

Assembly Number A6						
Statepoint 13 (325 EFPD Cy 13)				Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	8.189	575.8	0.7396	8.260	572.3	0.7396
2	30.618	608.5	0.7396	30.819	596.9	0.7396
3	38.083	610.6	0.7071	38.308	598.4	0.7074
4	40.112	618.2	0.6142	40.374	604.4	0.6151
5	41.131	629.1	0.5365	41.458	615.1	0.5381
6	41.733	640.1	0.4740	42.136	628.0	0.4765
7	41.744	650.6	0.4115	42.236	643.1	0.4145
8	40.114	656.0	0.3621	40.673	654.7	0.3652
9	30.951	638.5	0.3221	31.440	642.7	0.3250
10	8.527	582.3	0.3034	8.662	583.6	0.3061

Table 4-132. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A7

Assembly Number A7									
Node No.	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	0.845	619.3	0.7396	1.961	633.3	0.7396
2	0.000		0.7396	3.766	871.3	0.7396	8.838	968.3	0.7396
3	0.000	Data Not	0.7179	5.699	1034.8	0.7108	12.457	1052.5	0.6959
4	0.000	Required	0.5848	6.233	1050.3	0.5749	12.762	1030.3	0.5593
5	0.000		0.4737	5.713	996.7	0.4624	12.068	1013.6	0.4504
6	0.000		0.4034	5.106	937.8	0.3911	11.243	993.3	0.3794
7	0.000		0.3479	4.568	888.6	0.3345	10.401	965.5	0.3219
8	0.000		0.3110	4.180	854.8	0.2960	9.649	933.5	0.2825
9	0.000		0.2844	2.977	760.0	0.2663	6.952	815.7	0.2522
10	0.000		0.2743	0.761	607.8	0.2550	1.783	619.3	0.2402

Node No.	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	2.861	607.0	0.7396	3.586	593.8	0.7396	4.062	590.0	0.7396
2	12.589	780.8	0.7396	15.290	697.1	0.7396	17.185	690.1	0.7396
3	17.083	797.4	0.7068	20.232	698.7	0.7141	22.755	712.1	0.7181
4	17.731	818.1	0.5872	21.382	723.0	0.6086	24.403	745.6	0.6225
5	17.174	826.6	0.4901	21.494	756.5	0.5239	24.822	767.0	0.5436
6	16.252	820.6	0.4224	21.105	784.4	0.4601	24.533	774.1	0.4804
7	15.356	817.2	0.3668	20.610	806.1	0.3999	23.993	770.9	0.4177
8	15.126	849.9	0.3335	20.767	827.5	0.3577	23.712	740.4	0.3707
9	11.127	772.4	0.2949	15.938	783.0	0.3124	18.100	689.1	0.3248
10	2.833	609.6	0.2781	4.189	618.1	0.2931	4.728	591.9	0.3049

Table 4-132. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A7

Assembly Number A7									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	4.841	589.1	0.7396	5.391	604.8	0.7396	6.010	619.9	0.7396
2	20.015	674.0	0.7396	22.012	739.4	0.7396	24.111	787.0	0.7396
3	26.173	680.2	0.7226	28.583	764.5	0.7243	31.053	812.3	0.7236
4	28.224	695.4	0.6384	30.707	754.4	0.6437	33.217	795.6	0.6443
5	29.149	715.0	0.5678	31.693	759.8	0.5740	34.245	800.1	0.5746
6	29.296	732.3	0.5094	31.893	764.5	0.5150	34.539	810.6	0.5151
7	29.082	745.4	0.4485	31.680	764.6	0.4532	34.457	825.2	0.4522
8	28.730	742.6	0.3986	31.140	748.0	0.4024	33.856	818.3	0.4008
9	22.174	705.6	0.3518	23.975	696.9	0.3556	26.025	748.1	0.3541
10	5.801	597.4	0.3310	6.266	594.8	0.3348	6.837	609.4	0.3333

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	6.035	588.1	0.7396	6.402	601.2	0.7396	6.678	588.1	0.7396
2	24.200	666.2	0.7396	25.425	709.3	0.7396	26.314	656.6	0.7396
3	31.169	683.0	0.7237	32.657	717.7	0.7250	33.724	669.2	0.7257
4	33.361	715.7	0.6447	34.988	734.1	0.6484	36.206	676.6	0.6517
5	34.428	764.0	0.5753	36.172	748.0	0.5800	37.563	694.4	0.5854
6	34.745	792.1	0.5157	36.537	753.9	0.5204	38.067	709.0	0.5271
7	34.651	776.7	0.4527	36.412	750.1	0.4567	38.130	729.2	0.4645
8	34.018	737.2	0.4011	35.594	728.0	0.4045	37.366	735.0	0.4120
9	26.132	672.8	0.3544	27.210	672.1	0.3574	28.527	687.2	0.3639
10	6.863	587.7	0.3336	7.128	587.7	0.3366	7.448	590.7	0.3424



Table 4-132. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A7

Assembly Number A7						
Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	6.900	584.9	0.7396	7.021	581.7	0.7396
2	27.016	643.9	0.7396	27.385	630.0	0.7396
3	34.563	654.6	0.7263	34.985	635.9	0.7265
4	37.176	662.6	0.6542	37.657	641.3	0.6555
5	38.702	681.5	0.5900	39.288	659.4	0.5923
6	39.359	699.0	0.5332	40.057	679.7	0.5369
7	39.558	714.9	0.4715	40.372	701.1	0.4761
8	38.818	717.8	0.4186	39.706	715.0	0.4234
9	29.653	680.4	0.3699	30.389	686.9	0.3746
10	7.732	590.3	0.3481	7.920	592.2	0.3524

Table 4-133. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A8

Assembly Number A8									
Node No.	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	0.764	613.3	0.7396	1.752	624.4	0.7396
2	0.000		0.7396	3.387	833.9	0.7396	7.835	906.6	0.7396
3	0.000	Data Not	0.7270	5.056	966.7	0.7248	11.094	1024.2	0.7165
4	0.000	Required	0.6124	5.541	979.5	0.6110	11.554	981.9	0.5950
5	0.000		0.5039	5.183	945.0	0.5013	11.056	969.1	0.4872
6	0.000		0.4314	4.677	898.3	0.4264	10.368	952.8	0.4122
7	0.000		0.3730	4.215	857.7	0.3653	9.647	930.3	0.3501
8	0.000		0.3340	4.006	840.0	0.3228	9.166	907.1	0.3070
9	0.000		0.3045	3.006	762.1	0.2883	6.849	805.6	0.2729
10	0.000		0.2931	0.758	607.6	0.2750	1.741	617.0	0.2597

Node No.	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	3.097	631.8	0.7396	4.293	617.3	0.7396	5.031	607.6	0.7396
2	13.484	919.4	0.7396	17.892	797.8	0.7396	20.665	758.8	0.7396
3	18.171	958.8	0.7129	23.286	798.4	0.7187	26.903	787.8	0.7208
4	18.703	963.9	0.5927	24.122	815.2	0.6066	28.396	837.1	0.6162
5	17.906	942.4	0.4872	23.733	838.1	0.5052	28.286	858.9	0.5174
6	16.796	912.9	0.4138	22.969	858.1	0.4300	27.397	849.0	0.4409
7	15.635	883.2	0.3527	22.024	870.8	0.3630	26.073	819.8	0.3724
8	14.731	855.6	0.3102	21.071	867.9	0.3139	24.598	781.2	0.3224
9	10.937	767.4	0.2767	16.092	801.8	0.2754	18.732	720.4	0.2839
10	2.798	610.0	0.2637	4.268	623.0	0.2607	4.974	601.4	0.2691

Table 4-133. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A8

Assembly Number A8									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.049	598.5	0.7396	6.488	595.4	0.7396	6.813	590.4	0.7396
2	24.145	702.9	0.7396	25.542	680.8	0.7396	26.555	661.2	0.7396
3	31.244	728.3	0.7239	32.860	691.4	0.7249	34.041	671.1	0.7256
4	33.437	743.5	0.6307	35.218	694.9	0.6365	36.529	675.1	0.6405
5	33.901	767.2	0.5406	35.913	714.0	0.5504	37.403	691.8	0.5578
6	33.568	790.9	0.4688	35.775	730.4	0.4808	37.434	708.1	0.4903
7	32.639	808.2	0.4014	34.973	741.3	0.4139	36.782	722.8	0.4245
8	31.055	803.4	0.3493	33.350	738.0	0.3610	35.185	725.4	0.3714
9	23.868	748.2	0.3081	25.645	695.0	0.3188	27.106	689.5	0.3284
10	6.387	608.9	0.2920	6.853	594.8	0.3019	7.242	594.1	0.3111

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	6.835	584.5	0.7396	7.156	595.8	0.7396	7.437	588.6	0.7396
2	26.636	658.4	0.7396	27.665	683.3	0.7396	28.531	653.8	0.7396
3	34.160	696.1	0.7257	35.392	699.2	0.7264	36.405	663.4	0.7270
4	36.672	714.1	0.6409	38.004	699.9	0.6446	39.142	668.5	0.6477
5	37.560	731.3	0.5584	39.000	712.1	0.5641	40.299	685.0	0.5698
6	37.594	734.7	0.4910	39.089	718.5	0.4976	40.504	696.8	0.5050
7	36.934	725.1	0.4252	38.408	716.1	0.4317	39.894	704.2	0.4399
8	35.317	701.2	0.3720	36.661	701.2	0.3780	38.112	700.6	0.3860
9	27.196	653.9	0.3289	28.133	656.7	0.3341	29.208	662.6	0.3414
10	7.265	584.7	0.3115	7.501	584.9	0.3164	7.773	586.3	0.3231

**Table 4-133. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly A8**

Assembly Number A8						
Statepoint 13 (325 EFPD Cy 13)				Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.637	582.3	0.7396	7.734	577.2	0.7396
2	29.130	630.9	0.7396	29.415	613.4	0.7396
3	37.096	637.3	0.7274	37.417	617.3	0.7275
4	39.924	642.0	0.6498	40.293	622.1	0.6507
5	41.224	657.6	0.5738	41.681	637.0	0.5758
6	41.575	673.8	0.5110	42.138	655.5	0.5142
7	41.102	689.3	0.4475	41.794	678.5	0.4522
8	39.370	695.0	0.3942	40.150	694.7	0.3999
9	30.200	665.3	0.3492	30.859	672.9	0.3550
10	8.028	587.4	0.3303	8.199	589.4	0.3357

Table 4-134. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly B1

Assembly Number B1									
Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	0.982	629.4	0.7396	2.163	637.7	0.7396
2	0.000		0.7396	4.117	905.4	0.7396	9.020	949.8	0.7396
3	0.000	Data Not	0.6821	5.405	965.5	0.7091	11.701	1007.3	0.7000
4	0.000	Required	0.5501	5.139	940.2	0.5890	11.096	976.1	0.5753
5	0.000		0.4583	4.825	911.0	0.4897	10.480	949.0	0.4756
6	0.000		0.3938	5.235	949.4	0.4155	11.051	963.3	0.4038
7	0.000		0.3343	5.275	953.1	0.3468	11.136	967.3	0.3379
8	0.000		0.2943	4.805	909.3	0.3000	10.443	947.6	0.2919
9	0.000		0.2669	3.415	793.7	0.2659	7.730	841.0	0.2571
10	0.000		0.2570	0.893	615.9	0.2530	2.084	629.0	0.2433

Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	3.221	615.6	0.7396	4.895	641.6	0.7396	5.427	593.7	0.7396
2	13.558	835.8	0.7396	19.794	919.4	0.7396	21.885	704.9	0.7396
3	18.099	910.5	0.7104	25.303	920.1	0.7083	28.337	746.3	0.7125
4	18.567	987.3	0.5913	25.571	907.6	0.5880	30.369	880.0	0.6045
5	18.270	1011.1	0.4848	25.305	909.6	0.4805	30.927	948.0	0.4979
6	18.376	976.2	0.4076	25.604	921.6	0.4009	30.797	911.0	0.4132
7	17.925	937.5	0.3412	25.363	935.0	0.3315	29.820	851.0	0.3409
8	16.636	896.4	0.2957	24.042	932.9	0.2830	27.820	799.1	0.2918
9	12.370	799.6	0.2614	18.336	847.5	0.2457	21.486	755.0	0.2563
10	3.376	620.9	0.2478	5.175	637.1	0.2308	6.061	611.6	0.2412

Table 4-134. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly B1

Assembly Number B1									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.987	620.3	0.7396	7.239	579.7	0.7396	7.430	577.3	0.7396
2	27.151	787.4	0.7396	27.901	622.1	0.7396	28.458	613.6	0.7396
3	34.830	804.6	0.7143	35.692	623.6	0.7152	36.329	614.9	0.7159
4	37.380	827.7	0.6133	38.358	632.2	0.6169	39.073	621.7	0.6194
5	38.431	850.4	0.5118	39.586	645.6	0.5188	40.421	632.1	0.5235
6	38.846	876.3	0.4294	40.209	661.5	0.4401	41.192	645.2	0.4475
7	38.207	892.7	0.3568	39.781	678.0	0.3712	40.943	661.3	0.3816
8	35.937	879.6	0.3059	37.584	683.9	0.3219	38.852	670.9	0.3342
9	27.999	807.0	0.2694	29.316	658.1	0.2847	30.381	652.6	0.2974
10	7.968	625.8	0.2536	8.317	586.4	0.2673	8.605	585.6	0.2791

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.439	569.4	0.7396	7.567	573.5	0.7396	7.664	569.1	0.7396
2	28.488	593.3	0.7396	28.875	603.5	0.7396	29.160	588.9	0.7396
3	36.366	598.2	0.7160	36.819	606.4	0.7165	37.150	591.7	0.7168
4	39.120	608.6	0.6196	39.636	612.7	0.6213	40.020	596.5	0.6225
5	40.483	624.4	0.5239	41.085	621.4	0.5271	41.547	603.6	0.5296
6	41.268	639.4	0.4480	41.951	629.7	0.4522	42.500	611.6	0.4559
7	41.025	645.4	0.3821	41.771	636.1	0.3867	42.441	623.0	0.3918
8	38.929	640.8	0.3347	39.677	636.3	0.3392	40.444	632.2	0.3451
9	30.438	619.5	0.2979	31.012	618.6	0.3018	31.664	621.3	0.3075
10	8.620	576.6	0.2794	8.769	576.3	0.2829	8.941	577.2	0.2880

Table 4-134. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly B1

Assembly Number B1						
Statepoint 13 (325 EFPD Cy 13)				Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.739	567.7	0.7396	7.779	566.5	0.7396
2	29.382	584.9	0.7396	29.495	580.2	0.7396
3	37.406	587.4	0.7171	37.533	582.2	0.7172
4	40.319	591.7	0.6235	40.466	585.5	0.6240
5	41.910	598.3	0.5315	42.094	591.4	0.5325
6	42.939	606.0	0.4589	43.167	598.8	0.4604
7	42.973	615.6	0.3960	43.263	608.9	0.3984
8	41.050	623.4	0.3501	41.404	619.4	0.3532
9	32.205	616.6	0.3126	32.542	616.9	0.3161
10	9.088	576.4	0.2927	9.181	576.7	0.2959

Table 4-135. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly B2

Assembly Number B2									
Node No.	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	1.086	637.2	0.7396	2.362	644.4	0.7396
2	0.000		0.7396	4.591	955.8	0.7396	9.913	992.2	0.7396
3	0.000	Data Not	0.6721	6.156	1041.4	0.6880	12.882	1048.4	0.6825
4	0.000	Required	0.5287	5.996	1024.8	0.5504	12.415	1018.9	0.5450
5	0.000		0.4324	5.492	974.1	0.4473	11.664	995.7	0.4422
6	0.000		0.3711	5.256	951.2	0.3797	11.391	992.3	0.3739
7	0.000		0.3198	4.955	923.0	0.3230	11.046	988.2	0.3160
8	0.000		0.2857	4.471	879.5	0.2843	10.335	967.7	0.2755
9	0.000		0.2616	3.225	778.6	0.2553	7.587	845.0	0.2443
10	0.000		0.2527	0.853	613.4	0.2437	2.036	628.5	0.2314

Node No.	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	3.513	620.8	0.7396	5.073	635.7	0.7396	5.760	604.1	0.7396
2	14.794	860.8	0.7396	20.589	888.5	0.7396	23.094	737.1	0.7396
3	19.708	940.4	0.6953	26.548	897.4	0.6987	29.775	759.6	0.7028
4	20.200	1010.8	0.5642	27.199	907.2	0.5689	30.942	796.6	0.5825
5	19.368	1004.6	0.4576	26.583	920.8	0.4613	30.560	814.0	0.4796
6	18.784	981.2	0.3855	26.207	934.0	0.3854	30.090	806.9	0.4036
7	18.047	952.6	0.3248	25.722	950.3	0.3202	29.763	818.8	0.3397
8	16.647	904.5	0.2829	24.420	956.7	0.2741	28.261	803.8	0.2920
9	12.101	792.2	0.2511	18.359	864.8	0.2382	21.256	737.6	0.2545
10	3.285	618.9	0.2385	5.165	640.6	0.2240	5.955	606.1	0.2390



Table 4-135. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly B2

Assembly Number B2									
Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.763	597.9	0.7396	7.097	586.5	0.7396	7.350	583.3	0.7396
2	26.378	693.9	0.7396	27.409	647.0	0.7396	28.168	634.2	0.7396
3	33.660	697.7	0.7081	34.861	649.0	0.7096	35.738	635.7	0.7108
4	35.354	718.1	0.6006	36.724	662.1	0.6062	37.716	645.9	0.6101
5	35.661	745.6	0.5087	37.261	680.1	0.5188	38.409	660.0	0.5257
6	35.803	771.0	0.4384	37.601	696.0	0.4516	38.909	674.7	0.4612
7	36.255	804.7	0.3758	38.152	704.2	0.3898	39.580	685.8	0.4008
8	34.932	812.5	0.3257	36.818	703.3	0.3395	38.293	690.2	0.3510
9	26.660	758.9	0.2855	28.142	671.0	0.2986	29.350	665.6	0.3100
10	7.495	613.2	0.2682	7.886	589.4	0.2801	8.210	588.6	0.2905

Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.368	579.8	0.7396	7.552	579.9	0.7396	7.701	574.6	0.7396
2	28.225	626.7	0.7396	28.777	623.2	0.7396	29.213	605.3	0.7396
3	35.807	632.2	0.7108	36.444	624.9	0.7115	36.942	607.0	0.7121
4	37.795	642.6	0.6103	38.500	632.0	0.6128	39.074	614.0	0.6148
5	38.496	651.4	0.5261	39.289	641.1	0.5297	39.972	624.2	0.5334
6	39.001	655.9	0.4615	39.866	648.6	0.4655	40.648	633.7	0.4701
7	39.670	654.4	0.4012	40.560	651.3	0.4047	41.414	640.5	0.4095
8	38.378	648.3	0.3513	39.243	648.7	0.3545	40.126	643.3	0.3591
9	29.414	626.5	0.3102	30.083	628.4	0.3133	30.809	628.3	0.3176
10	8.227	578.6	0.2908	8.411	579.7	0.2938	8.611	579.8	0.2979

Table 4-135. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly B2

Assembly Number B2						
Statepoint 13 (325 EFPD Cy 13)				Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.802	570.7	0.7396	7.851	568.2	0.7396
2	29.504	593.1	0.7396	29.643	585.2	0.7396
3	37.270	594.7	0.7125	37.424	586.7	0.7127
4	39.453	599.9	0.6162	39.632	590.7	0.6168
5	40.434	608.4	0.5358	40.662	598.6	0.5370
6	41.209	618.6	0.4737	41.501	609.3	0.4757
7	42.074	629.1	0.4139	42.447	622.7	0.4167
8	40.865	637.4	0.3638	41.312	635.3	0.3672
9	31.466	628.8	0.3224	31.890	631.4	0.3260
10	8.796	580.3	0.3024	8.917	581.3	0.3057

Table 4-136. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly B3

Assembly Number B3									
Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	0.817	617.1	0.7396	1.918	632.2	0.7396
2	0.000		0.7396	3.594	853.5	0.7396	8.389	939.9	0.7396
3	0.000	Data Not	0.7191	5.477	1009.7	0.7176	11.975	1070.9	0.7039
4	0.000	Required	0.5828	6.311	1057.8	0.5825	12.706	1016.6	0.5695
5	0.000		0.4673	5.818	1006.5	0.4654	12.222	1017.5	0.4567
6	0.000		0.3960	5.217	947.6	0.3917	11.425	999.1	0.3827
7	0.000		0.3404	4.694	899.2	0.3336	10.605	971.9	0.3233
8	0.000		0.3038	4.341	868.1	0.2942	9.914	941.9	0.2829
9	0.000		0.2776	3.141	772.2	0.2636	7.263	826.5	0.2516
10	0.000		0.2676	0.811	610.8	0.2518	1.907	623.5	0.2391

Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	2.617	596.0	0.7396	4.032	628.3	0.7396	4.760	606.8	0.7396
2	11.929	766.7	0.7396	17.720	888.2	0.7396	20.528	761.4	0.7396
3	17.033	823.3	0.7182	23.761	890.7	0.7170	27.478	794.8	0.7191
4	19.148	914.6	0.6046	25.623	875.5	0.6040	29.889	836.0	0.6129
5	19.732	989.9	0.4920	26.403	887.3	0.4925	30.846	849.8	0.5052
6	18.411	951.6	0.4091	25.530	914.8	0.4080	29.897	843.7	0.4214
7	16.934	905.6	0.3437	24.238	926.4	0.3379	28.273	818.4	0.3505
8	15.614	863.8	0.3000	22.787	918.1	0.2897	26.224	774.5	0.3009
9	11.616	782.2	0.2690	17.402	837.0	0.2549	19.867	708.7	0.2651
10	3.142	618.2	0.2571	4.873	634.1	0.2413	5.516	597.7	0.2508

Table 4-136. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly B3

Assembly Number B3									
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.051	609.4	0.7396	6.455	592.4	0.7396	6.772	589.6	0.7396
2	25.025	749.9	0.7396	26.322	671.3	0.7396	27.331	660.6	0.7396
3	32.829	755.9	0.7215	34.357	674.3	0.7228	35.560	665.0	0.7239
4	35.503	766.8	0.6238	37.188	686.9	0.6294	38.516	676.4	0.6335
5	36.817	782.0	0.5239	38.693	702.4	0.5336	40.156	689.1	0.5410
6	36.325	801.8	0.4454	38.386	717.8	0.4579	39.996	703.1	0.4676
7	34.976	813.9	0.3765	37.155	727.7	0.3901	38.891	715.4	0.4010
8	32.689	803.4	0.3260	34.797	721.8	0.3390	36.517	713.8	0.3498
9	24.809	740.1	0.2875	26.386	678.7	0.2993	27.698	675.4	0.3091
10	6.846	606.0	0.2713	7.243	589.9	0.2818	7.579	589.6	0.2907

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	6.788	577.5	0.7396	6.953	577.7	0.7396	7.088	573.1	0.7396
2	27.378	615.0	0.7396	27.875	616.6	0.7396	28.274	601.2	0.7396
3	35.619	621.2	0.7239	36.179	617.0	0.7244	36.623	604.1	0.7247
4	38.584	631.0	0.6337	39.197	622.5	0.6355	39.699	607.4	0.6370
5	40.233	639.6	0.5413	40.926	630.8	0.5445	41.523	616.1	0.5474
6	40.080	647.2	0.4680	40.858	639.6	0.4719	41.560	626.0	0.4762
7	38.977	649.4	0.4014	39.816	645.9	0.4056	40.617	635.4	0.4106
8	36.599	645.8	0.3501	37.437	645.8	0.3541	38.291	640.5	0.3593
9	27.762	625.5	0.3095	28.418	627.1	0.3132	29.130	627.0	0.3182
10	7.595	577.6	0.2910	7.772	579.0	0.2945	7.964	579.0	0.2993

Table 4-136. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly B3

Assembly Number B3						
Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.181	569.8	0.7396	7.226	567.4	0.7396
2	28.542	590.3	0.7396	28.669	582.8	0.7396
3	36.917	592.4	0.7249	37.056	584.4	0.7250
4	40.033	595.3	0.6380	40.190	587.2	0.6384
5	41.926	602.4	0.5493	42.125	593.9	0.5503
6	42.060	612.2	0.4793	42.319	603.8	0.4810
7	41.234	624.4	0.4151	41.578	618.0	0.4178
8	39.002	634.4	0.3646	39.429	632.0	0.3681
9	29.772	627.1	0.3237	30.185	629.5	0.3276
10	8.141	579.5	0.3043	8.256	580.3	0.3080

Table 4-137. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly B4

Assembly Number B4									
Node No.	Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	0.952	627.2	0.7396	2.090	634.7	0.7396
2	0.000		0.7396	4.057	899.6	0.7396	8.814	935.4	0.7396
3	0.000	Data Not	0.6906	5.733	998.2	0.7052	11.909	996.1	0.7005
4	0.000	Required	0.5451	6.252	1051.5	0.5667	12.319	986.1	0.5667
5	0.000		0.4391	5.776	1002.2	0.4540	11.960	996.9	0.4571
6	0.000		0.3740	5.360	961.3	0.3824	11.528	995.3	0.3836
7	0.000		0.3215	4.964	923.9	0.3245	10.994	982.6	0.3230
8	0.000		0.2868	4.500	882.1	0.2853	10.243	956.8	0.2814
9	0.000		0.2622	3.206	777.2	0.2560	7.542	842.8	0.2495
10	0.000		0.2529	0.839	612.6	0.2445	2.018	628.3	0.2365

Node No.	Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	3.281	623.0	0.7396	4.426	614.6	0.7396	5.494	630.1	0.7396
2	13.803	868.6	0.7396	18.077	789.1	0.7396	22.177	873.7	0.7396
3	18.367	914.4	0.7090	23.358	791.4	0.7159	28.847	936.4	0.7113
4	19.024	931.5	0.5845	24.254	804.4	0.6006	30.309	987.0	0.5955
5	18.475	918.2	0.4776	24.039	822.9	0.4983	30.084	986.1	0.4917
6	17.642	891.1	0.4035	23.520	840.6	0.4230	29.122	946.2	0.4167
7	16.656	861.3	0.3417	22.741	852.5	0.3561	27.640	886.5	0.3515
8	15.469	833.6	0.2994	21.527	850.9	0.3080	25.659	825.8	0.3053
9	11.382	752.8	0.2667	16.316	789.5	0.2709	19.335	746.1	0.2694
10	3.024	607.5	0.2531	4.421	619.8	0.2555	5.256	608.7	0.2545

Table 4-137. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly B4

Assembly Number B4									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	7.411	635.0	0.7396	7.706	583.3	0.7396	7.929	580.4	0.7396
2	28.654	849.8	0.7396	29.524	632.6	0.7396	30.166	622.2	0.7396
3	36.515	858.2	0.7079	37.516	633.9	0.7091	38.251	623.4	0.7100
4	38.248	871.0	0.5972	39.401	645.3	0.6018	40.239	632.4	0.6050
5	38.459	892.1	0.4982	39.833	662.3	0.5069	40.820	645.5	0.5127
6	37.891	911.7	0.4252	39.492	680.3	0.4377	40.649	660.7	0.4465
7	36.573	920.0	0.3598	38.366	695.6	0.3752	39.702	677.3	0.3868
8	34.140	897.4	0.3124	35.972	698.8	0.3285	37.393	685.2	0.3415
9	25.682	800.0	0.2749	27.134	668.7	0.2904	28.314	663.0	0.3036
10	7.023	620.9	0.2594	7.400	588.4	0.2735	7.713	587.7	0.2858

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.937	568.2	0.7396	8.034	570.0	0.7396	8.118	567.8	0.7396
2	30.190	586.8	0.7396	30.477	591.8	0.7396	30.716	584.1	0.7396
3	38.284	594.2	0.7100	38.616	594.3	0.7104	38.888	586.3	0.7108
4	40.281	603.1	0.6051	40.660	599.0	0.6065	40.976	590.4	0.6077
5	40.868	610.4	0.5130	41.314	605.6	0.5156	41.698	596.5	0.5178
6	40.704	617.8	0.4469	41.222	612.8	0.4506	41.678	603.2	0.4539
7	39.762	622.3	0.3873	40.341	619.0	0.3919	40.880	610.7	0.3964
8	37.453	621.6	0.3419	38.051	621.0	0.3468	38.648	616.1	0.3522
9	28.360	608.4	0.3041	28.847	609.7	0.3088	29.368	609.2	0.3146
10	7.725	573.6	0.2862	7.851	574.0	0.2905	7.987	573.9	0.2959

**Table 4-137. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly B4**

Assembly Number B4						
Statepoint 13 (325 EFPD Cy 13)				Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	8.176	565.8	0.7396	8.203	564.1	0.7396
2	30.878	577.9	0.7396	30.955	573.3	0.7396
3	39.070	580.0	0.7110	39.156	575.5	0.7111
4	41.189	583.1	0.6084	41.289	577.9	0.6088
5	41.961	588.2	0.5193	42.090	582.6	0.5200
6	42.004	594.4	0.4562	42.171	588.8	0.4574
7	41.284	602.5	0.3999	41.506	597.7	0.4017
8	39.129	610.4	0.3568	39.412	607.6	0.3596
9	29.826	607.9	0.3203	30.114	608.7	0.3241
10	8.110	574.0	0.3012	8.190	574.6	0.3048



Table 4-138. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly B5

Assembly Number B5									
Datapoint 1 (BOC Cy 9)			Datapoint 2 (167 EFPD Cy 9)			Datapoint 3 (BOC Cy 10)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)
EFPD	BOC Cy 9	BOC Cy 9	BOC Cy 9	167 Cy 9	167 Cy 9	167 Cy 9	BOC Cy 10	BOC Cy 10	BOC Cy 10
1	0.000		0.7396	0.947	626.8	0.7396	2.086	634.8	0.7396
2	0.000		0.7396	4.040	897.8	0.7396	8.819	937.7	0.7396
3	0.000	Data Not	0.6946	5.608	985.6	0.7094	11.816	999.0	0.7030
4	0.000	Required	0.5581	5.740	998.6	0.5806	11.736	979.6	0.5747
5	0.000		0.4576	5.296	955.0	0.4740	11.163	967.9	0.4695
6	0.000		0.3933	4.920	919.8	0.4031	10.780	967.2	0.3973
7	0.000		0.3404	4.550	886.4	0.3445	10.249	952.9	0.3364
8	0.000		0.3046	4.119	849.2	0.3042	9.508	925.9	0.2943
9	0.000		0.2791	2.966	758.5	0.2738	7.067	824.3	0.2616
10	0.000		0.2696	0.806	610.5	0.2618	1.958	626.7	0.2485

Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)
EFPD	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11
1	3.587	640.5	0.7396	5.040	630.2	0.7396	5.572	593.7	0.7396
2	15.125	972.2	0.7396	20.516	861.0	0.7396	22.554	700.8	0.7396
3	19.981	1040.3	0.6957	26.347	869.0	0.7005	29.274	739.0	0.7053
4	19.967	1045.5	0.5642	26.640	887.3	0.5732	31.092	851.3	0.5898
5	18.848	1003.2	0.4593	25.837	906.7	0.4685	30.912	901.0	0.4874
6	17.826	955.9	0.3894	25.030	920.0	0.3945	29.870	881.6	0.4105
7	16.718	915.1	0.3313	24.060	928.8	0.3304	28.298	833.9	0.3435
8	15.577	888.1	0.2911	22.882	926.5	0.2845	27.013	825.6	0.2982
9	11.367	779.8	0.2598	17.135	836.3	0.2489	20.419	764.7	0.2621
10	3.095	613.6	0.2474	4.758	631.2	0.2347	5.661	612.6	0.2468

Table 4-138. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly B5

Assembly Number B5									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	6.883	610.2	0.7396	7.084	575.5	0.7396	7.235	573.5	0.7396
2	26.920	743.7	0.7396	27.525	609.5	0.7396	27.973	602.7	0.7396
3	34.694	758.8	0.7101	35.384	611.0	0.7109	35.898	604.5	0.7115
4	37.658	808.0	0.6042	38.416	615.9	0.6072	38.979	608.7	0.6093
5	38.301	845.1	0.5068	39.194	625.9	0.5123	39.849	616.5	0.5163
6	37.880	874.5	0.4319	38.950	639.1	0.4407	39.730	627.3	0.4468
7	36.722	894.5	0.3646	37.994	654.4	0.3773	38.931	641.1	0.3862
8	35.318	888.7	0.3167	36.673	660.8	0.3315	37.707	649.7	0.3426
9	27.130	815.8	0.2784	28.258	643.6	0.2940	29.160	638.1	0.3067
10	7.618	627.5	0.2619	7.910	582.4	0.2759	8.148	581.4	0.2877

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	7.248	574.0	0.7396	7.414	577.8	0.7396	7.549	573.1	0.7396
2	28.015	608.3	0.7396	28.513	616.6	0.7396	28.910	601.1	0.7396
3	35.951	615.6	0.7116	36.525	618.5	0.7123	36.978	602.9	0.7128
4	39.042	626.1	0.6095	39.672	624.2	0.6117	40.183	608.2	0.6135
5	39.927	640.7	0.5167	40.648	633.6	0.5204	41.256	617.2	0.5237
6	39.818	651.9	0.4473	40.622	642.2	0.4516	41.333	626.9	0.4562
7	39.021	654.8	0.3867	39.871	647.0	0.3910	40.684	636.6	0.3963
8	37.789	646.2	0.3429	38.604	643.3	0.3467	39.457	640.4	0.3519
9	29.220	622.1	0.3070	29.836	622.8	0.3103	30.531	625.5	0.3150
10	8.164	577.6	0.2879	8.330	577.9	0.2911	8.521	578.9	0.2955

**Table 4-138. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly B5**

Assembly Number B5						
Statepoint 13 (325 EFPD Cy 13)				Statepoint 14 (EOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (sp. gr.)
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.648	570.5	0.7396	7.696	568.0	0.7396
2	29.196	592.4	0.7396	29.333	584.9	0.7396
3	37.300	594.1	0.7132	37.453	586.4	0.7133
4	40.547	598.3	0.6148	40.720	589.8	0.6154
5	41.696	606.2	0.5261	41.914	597.0	0.5272
6	41.870	616.1	0.4599	42.147	606.7	0.4618
7	41.326	627.1	0.4010	41.683	619.9	0.4039
8	40.158	633.4	0.3568	40.578	630.7	0.3601
9	31.137	623.4	0.3198	31.527	625.5	0.3233
10	8.689	578.6	0.3000	8.800	579.6	0.3033

Table 4-139. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C1

Assembly Number C1									
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	0.952	611.0	0.7396	2.884	657.5	0.7396
2	0.000		0.7396	4.076	810.2	0.7396	12.265	1085.7	0.7396
3	0.000	Data Not	0.7396	6.448	994.2	0.7262	16.345	1180.4	0.6870
4	0.000	Required	0.6806	7.708	1018.5	0.6209	16.556	1044.8	0.5650
5	0.000		0.5878	7.918	1035.1	0.5087	16.209	1004.3	0.4612
6	0.000		0.5124	7.375	992.6	0.4259	15.700	1006.7	0.3847
7	0.000		0.4402	6.626	936.7	0.3606	15.068	1015.0	0.3208
8	0.000		0.3834	6.029	894.6	0.3180	14.238	998.6	0.2770
9	0.000		0.3407	4.270	783.7	0.2853	10.368	864.9	0.2428
10			0.3250	1.351	625.1	0.2722	3.276	644.6	0.2292

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.848	624.5	0.7396	5.942	644.4	0.7396	6.767	630.3	0.7396
2	16.409	886.9	0.7396	24.138	929.2	0.7396	26.848	820.8	0.7396
3	22.148	976.5	0.6875	31.333	943.7	0.6853	34.523	826.0	0.6883
4	23.241	1062.1	0.5661	32.536	949.6	0.5680	35.971	850.7	0.5757
5	23.039	1077.0	0.4596	32.681	968.5	0.4667	36.297	869.3	0.4764
6	22.130	1036.5	0.3826	32.157	989.8	0.3930	35.847	877.1	0.4025
7	20.751	965.2	0.3193	30.896	996.4	0.3302	34.565	874.9	0.3389
8	18.861	872.8	0.2766	28.423	964.2	0.2862	31.887	853.7	0.2940
9	13.581	765.1	0.2438	20.582	837.2	0.2513	23.082	762.1	0.2584
10	4.087	608.3	0.2304	5.904	624.1	0.2365	6.534	607.6	0.2427

Table 4-139. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C1

Assembly Number C1									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.368	619.4	0.7396	7.411	610.7	0.7396	7.954	623.6	0.7396
2	28.760	768.8	0.7396	28.895	733.8	0.7396	30.573	777.8	0.7396
3	36.828	778.9	0.6915	37.006	760.6	0.6917	39.126	801.0	0.6940
4	38.550	809.4	0.5829	38.771	817.7	0.5836	41.220	845.9	0.5887
5	39.078	832.6	0.4858	39.344	882.3	0.4867	42.029	879.6	0.4927
6	38.752	847.1	0.4120	39.034	908.2	0.4127	41.768	886.7	0.4182
7	37.540	855.5	0.3476	37.807	884.0	0.3482	40.429	870.4	0.3528
8	34.759	843.2	0.3019	34.988	829.7	0.3024	37.298	826.6	0.3063
9	25.193	759.3	0.2655	25.336	719.1	0.2659	26.801	719.9	0.2692
10	7.077	608.0	0.2490	7.113	598.6	0.2493	7.481	598.7	0.2525

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	8.545	623.9	0.7396	9.135	631.3	0.7396	9.495	629.9	0.7396
2	32.405	779.8	0.7396	34.220	805.4	0.7396	35.280	788.6	0.7396
3	41.537	815.1	0.6962	43.883	839.7	0.6975	45.177	802.8	0.6985
4	44.042	867.8	0.5934	46.620	873.4	0.5963	48.023	827.1	0.5985
5	45.047	894.1	0.4979	47.743	891.1	0.5012	49.282	858.3	0.5041
6	44.784	893.9	0.4228	47.548	901.4	0.4259	49.219	890.2	0.4287
7	43.345	880.3	0.3567	46.089	898.4	0.3593	47.868	916.9	0.3618
8	39.918	841.5	0.3096	42.409	860.7	0.3118	44.151	907.6	0.3139
9	28.480	730.2	0.2721	30.105	744.5	0.2740	31.310	785.6	0.2757
10	7.907	601.2	0.2554	8.330	605.4	0.2573	8.650	615.1	0.2589

Table 4-140. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C2

Assembly Number C2									
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.035	615.7	0.7396	2.724	644.4	0.7396
2	0.000		0.7396	4.461	838.1	0.7396	11.450	987.5	0.7396
3	0.000	Data Not	0.7312	6.708	977.1	0.7248	15.145	1058.8	0.7062
4	0.000	Required	0.6314	7.678	1016.1	0.6145	15.713	986.4	0.5864
5	0.000		0.5342	7.705	1018.1	0.5025	15.604	977.1	0.4785
6	0.000		0.4650	7.394	993.9	0.4210	15.470	989.2	0.3991
7	0.000		0.4019	6.993	963.7	0.3533	15.299	1005.3	0.3308
8	0.000		0.3531	6.279	912.1	0.3095	14.470	997.2	0.2840
9	0.000		0.3160	4.687	809.1	0.2771	11.014	878.3	0.2479
10	0.000		0.3023	1.517	633.2	0.2637	3.603	651.9	0.2332

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.625	620.0	0.7396	5.645	641.2	0.7396	6.364	620.8	0.7396
2	15.381	866.7	0.7396	22.896	916.7	0.7396	25.304	787.3	0.7396
3	20.731	956.6	0.7036	29.690	931.7	0.6978	32.542	793.3	0.7008
4	22.397	1062.2	0.5841	31.433	935.8	0.5831	34.505	814.5	0.5912
5	22.556	1089.5	0.4730	31.969	956.0	0.4787	35.231	833.3	0.4898
6	21.924	1039.0	0.3932	31.817	982.3	0.4026	35.167	842.1	0.4139
7	20.830	951.5	0.3270	30.940	994.5	0.3372	34.285	841.5	0.3478
8	18.989	864.2	0.2825	28.620	967.9	0.2914	31.797	824.8	0.3012
9	14.242	766.1	0.2483	21.403	844.7	0.2549	23.710	744.6	0.2637
10	4.438	609.8	0.2341	6.353	627.6	0.2394	6.937	604.2	0.2469

Table 4-140. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C2

Assembly Number C2									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.895	612.1	0.7396	6.939	611.9	0.7396	7.411	614.9	0.7396
2	27.029	745.9	0.7396	27.176	751.3	0.7396	28.718	757.8	0.7396
3	34.626	755.2	0.7034	34.818	779.4	0.7036	36.803	783.3	0.7056
4	36.815	779.4	0.5982	37.040	823.5	0.5988	39.334	824.4	0.6038
5	37.728	800.0	0.4995	37.976	857.2	0.5002	40.495	855.6	0.5066
6	37.782	813.4	0.4242	38.033	860.4	0.4249	40.586	860.5	0.4307
7	36.973	821.7	0.3576	37.213	845.5	0.3582	39.702	851.3	0.3632
8	34.409	813.1	0.3103	34.645	838.4	0.3108	37.022	835.8	0.3154
9	25.646	740.7	0.2718	25.806	739.0	0.2722	27.428	739.1	0.2761
10	7.436	604.2	0.2540	7.475	601.7	0.2543	7.877	602.2	0.2578

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	8.007	624.5	0.7396	8.657	639.0	0.7396	9.081	643.2	0.7396
2	30.647	793.1	0.7396	32.672	839.1	0.7396	33.919	836.1	0.7396
3	39.323	828.7	0.7071	41.818	861.2	0.7074	43.264	836.6	0.7078
4	42.194	872.8	0.6073	44.810	879.1	0.6088	46.320	851.7	0.6100
5	43.491	891.1	0.5106	46.162	887.4	0.5124	47.789	879.4	0.5141
6	43.526	883.5	0.4343	46.231	892.5	0.4360	47.987	911.0	0.4377
7	42.439	856.6	0.3663	45.096	885.1	0.3679	46.958	938.1	0.3693
8	39.407	811.8	0.3181	41.823	849.7	0.3195	43.637	925.7	0.3205
9	28.924	709.9	0.2787	30.529	741.8	0.2800	31.781	796.1	0.2808
10	8.250	596.3	0.2603	8.670	605.1	0.2618	9.006	617.8	0.2626

Table 4-141. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C3

Assembly Number C3									
Node No.	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.371	634.9	0.7396	2.983	640.3	0.7396
2	0.000		0.7396	5.934	954.1	0.7396	12.616	963.5	0.7396
3	0.000	Data Not	0.7315	8.332	1116.6	0.6949	16.304	982.1	0.6926
4	0.000	Required	0.6311	8.451	1079.0	0.5607	16.235	969.2	0.5634
5	0.000		0.5340	7.887	1032.7	0.4559	15.658	968.2	0.4610
6	0.000		0.4657	7.135	974.3	0.3883	15.025	976.4	0.3901
7	0.000		0.4038	6.369	918.4	0.3341	14.268	977.0	0.3290
8	0.000		0.3549	5.660	869.7	0.2976	13.267	957.2	0.2858
9	0.000		0.3136	3.929	763.3	0.2701	9.611	839.7	0.2525
10	0.000		0.2980	1.219	618.8	0.2595	3.001	638.1	0.2392

Node No.	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.922	622.7	0.7396	5.898	639.3	0.7396	6.786	636.0	0.7396
2	16.625	873.9	0.7396	23.845	899.6	0.7396	26.746	842.6	0.7396
3	22.009	967.5	0.6930	30.642	914.8	0.6914	34.100	853.0	0.6934
4	23.025	1073.0	0.5658	31.945	929.7	0.5714	35.622	875.8	0.5776
5	22.684	1097.5	0.4587	32.173	960.1	0.4700	36.037	895.7	0.4776
6	21.580	1049.1	0.3851	31.700	995.1	0.3982	35.713	911.8	0.4053
7	19.885	959.3	0.3242	30.347	1014.5	0.3362	34.462	923.1	0.3424
8	17.821	867.1	0.2827	27.846	989.8	0.2919	31.792	904.6	0.2971
9	12.811	764.2	0.2509	20.304	860.8	0.2566	23.195	798.9	0.2610
10	3.812	608.3	0.2383	5.793	629.9	0.2421	6.578	619.2	0.2461



Table 4-141. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C3

Assembly Number C3									
Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.372	617.8	0.7396	7.415	610.7	0.7396	7.875	613.4	0.7396
2	28.687	772.5	0.7396	28.826	740.3	0.7396	30.292	746.8	0.7396
3	36.647	805.8	0.6957	36.829	766.4	0.6959	38.737	773.4	0.6983
4	38.450	838.0	0.5838	38.669	815.7	0.5845	40.946	822.1	0.5904
5	38.989	852.7	0.4852	39.238	857.2	0.4860	41.805	862.5	0.4935
6	38.753	863.4	0.4127	39.008	866.7	0.4134	41.644	872.4	0.4202
7	37.722	890.7	0.3498	37.966	851.2	0.3504	40.509	858.9	0.3560
8	35.331	926.2	0.3046	35.553	819.4	0.3051	37.848	824.5	0.3098
9	25.810	815.5	0.2668	25.959	725.1	0.2672	27.480	726.6	0.2712
10	7.297	623.5	0.2512	7.335	600.6	0.2516	7.720	600.4	0.2552

Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	8.510	628.9	0.7396	9.208	645.3	0.7396	9.619	640.5	0.7396
2	32.301	804.5	0.7396	34.430	856.2	0.7396	35.621	821.4	0.7396
3	41.370	843.0	0.6999	43.992	879.9	0.7004	45.387	825.2	0.7011
4	43.946	891.8	0.5941	46.671	895.5	0.5957	48.142	842.6	0.5975
5	44.952	912.1	0.4975	47.712	900.8	0.4993	49.301	870.4	0.5016
6	44.737	904.5	0.4235	47.507	902.4	0.4253	49.228	902.3	0.4275
7	43.363	872.1	0.3587	46.039	888.2	0.3602	47.870	930.0	0.3621
8	40.279	817.6	0.3121	42.659	844.7	0.3134	44.456	921.3	0.3149
9	29.010	713.5	0.2735	30.558	734.7	0.2749	31.817	797.6	0.2761
10	8.111	598.0	0.2576	8.520	603.9	0.2590	8.861	618.7	0.2602

Table 4-142. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C4

Assembly Number C4									
Node No.	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.485	641.6	0.7396	3.062	638.5	0.7396
2	0.000		0.7396	6.371	991.1	0.7396	12.836	947.0	0.7396
3	0.000	Data Not	0.7065	8.837	1111.9	0.6844	16.594	967.4	0.6883
4	0.000	Required	0.5676	8.807	1109.4	0.5434	16.660	973.9	0.5555
5	0.000		0.4663	8.057	1046.4	0.4400	16.079	985.5	0.4535
6	0.000		0.4033	7.268	984.5	0.3752	15.436	995.6	0.3834
7	0.000		0.3501	6.533	930.0	0.3233	14.735	998.0	0.3226
8	0.000		0.3111	5.907	886.3	0.2877	13.881	982.2	0.2791
9	0.000		0.2811	4.067	771.6	0.2610	10.047	857.5	0.2459
10	0.000		0.2702	1.254	620.4	0.2505	3.131	642.4	0.2325

Node No.	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.678	600.2	0.7396	4.942	609.5	0.7396	5.876	640.2	0.7396
2	15.550	759.1	0.7396	20.397	772.3	0.7396	23.643	883.4	0.7396
3	20.639	826.3	0.6933	26.666	790.3	0.7017	30.583	901.4	0.7016
4	21.508	891.4	0.5730	28.482	833.7	0.5972	32.534	916.2	0.5985
5	21.109	906.8	0.4764	29.322	893.4	0.5064	33.435	922.9	0.5070
6	20.346	896.6	0.4069	28.870	909.2	0.4346	33.084	934.2	0.4346
7	20.397	963.1	0.3493	29.090	917.9	0.3728	33.209	923.7	0.3720
8	18.635	883.7	0.2975	27.111	906.8	0.3202	30.988	897.2	0.3198
9	13.269	766.1	0.2602	19.613	806.4	0.2803	22.458	794.3	0.2802
10	3.886	605.1	0.2433	5.486	616.5	0.2607	6.266	618.8	0.2612

Table 4-142. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C4

Assembly Number C4									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.707	643.7	0.7396	6.742	600.8	0.7396	7.099	600.9	0.7396
2	26.481	892.5	0.7396	26.590	697.8	0.7396	27.722	700.1	0.7396
3	34.067	919.0	0.7011	34.206	713.5	0.7014	35.649	716.1	0.7035
4	36.100	929.7	0.5986	36.273	755.0	0.5992	38.077	760.2	0.6053
5	36.967	925.2	0.5066	37.177	802.7	0.5075	39.355	808.7	0.5165
6	36.643	928.8	0.4340	36.870	826.2	0.4350	39.241	834.8	0.4441
7	36.711	921.3	0.3710	36.929	813.3	0.3718	39.220	824.0	0.3792
8	34.357	904.2	0.3192	34.554	786.4	0.3199	36.634	795.7	0.3263
9	24.936	799.7	0.2797	25.071	709.7	0.2803	26.490	714.1	0.2860
10	6.960	621.2	0.2611	6.995	597.5	0.2617	7.361	598.5	0.2669

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.539	606.8	0.7396	8.107	628.5	0.7396	8.426	621.5	0.7396
2	29.121	722.0	0.7396	30.889	798.0	0.7396	31.866	768.0	0.7396
3	37.479	745.9	0.7054	39.743	828.0	0.7064	40.958	785.9	0.7075
4	40.316	793.9	0.6103	42.827	863.5	0.6128	44.142	807.5	0.6150
5	41.891	830.7	0.5229	44.482	875.2	0.5254	45.881	826.2	0.5281
6	41.895	845.7	0.4507	44.489	875.7	0.4529	46.003	852.8	0.4556
7	41.753	830.2	0.3848	44.186	852.1	0.3865	45.777	870.7	0.3889
8	38.856	791.7	0.3314	41.007	812.4	0.3332	42.580	866.6	0.3354
9	28.061	717.7	0.2912	29.486	719.2	0.2931	30.617	769.4	0.2949
10	7.774	600.0	0.2719	8.159	601.4	0.2739	8.472	613.9	0.2758

Table 4-142. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C4

Assembly Number C4						
Statepoint 15 (94 EFPD Cy 14)				Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.484	566.4	0.7396	8.575	568.2	0.7396
2	32.035	580.6	0.7396	32.288	584.7	0.7396
3	41.157	583.6	0.7077	41.435	586.1	0.7080
4	44.381	588.1	0.6158	44.688	588.6	0.6167
5	46.177	594.4	0.5296	46.537	593.3	0.5313
6	46.364	601.6	0.4579	46.793	599.4	0.4605
7	46.217	610.5	0.3923	46.727	606.7	0.3961
8	43.094	618.9	0.3400	43.688	614.2	0.3451
9	31.038	608.5	0.2999	31.545	606.5	0.3057
10	8.564	571.7	0.2796	8.678	571.6	0.2844

Table 4-143. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C5

Assembly Number C5									
Node No.	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	0.900	608.1	0.7396	2.743	652.7	0.7396
2	0.000		0.7396	3.888	796.8	0.7396	11.739	1057.4	0.7396
3	0.000	Data Not	0.7396	6.166	970.3	0.7303	15.792	1156.7	0.6945
4	0.000	Required	0.6906	7.578	1008.6	0.6333	16.275	1033.7	0.5769
5	0.000		0.6005	7.998	1041.6	0.5187	16.227	999.9	0.4713
6	0.000		0.5252	7.388	993.6	0.4324	15.716	1006.9	0.3913
7	0.000		0.4494	6.597	934.6	0.3649	15.016	1013.4	0.3252
8	0.000		0.3863	5.916	887.0	0.3210	14.076	995.1	0.2801
9	0.000		0.3397	4.224	780.8	0.2878	10.309	863.9	0.2455
10	0.000		0.3230	1.356	625.4	0.2744	3.292	645.1	0.2317

Node No.	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.765	628.6	0.7396	5.809	642.2	0.7396	6.632	630.1	0.7396
2	16.163	914.1	0.7396	23.685	917.0	0.7396	26.444	826.3	0.7396
3	21.879	1003.3	0.6918	30.767	928.0	0.6893	34.215	852.1	0.6918
4	23.231	1090.1	0.5710	32.251	935.0	0.5736	36.132	897.6	0.5802
5	23.241	1096.2	0.4620	32.617	954.0	0.4712	36.681	917.5	0.4788
6	22.185	1040.5	0.3834	32.030	979.7	0.3964	36.158	924.6	0.4032
7	20.595	955.7	0.3198	30.654	991.6	0.3329	34.755	921.6	0.3388
8	18.730	875.3	0.2770	28.290	964.1	0.2882	32.118	891.9	0.2933
9	13.677	776.4	0.2442	20.819	843.8	0.2529	23.549	783.6	0.2573
10	4.154	611.3	0.2312	6.041	626.6	0.2380	6.767	614.8	0.2421

Table 4-143. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C5

Assembly Number C5									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.088	604.4	0.7396	7.102	575.5	0.7396	7.316	583.9	0.7396
2	27.997	725.4	0.7396	28.046	618.2	0.7396	28.694	636.7	0.7396
3	36.285	753.7	0.6947	36.357	636.6	0.6948	37.109	638.5	0.6960
4	38.794	818.8	0.5879	38.885	657.4	0.5883	39.723	647.8	0.5918
5	39.653	855.3	0.4887	39.759	674.3	0.4894	40.728	662.0	0.4956
6	39.347	881.6	0.4132	39.465	687.7	0.4141	40.562	676.3	0.4230
7	38.291	926.0	0.3486	38.412	690.8	0.3497	39.580	684.3	0.3601
8	35.585	916.8	0.3014	35.697	681.5	0.3025	36.840	681.5	0.3134
9	26.010	798.0	0.2636	26.094	649.6	0.2646	26.970	652.1	0.2755
10	7.427	618.3	0.2477	7.447	582.1	0.2485	7.664	583.5	0.2577

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.503	579.0	0.7396	7.633	574.4	0.7396	7.696	571.0	0.7396
2	29.241	618.9	0.7396	29.615	604.1	0.7396	29.792	593.1	0.7396
3	37.725	619.3	0.6970	38.141	604.6	0.6977	38.334	593.8	0.6979
4	40.427	627.8	0.5947	40.902	610.8	0.5966	41.126	598.9	0.5974
5	41.568	641.1	0.5008	42.149	622.0	0.5043	42.434	609.1	0.5059
6	41.547	655.4	0.4307	42.254	635.7	0.4361	42.619	622.8	0.4388
7	40.695	668.7	0.3704	41.550	651.9	0.3782	42.021	641.2	0.3824
8	38.020	675.3	0.3253	38.997	665.7	0.3356	39.579	661.0	0.3416
9	27.942	654.4	0.2885	28.820	654.6	0.3008	29.384	657.9	0.3088
10	7.908	584.3	0.2689	8.133	584.8	0.2798	8.282	586.4	0.2872

Table 4-143. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C5

Assembly Number C5						
Statepoint 15 (94 EFPD Cy 14)				Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.877	582.1	0.7396	8.393	612.4	0.7396
2	30.417	641.7	0.7396	32.005	735.8	0.7396
3	39.165	655.9	0.6992	41.014	737.1	0.7006
4	42.123	676.1	0.6012	44.036	743.9	0.6050
5	43.590	696.1	0.5123	45.630	757.7	0.5182
6	43.863	707.2	0.4467	46.012	769.9	0.4536
7	43.282	709.5	0.3905	45.408	767.2	0.3969
8	40.792	703.2	0.3493	42.791	753.3	0.3549
9	30.238	659.2	0.3153	31.567	684.4	0.3198
10	8.465	581.9	0.2921	8.775	588.9	0.2959

Table 4-144. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C6

Assembly Number C6									
Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.164	623.0	0.7396	2.833	643.4	0.7396
2	0.000		0.7396	4.941	874.3	0.7396	11.824	979.0	0.7396
3	0.000	Data Not	0.7220	7.327	1027.8	0.7132	15.684	1009.0	0.6986
4	0.000	Required	0.6063	8.269	1063.8	0.5855	16.479	998.6	0.5696
5	0.000		0.5069	8.166	1055.3	0.4741	16.444	1003.4	0.4608
6	0.000		0.4391	7.788	1024.7	0.3986	16.277	1018.4	0.3846
7	0.000		0.3794	7.297	986.6	0.3367	16.012	1034.7	0.3195
8	0.000		0.3343	6.490	927.1	0.2949	15.145	1030.4	0.2734
9	0.000		0.2988	4.505	798.2	0.2645	11.143	898.2	0.2381
10	0.000		0.2859	1.426	628.8	0.2526	3.566	654.3	0.2238

Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.719	619.0	0.7396	4.984	609.5	0.7396	5.916	640.0	0.7396
2	15.560	848.3	0.7396	20.288	766.4	0.7396	23.542	884.4	0.7396
3	20.583	895.8	0.7011	26.281	775.9	0.7070	30.228	904.7	0.7061
4	21.811	933.3	0.5809	27.923	794.1	0.6011	32.039	923.3	0.6017
5	21.783	933.9	0.4742	28.441	818.7	0.5058	32.632	931.6	0.5061
6	21.337	909.5	0.3973	28.511	842.8	0.4341	32.710	932.5	0.4339
7	20.648	873.6	0.3316	28.173	859.5	0.3685	32.256	919.6	0.3680
8	19.252	831.0	0.2853	26.668	854.3	0.3197	30.409	882.6	0.3193
9	14.176	752.0	0.2502	20.034	784.1	0.2819	22.738	780.9	0.2818
10	4.332	605.7	0.2339	5.867	614.2	0.2609	6.615	616.4	0.2615



Table 4-144. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C6

Assembly Number C6									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.716	640.4	0.7396	6.760	611.9	0.7396	7.219	613.3	0.7396
2	26.295	880.6	0.7396	26.444	753.5	0.7396	27.974	756.1	0.7396
3	33.748	923.7	0.7054	33.940	778.7	0.7056	35.901	780.2	0.7076
4	35.697	941.8	0.6016	35.921	823.6	0.6021	38.221	825.2	0.6072
5	36.268	938.9	0.5056	36.521	863.0	0.5063	39.104	864.9	0.5127
6	36.316	934.9	0.4330	36.573	869.1	0.4336	39.217	873.6	0.4392
7	35.780	924.2	0.3671	36.022	848.8	0.3675	38.545	856.2	0.3720
8	33.675	891.3	0.3186	33.888	808.4	0.3190	36.132	817.6	0.3228
9	25.090	785.6	0.2812	25.232	718.0	0.2815	26.705	720.7	0.2847
10	7.278	618.5	0.2615	7.315	599.6	0.2619	7.682	598.6	0.2649

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.845	627.9	0.7396	8.502	639.9	0.7396	8.865	630.6	0.7396
2	30.003	807.3	0.7396	32.056	843.5	0.7396	33.141	794.5	0.7396
3	38.493	837.9	0.7086	40.995	862.0	0.7088	42.267	798.3	0.7095
4	41.154	882.6	0.6101	43.776	879.8	0.6113	45.130	816.3	0.6131
5	42.214	906.8	0.5157	44.885	887.3	0.5173	46.357	843.0	0.5198
6	42.286	901.1	0.4416	44.957	887.3	0.4430	46.555	872.6	0.4456
7	41.377	869.1	0.3740	43.939	871.0	0.3754	45.651	900.0	0.3776
8	38.562	817.4	0.3246	40.838	829.8	0.3260	42.556	901.7	0.3279
9	28.249	715.0	0.2865	29.731	726.3	0.2878	30.962	791.3	0.2893
10	8.073	598.0	0.2668	8.458	601.4	0.2683	8.787	616.6	0.2697

Table 4-144. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C6

Assembly Number C6						
Statepoint 15 (94 EFPD Cy 14)				Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.923	566.4	0.7396	9.012	568.0	0.7396
2	33.305	579.9	0.7396	33.549	583.8	0.7396
3	42.461	583.0	0.7097	42.729	585.3	0.7100
4	45.367	587.8	0.6139	45.668	588.2	0.6148
5	46.653	594.4	0.5213	47.013	593.3	0.5231
6	46.917	601.7	0.4479	47.344	599.3	0.4507
7	46.094	610.9	0.3812	46.607	607.0	0.3852
8	43.070	619.0	0.3326	43.667	614.5	0.3378
9	31.381	608.2	0.2942	31.887	606.4	0.3001
10	8.878	571.6	0.2734	8.992	571.6	0.2780

Table 4-145. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C7

Assembly Number C7									
Node No.	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	0.950	610.9	0.7396	2.520	638.1	0.7396
2	0.000		0.7396	4.153	815.7	0.7396	10.980	975.5	0.7396
3	0.000	Data Not	0.7396	6.407	990.6	0.7289	14.981	1069.7	0.7095
4	0.000	Required	0.6777	7.338	989.7	0.6289	15.279	980.0	0.5944
5	0.000		0.5833	7.366	991.8	0.5204	14.927	954.1	0.4911
6	0.000		0.5082	6.815	950.5	0.4409	14.393	955.3	0.4143
7	0.000		0.4384	6.066	897.2	0.3764	13.663	956.5	0.3485
8	0.000		0.3849	5.534	861.3	0.3332	12.842	937.4	0.3024
9	0.000		0.3438	3.919	762.8	0.2996	9.321	823.3	0.2664
10	0.000		0.3286	1.200	617.8	0.2864	2.865	632.9	0.2524

Node No.	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.434	620.9	0.7396	5.334	636.1	0.7396	6.239	637.5	0.7396
2	15.052	880.1	0.7396	22.320	902.4	0.7396	25.339	856.2	0.7396
3	20.653	964.3	0.7046	29.365	918.8	0.7002	32.899	861.0	0.7010
4	21.703	1035.9	0.5892	30.580	927.5	0.5892	34.335	884.1	0.5932
5	21.416	1042.3	0.4839	30.650	946.3	0.4887	34.589	903.9	0.4938
6	20.523	1007.1	0.4069	30.047	962.0	0.4147	34.133	920.0	0.4194
7	19.251	956.5	0.3420	28.821	964.5	0.3503	32.987	928.8	0.3542
8	17.439	870.7	0.2976	26.454	934.8	0.3048	30.455	910.7	0.3078
9	12.473	760.9	0.2633	19.066	818.1	0.2688	22.004	803.4	0.2712
10	3.624	605.3	0.2503	5.279	618.4	0.2543	6.064	619.2	0.2565

Table 4-145. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C7

Assembly Number C7									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.835	618.9	0.7396	6.873	604.5	0.7396	7.292	608.4	0.7396
2	27.323	778.0	0.7396	27.446	717.4	0.7396	28.791	729.5	0.7396
3	35.450	806.1	0.7028	35.611	739.8	0.7030	37.340	751.0	0.7051
4	37.177	839.7	0.5982	37.376	788.8	0.5989	39.465	796.9	0.6046
5	37.564	855.5	0.5002	37.798	835.1	0.5011	40.193	838.3	0.5089
6	37.199	866.4	0.4258	37.442	849.3	0.4266	39.928	850.9	0.4341
7	36.258	892.1	0.3606	36.491	834.2	0.3614	38.884	838.0	0.3676
8	34.005	927.6	0.3143	34.210	796.7	0.3149	36.338	802.0	0.3201
9	24.638	817.7	0.2760	24.777	713.3	0.2766	26.184	712.9	0.2811
10	6.782	623.4	0.2607	6.818	598.6	0.2612	7.168	596.9	0.2653

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.842	619.2	0.7396	8.458	634.6	0.7396	8.864	639.5	0.7396
2	30.544	769.0	0.7396	32.458	821.0	0.7396	33.655	823.1	0.7396
3	39.640	801.2	0.7069	42.032	846.3	0.7075	43.435	827.1	0.7080
4	42.174	852.9	0.6090	44.746	872.5	0.6108	46.222	843.6	0.6122
5	43.117	881.3	0.5141	45.767	884.2	0.5162	47.359	871.0	0.5180
6	42.837	879.4	0.4386	45.530	890.5	0.4407	47.258	904.3	0.4424
7	41.595	853.2	0.3713	44.233	882.2	0.3731	46.078	933.8	0.3745
8	38.665	804.7	0.3233	41.017	840.5	0.3247	42.819	922.7	0.3258
9	27.656	707.1	0.2840	29.191	733.0	0.2855	30.457	798.9	0.2862
10	7.536	595.8	0.2681	7.937	603.1	0.2696	8.282	619.3	0.2704

Table 4-146. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C8

Assembly Number C8									
Node No.	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.173	623.5	0.7396	2.768	639.4	0.7396
2	0.000		0.7396	5.016	880.2	0.7396	11.621	957.9	0.7396
3	0.000	Data Not	0.7290	7.495	1042.0	0.7134	15.550	987.7	0.7029
4	0.000	Required	0.6233	8.441	1078.1	0.5825	16.468	985.8	0.5730
5	0.000		0.5237	8.161	1054.9	0.4713	16.316	994.7	0.4646
6	0.000		0.4542	7.485	1001.1	0.3976	15.873	1011.2	0.3889
7	0.000		0.3923	6.724	943.8	0.3385	15.322	1026.3	0.3245
8	0.000		0.3454	5.906	886.3	0.2993	14.415	1019.8	0.2788
9	0.000		0.3095	4.097	773.2	0.2704	10.536	885.8	0.2435
10	0.000		0.2961	1.319	623.6	0.2591	3.378	650.6	0.2295

Node No.	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.397	601.1	0.7396	4.368	597.5	0.7396	4.853	600.2	0.7396
2	14.276	754.0	0.7396	17.967	716.2	0.7396	19.808	727.7	0.7396
3	19.090	787.8	0.7099	23.576	725.0	0.7168	25.870	742.2	0.7195
4	20.607	833.6	0.5956	25.487	741.2	0.6180	27.945	756.8	0.6264
5	20.722	854.8	0.4941	26.075	761.1	0.5289	28.684	770.6	0.5405
6	20.200	848.4	0.4172	26.064	783.2	0.4598	28.828	785.0	0.4721
7	19.304	821.3	0.3494	25.554	800.2	0.3952	29.229	876.5	0.4083
8	17.890	782.9	0.3010	24.086	797.8	0.3455	28.537	961.4	0.3565
9	13.080	717.8	0.2650	18.016	744.4	0.3070	21.307	838.9	0.3137
10	3.990	596.8	0.2462	5.232	604.0	0.2813	6.072	623.3	0.2874

Table 4-146. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C8

Assembly Number C8									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	5.295	603.0	0.7396	5.361	639.7	0.7396	6.056	642.7	0.7396
2	21.500	742.1	0.7396	21.749	915.7	0.7396	24.182	897.7	0.7396
3	28.304	793.1	0.7211	28.615	953.8	0.7208	31.452	901.9	0.7189
4	30.734	833.5	0.6306	31.045	952.5	0.6302	33.861	898.9	0.6284
5	31.563	844.0	0.5451	31.862	934.5	0.5446	34.676	898.6	0.5423
6	31.885	865.4	0.4762	32.166	906.2	0.4757	34.906	887.6	0.4732
7	32.561	899.5	0.4110	32.811	859.0	0.4106	35.335	856.4	0.4085
8	31.954	910.4	0.3583	32.164	803.9	0.3580	34.371	812.6	0.3567
9	23.914	814.5	0.3147	24.052	712.1	0.3146	25.517	719.9	0.3140
10	6.780	622.5	0.2889	6.813	595.5	0.2889	7.169	597.5	0.2891

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	6.659	625.3	0.7396	7.110	613.7	0.7396	7.343	604.2	0.7396
2	26.190	804.2	0.7396	27.628	747.9	0.7396	28.345	707.1	0.7396
3	33.833	811.2	0.7195	35.522	751.1	0.7207	36.347	706.5	0.7214
4	36.440	836.1	0.6308	38.311	774.6	0.6344	39.249	728.6	0.6369
5	37.430	858.6	0.5451	39.523	804.3	0.5502	40.643	765.6	0.5541
6	37.673	860.5	0.4753	39.906	823.6	0.4803	41.193	801.3	0.4848
7	37.955	841.4	0.4099	40.215	827.3	0.4140	41.622	827.9	0.4180
8	36.731	808.6	0.3580	38.888	813.2	0.3614	40.314	832.2	0.3648
9	27.121	721.6	0.3154	28.677	735.4	0.3184	29.752	757.8	0.3213
10	7.556	597.6	0.2908	7.940	601.3	0.2938	8.210	606.6	0.2965

Table 4-146. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C8

Assembly Number C8						
Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.413	567.9	0.7396	7.526	570.5	0.7396
2	28.562	586.7	0.7396	28.892	592.9	0.7396
3	36.604	590.0	0.7216	36.969	593.7	0.7220
4	39.553	595.3	0.6378	39.948	596.4	0.6389
5	41.012	602.6	0.5559	41.468	601.8	0.5581
6	41.632	610.4	0.4876	42.162	608.5	0.4908
7	42.135	618.8	0.4218	42.747	615.9	0.4262
8	40.876	624.4	0.3692	41.552	621.6	0.3742
9	30.204	612.0	0.3257	30.770	611.7	0.3310
10	8.310	572.6	0.3000	8.439	572.9	0.3044

Table 4-147. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C9

Assembly Number C9									
Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.061	617.1	0.7396	2.825	648.4	0.7396
2	0.000		0.7396	4.651	852.7	0.7396	12.343	1044.4	0.7396
3	0.000	Data Not	0.7396	7.195	1060.0	0.7196	16.670	1143.8	0.6910
4	0.000	Required	0.6650	8.042	1045.2	0.5998	16.648	1027.1	0.5636
5	0.000		0.5697	7.893	1033.2	0.4896	16.018	992.6	0.4595
6	0.000		0.4967	7.152	975.7	0.4140	15.260	991.4	0.3860
7	0.000		0.4277	6.312	914.4	0.3539	14.371	988.0	0.3242
8	0.000		0.3727	5.611	866.4	0.3139	13.312	963.6	0.2814
9	0.000		0.3304	3.905	761.9	0.2836	9.528	836.4	0.2485
10	0.000		0.3149	1.224	619.0	0.2717	2.974	636.7	0.2355

Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.749	621.6	0.7396	5.348	623.4	0.7396	6.222	634.7	0.7396
2	16.263	865.5	0.7396	22.233	830.3	0.7396	25.242	855.1	0.7396
3	21.939	927.9	0.6936	29.105	842.4	0.6974	32.764	873.9	0.6986
4	22.609	990.9	0.5722	30.104	858.1	0.5867	33.995	898.6	0.5907
5	22.062	998.8	0.4671	29.975	878.4	0.4896	33.986	911.8	0.4942
6	20.948	965.5	0.3921	29.290	900.0	0.4184	33.307	912.3	0.4222
7	19.391	906.2	0.3294	27.930	909.9	0.3556	31.830	899.6	0.3587
8	17.525	839.5	0.2866	25.674	890.2	0.3102	29.239	864.1	0.3129
9	12.526	749.7	0.2543	18.665	797.0	0.2748	21.142	760.0	0.2772
10	3.707	603.8	0.2406	5.256	614.7	0.2575	5.880	607.2	0.2600



Table 4-147. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C9

Assembly Number C9									
Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.992	637.2	0.7396	7.014	585.1	0.7396	7.243	585.7	0.7396
2	27.840	859.0	0.7396	27.913	647.6	0.7396	28.684	652.4	0.7396
3	35.949	881.0	0.6993	36.043	661.9	0.6995	37.053	666.5	0.7010
4	37.323	899.0	0.5933	37.444	691.6	0.5939	38.725	697.2	0.5991
5	37.343	902.7	0.4971	37.493	725.6	0.4980	39.056	730.5	0.5073
6	36.655	901.5	0.4249	36.818	743.1	0.4260	38.523	747.8	0.4372
7	35.108	892.8	0.3610	35.271	741.4	0.3621	36.966	746.6	0.3733
8	32.270	862.4	0.3148	32.416	721.3	0.3159	33.956	727.7	0.3259
9	23.258	760.1	0.2789	23.382	695.7	0.2801	24.526	682.1	0.2894
10	6.423	608.0	0.2619	6.462	601.7	0.2631	6.722	587.8	0.2706

Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.563	593.5	0.7396	8.023	614.8	0.7396	8.426	638.8	0.7396
2	29.756	681.0	0.7396	31.227	752.8	0.7396	32.420	822.0	0.7396
3	38.482	701.6	0.7029	40.307	768.6	0.7045	41.667	817.6	0.7051
4	40.479	737.2	0.6051	42.472	790.8	0.6091	43.905	834.0	0.6107
5	41.045	764.0	0.5164	43.154	806.5	0.5215	44.706	861.5	0.5234
6	40.570	770.8	0.4471	42.744	815.4	0.4521	44.439	896.0	0.4537
7	38.904	758.1	0.3823	41.052	811.9	0.3868	42.885	930.6	0.3880
8	35.635	728.9	0.3339	37.580	784.4	0.3378	39.410	929.9	0.3386
9	25.576	662.5	0.2960	26.841	699.8	0.2993	28.148	808.2	0.2997
10	6.955	583.2	0.2761	7.262	593.3	0.2792	7.611	620.0	0.2796

Table 4-147. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C9

Assembly Number C9						
Statepoint 15 (94 EFPD Cy 14)				Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.475	565.3	0.7396	8.549	566.5	0.7396
2	32.558	576.6	0.7396	32.765	580.0	0.7396
3	41.828	579.4	0.7053	42.057	581.8	0.7056
4	44.097	582.8	0.6113	44.357	584.5	0.6121
5	44.942	587.7	0.5246	45.251	588.8	0.5262
6	44.730	593.8	0.4557	45.101	594.2	0.4582
7	43.286	606.1	0.3914	43.746	602.3	0.3952
8	39.949	621.7	0.3439	40.526	612.7	0.3495
9	28.622	614.3	0.3059	29.150	608.4	0.3128
10	7.717	573.3	0.2846	7.840	572.4	0.2905

Table 4-148. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C10

Assembly Number C10									
Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.483	641.5	0.7396	3.060	638.5	0.7396
2	0.000		0.7396	6.361	990.3	0.7396	12.829	947.1	0.7396
3	0.000	Data Not	0.7066	8.825	1110.9	0.6844	16.583	967.4	0.6883
4	0.000	Required	0.5679	8.795	1108.4	0.5436	16.647	973.8	0.5555
5	0.000		0.4665	8.049	1045.8	0.4401	16.068	985.3	0.4535
6	0.000		0.4034	7.265	984.2	0.3753	15.430	995.4	0.3833
7	0.000		0.3501	6.541	930.6	0.3233	14.740	997.8	0.3226
8	0.000		0.3109	5.924	887.5	0.2877	13.898	982.2	0.2790
9	0.000		0.2809	4.083	772.6	0.2609	10.064	857.6	0.2457
10	0.000		0.2699	1.259	620.7	0.2503	3.137	642.4	0.2324

Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.678	600.4	0.7396	4.943	609.5	0.7396	5.876	640.1	0.7396
2	15.550	759.7	0.7396	20.401	772.5	0.7396	23.642	882.8	0.7396
3	20.634	826.8	0.6932	26.665	790.5	0.7016	30.578	900.9	0.7015
4	21.498	891.7	0.5729	28.475	833.9	0.5971	32.524	915.8	0.5984
5	21.099	906.9	0.4764	29.314	893.5	0.5063	33.424	922.6	0.5069
6	20.340	896.6	0.4068	28.865	909.2	0.4344	33.077	934.0	0.4345
7	20.400	962.9	0.3491	29.092	917.9	0.3726	33.209	923.4	0.3719
8	18.649	883.5	0.2973	27.123	906.7	0.3200	30.997	896.8	0.3196
9	13.285	766.0	0.2600	19.626	806.2	0.2801	22.469	794.2	0.2800
10	3.892	605.1	0.2432	5.491	616.4	0.2604	6.271	618.8	0.2610

Table 4-148. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C10

Assembly Number C10									
Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.706	643.6	0.7396	6.744	604.5	0.7396	7.150	606.8	0.7396
2	26.476	892.1	0.7396	26.604	723.8	0.7396	27.934	727.5	0.7396
3	34.058	918.6	0.7011	34.225	746.7	0.7014	35.957	751.1	0.7036
4	36.089	929.5	0.5985	36.290	792.2	0.5991	38.382	797.3	0.6050
5	36.955	925.0	0.5065	37.187	833.7	0.5073	39.592	839.5	0.5150
6	36.634	928.6	0.4339	36.876	847.4	0.4347	39.391	855.1	0.4418
7	36.709	921.1	0.3709	36.936	827.6	0.3715	39.319	836.6	0.3770
8	34.364	904.0	0.3190	34.566	793.6	0.3196	36.697	802.4	0.3245
9	24.945	799.4	0.2796	25.083	713.0	0.2801	26.505	714.6	0.2844
10	6.965	621.2	0.2609	7.001	598.6	0.2614	7.361	597.9	0.2656

Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	7.717	621.2	0.7396	8.357	637.7	0.7396	8.741	634.9	0.7396
2	29.765	779.7	0.7396	31.791	839.2	0.7396	32.951	813.4	0.7396
3	38.361	814.2	0.7054	40.892	866.5	0.7059	42.266	820.6	0.7065
4	41.172	863.6	0.6090	43.835	886.1	0.6103	45.271	834.5	0.6119
5	42.581	890.3	0.5191	45.265	889.2	0.5204	46.791	855.3	0.5223
6	42.374	889.4	0.4452	45.059	889.4	0.4464	46.710	885.1	0.4483
7	42.042	854.8	0.3796	44.579	867.2	0.3805	46.317	906.5	0.3820
8	39.032	805.7	0.3270	41.276	825.3	0.3281	42.997	902.4	0.3295
9	28.003	709.9	0.2869	29.470	724.4	0.2882	30.699	790.7	0.2893
10	7.746	597.4	0.2682	8.134	601.7	0.2697	8.470	617.8	0.2708

Table 4-149. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C11

Assembly Number C11									
Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	0.848	605.1	0.7396	2.646	650.3	0.7396
2	0.000		0.7396	3.675	781.9	0.7396	11.430	1049.8	0.7396
3	0.000	Data Not	0.7396	5.911	949.2	0.7322	15.500	1153.5	0.6956
4	0.000	Required	0.7054	7.214	1005.7	0.6419	15.829	1027.8	0.5812
5	0.000		0.6184	7.604	1010.2	0.5314	15.678	989.0	0.4787
6	0.000		0.5421	7.138	974.6	0.4451	15.245	991.4	0.3995
7	0.000		0.4664	6.358	917.6	0.3771	14.577	999.3	0.3333
8	0.000		0.4066	5.909	886.4	0.3331	13.898	983.3	0.2881
9	0.000		0.3615	4.247	782.3	0.2978	10.194	855.7	0.2524
10	0.000		0.3451	1.334	624.3	0.2836	3.201	642.0	0.2381

Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.258	600.0	0.7396	4.329	601.6	0.7396	5.159	630.7	0.7396
2	14.092	754.6	0.7396	18.279	739.8	0.7396	21.333	860.7	0.7396
3	19.157	796.6	0.7025	24.327	753.3	0.7108	28.212	897.9	0.7099
4	20.146	847.7	0.6006	25.831	775.4	0.6218	30.029	932.4	0.6206
5	20.248	868.1	0.5041	26.509	800.7	0.5345	30.731	935.1	0.5316
6	19.802	867.1	0.4256	26.479	819.6	0.4610	30.649	929.3	0.4576
7	19.025	858.2	0.3573	25.940	830.6	0.3938	29.961	912.7	0.3902
8	17.717	808.8	0.3079	24.429	821.2	0.3426	28.079	873.0	0.3396
9	12.875	727.3	0.2704	18.064	755.2	0.3029	20.632	768.3	0.3006
10	3.829	597.7	0.2519	5.116	605.6	0.2796	5.775	609.8	0.2786

Table 4-149. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C11

Assembly Number C11									
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	5.602	603.1	0.7396	5.637	600.8	0.7396	6.068	609.9	0.7396
2	23.022	741.8	0.7396	23.147	719.6	0.7396	24.616	747.1	0.7396
3	30.540	781.5	0.7119	30.706	746.0	0.7121	32.433	750.6	0.7140
4	32.922	845.7	0.6254	33.111	775.9	0.6259	34.924	761.2	0.6303
5	33.831	870.6	0.5368	34.038	799.3	0.5375	35.946	773.4	0.5435
6	33.876	886.4	0.4620	34.087	804.7	0.4628	36.032	778.0	0.4693
7	33.451	920.0	0.3944	33.647	784.6	0.3950	35.522	769.1	0.4011
8	31.424	901.3	0.3427	31.593	749.8	0.3432	33.292	747.1	0.3489
9	22.961	783.4	0.3025	23.074	682.3	0.3030	24.240	684.7	0.3082
10	6.372	612.7	0.2807	6.399	589.3	0.2811	6.676	589.5	0.2859

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	6.434	598.6	0.7396	6.702	591.1	0.7396	6.834	584.3	0.7396
2	25.809	695.8	0.7396	26.654	664.7	0.7396	27.061	639.7	0.7396
3	33.827	697.7	0.7156	34.799	665.1	0.7166	35.255	638.5	0.7171
4	36.473	714.6	0.6349	37.567	679.0	0.6383	38.084	649.5	0.6399
5	37.680	734.9	0.5510	38.958	700.5	0.5570	39.593	670.9	0.5601
6	37.882	748.0	0.4781	39.329	721.0	0.4862	40.103	696.7	0.4911
7	37.425	754.1	0.4101	39.002	736.9	0.4191	39.917	724.2	0.4252
8	35.148	748.7	0.3575	36.753	740.4	0.3664	37.760	742.3	0.3731
9	25.599	694.6	0.3160	26.836	696.2	0.3245	27.662	707.2	0.3310
10	7.001	591.8	0.2928	7.302	592.7	0.3002	7.505	595.3	0.3059

Table 4-149. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C11

Assembly Number C11						
Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.955	574.4	0.7396	7.156	579.4	0.7396
2	27.442	608.3	0.7396	28.041	621.2	0.7396
3	35.710	612.2	0.7176	36.368	620.1	0.7183
4	38.616	620.9	0.6415	39.317	624.0	0.6435
5	40.223	632.2	0.5631	41.012	632.0	0.5667
6	40.830	643.6	0.4957	41.726	642.1	0.5012
7	40.749	656.0	0.4318	41.767	653.5	0.4394
8	38.657	664.0	0.3813	39.763	661.9	0.3906
9	28.366	641.1	0.3396	29.263	642.3	0.3499
10	7.660	578.8	0.3130	7.866	579.8	0.3219

Table 4-150. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C12

Assembly Number C12									
Node No.	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.088	618.7	0.7396	2.721	641.4	0.7396
2	0.000		0.7396	4.616	849.6	0.7396	11.330	966.2	0.7396
3	0.000	Data Not	0.7323	6.880	991.0	0.7220	15.054	1038.2	0.7070
4	0.000	Required	0.6349	8.013	1043.0	0.6048	15.989	982.3	0.5847
5	0.000		0.5374	8.231	1060.6	0.4897	16.299	988.7	0.4740
6	0.000		0.4669	7.689	1017.0	0.4088	16.068	1010.6	0.3937
7	0.000		0.4003	7.007	964.7	0.3446	15.604	1026.2	0.3262
8	0.000		0.3466	6.205	907.0	0.3027	14.681	1017.5	0.2795
9	0.000		0.3062	4.408	791.9	0.2718	10.924	890.4	0.2436
10	0.000		0.2915	1.416	628.3	0.2594	3.523	652.8	0.2292

Node No.	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.665	623.1	0.7396	5.646	639.5	0.7396	6.462	629.5	0.7396
2	15.432	882.9	0.7396	22.763	905.9	0.7396	25.575	832.5	0.7396
3	20.833	974.2	0.7029	29.550	919.2	0.6978	32.998	852.0	0.6996
4	22.742	1069.2	0.5803	31.624	927.7	0.5810	35.273	872.9	0.5867
5	23.153	1079.4	0.4679	32.481	951.4	0.4761	36.235	883.9	0.4836
6	22.431	1029.9	0.3884	32.339	983.2	0.4007	36.103	885.0	0.4081
7	21.098	948.0	0.3233	31.339	1001.8	0.3360	35.001	874.3	0.3428
8	19.298	872.2	0.2788	29.102	977.4	0.2899	32.463	843.2	0.2961
9	14.227	771.6	0.2447	21.580	853.9	0.2532	23.909	746.6	0.2590
10	4.377	610.9	0.2306	6.364	630.1	0.2375	6.952	604.5	0.2427



Table 4-150. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C12

Assembly Number C12									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.141	627.6	0.7396	7.156	576.7	0.7396	7.353	581.9	0.7396
2	27.878	819.2	0.7396	27.925	615.7	0.7396	28.512	629.1	0.7396
3	35.868	843.1	0.7011	35.926	620.5	0.7012	36.595	629.8	0.7022
4	38.305	862.3	0.5913	38.376	635.9	0.5916	39.137	639.5	0.5948
5	39.318	868.6	0.4894	39.411	659.7	0.4900	40.304	653.7	0.4958
6	39.203	870.6	0.4139	39.317	683.1	0.4148	40.346	668.7	0.4233
7	38.076	867.5	0.3483	38.198	693.1	0.3495	39.334	680.6	0.3601
8	35.331	842.9	0.3012	35.448	686.1	0.3024	36.583	680.5	0.3138
9	25.909	747.6	0.2635	25.996	652.6	0.2647	26.871	652.0	0.2761
10	7.464	605.4	0.2469	7.485	583.1	0.2478	7.699	583.2	0.2573

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.507	575.5	0.7396	7.624	572.9	0.7396	7.684	570.5	0.7396
2	28.962	608.0	0.7396	29.299	599.5	0.7396	29.468	591.6	0.7396
3	37.103	609.0	0.7029	37.480	600.7	0.7035	37.665	592.3	0.7037
4	39.727	616.8	0.5972	40.168	607.3	0.5989	40.382	597.2	0.5998
5	41.015	628.5	0.5003	41.556	617.8	0.5036	41.826	606.7	0.5052
6	41.197	642.1	0.4300	41.857	630.6	0.4351	42.199	618.9	0.4377
7	40.368	660.5	0.3699	41.177	646.9	0.3774	41.618	635.9	0.3814
8	37.760	675.0	0.3264	38.700	661.5	0.3365	39.247	654.8	0.3422
9	27.878	657.9	0.2905	28.733	652.1	0.3028	29.274	653.7	0.3106
10	7.949	584.8	0.2694	8.168	584.2	0.2803	8.311	585.4	0.2875

Table 4-150. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C12

Assembly Number C12						
Statepoint 15 (94 EFPD Cy 14)				Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.809	574.9	0.7396	8.009	579.3	0.7396
2	29.849	608.4	0.7396	30.427	619.0	0.7396
3	38.125	612.8	0.7044	38.774	619.2	0.7051
4	40.935	623.3	0.6018	41.653	625.5	0.6044
5	42.488	635.9	0.5089	43.300	634.2	0.5130
6	42.950	646.4	0.4422	43.845	642.0	0.4470
7	42.470	658.5	0.3861	43.448	649.7	0.3910
8	40.172	667.3	0.3467	41.213	655.7	0.3515
9	29.973	640.6	0.3144	30.795	635.2	0.3186
10	8.473	579.5	0.2905	8.671	579.0	0.2941

Table 4-151. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C13

Assembly Number C13									
Node No.	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.022	614.9	0.7396	2.675	642.5	0.7396
2	0.000		0.7396	4.335	828.8	0.7396	11.153	974.2	0.7396
3	0.000	Data Not	0.7267	6.457	957.4	0.7277	14.880	1057.2	0.7091
4	0.000	Required	0.6190	7.335	989.4	0.6230	15.629	1004.5	0.5895
5	0.000		0.5204	7.368	991.9	0.5133	15.698	1007.1	0.4803
6	0.000		0.4522	7.477	1000.4	0.4317	15.897	1013.5	0.4002
7	0.000		0.3928	7.516	1003.4	0.3594	16.004	1018.3	0.3302
8	0.000		0.3474	6.766	947.0	0.3108	15.164	1011.9	0.2811
9	0.000		0.3076	4.779	815.3	0.2762	11.275	889.0	0.2442
10	0.000		0.2921	1.522	633.4	0.2627	3.649	653.7	0.2293

Node No.	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.904	643.4	0.7396	5.888	639.7	0.7396	6.834	641.3	0.7396
2	16.381	996.4	0.7396	23.538	895.9	0.7396	26.726	876.5	0.7396
3	21.782	1084.7	0.6950	30.177	902.6	0.6928	34.033	894.8	0.6939
4	23.068	1141.9	0.5679	31.755	917.6	0.5739	35.800	915.3	0.5780
5	22.961	1122.7	0.4580	32.277	950.8	0.4713	36.405	924.7	0.4761
6	22.533	1057.4	0.3824	32.493	986.1	0.3980	36.618	924.3	0.4024
7	21.647	961.8	0.3186	32.002	1008.4	0.3337	36.080	919.0	0.3376
8	19.735	868.6	0.2744	29.760	989.7	0.2874	33.589	892.0	0.2911
9	14.415	759.8	0.2406	22.010	865.6	0.2508	24.754	785.0	0.2543
10	4.466	608.7	0.2273	6.553	633.7	0.2354	7.281	614.9	0.2387

Table 4-151. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C13

Assembly Number C13									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.566	633.2	0.7396	7.581	576.7	0.7396	7.800	584.5	0.7396
2	29.140	833.9	0.7396	29.189	617.6	0.7396	29.841	637.3	0.7396
3	37.053	861.0	0.6954	37.114	625.3	0.6955	37.877	639.7	0.6967
4	39.081	893.2	0.5823	39.160	643.9	0.5827	40.042	652.6	0.5865
5	39.805	908.1	0.4812	39.911	674.9	0.4819	40.947	669.4	0.4887
6	40.059	913.3	0.4071	40.189	702.9	0.4081	41.355	684.0	0.4174
7	39.531	914.7	0.3417	39.667	709.7	0.3429	40.914	693.2	0.3536
8	36.852	891.0	0.2947	36.977	696.6	0.2959	38.193	689.7	0.3068
9	27.100	785.1	0.2575	27.190	656.6	0.2586	28.098	655.7	0.2691
10	7.915	616.0	0.2417	7.936	583.1	0.2426	8.158	584.0	0.2511

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.967	576.9	0.7396	8.097	574.4	0.7396	8.165	572.0	0.7396
2	30.321	611.3	0.7396	30.694	604.0	0.7396	30.888	596.3	0.7396
3	38.433	613.5	0.6976	38.863	606.1	0.6982	39.077	597.2	0.6985
4	40.700	623.2	0.5892	41.212	614.8	0.5913	41.465	603.7	0.5923
5	41.743	636.7	0.4937	42.371	627.2	0.4976	42.689	614.7	0.4995
6	42.295	651.0	0.4247	43.050	640.9	0.4304	43.445	628.0	0.4334
7	42.050	670.9	0.3639	42.958	657.8	0.3720	43.453	645.5	0.3763
8	39.476	686.1	0.3196	40.502	671.2	0.3299	41.104	664.7	0.3360
9	29.167	664.1	0.2829	30.068	657.2	0.2948	30.638	659.1	0.3025
10	8.422	586.1	0.2626	8.652	585.3	0.2729	8.802	586.5	0.2798

Table 4-151. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C13

Assembly Number C13						
Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.235	567.9	0.7396	8.354	571.1	0.7396
2	31.094	585.5	0.7396	31.436	593.9	0.7396
3	39.326	589.2	0.6990	39.711	595.5	0.6995
4	41.766	594.9	0.5935	42.199	599.8	0.5951
5	43.054	602.0	0.5016	43.555	605.8	0.5045
6	43.874	609.3	0.4365	44.444	612.0	0.4404
7	43.998	622.6	0.3807	44.653	619.7	0.3856
8	41.787	638.5	0.3415	42.545	629.1	0.3471
9	31.206	625.2	0.3078	31.856	619.4	0.3136
10	8.933	576.1	0.2839	9.090	575.4	0.2886

Table 4-152. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C14

Assembly Number C14									
Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.062	617.2	0.7396	2.835	648.9	0.7396
2	0.000		0.7396	4.652	852.7	0.7396	12.381	1047.5	0.7396
3	0.000	Data Not	0.7396	7.195	1060.0	0.7196	16.707	1146.9	0.6906
4	0.000	Required	0.6651	8.042	1045.2	0.5999	16.675	1029.0	0.5630
5	0.000		0.5699	7.894	1033.2	0.4898	16.042	994.2	0.4589
6	0.000		0.4968	7.155	975.9	0.4141	15.286	993.0	0.3855
7	0.000		0.4277	6.318	914.7	0.3539	14.399	989.6	0.3238
8	0.000		0.3726	5.619	866.9	0.3139	13.341	965.1	0.2810
9	0.000		0.3303	3.911	762.3	0.2836	9.544	837.0	0.2482
10	0.000		0.3148	1.226	619.1	0.2717	2.980	636.9	0.2352

Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.754	621.3	0.7396	5.349	623.2	0.7396	6.227	635.1	0.7396
2	16.280	863.5	0.7396	22.236	829.5	0.7396	25.256	856.5	0.7396
3	21.956	926.2	0.6934	29.109	841.7	0.6973	32.779	875.1	0.6985
4	22.625	989.9	0.5720	30.112	857.7	0.5866	34.009	899.3	0.5906
5	22.080	998.3	0.4669	29.986	878.1	0.4896	34.001	912.1	0.4941
6	20.970	965.1	0.3919	29.306	899.6	0.4184	33.326	912.7	0.4222
7	19.417	906.0	0.3293	27.950	909.6	0.3556	31.852	899.8	0.3587
8	17.555	839.5	0.2865	25.698	890.0	0.3103	29.264	864.3	0.3129
9	12.544	749.8	0.2543	18.679	796.8	0.2748	21.158	760.2	0.2772
10	3.713	603.8	0.2404	5.260	614.6	0.2575	5.885	607.3	0.2600

Table 4-152. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C14

Assembly Number C14									
	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.000	637.5	0.7396	7.021	583.9	0.7396	7.255	586.3	0.7396
2	27.863	860.2	0.7396	27.933	645.0	0.7396	28.705	652.5	0.7396
3	35.972	882.1	0.6992	36.063	658.0	0.6993	37.069	666.2	0.7009
4	37.341	899.5	0.5932	37.460	688.9	0.5937	38.737	696.8	0.5990
5	37.361	903.1	0.4970	37.510	725.0	0.4980	39.069	730.0	0.5072
6	36.675	901.7	0.4248	36.840	744.3	0.4260	38.539	747.1	0.4372
7	35.132	892.9	0.3609	35.295	742.6	0.3621	36.985	746.0	0.3732
8	32.297	862.6	0.3148	32.442	720.5	0.3158	33.972	726.5	0.3259
9	23.276	760.2	0.2789	23.399	693.4	0.2801	24.521	679.6	0.2893
10	6.429	608.1	0.2619	6.468	601.7	0.2631	6.725	587.5	0.2706

	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.564	592.3	0.7396	8.002	612.1	0.7396	8.403	638.4	0.7396
2	29.726	674.7	0.7396	31.122	741.7	0.7396	32.315	821.9	0.7396
3	38.440	695.3	0.7028	40.217	762.4	0.7044	41.612	825.3	0.7050
4	40.453	733.0	0.6050	42.448	791.0	0.6091	43.927	844.6	0.6106
5	41.039	761.8	0.5165	43.173	809.9	0.5217	44.771	872.4	0.5235
6	40.576	769.7	0.4473	42.790	820.9	0.4524	44.528	906.6	0.4538
7	38.927	758.7	0.3826	41.132	819.6	0.3871	43.000	939.6	0.3880
8	35.663	730.2	0.3341	37.660	791.4	0.3379	39.504	933.4	0.3384
9	25.573	662.7	0.2961	26.865	703.1	0.2992	28.162	806.0	0.2994
10	6.958	583.2	0.2762	7.275	594.3	0.2792	7.623	619.9	0.2794

Table 4-152. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly C14

Assembly Number C14						
Statepoint 15 (94 EFPD Cy 14)				Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.451	565.1	0.7396	8.525	566.5	0.7396
2	32.450	576.2	0.7396	32.658	580.1	0.7396
3	41.771	579.1	0.7051	42.000	581.8	0.7054
4	44.115	582.4	0.6112	44.374	584.5	0.6121
5	45.002	587.2	0.5247	45.312	588.8	0.5262
6	44.816	593.5	0.4557	45.187	594.4	0.4582
7	43.404	606.5	0.3914	43.874	603.0	0.3952
8	40.049	622.4	0.3438	40.634	613.4	0.3494
9	28.633	614.1	0.3056	29.164	608.6	0.3125
10	7.728	573.2	0.2844	7.851	572.4	0.2901



Table 4-153. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D1

Assembly Number D1									
Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.318	631.7	0.7396	2.875	637.3	0.7396
2	0.000		0.7396	5.874	948.2	0.7396	12.408	952.0	0.7396
3	0.000	Data Not	0.7070	8.411	1074.8	0.6955	16.576	994.5	0.6938
4	0.000	Required	0.5685	8.883	1114.7	0.5539	17.131	1000.4	0.5565
5	0.000		0.4667	8.243	1060.6	0.4456	16.573	1006.1	0.4496
6	0.000		0.4031	7.472	999.2	0.3780	15.900	1013.1	0.3777
7	0.000		0.3496	6.710	942.0	0.3239	15.231	1019.7	0.3164
8	0.000		0.3108	5.978	890.6	0.2872	14.344	1008.7	0.2726
9	0.000		0.2818	4.143	775.6	0.2598	10.397	873.7	0.2388
10	0.000		0.2713	1.206	618.0	0.2489	3.098	642.9	0.2253

Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	4.200	650.2	0.7396	6.144	637.8	0.7396	7.064	638.8	0.7396
2	18.010	1035.6	0.7396	25.005	885.9	0.7396	28.141	869.6	0.7396
3	23.740	1111.0	0.6819	31.912	890.7	0.6835	35.799	897.5	0.6856
4	24.708	1155.8	0.5417	33.340	914.1	0.5548	37.480	925.1	0.5606
5	24.007	1140.1	0.4334	33.407	954.5	0.4540	37.683	940.5	0.4602
6	22.761	1079.3	0.3629	32.934	997.1	0.3850	37.252	945.3	0.3903
7	21.107	982.5	0.3051	31.767	1025.0	0.3249	36.024	938.3	0.3292
8	19.101	883.3	0.2652	29.422	1005.6	0.2812	33.358	902.9	0.2848
9	13.597	764.1	0.2342	21.422	876.5	0.2463	24.248	792.1	0.2497
10	3.905	608.0	0.2222	6.004	634.0	0.2319	6.770	617.7	0.2351

Table 4-153. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D1

Assembly Number D1									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.943	648.7	0.7396	7.967	587.4	0.7396	8.297	597.6	0.7396
2	31.111	910.9	0.7396	31.187	653.3	0.7396	32.195	683.2	0.7396
3	39.486	945.0	0.6861	39.583	663.4	0.6863	40.777	687.0	0.6882
4	41.273	959.3	0.5628	41.398	696.1	0.5634	42.781	708.8	0.5693
5	41.460	957.0	0.4623	41.625	745.1	0.4634	43.207	732.4	0.4725
6	41.005	953.7	0.3920	41.197	779.4	0.3933	42.902	747.5	0.4039
7	39.722	946.4	0.3306	39.911	774.6	0.3318	41.647	751.3	0.3423
8	36.804	913.5	0.2860	36.970	745.3	0.2870	38.587	736.7	0.2967
9	26.706	797.2	0.2509	26.820	683.2	0.2517	27.972	682.8	0.2605
10	7.447	619.7	0.2364	7.473	588.2	0.2371	7.748	589.2	0.2445

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (EOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	EOC Cy 13	EOC Cy 13	EOC Cy 13
1	8.551	586.3	0.7396	8.751	582.8	0.7396	8.857	579.3	0.7396
2	32.950	642.7	0.7396	33.532	630.2	0.7396	33.830	617.4	0.7396
3	41.660	645.1	0.6897	42.338	632.5	0.6907	42.674	617.7	0.6912
4	43.834	662.2	0.5737	44.646	647.1	0.5770	45.045	628.5	0.5786
5	44.472	683.9	0.4802	45.468	667.7	0.4860	45.972	646.9	0.4890
6	44.353	703.6	0.4140	45.534	689.0	0.4224	46.159	668.8	0.4268
7	43.318	727.7	0.3547	44.684	710.8	0.3650	45.452	695.3	0.3711
8	40.364	739.5	0.3099	41.823	722.1	0.3211	42.707	717.6	0.3284
9	29.350	696.4	0.2730	30.537	690.0	0.2842	31.309	696.5	0.2920
10	8.077	592.1	0.2548	8.370	591.8	0.2644	8.564	593.8	0.2711

**Table 4-154. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D2**

Assembly Number D2									
Node No.	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	0.957	611.2	0.7396	2.780	651.4	0.7396
2	0.000		0.7396	4.391	832.7	0.7396	12.287	1060.4	0.7396
3	0.000	Data Not	0.7396	6.807	1024.3	0.7243	16.576	1167.6	0.6902
4	0.000	Required	0.6626	7.993	1040.4	0.6118	16.824	1042.4	0.5651
5	0.000		0.5661	8.220	1058.7	0.4957	16.535	1005.0	0.4581
6	0.000		0.4924	7.510	1002.1	0.4139	15.840	1006.1	0.3810
7	0.000		0.4207	6.660	938.5	0.3504	14.974	1005.0	0.3177
8	0.000		0.3619	5.959	889.2	0.3090	13.932	981.3	0.2744
9	0.000		0.3185	4.253	782.1	0.2778	10.147	851.8	0.2413
10	0.000		0.3031	1.244	619.9	0.2653	3.018	637.7	0.2277

Node No.	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.837	630.9	0.7396	5.819	639.4	0.7396	6.691	634.4	0.7396
2	16.887	930.7	0.7396	24.264	907.8	0.7396	27.257	852.7	0.7396
3	22.892	1024.5	0.6872	31.552	915.4	0.6863	35.225	874.8	0.6885
4	23.953	1107.2	0.5594	32.896	930.2	0.5655	36.867	906.7	0.5713
5	23.691	1110.0	0.4495	33.249	963.0	0.4623	37.373	923.4	0.4689
6	22.488	1057.4	0.3733	32.747	1002.1	0.3889	36.942	931.3	0.3951
7	20.670	965.7	0.3121	31.344	1025.8	0.3270	35.574	935.4	0.3323
8	18.523	869.6	0.2712	28.790	1002.5	0.2832	32.804	911.5	0.2877
9	13.308	761.1	0.2400	21.003	870.2	0.2484	23.878	797.0	0.2523
10	3.814	607.4	0.2273	5.835	631.2	0.2337	6.595	617.2	0.2375

Table 4-154. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D2

Assembly Number D2									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.427	633.5	0.7396	7.461	599.6	0.7396	7.810	599.9	0.7396
2	29.772	847.1	0.7396	29.882	698.9	0.7396	30.975	694.5	0.7396
3	38.396	878.8	0.6901	38.535	712.0	0.6903	39.805	695.7	0.6924
4	40.303	912.1	0.5753	40.462	736.5	0.5759	41.878	712.7	0.5816
5	40.903	924.4	0.4734	41.076	753.2	0.4744	42.655	732.2	0.4830
6	40.537	932.8	0.3993	40.714	759.1	0.4002	42.398	744.9	0.4103
7	39.225	940.1	0.3358	39.395	749.8	0.3368	41.089	746.1	0.3467
8	36.274	916.5	0.2906	36.426	727.9	0.2914	38.011	732.9	0.3008
9	26.358	799.7	0.2547	26.465	675.4	0.2555	27.607	681.6	0.2641
10	7.262	618.8	0.2398	7.288	588.2	0.2406	7.566	589.6	0.2479

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	8.098	590.0	0.7396	8.296	582.6	0.7396	8.392	577.3	0.7396
2	31.838	655.5	0.7396	32.418	629.8	0.7396	32.695	613.1	0.7396
3	40.796	656.0	0.6939	41.450	629.8	0.6948	41.757	612.9	0.6953
4	43.042	673.5	0.5862	43.811	642.4	0.5891	44.177	622.7	0.5905
5	44.042	696.8	0.4911	44.989	662.0	0.4966	45.457	640.7	0.4992
6	43.962	715.9	0.4208	45.101	683.9	0.4289	45.699	663.9	0.4331
7	42.762	727.9	0.3584	44.092	706.5	0.3687	44.853	693.9	0.3749
8	39.678	727.2	0.3123	41.119	719.9	0.3238	42.008	718.6	0.3314
9	28.875	684.7	0.2751	30.061	689.9	0.2867	30.841	698.1	0.2949
10	7.874	590.2	0.2574	8.166	591.7	0.2674	8.362	594.1	0.2745

**Table 4-154. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D2**

Assembly Number D2						
Statepoint 15 (94 EFPD Cy 14)				Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.574	582.2	0.7396	8.894	591.7	0.7396
2	33.269	634.4	0.7396	34.214	659.3	0.7396
3	42.479	642.8	0.6963	43.556	659.0	0.6978
4	45.047	660.5	0.5937	46.220	668.3	0.5977
5	46.486	679.8	0.5048	47.798	681.8	0.5112
6	46.848	694.9	0.4404	48.288	694.5	0.4486
7	46.088	705.9	0.3832	47.629	704.8	0.3923
8	43.247	706.4	0.3398	44.813	707.2	0.3490
9	31.725	662.5	0.3023	32.881	667.0	0.3108
10	8.558	583.3	0.2806	8.827	585.3	0.2879

Table 4-155. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D3

Assembly Number D3									
Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.073	617.7	0.7396	2.738	643.0	0.7396
2	0.000		0.7396	4.799	862.7	0.7396	11.663	977.0	0.7396
3	0.000	Data Not	0.7210	7.003	1000.3	0.7207	15.438	1057.4	0.7044
4	0.000	Required	0.6032	8.052	1045.1	0.6006	16.214	994.4	0.5796
5	0.000		0.5041	8.285	1064.0	0.4838	16.417	992.3	0.4676
6	0.000		0.4368	7.840	1028.0	0.4028	16.194	1007.8	0.3878
7	0.000		0.3746	7.275	984.0	0.3384	15.805	1020.3	0.3210
8	0.000		0.3248	6.534	929.4	0.2961	14.914	1009.7	0.2750
9	0.000		0.2880	4.760	813.2	0.2648	11.215	885.7	0.2397
10	0.000		0.2753	1.408	627.8	0.2523	3.413	648.0	0.2253

Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	4.166	657.8	0.7396	6.164	640.1	0.7396	6.980	629.4	0.7396
2	17.734	1088.5	0.7396	24.890	895.1	0.7396	27.674	828.6	0.7396
3	23.071	1162.2	0.6835	31.408	899.0	0.6835	34.955	861.7	0.6864
4	23.999	1179.1	0.5507	32.764	921.0	0.5600	36.737	906.8	0.5676
5	23.891	1144.5	0.4414	33.320	956.1	0.4582	37.427	921.5	0.4664
6	23.059	1079.8	0.3672	33.205	995.6	0.3866	37.328	923.4	0.3937
7	21.679	982.3	0.3068	32.290	1022.1	0.3250	36.349	916.3	0.3310
8	19.679	884.0	0.2657	29.970	1003.9	0.2809	33.730	884.0	0.2862
9	14.422	764.5	0.2340	22.213	874.8	0.2456	24.917	780.7	0.2504
10	4.224	608.3	0.2214	6.333	634.4	0.2308	7.054	614.3	0.2353

Table 4-155. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D3

Assembly Number D3									
Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.414	602.1	0.7396	7.434	582.6	0.7396	7.699	589.9	0.7396
2	29.206	722.6	0.7396	29.273	641.6	0.7396	30.091	658.3	0.7396
3	37.066	757.7	0.6895	37.161	661.7	0.6897	38.114	660.1	0.6914
4	39.459	825.2	0.5760	39.576	687.5	0.5766	40.643	672.7	0.5812
5	40.437	859.2	0.4769	40.572	707.8	0.4777	41.798	690.6	0.4855
6	40.523	881.7	0.4038	40.668	719.4	0.4049	42.022	705.5	0.4147
7	39.862	922.2	0.3408	40.005	717.4	0.3419	41.409	711.3	0.3524
8	37.147	909.8	0.2944	37.279	704.7	0.2954	38.633	705.4	0.3057
9	27.351	794.5	0.2569	27.449	664.8	0.2578	28.472	668.2	0.2677
10	7.702	617.1	0.2412	7.726	586.2	0.2420	7.979	587.0	0.2505

Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.927	583.4	0.7396	8.085	577.8	0.7396	8.161	573.5	0.7396
2	30.768	633.7	0.7396	31.228	614.7	0.7396	31.447	601.3	0.7396
3	38.885	634.2	0.6926	39.401	615.0	0.6934	39.641	601.6	0.6939
4	41.533	645.8	0.5849	42.128	623.5	0.5873	42.409	608.4	0.5884
5	42.860	663.0	0.4920	43.586	637.7	0.4964	43.942	621.1	0.4985
6	43.253	680.4	0.4240	44.133	654.7	0.4305	44.589	638.4	0.4338
7	42.771	694.2	0.3635	43.828	674.6	0.3725	44.417	662.1	0.3775
8	40.042	699.2	0.3177	41.232	689.9	0.3287	41.951	686.1	0.3355
9	29.609	671.0	0.2799	30.652	673.2	0.2921	31.330	678.6	0.3003
10	8.264	588.0	0.2609	8.530	589.0	0.2716	8.706	590.8	0.2790

**Table 4-155. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D3**

Assembly Number D3						
Statepoint 15 (94 EFPD Cy 14)				Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.302	577.0	0.7396	8.434	572.4	0.7396
2	31.873	614.5	0.7396	32.255	598.1	0.7396
3	40.152	618.4	0.6946	40.580	599.3	0.6952
4	42.992	626.7	0.5906	43.473	604.1	0.5924
5	44.611	636.7	0.5020	45.177	611.6	0.5051
6	45.339	646.2	0.4379	45.995	619.8	0.4421
7	45.256	656.8	0.3818	46.017	629.4	0.3868
8	42.850	663.9	0.3396	43.724	639.8	0.3452
9	32.016	638.9	0.3039	32.778	629.5	0.3096
10	8.869	579.6	0.2820	9.054	577.9	0.2868



Table 4-156. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D4

Assembly Number D4									
Node No.	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.172	623.4	0.7396	2.943	648.7	0.7396
2	0.000		0.7396	5.351	905.9	0.7396	12.921	1033.1	0.7396
3	0.000	Data Not	0.7291	7.817	1069.1	0.7076	17.068	1073.5	0.6883
4	0.000	Required	0.6231	8.502	1082.1	0.5764	17.103	1025.6	0.5546
5	0.000		0.5241	8.370	1071.1	0.4634	16.661	1003.3	0.4468
6	0.000		0.4552	7.565	1006.4	0.3895	15.904	1006.8	0.3732
7	0.000		0.3904	6.704	941.6	0.3321	14.987	1002.8	0.3127
8	0.000		0.3373	5.932	887.4	0.2943	13.847	977.3	0.2709
9	0.000		0.2973	4.198	778.8	0.2664	10.062	849.8	0.2391
10	0.000		0.2834	1.216	618.5	0.2554	2.981	637.3	0.2262

Node No.	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.561	600.3	0.7396	4.635	601.6	0.7396	5.563	639.5	0.7396
2	15.601	755.7	0.7396	19.821	741.1	0.7396	23.191	897.7	0.7396
3	20.736	797.0	0.6966	25.944	754.6	0.7053	30.003	916.3	0.7042
4	21.440	848.8	0.5789	27.098	773.8	0.6029	31.311	933.4	0.6024
5	21.267	870.5	0.4780	27.403	794.7	0.5126	31.647	936.9	0.5110
6	20.458	866.2	0.4036	27.030	814.3	0.4436	31.255	934.7	0.4411
7	19.257	843.4	0.3394	26.075	825.6	0.3806	30.164	919.6	0.3776
8	17.502	795.9	0.2937	24.109	815.9	0.3331	27.840	881.0	0.3303
9	12.611	718.1	0.2596	17.668	749.3	0.2960	20.318	775.5	0.2935
10	3.567	595.2	0.2426	4.777	602.9	0.2737	5.457	611.3	0.2724

Table 4-156. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D4

Assembly Number D4									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.384	642.5	0.7396	6.412	592.3	0.7396	6.732	596.4	0.7396
2	26.090	900.8	0.7396	26.190	683.2	0.7396	27.229	687.4	0.7396
3	33.528	923.5	0.7034	33.655	699.6	0.7035	34.864	688.7	0.7053
4	34.932	936.1	0.6017	35.082	726.7	0.6023	36.435	705.2	0.6076
5	35.231	931.4	0.5097	35.398	746.3	0.5106	36.917	724.9	0.5190
6	34.807	927.2	0.4394	34.980	753.6	0.4404	36.609	738.2	0.4503
7	33.630	915.9	0.3757	33.796	746.1	0.3766	35.446	740.7	0.3866
8	31.039	882.3	0.3284	31.190	727.1	0.3293	32.749	729.7	0.3387
9	22.595	777.0	0.2918	22.703	676.2	0.2926	23.840	681.0	0.3013
10	6.056	612.8	0.2715	6.081	587.2	0.2722	6.349	588.5	0.2798

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	6.998	587.6	0.7396	7.182	580.9	0.7396	7.272	576.2	0.7396
2	28.065	652.2	0.7396	28.628	627.7	0.7396	28.896	611.2	0.7396
3	35.822	652.6	0.7066	36.456	627.7	0.7075	36.753	611.1	0.7078
4	37.550	668.5	0.6119	38.289	639.1	0.6147	38.639	620.1	0.6160
5	38.246	690.7	0.5268	39.152	657.4	0.5320	39.597	636.6	0.5345
6	38.114	709.5	0.4607	39.205	678.5	0.4686	39.774	658.5	0.4726
7	37.070	722.4	0.3984	38.354	701.0	0.4087	39.082	687.8	0.4148
8	34.384	723.7	0.3505	35.790	715.6	0.3623	36.652	713.4	0.3700
9	25.103	684.2	0.3125	26.276	688.3	0.3244	27.045	696.0	0.3329
10	6.648	589.3	0.2896	6.930	590.7	0.3001	7.118	592.8	0.3076

**Table 4-156. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D4**

Assembly Number D4						
Statepoint 15 (94 EFPD Cy 14)				Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.364	570.7	0.7396	7.526	575.4	0.7396
2	29.185	596.0	0.7396	29.667	608.8	0.7396
3	37.093	599.3	0.7083	37.632	609.1	0.7090
4	39.043	606.4	0.6174	39.643	614.7	0.6195
5	40.081	615.4	0.5372	40.775	623.2	0.5408
6	40.348	625.7	0.4766	41.142	632.4	0.4819
7	39.844	647.6	0.4213	40.775	645.2	0.4287
8	37.668	678.3	0.3799	38.783	662.7	0.3901
9	27.891	657.9	0.3438	28.851	648.1	0.3554
10	7.294	581.1	0.3163	7.506	580.3	0.3262

Table 4-157. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D5

Assembly Number D5									
Node No.	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	0.947	610.6	0.7396	2.625	643.7	0.7396
2	0.000		0.7396	4.209	819.0	0.7396	11.278	993.4	0.7396
3	0.000	Data Not	0.7215	6.203	937.2	0.7312	15.205	1102.4	0.7060
4	0.000	Required	0.6048	7.032	965.7	0.6340	15.681	1029.0	0.5863
5	0.000		0.5057	7.441	996.6	0.5220	15.903	1015.5	0.4773
6	0.000		0.4389	7.695	1016.4	0.4345	16.278	1024.1	0.3954
7	0.000		0.3817	7.513	1002.2	0.3609	16.234	1034.2	0.3252
8	0.000		0.3388	6.787	947.7	0.3124	15.361	1023.6	0.2766
9	0.000		0.3026	4.954	825.8	0.2770	11.491	891.0	0.2401
10	0.000		0.2887	1.458	630.2	0.2629	3.485	649.0	0.2251

Node No.	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.486	617.1	0.7396	5.020	620.6	0.7396	5.961	640.7	0.7396
2	15.121	857.9	0.7396	21.150	833.0	0.7396	24.517	897.5	0.7396
3	20.424	922.6	0.7055	27.689	846.5	0.7063	31.777	919.5	0.7050
4	21.505	977.2	0.5905	28.973	856.2	0.6005	33.246	940.1	0.6000
5	21.726	977.1	0.4821	29.455	868.8	0.5005	33.776	945.6	0.5001
6	21.716	942.0	0.4009	29.733	883.0	0.4241	34.009	940.4	0.4238
7	21.041	887.4	0.3316	29.165	888.3	0.3563	33.290	923.5	0.3562
8	19.399	825.1	0.2840	27.141	869.5	0.3079	30.894	883.3	0.3080
9	14.331	738.2	0.2483	20.144	782.1	0.2701	22.821	777.9	0.2706
10	4.172	601.1	0.2324	5.624	611.2	0.2513	6.337	613.7	0.2524

Table 4-157. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D5

Assembly Number D5									
Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.802	644.6	0.7396	6.836	599.6	0.7396	7.292	612.8	0.7396
2	27.468	908.1	0.7396	27.587	712.2	0.7396	29.073	749.2	0.7396
3	35.393	935.6	0.7038	35.547	729.6	0.7041	37.291	752.4	0.7060
4	36.972	950.1	0.5990	37.157	770.0	0.5995	39.070	773.6	0.6047
5	37.470	945.9	0.4991	37.690	817.2	0.5000	39.755	793.2	0.5073
6	37.646	938.2	0.4230	37.881	838.3	0.4239	39.995	799.6	0.4316
7	36.841	926.9	0.3557	37.062	818.4	0.3565	39.129	793.4	0.3637
8	34.169	891.8	0.3078	34.359	777.3	0.3084	36.241	769.6	0.3149
9	25.148	782.5	0.2706	25.273	696.8	0.2712	26.559	698.2	0.2769
10	6.967	615.5	0.2528	6.996	591.3	0.2533	7.300	592.2	0.2583

Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.659	598.6	0.7396	7.944	593.1	0.7396	8.092	587.4	0.7396
2	30.229	691.0	0.7396	31.099	667.8	0.7396	31.536	645.9	0.7396
3	38.644	693.3	0.7076	39.655	669.2	0.7088	40.145	644.6	0.7094
4	40.638	716.3	0.6099	41.822	689.3	0.6138	42.397	659.7	0.6157
5	41.553	741.8	0.5157	42.957	715.4	0.5226	43.670	685.1	0.5263
6	41.935	758.0	0.4414	43.521	737.8	0.4502	44.379	712.7	0.4555
7	41.204	773.8	0.3740	42.942	756.9	0.3836	43.950	742.5	0.3900
8	38.329	775.3	0.3250	40.097	760.8	0.3343	41.201	762.1	0.3410
9	28.087	712.9	0.2858	29.441	710.1	0.2943	30.341	721.5	0.3007
10	7.662	595.2	0.2659	7.991	595.5	0.2732	8.213	598.5	0.2789

Table 4-157. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D5

Assembly Number D5						
Statepoint 15 (94 EFPD Cy 14)				Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.245	578.5	0.7396	8.375	572.2	0.7396
2	32.000	619.5	0.7396	32.376	597.4	0.7396
3	40.699	623.4	0.7100	41.116	598.3	0.7104
4	43.038	633.5	0.6177	43.514	603.5	0.6191
5	44.404	644.2	0.5296	44.966	611.3	0.5323
6	45.190	653.4	0.4592	45.843	619.5	0.4630
7	44.848	663.8	0.3938	45.613	629.7	0.3986
8	42.150	670.0	0.3448	43.037	641.0	0.3504
9	31.057	642.4	0.3041	31.846	632.0	0.3102
10	8.382	580.3	0.2818	8.573	578.4	0.2870

Table 4-158. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D6

Assembly Number D6									
Node No.	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.446	639.2	0.7396	3.214	648.5	0.7396
2	0.000		0.7396	6.444	996.3	0.7396	13.757	1011.9	0.7396
3	0.000	Data Not	0.6984	8.940	1119.7	0.6799	17.692	1036.4	0.6766
4	0.000	Required	0.5609	9.134	1136.7	0.5356	17.625	1017.6	0.5364
5	0.000		0.4621	8.604	1090.8	0.4292	17.057	1014.8	0.4316
6	0.000		0.3997	7.824	1026.8	0.3628	16.405	1024.0	0.3619
7	0.000		0.3447	7.020	964.8	0.3106	15.627	1025.9	0.3033
8	0.000		0.3027	6.226	907.7	0.2758	14.533	1004.6	0.2624
9	0.000		0.2719	4.346	787.9	0.2497	10.545	870.2	0.2307
10	0.000		0.2607	1.244	619.9	0.2390	3.114	642.0	0.2176

Node No.	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	4.098	618.7	0.7396	5.344	608.7	0.7396	6.267	639.0	0.7396
2	17.492	847.5	0.7396	22.144	762.2	0.7396	25.354	878.3	0.7396
3	22.601	895.9	0.6835	28.237	772.9	0.6926	32.077	892.5	0.6937
4	23.078	943.3	0.5546	29.257	796.6	0.5796	33.319	916.6	0.5832
5	22.569	948.6	0.4508	29.342	823.5	0.4869	33.504	927.7	0.4901
6	21.641	924.2	0.3788	28.963	849.2	0.4197	33.148	930.2	0.4217
7	20.359	881.1	0.3180	28.022	865.6	0.3587	32.106	919.0	0.3597
8	18.672	833.0	0.2757	26.194	858.8	0.3132	29.946	883.2	0.3138
9	13.543	749.3	0.2437	19.439	785.5	0.2777	22.151	781.2	0.2781
10	3.846	603.7	0.2288	5.341	612.7	0.2583	6.062	614.3	0.2594

Table 4-158. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D6

Assembly Number D6									
Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.025	635.8	0.7396	7.046	583.8	0.7396	7.484	610.6	0.7396
2	27.915	853.2	0.7396	27.998	662.7	0.7396	29.439	742.9	0.7396
3	35.307	886.1	0.6949	35.483	757.3	0.6952	37.254	755.7	0.6976
4	36.780	915.3	0.5864	36.997	811.5	0.5872	38.935	776.9	0.5930
5	37.014	921.5	0.4929	37.244	831.7	0.4938	39.325	795.2	0.5016
6	36.668	922.9	0.4236	36.895	826.6	0.4244	39.020	801.1	0.4322
7	35.576	916.5	0.3609	35.786	802.5	0.3616	37.841	791.9	0.3686
8	33.178	886.4	0.3147	33.360	766.0	0.3153	35.223	767.3	0.3215
9	24.495	784.3	0.2787	24.617	692.9	0.2793	25.900	697.9	0.2848
10	6.703	616.5	0.2604	6.732	591.3	0.2609	7.039	592.5	0.2658

Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.882	602.1	0.7396	8.165	592.9	0.7396	8.304	585.7	0.7396
2	30.683	702.0	0.7396	31.537	665.6	0.7396	31.944	639.6	0.7396
3	38.713	704.6	0.6997	39.698	666.3	0.7010	40.158	639.2	0.7016
4	40.622	729.4	0.5990	41.774	685.6	0.6032	42.319	654.3	0.6051
5	41.251	756.5	0.5105	42.632	712.6	0.5176	43.322	680.8	0.5213
6	41.079	771.8	0.4420	42.657	736.8	0.4511	43.510	711.6	0.4565
7	39.930	775.4	0.3780	41.663	756.3	0.3878	42.684	745.0	0.3946
8	37.221	764.7	0.3301	38.987	760.6	0.3397	40.108	765.4	0.3466
9	27.345	703.7	0.2924	28.707	710.9	0.3010	29.622	724.4	0.3076
10	7.385	593.7	0.2725	7.716	595.7	0.2801	7.941	599.0	0.2858



Table 4-158. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D6

Assembly Number D6						
Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.381	568.8	0.7396	8.482	569.2	0.7396
2	32.167	587.6	0.7396	32.454	588.2	0.7396
3	40.417	590.2	0.7020	40.730	589.2	0.7024
4	42.622	595.1	0.6062	42.975	592.7	0.6074
5	43.687	601.9	0.5232	44.104	598.4	0.5254
6	43.948	610.3	0.4594	44.444	605.3	0.4627
7	43.254	625.2	0.3990	43.859	615.2	0.4036
8	40.811	640.7	0.3522	41.542	626.5	0.3581
9	30.205	626.9	0.3130	30.855	619.3	0.3194
10	8.073	576.2	0.2901	8.225	575.0	0.2956

Table 4-159. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D7

Assembly Number D7									
Node No.	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.316	631.6	0.7396	2.872	637.2	0.7396
2	0.000		0.7396	5.864	947.3	0.7396	12.395	951.8	0.7396
3	0.000	Data Not	0.7072	8.397	1073.5	0.6955	16.559	994.3	0.6938
4	0.000	Required	0.5687	8.870	1113.5	0.5541	17.114	1000.1	0.5565
5	0.000		0.4668	8.233	1059.8	0.4458	16.556	1005.7	0.4496
6	0.000		0.4032	7.466	998.7	0.3781	15.888	1012.6	0.3777
7	0.000		0.3496	6.713	942.3	0.3239	15.227	1019.2	0.3164
8	0.000		0.3107	5.988	891.3	0.2872	14.349	1008.4	0.2725
9	0.000		0.2815	4.153	776.2	0.2597	10.401	873.4	0.2387
10	0.000		0.2711	1.209	618.2	0.2488	3.099	642.9	0.2252

Node No.	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	4.196	650.2	0.7396	6.139	637.8	0.7396	7.057	638.6	0.7396
2	17.991	1035.0	0.7396	24.986	885.9	0.7396	28.117	869.0	0.7396
3	23.717	1110.5	0.6819	31.890	890.8	0.6835	35.772	896.9	0.6855
4	24.686	1155.2	0.5417	33.317	914.0	0.5547	37.452	924.7	0.5606
5	23.985	1139.5	0.4334	33.382	954.3	0.4539	37.656	940.2	0.4601
6	22.744	1078.8	0.3629	32.911	996.8	0.3849	37.226	944.9	0.3902
7	21.098	982.1	0.3051	31.750	1024.5	0.3248	36.005	938.0	0.3291
8	19.101	882.9	0.2652	29.413	1005.1	0.2811	33.346	902.6	0.2847
9	13.598	763.9	0.2342	21.418	876.2	0.2463	24.241	791.9	0.2496
10	3.905	608.0	0.2221	6.003	634.0	0.2318	6.768	617.6	0.2351

Table 4-159. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D7

Assembly Number D7									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	7.934	648.5	0.7396	7.958	587.4	0.7396	8.287	597.5	0.7396
2	31.083	910.5	0.7396	31.159	652.6	0.7396	32.168	683.3	0.7396
3	39.456	944.6	0.6861	39.553	663.9	0.6863	40.747	687.0	0.6882
4	41.244	958.9	0.5628	41.369	696.9	0.5634	42.751	708.7	0.5693
5	41.432	956.9	0.4623	41.597	744.5	0.4634	43.178	732.3	0.4725
6	40.978	953.6	0.3919	41.170	779.0	0.3932	42.875	747.4	0.4038
7	39.701	946.2	0.3305	39.890	775.0	0.3317	41.624	751.1	0.3422
8	36.790	913.2	0.2859	36.956	745.7	0.2869	38.571	736.5	0.2966
9	26.698	797.0	0.2508	26.811	682.9	0.2517	27.962	682.6	0.2604
10	7.444	619.6	0.2363	7.471	589.2	0.2370	7.745	589.1	0.2444

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	8.542	586.4	0.7396	8.741	582.7	0.7396	8.847	579.3	0.7396
2	32.923	642.7	0.7396	33.505	630.2	0.7396	33.804	617.6	0.7396
3	41.630	645.1	0.6897	42.308	632.5	0.6907	42.645	617.8	0.6912
4	43.804	662.2	0.5737	44.617	647.2	0.5770	45.016	628.6	0.5786
5	44.443	684.0	0.4801	45.439	667.6	0.4860	45.944	647.0	0.4890
6	44.325	703.6	0.4140	45.507	689.0	0.4223	46.132	668.8	0.4268
7	43.296	727.7	0.3546	44.662	710.8	0.3650	45.429	695.2	0.3711
8	40.349	739.5	0.3098	41.807	722.0	0.3210	42.691	717.7	0.3283
9	29.340	696.4	0.2729	30.526	689.9	0.2841	31.298	696.5	0.2919
10	8.074	592.1	0.2548	8.366	591.7	0.2643	8.560	593.8	0.2711

Table 4-159. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D7

Assembly Number D7						
Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	8.917	567.9	0.7396	9.031	570.5	0.7396
2	34.010	585.3	0.7396	34.333	591.9	0.7396
3	42.893	589.0	0.6916	43.250	593.0	0.6922
4	45.315	594.7	0.5798	45.709	596.3	0.5812
5	46.307	601.8	0.4910	46.762	601.7	0.4935
6	46.560	609.1	0.4298	47.087	608.1	0.4333
7	45.930	617.4	0.3751	46.541	615.7	0.3796
8	43.245	623.4	0.3329	43.926	622.1	0.3382
9	31.754	612.3	0.2966	32.335	613.0	0.3023
10	8.665	573.2	0.2749	8.804	573.8	0.2798

Table 4-160. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D8

Assembly Number D8									
Node No.	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.100	619.3	0.7396	2.876	648.9	0.7396
2	0.000		0.7396	4.884	869.2	0.7396	12.252	1016.6	0.7396
3	0.000	Data Not	0.7020	7.080	1006.7	0.7199	16.227	1114.3	0.6961
4	0.000	Required	0.5688	7.787	1023.6	0.5987	16.624	1042.7	0.5653
5	0.000		0.4699	7.815	1025.9	0.4865	16.456	1028.4	0.4553
6	0.000		0.4066	7.902	1032.9	0.4066	16.541	1028.2	0.3781
7	0.000		0.3533	7.821	1026.4	0.3387	16.494	1030.7	0.3120
8	0.000		0.3133	7.097	970.7	0.2933	15.599	1018.4	0.2664
9	0.000		0.2803	5.070	833.3	0.2604	11.563	888.2	0.2316
10	0.000		0.2680	1.479	631.2	0.2475	3.500	648.8	0.2173

Node No.	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.457	597.8	0.7396	5.063	623.6	0.7396	5.930	634.0	0.7396
2	14.933	756.0	0.7396	21.132	842.1	0.7396	24.231	865.2	0.7396
3	20.097	812.3	0.7037	27.750	865.1	0.7052	31.448	877.4	0.7052
4	22.383	973.8	0.5883	30.401	883.0	0.5980	34.122	879.8	0.6004
5	22.917	1038.4	0.4746	31.321	902.4	0.4915	35.125	888.6	0.4958
6	22.434	983.9	0.3909	31.340	928.3	0.4110	35.268	901.8	0.4159
7	21.527	906.7	0.3220	30.699	942.3	0.3416	34.848	926.2	0.3466
8	19.899	845.7	0.2765	28.723	924.1	0.2938	32.870	926.0	0.2981
9	15.046	784.6	0.2447	22.083	837.9	0.2604	25.065	807.3	0.2635
10	4.370	611.7	0.2286	6.238	625.8	0.2428	7.041	620.5	0.2459

Table 4-160. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D8

Assembly Number D8									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.695	636.5	0.7396	6.733	604.5	0.7396	7.110	603.3	0.7396
2	26.921	871.3	0.7396	27.050	724.9	0.7396	28.286	714.1	0.7396
3	34.757	895.9	0.7049	34.917	738.2	0.7051	36.361	716.1	0.7070
4	37.497	904.3	0.6014	37.670	754.5	0.6019	39.213	727.7	0.6070
5	38.518	906.5	0.4977	38.700	766.6	0.4985	40.374	743.7	0.5064
6	38.724	914.7	0.4182	38.906	766.8	0.4191	40.660	753.5	0.4281
7	38.380	924.5	0.3489	38.553	754.1	0.3497	40.287	751.1	0.3586
8	36.321	914.0	0.3002	36.474	730.4	0.3009	38.081	735.5	0.3091
9	27.576	803.1	0.2650	27.681	672.8	0.2656	28.805	679.5	0.2726
10	7.740	621.6	0.2476	7.766	588.2	0.2481	8.044	589.6	0.2544

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.415	591.8	0.7396	7.625	584.0	0.7396	7.728	578.7	0.7396
2	29.249	667.4	0.7396	29.892	638.0	0.7396	30.201	619.5	0.7396
3	37.476	668.4	0.7084	38.207	638.2	0.7093	38.553	619.4	0.7098
4	40.478	684.0	0.6115	41.314	649.7	0.6143	41.713	628.6	0.6157
5	41.857	707.1	0.5144	42.875	670.1	0.5200	43.380	647.2	0.5227
6	42.302	724.4	0.4384	43.508	691.9	0.4465	44.148	671.4	0.4509
7	42.009	733.3	0.3695	43.387	712.2	0.3796	44.181	700.4	0.3857
8	39.769	729.5	0.3196	41.234	722.8	0.3304	42.143	722.5	0.3376
9	30.053	682.7	0.2821	31.224	688.2	0.2922	31.997	696.7	0.2995
10	8.351	590.1	0.2625	8.644	591.8	0.2713	8.840	594.1	0.2777

Table 4-160. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D8

Assembly Number D8						
Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.841	573.4	0.7396	7.964	571.5	0.7396
2	30.545	603.3	0.7396	30.902	595.6	0.7396
3	38.952	605.8	0.7102	39.345	596.2	0.7106
4	42.165	611.8	0.6172	42.599	599.8	0.6185
5	43.909	620.5	0.5254	44.417	606.4	0.5280
6	44.762	630.3	0.4547	45.358	614.3	0.4584
7	44.907	643.3	0.3902	45.613	624.3	0.3951
8	42.960	654.2	0.3423	43.782	635.0	0.3480
9	32.636	633.3	0.3037	33.346	624.8	0.3093
10	8.990	578.2	0.2811	9.162	576.7	0.2860

Table 4-161. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D9

Assembly Number D9									
Node No.	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.069	617.5	0.7396	2.721	642.3	0.7396
2	0.000		0.7396	4.793	862.3	0.7396	11.673	978.4	0.7396
3	0.000	Data Not	0.7085	6.977	998.3	0.7216	15.583	1070.5	0.7046
4	0.000	Required	0.5775	7.677	1015.0	0.6040	16.113	1013.7	0.5783
5	0.000		0.4785	7.601	1009.0	0.4930	15.910	1004.6	0.4684
6	0.000		0.4149	7.641	1012.2	0.4132	15.986	1007.2	0.3899
7	0.000		0.3609	7.602	1009.2	0.3444	16.061	1015.3	0.3218
8	0.000		0.3206	6.908	956.6	0.2989	15.238	1006.1	0.2750
9	0.000		0.2879	5.150	838.3	0.2655	11.585	884.3	0.2392
10	0.000		0.2761	1.524	633.4	0.2520	3.559	649.4	0.2244

Node No.	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.824	634.2	0.7396	5.606	631.0	0.7396	6.433	630.3	0.7396
2	16.530	956.9	0.7396	23.340	875.7	0.7396	26.237	841.7	0.7396
3	22.011	1035.4	0.6964	30.107	886.9	0.6954	33.781	875.0	0.6969
4	22.881	1069.4	0.5689	31.196	897.9	0.5774	35.299	921.1	0.5826
5	22.492	1050.6	0.4592	31.196	917.7	0.4761	35.438	936.7	0.4816
6	22.029	998.0	0.3832	31.055	934.5	0.4033	35.273	934.0	0.4078
7	21.313	925.7	0.3188	30.422	938.9	0.3389	34.500	918.3	0.3426
8	19.660	855.7	0.2746	28.331	916.1	0.2932	32.067	881.5	0.2965
9	14.734	760.2	0.2407	21.228	812.8	0.2568	23.849	772.9	0.2599
10	4.352	607.2	0.2264	6.016	618.6	0.2402	6.701	611.6	0.2433



Table 4-161. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D9

Assembly Number D9									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.894	604.8	0.7396	6.918	587.4	0.7396	7.218	594.0	0.7396
2	27.907	739.2	0.7396	27.986	656.5	0.7396	28.931	674.8	0.7396
3	36.053	774.9	0.6995	36.152	665.6	0.6996	37.236	674.6	0.7012
4	38.166	842.2	0.5899	38.286	690.6	0.5904	39.495	688.7	0.5953
5	38.571	874.1	0.4904	38.719	722.9	0.4913	40.096	708.2	0.4995
6	38.546	891.4	0.4161	38.710	743.2	0.4172	40.206	722.2	0.4272
7	38.040	925.7	0.3507	38.202	741.1	0.3518	39.726	725.5	0.3621
8	35.484	909.8	0.3031	35.629	720.6	0.3041	37.070	715.5	0.3139
9	26.227	788.3	0.2650	26.329	670.2	0.2658	27.380	671.3	0.2749
10	7.322	614.8	0.2479	7.346	586.2	0.2487	7.601	587.2	0.2564

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.462	585.2	0.7396	7.643	580.5	0.7396	7.734	576.4	0.7396
2	29.674	641.4	0.7396	30.217	625.1	0.7396	30.483	610.8	0.7396
3	38.083	641.6	0.7024	38.693	625.1	0.7033	38.985	610.1	0.7037
4	40.466	654.0	0.5991	41.170	635.2	0.6017	41.506	617.8	0.6030
5	41.251	672.6	0.5065	42.105	651.7	0.5114	42.528	632.7	0.5138
6	41.530	690.1	0.4369	42.548	670.2	0.4442	43.076	651.2	0.4480
7	41.204	706.5	0.3736	42.391	689.5	0.3833	43.052	675.4	0.3887
8	38.620	714.3	0.3263	39.908	701.6	0.3373	40.687	697.4	0.3443
9	28.605	680.1	0.2870	29.683	677.3	0.2984	30.386	683.4	0.3064
10	7.900	589.3	0.2668	8.170	589.4	0.2768	8.349	591.3	0.2838

**Table 4-161. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D9**

Assembly Number D9						
Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.878	577.3	0.7396	8.129	584.5	0.7396
2	30.933	617.4	0.7396	31.676	636.9	0.7396
3	39.531	622.6	0.7044	40.372	636.7	0.7054
4	42.160	634.9	0.6054	43.087	644.8	0.6085
5	43.308	649.7	0.5181	44.358	656.4	0.5236
6	43.970	663.4	0.4541	45.132	667.1	0.4615
7	44.121	684.9	0.3970	45.392	677.8	0.4058
8	41.935	707.4	0.3543	43.325	689.5	0.3643
9	31.333	670.3	0.3156	32.430	661.1	0.3254
10	8.555	584.4	0.2910	8.807	583.8	0.2992

Table 4-162. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D10

Assembly Number D10									
	Datapoint 3 (BOC Cy 10)			Datapoint 4 (222 EFPD Cy 10)			Datapoint 5 (BOC Cy 11)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 10	BOC Cy 10	BOC Cy 10	222 Cy 10	222 Cy 10	222 Cy 10	BOC Cy 11	BOC Cy 11	BOC Cy 11
1	0.000		0.7396	1.067	617.4	0.7396	2.743	643.6	0.7396
2	0.000		0.7396	4.773	860.9	0.7396	11.774	987.8	0.7396
3	0.000	Data Not	0.7178	7.041	1003.3	0.7203	15.802	1083.0	0.7009
4	0.000	Required	0.5948	7.859	1029.4	0.5996	16.434	1023.6	0.5725
5	0.000		0.4949	7.749	1020.6	0.4888	16.307	1022.4	0.4626
6	0.000		0.4285	7.695	1016.4	0.4113	16.340	1028.6	0.3851
7	0.000		0.3714	7.598	1008.9	0.3440	16.312	1033.7	0.3181
8	0.000		0.3281	6.810	949.5	0.2985	15.405	1025.0	0.2711
9	0.000		0.2911	4.757	813.5	0.2662	11.308	892.0	0.2357
10	0.000		0.2776	1.386	626.7	0.2535	3.416	649.2	0.2213

	Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12
1	3.829	633.0	0.7396	5.557	628.7	0.7396	6.040	599.9	0.7396
2	16.538	947.3	0.7396	23.103	862.1	0.7396	24.876	720.5	0.7396
3	22.078	1020.4	0.6950	29.871	871.9	0.6957	32.120	737.9	0.6994
4	23.029	1051.9	0.5670	31.114	886.4	0.5781	33.621	760.9	0.5883
5	22.711	1032.8	0.4575	31.249	909.2	0.4770	33.958	779.4	0.4913
6	22.234	983.9	0.3819	31.129	927.7	0.4044	33.983	793.2	0.4196
7	21.533	922.8	0.3176	30.576	935.4	0.3397	34.302	881.2	0.3566
8	19.916	862.9	0.2728	28.612	917.4	0.2933	33.079	962.4	0.3093
9	14.556	767.3	0.2388	21.160	817.8	0.2571	24.446	837.8	0.2691
10	4.230	608.4	0.2246	5.934	620.0	0.2404	6.776	623.4	0.2506

Table 4-162. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D10

Assembly Number D10									
Node No.	Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	6.490	603.7	0.7396	6.506	577.9	0.7396	6.897	604.9	0.7396
2	26.566	741.6	0.7396	26.636	645.0	0.7396	27.948	724.7	0.7396
3	34.583	795.9	0.7021	34.737	731.0	0.7023	36.352	736.5	0.7044
4	36.500	843.6	0.5948	36.695	782.5	0.5955	38.460	754.9	0.6012
5	36.952	857.3	0.4989	37.163	803.5	0.4998	39.064	772.0	0.5078
6	37.137	876.7	0.4269	37.347	802.4	0.4278	39.289	777.3	0.4361
7	37.702	907.6	0.3628	37.891	775.5	0.3636	39.731	764.3	0.3709
8	36.533	914.4	0.3146	36.694	738.7	0.3152	38.325	738.5	0.3216
9	27.053	814.1	0.2737	27.161	677.4	0.2743	28.300	681.3	0.2802
10	7.481	622.1	0.2549	7.507	588.2	0.2554	7.786	589.7	0.2607

Node No.	Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	7.257	597.9	0.7396	7.512	589.4	0.7396	7.636	582.7	0.7396
2	29.097	690.1	0.7396	29.886	657.1	0.7396	30.260	632.8	0.7396
3	37.686	691.3	0.7062	38.588	656.9	0.7073	39.006	631.9	0.7078
4	39.983	711.5	0.6066	41.021	672.4	0.6103	41.510	644.3	0.6120
5	40.804	735.4	0.5164	42.045	695.9	0.5230	42.660	666.9	0.5263
6	41.152	749.2	0.4461	42.570	717.1	0.4547	43.326	693.1	0.4597
7	41.599	749.8	0.3803	43.137	731.7	0.3897	44.030	719.5	0.3959
8	40.088	737.8	0.3301	41.639	733.4	0.3393	42.615	735.9	0.3458
9	29.599	688.0	0.2882	30.814	693.4	0.2970	31.628	704.5	0.3035
10	8.105	591.2	0.2679	8.408	592.8	0.2756	8.613	595.6	0.2814

Table 4-162. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly D10

Assembly Number D10						
Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.728	570.7	0.7396	7.871	573.5	0.7396
2	30.544	595.4	0.7396	30.962	602.0	0.7396
3	39.339	598.4	0.7082	39.799	602.2	0.7087
4	41.910	606.0	0.6134	42.419	606.5	0.6150
5	43.147	615.8	0.5289	43.734	613.5	0.5318
6	43.897	625.3	0.4633	44.566	621.0	0.4673
7	44.683	634.7	0.4001	45.432	628.2	0.4048
8	43.325	641.4	0.3503	44.137	634.0	0.3552
9	32.185	623.9	0.3077	32.849	620.6	0.3127
10	8.739	575.5	0.2848	8.895	575.3	0.2891

Table 4-163. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E1

Assembly Number E1									
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	1.059	631.5	0.7396	3.128	643.7	0.7396
2	0.000		0.7357	4.912	926.7	0.7355	13.840	963.9	0.7331
3	0.000	Data Not	0.6245	7.136	1112.6	0.6597	18.126	1048.0	0.6519
4	0.000	Required	0.4774	7.692	1173.5	0.5110	18.478	1035.9	0.5162
5	0.000		0.3866	7.677	1172.0	0.3968	18.803	1056.2	0.4171
6	0.000		0.3316	6.946	1092.3	0.3260	18.305	1070.4	0.3508
7	0.000		0.2895	5.903	988.1	0.2727	17.239	1069.0	0.2954
8	0.000		0.2638	4.648	876.4	0.2399	15.092	1016.0	0.2572
9	0.000		0.2477	3.577	792.1	0.2186	11.719	892.9	0.2290
10	0.000		0.2407	1.038	622.1	0.2091	3.421	645.1	0.2164

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	4.094	643.5	0.7396	4.948	646.6	0.7396	5.003	626.0	0.7396
2	17.696	925.0	0.7337	21.038	931.6	0.7340	21.260	840.6	0.7341
3	23.026	1017.5	0.6563	27.286	1028.2	0.6586	27.597	956.9	0.6590
4	23.486	1031.0	0.5226	27.786	1034.1	0.5256	28.131	1012.8	0.5262
5	23.863	1037.6	0.4217	28.125	1028.5	0.4239	28.479	1028.9	0.4245
6	23.237	1021.5	0.3541	27.377	1010.7	0.3557	27.715	1000.3	0.3561
7	21.936	992.7	0.2975	25.946	992.3	0.2986	26.250	943.3	0.2990
8	19.326	938.7	0.2586	23.000	946.2	0.2594	23.256	869.5	0.2597
9	14.814	818.9	0.2307	17.507	824.7	0.2314	17.678	754.0	0.2317
10	4.334	629.4	0.2184	5.138	631.5	0.2192	5.184	609.8	0.2195

Table 4-163. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E1

Assembly Number E1									
Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.712	644.8	0.7396	6.391	634.3	0.7396	6.923	624.2	0.7396
2	23.833	890.6	0.7345	26.191	830.3	0.7351	27.973	780.4	0.7356
3	30.751	952.9	0.6619	33.683	884.2	0.6657	35.877	819.4	0.6692
4	31.390	970.0	0.5313	34.607	923.8	0.5388	37.042	853.8	0.5460
5	31.814	982.4	0.4292	35.218	950.7	0.4370	37.899	890.5	0.4458
6	30.939	964.3	0.3601	34.281	941.8	0.3668	37.063	906.1	0.3753
7	29.248	928.5	0.3024	32.427	918.5	0.3081	35.231	909.4	0.3154
8	25.881	872.5	0.2627	28.766	878.0	0.2678	31.417	886.0	0.2741
9	19.480	761.6	0.2346	21.529	773.0	0.2391	23.488	788.2	0.2446
10	5.678	611.9	0.2223	6.246	615.1	0.2266	6.803	620.0	0.2317

Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.198	612.9	0.7396	7.475	594.8	0.7396	7.740	586.1	0.7396
2	28.862	731.9	0.7359	29.757	671.5	0.7363	30.560	638.2	0.7366
3	36.942	755.2	0.6713	38.052	690.8	0.6738	38.978	645.1	0.6757
4	38.270	789.7	0.5511	39.551	712.7	0.5574	40.612	658.0	0.5625
5	39.350	839.3	0.4525	40.817	737.3	0.4620	42.087	678.4	0.4705
6	38.670	876.2	0.3821	40.253	753.0	0.3930	41.694	695.5	0.4043
7	36.968	907.9	0.3217	38.651	767.0	0.3329	40.255	712.1	0.3463
8	33.175	913.3	0.2798	34.883	770.4	0.2909	36.625	726.5	0.3058
9	24.853	820.7	0.2495	26.163	716.8	0.2598	27.673	702.7	0.2753
10	7.197	628.4	0.2362	7.553	601.3	0.2453	7.978	599.4	0.2595

Table 4-164. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E2

Assembly Number E2									
Node No.	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	1.054	631.2	0.7396	2.876	633.1	0.7396
2	0.000		0.7393	4.858	921.7	0.7364	12.818	909.4	0.7356
3	0.000	Data Not	0.6432	6.931	1090.6	0.6660	16.877	987.5	0.6655
4	0.000	Required	0.5000	7.241	1123.5	0.5228	17.174	986.8	0.5376
5	0.000		0.4076	7.124	1110.9	0.4113	17.462	1009.7	0.4403
6	0.000		0.3507	6.476	1043.9	0.3410	17.028	1022.1	0.3733
7	0.000		0.3066	5.614	961.0	0.2869	16.157	1021.6	0.3157
8	0.000		0.2794	4.520	865.7	0.2527	14.289	977.7	0.2757
9	0.000		0.2622	3.498	786.2	0.2303	11.209	871.2	0.2462
10	0.000		0.2547	1.015	620.7	0.2203	3.275	640.6	0.2328

Node No.	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.861	645.2	0.7396	4.716	646.7	0.7396	4.773	628.5	0.7396
2	16.780	937.7	0.7355	20.138	933.8	0.7354	20.360	841.7	0.7355
3	21.873	1029.5	0.6662	26.145	1030.0	0.6667	26.434	920.0	0.6670
4	22.290	1044.7	0.5378	26.651	1043.1	0.5379	26.976	978.8	0.5386
5	22.654	1054.5	0.4381	27.027	1045.0	0.4371	27.381	1027.1	0.4376
6	22.133	1043.4	0.3698	26.431	1033.8	0.3680	26.778	1015.8	0.3684
7	21.090	1021.7	0.3114	25.325	1024.5	0.3092	25.644	968.3	0.3095
8	18.798	970.5	0.2708	22.736	982.3	0.2682	23.010	897.1	0.2684
9	14.562	844.9	0.2420	17.497	853.3	0.2396	17.680	770.0	0.2398
10	4.279	636.4	0.2290	5.174	639.8	0.2266	5.223	613.0	0.2268



Table 4-164. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E2

Assembly Number E2									
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.436	638.9	0.7396	6.170	640.8	0.7396	6.763	632.0	0.7396
2	22.794	869.0	0.7359	25.391	863.2	0.7362	27.410	814.7	0.7365
3	29.469	934.2	0.6697	32.752	933.5	0.6721	35.246	862.4	0.6740
4	30.263	974.6	0.5433	33.893	984.9	0.5476	36.583	891.7	0.5519
5	30.858	1006.1	0.4416	34.673	1013.4	0.4451	37.562	922.7	0.4508
6	30.180	993.5	0.3713	33.885	996.3	0.3738	36.961	953.0	0.3800
7	28.823	957.1	0.3115	32.287	959.8	0.3134	35.593	991.3	0.3193
8	25.806	898.0	0.2702	28.869	902.4	0.2717	31.887	943.6	0.2759
9	19.580	774.3	0.2414	21.685	779.8	0.2429	23.821	812.6	0.2460
10	5.741	614.4	0.2285	6.326	616.7	0.2301	6.936	625.7	0.2330

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.108	627.1	0.7396	7.409	597.9	0.7396	7.662	584.9	0.7396
2	28.524	782.3	0.7367	29.510	683.6	0.7370	30.282	635.1	0.7373
3	36.563	809.1	0.6755	37.815	708.9	0.6781	38.710	642.2	0.6799
4	38.027	838.0	0.5555	39.466	733.4	0.5622	40.496	655.1	0.5670
5	39.184	880.0	0.4555	40.804	758.0	0.4649	42.038	674.9	0.4730
6	38.751	921.6	0.3850	40.458	770.2	0.3953	41.855	691.0	0.4060
7	37.621	984.2	0.3241	39.378	777.3	0.3341	40.924	706.2	0.3467
8	33.988	1004.4	0.2800	35.731	775.4	0.2899	37.420	720.9	0.3043
9	25.403	871.7	0.2491	26.726	718.6	0.2582	28.250	704.0	0.2743
10	7.404	641.4	0.2357	7.767	602.2	0.2439	8.207	600.6	0.2588

Table 4-165. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E3

Assembly Number E3									
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	1.008	627.9	0.7396	2.992	640.0	0.7396
2	0.000		0.7360	4.681	905.2	0.7367	13.368	950.0	0.7342
3	0.000	Data Not	0.6261	6.891	1086.6	0.6667	17.750	1040.2	0.6573
4	0.000	Required	0.4793	7.477	1149.5	0.5204	18.256	1035.5	0.5225
5	0.000		0.3884	7.459	1147.4	0.4060	18.622	1058.5	0.4222
6	0.000		0.3332	6.750	1071.9	0.3349	18.124	1071.3	0.3554
7	0.000		0.2908	5.792	977.6	0.2810	17.140	1069.7	0.2992
8	0.000		0.2650	4.683	879.3	0.2476	15.182	1019.2	0.2602
9	0.000		0.2488	3.657	798.2	0.2254	11.907	898.4	0.2316
10	0.000		0.2417	1.072	624.2	0.2151	3.498	646.7	0.2187

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.789	628.0	0.7396	4.436	624.5	0.7396	4.501	638.8	0.7396
2	16.563	850.0	0.7353	19.053	820.1	0.7360	19.312	900.5	0.7360
3	21.704	907.2	0.6649	24.797	871.3	0.6704	25.136	1002.9	0.6705
4	22.350	922.6	0.5371	25.581	888.5	0.5479	25.934	1026.8	0.5480
5	22.840	936.7	0.4373	26.177	901.7	0.4489	26.532	1031.5	0.4489
6	22.301	932.0	0.3688	25.626	900.3	0.3795	25.964	999.1	0.3794
7	21.185	917.2	0.3107	24.458	893.7	0.3203	24.763	945.4	0.3202
8	18.914	883.3	0.2704	21.991	869.4	0.2790	22.254	881.3	0.2789
9	14.671	786.9	0.2408	16.993	782.3	0.2485	17.173	766.4	0.2485
10	4.270	618.6	0.2273	4.933	619.0	0.2348	4.983	613.0	0.2349

Table 4-165. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E3

Assembly Number E3									
Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.227	647.0	0.7396	5.924	636.4	0.7396	6.494	629.0	0.7396
2	21.991	907.5	0.7362	24.466	846.3	0.7366	26.417	804.8	0.7370
3	28.380	967.4	0.6719	31.462	904.9	0.6747	33.861	848.6	0.6775
4	29.248	978.9	0.5501	32.599	943.2	0.5553	35.206	879.2	0.5610
5	29.921	991.2	0.4504	33.446	968.9	0.4552	36.263	911.5	0.4617
6	29.251	974.6	0.3804	32.701	957.7	0.3842	35.595	923.6	0.3900
7	27.834	939.9	0.3208	31.084	928.6	0.3238	33.973	922.8	0.3286
8	24.980	887.3	0.2795	27.895	882.1	0.2820	30.615	896.5	0.2860
9	19.076	774.5	0.2493	21.135	774.2	0.2517	23.145	795.0	0.2551
10	5.507	615.0	0.2358	6.080	615.5	0.2383	6.657	622.1	0.2416

Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.802	619.6	0.7396	7.076	594.4	0.7396	7.540	607.0	0.7396
2	27.430	759.1	0.7374	28.370	677.2	0.7377	29.853	710.4	0.7382
3	35.069	785.3	0.6796	36.296	705.6	0.6821	38.064	729.3	0.6853
4	36.556	816.5	0.5654	38.028	738.0	0.5722	39.955	746.3	0.5794
5	37.825	865.1	0.4673	39.531	770.1	0.4771	41.627	765.0	0.4868
6	37.308	902.0	0.3955	39.112	784.0	0.4061	41.279	772.8	0.4165
7	35.810	933.4	0.3335	37.719	799.1	0.3439	39.916	776.2	0.3539
8	32.453	933.9	0.2900	34.421	807.8	0.3001	36.626	777.0	0.3099
9	24.566	833.5	0.2585	26.022	736.4	0.2673	27.727	723.1	0.2764
10	7.073	632.3	0.2447	7.460	604.8	0.2524	7.935	603.8	0.2610

Table 4-166. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E4

Assembly Number E4									
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.873	618.3	0.7396	2.808	637.9	0.7396
2	0.000		0.7396	4.061	881.4	0.7396	12.646	984.9	0.7358
3	0.000	Data Not	0.6565	6.138	1010.7	0.6861	17.040	1042.8	0.6676
4	0.000	Required	0.5141	7.096	1108.0	0.5542	17.711	1025.9	0.5398
5	0.000		0.4179	7.325	1132.7	0.4344	18.130	1037.0	0.4372
6	0.000		0.3578	6.665	1063.1	0.3557	17.625	1046.2	0.3666
7	0.000		0.3116	5.678	967.0	0.2963	16.550	1041.0	0.3080
8	0.000		0.2836	4.418	857.4	0.2604	14.341	986.4	0.2682
9	0.000		0.2663	3.422	780.5	0.2375	11.153	872.3	0.2397
10	0.000		0.2587	0.993	619.4	0.2272	3.237	640.0	0.2269

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.846	650.1	0.7396	4.714	648.1	0.7396	4.774	632.4	0.7396
2	16.753	955.4	0.7355	19.987	917.1	0.7356	20.216	853.1	0.7357
3	21.886	1010.8	0.6676	25.759	973.0	0.6692	26.057	935.0	0.6695
4	22.424	994.6	0.5411	26.324	976.8	0.5442	26.646	974.3	0.5447
5	22.884	999.5	0.4388	26.850	986.1	0.4419	27.185	995.0	0.4424
6	22.397	1001.8	0.3680	26.380	988.5	0.3708	26.702	973.2	0.3711
7	21.329	1002.6	0.3086	25.363	995.6	0.3106	25.659	930.4	0.3110
8	18.875	973.4	0.2678	22.804	980.8	0.2689	23.073	889.2	0.2692
9	14.594	854.0	0.2390	17.651	868.0	0.2395	17.840	778.3	0.2398
10	4.228	635.4	0.2263	5.152	642.5	0.2267	5.205	616.7	0.2269

Table 4-166. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E4

Assembly Number E4									
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.408	635.3	0.7396	6.084	634.0	0.7396	6.722	637.8	0.7396
2	22.533	851.1	0.7362	24.957	839.0	0.7366	27.169	843.5	0.7369
3	28.976	916.3	0.6724	32.124	914.1	0.6752	34.895	904.3	0.6772
4	29.778	949.4	0.5499	33.246	960.5	0.5549	36.180	929.9	0.5587
5	30.474	974.9	0.4473	34.099	983.9	0.4520	37.166	951.3	0.4560
6	29.909	961.6	0.3752	33.413	965.7	0.3790	36.494	953.8	0.3826
7	28.680	932.1	0.3143	31.927	928.1	0.3174	34.943	943.1	0.3204
8	25.835	892.7	0.2722	28.696	874.8	0.2750	31.482	906.6	0.2774
9	19.805	782.6	0.2425	21.774	763.5	0.2451	23.786	795.4	0.2473
10	5.762	618.5	0.2297	6.319	614.0	0.2323	6.909	623.5	0.2345

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.108	635.6	0.7396	7.298	583.4	0.7396	7.616	591.6	0.7396
2	28.439	818.8	0.7371	29.060	635.8	0.7374	30.036	655.9	0.7377
3	36.409	853.9	0.6787	37.194	650.9	0.6804	38.318	664.0	0.6825
4	37.803	880.0	0.5619	38.768	672.7	0.5667	40.019	676.5	0.5724
5	38.960	922.5	0.4597	40.146	700.5	0.4682	41.598	696.6	0.4776
6	38.414	955.1	0.3860	39.747	719.4	0.3971	41.350	712.1	0.4089
7	36.961	981.5	0.3233	38.393	732.6	0.3355	40.112	724.1	0.3486
8	33.459	970.5	0.2798	34.897	733.4	0.2922	36.650	727.7	0.3056
9	25.270	848.5	0.2492	26.373	690.0	0.2606	27.769	691.1	0.2734
10	7.354	637.2	0.2362	7.646	594.1	0.2460	8.031	595.8	0.2577

Table 4-167. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E5

Assembly Number E5									
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.945	623.4	0.7396	2.651	628.2	0.7396
2	0.000		0.7396	4.338	908.2	0.7386	11.851	885.3	0.7375
3	0.000	Data Not	0.6639	6.284	1024.8	0.6812	15.848	966.3	0.6778
4	0.000	Required	0.5258	6.865	1083.5	0.5493	16.447	967.2	0.5568
5	0.000		0.4302	6.929	1090.3	0.4351	16.876	987.5	0.4575
6	0.000		0.3697	6.341	1030.4	0.3600	16.512	1000.2	0.3879
7	0.000		0.3225	5.462	947.2	0.3020	15.626	999.8	0.3283
8	0.000		0.2935	4.330	850.3	0.2661	13.694	955.5	0.2871
9	0.000		0.2752	3.352	775.3	0.2428	10.740	855.4	0.2568
10	0.000		0.2672	0.970	618.1	0.2324	3.129	636.9	0.2431

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.652	646.7	0.7396	4.511	647.1	0.7396	4.580	644.0	0.7396
2	15.893	947.6	0.7369	19.172	923.1	0.7367	19.437	909.6	0.7367
3	20.688	1010.0	0.6759	24.645	984.8	0.6758	24.975	986.6	0.6759
4	21.149	993.3	0.5549	25.096	983.4	0.5553	25.432	996.7	0.5554
5	21.593	995.0	0.4553	25.573	988.1	0.4554	25.907	993.3	0.4555
6	21.216	993.5	0.3853	25.197	988.1	0.3850	25.511	959.5	0.3850
7	20.296	989.4	0.3250	24.315	993.4	0.3240	24.599	913.2	0.3241
8	18.070	954.9	0.2830	21.963	976.0	0.2812	22.212	859.1	0.2813
9	14.059	841.4	0.2530	17.087	864.5	0.2509	17.262	759.0	0.2510
10	4.084	632.7	0.2396	4.997	641.4	0.2374	5.045	611.4	0.2375

Table 4-167. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E5

Assembly Number E5									
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.266	641.9	0.7396	5.853	623.7	0.7396	6.296	612.9	0.7396
2	21.933	878.7	0.7370	23.972	788.1	0.7376	25.447	738.1	0.7381
3	27.948	924.5	0.6776	30.431	825.2	0.6814	32.213	763.9	0.6847
4	28.485	936.9	0.5590	31.272	864.7	0.5670	33.310	798.0	0.5748
5	29.049	951.1	0.4590	32.111	902.0	0.4682	34.446	839.3	0.4783
6	28.567	937.5	0.3879	31.638	903.2	0.3960	34.116	860.1	0.4058
7	27.472	909.1	0.3266	30.424	886.9	0.3334	32.959	868.4	0.3421
8	24.805	867.9	0.2837	27.526	856.0	0.2897	29.998	859.2	0.2974
9	19.121	768.8	0.2533	21.114	766.2	0.2586	23.032	782.5	0.2654
10	5.558	613.9	0.2398	6.114	613.8	0.2448	6.667	619.5	0.2512

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.529	604.4	0.7396	6.808	595.0	0.7396	7.262	606.0	0.7396
2	26.198	703.2	0.7383	27.165	680.8	0.7387	28.632	708.5	0.7391
3	33.102	719.6	0.6866	34.364	710.3	0.6890	36.102	726.1	0.6920
4	34.346	749.3	0.5794	35.852	742.7	0.5861	37.731	741.1	0.5930
5	35.707	796.9	0.4851	37.444	774.3	0.4946	39.496	760.0	0.5040
6	35.555	836.8	0.4133	37.373	785.9	0.4234	39.506	768.9	0.4334
7	34.541	870.2	0.3490	36.381	789.1	0.3585	38.547	772.6	0.3683
8	31.627	881.5	0.3036	33.400	779.5	0.3124	35.520	767.5	0.3218
9	24.350	810.0	0.2709	25.649	715.4	0.2786	27.267	714.0	0.2871
10	7.056	627.5	0.2563	7.398	599.7	0.2630	7.841	601.0	0.2709

**Table 4-168. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E6**

Assembly Number E6									
Node No.	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	1.129	636.5	0.7396	3.136	641.0	0.7396
2	0.000		0.7192	5.162	950.5	0.7343	13.688	940.9	0.7334
3	0.000	Data Not	0.5667	7.435	1145.2	0.6520	17.887	1016.3	0.6529
4	0.000	Required	0.4226	8.004	1209.4	0.4966	18.517	1019.9	0.5154
5	0.000		0.3423	7.992	1208.1	0.3820	19.212	1062.0	0.4141
6	0.000		0.2942	7.255	1125.5	0.3128	19.074	1098.9	0.3472
7	0.000		0.2565	6.089	1006.1	0.2614	18.224	1119.0	0.2916
8	0.000		0.2322	4.628	874.9	0.2306	16.056	1074.8	0.2529
9	0.000		0.2162	3.438	781.7	0.2115	12.484	940.0	0.2240
10	0.000		0.2093	1.007	620.3	0.2027	3.749	658.4	0.2110

Node No.	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.973	631.7	0.7396	4.666	629.3	0.7396	4.733	641.4	0.7396
2	17.019	865.1	0.7345	19.670	840.0	0.7352	19.925	894.2	0.7352
3	22.020	927.0	0.6607	25.313	896.3	0.6661	25.632	969.1	0.6664
4	22.769	940.4	0.5297	26.170	910.1	0.5399	26.501	987.7	0.5403
5	23.550	950.3	0.4283	27.013	917.9	0.4391	27.346	992.5	0.4394
6	23.332	941.2	0.3597	26.741	911.1	0.3694	27.057	964.4	0.3697
7	22.328	923.8	0.3023	25.656	900.7	0.3110	25.947	922.0	0.3112
8	19.855	890.5	0.2626	22.984	875.8	0.2705	23.247	879.2	0.2708
9	15.310	792.7	0.2330	17.678	787.5	0.2404	17.865	774.3	0.2406
10	4.553	621.0	0.2196	5.244	621.4	0.2267	5.294	614.5	0.2269



Table 4-168. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E6

Assembly Number E6									
Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.407	640.3	0.7396	6.035	628.4	0.7396	6.566	624.0	0.7396
2	22.365	870.0	0.7357	24.562	808.6	0.7363	26.361	782.8	0.7369
3	28.588	922.0	0.6692	31.340	859.9	0.6732	33.570	824.5	0.6766
4	29.583	941.6	0.5454	32.658	903.8	0.5532	35.122	858.1	0.5601
5	30.543	959.9	0.4444	33.845	936.0	0.4524	36.530	891.0	0.4603
6	30.176	947.3	0.3739	33.434	929.8	0.3807	36.198	903.1	0.3879
7	28.896	921.0	0.3147	31.987	905.9	0.3204	34.753	903.5	0.3264
8	25.952	884.2	0.2738	28.753	866.6	0.2787	31.388	883.5	0.2840
9	19.818	781.1	0.2435	21.821	767.4	0.2479	23.805	791.5	0.2526
10	5.840	617.3	0.2298	6.400	614.3	0.2340	6.978	622.2	0.2385

Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.873	619.4	0.7396	7.110	589.5	0.7396	7.484	597.5	0.7396
2	27.363	756.7	0.7372	28.157	658.1	0.7375	29.331	676.7	0.7379
3	34.773	784.3	0.6787	35.782	678.1	0.6809	37.160	689.0	0.6836
4	36.459	813.6	0.5645	37.674	704.2	0.5705	39.194	703.5	0.5773
5	38.064	858.9	0.4659	39.506	733.9	0.4754	41.209	722.4	0.4854
6	37.882	894.9	0.3934	39.444	750.1	0.4045	41.255	733.9	0.4160
7	36.558	925.2	0.3314	38.215	763.3	0.3428	40.103	742.1	0.3546
8	33.198	926.7	0.2882	34.876	766.1	0.2993	36.784	744.3	0.3111
9	25.217	831.4	0.2562	26.490	712.0	0.2663	28.003	703.1	0.2775
10	7.398	633.0	0.2419	7.736	599.2	0.2505	8.156	598.9	0.2607

Table 4-169. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E7

Assembly Number E7									
Node No.	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.822	614.7	0.7396	2.625	632.3	0.7396
2	0.000		0.7396	3.854	861.8	0.7396	12.058	961.4	0.7370
3	0.000	Data Not	0.6849	5.849	983.0	0.6896	16.459	1025.6	0.6736
4	0.000	Required	0.5529	6.582	1054.3	0.5669	16.949	1011.5	0.5506
5	0.000		0.4537	6.737	1070.1	0.4556	17.264	1020.7	0.4509
6	0.000		0.3891	6.256	1021.9	0.3781	16.812	1022.4	0.3806
7	0.000		0.3387	5.526	953.0	0.3167	15.879	1010.7	0.3211
8	0.000		0.3083	4.269	845.4	0.2776	13.622	954.9	0.2805
9	0.000		0.2895	3.195	763.9	0.2528	10.368	845.3	0.2517
10	0.000		0.2814	0.905	614.2	0.2419	2.934	632.2	0.2387

Node No.	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.464	631.9	0.7396	4.147	628.3	0.7396	4.173	590.0	0.7396
2	15.485	875.7	0.7374	18.137	840.3	0.7377	18.244	684.5	0.7378
3	20.649	933.3	0.6773	23.895	890.4	0.6808	24.044	725.7	0.6812
4	21.237	944.5	0.5581	24.602	905.4	0.5652	24.789	773.6	0.5664
5	21.650	955.9	0.4581	25.109	917.6	0.4659	25.419	958.0	0.4679
6	21.131	948.1	0.3868	24.563	914.1	0.3939	24.963	1112.1	0.3957
7	20.049	931.1	0.3263	23.414	905.5	0.3325	23.769	1030.7	0.3334
8	17.481	896.9	0.2848	20.654	881.4	0.2903	20.949	928.8	0.2909
9	13.230	796.2	0.2555	15.631	791.2	0.2604	15.825	783.7	0.2608
10	3.711	619.0	0.2424	4.383	619.8	0.2471	4.433	614.0	0.2475

Table 4-169. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E7

Assembly Number E7									
Node No.	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.769	630.5	0.7396	5.242	610.7	0.7396	5.726	618.1	0.7396
2	20.475	838.1	0.7379	22.220	750.8	0.7383	23.978	776.7	0.7386
3	26.855	899.8	0.6825	29.093	794.8	0.6852	31.464	844.7	0.6876
4	27.854	939.1	0.5697	30.367	828.9	0.5763	32.969	878.5	0.5809
5	28.667	968.1	0.4709	31.379	854.7	0.4797	34.174	908.0	0.4848
6	28.203	966.9	0.3984	30.912	854.2	0.4073	33.790	921.0	0.4119
7	26.951	957.5	0.3357	30.087	913.1	0.3462	33.089	940.7	0.3502
8	23.742	897.4	0.2921	27.000	929.9	0.3018	29.795	908.1	0.3046
9	17.728	774.6	0.2618	20.074	809.3	0.2693	22.110	798.7	0.2715
10	4.944	613.6	0.2485	5.574	621.0	0.2550	6.152	622.2	0.2571

Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.055	623.9	0.7396	6.471	613.3	0.7396	7.129	628.0	0.7396
2	25.105	784.8	0.7389	26.524	744.2	0.7393	28.726	794.3	0.7396
3	32.815	816.4	0.6892	34.630	785.7	0.6918	37.448	849.7	0.6938
4	34.432	842.3	0.5842	36.585	835.7	0.5897	39.808	901.3	0.5933
5	35.811	883.2	0.4888	38.307	889.9	0.4953	41.819	940.2	0.4985
6	35.544	912.4	0.4156	38.155	908.8	0.4215	41.691	943.4	0.4237
7	34.914	930.3	0.3531	37.461	898.2	0.3576	40.814	918.5	0.3589
8	31.614	928.7	0.3069	33.969	867.2	0.3107	37.031	880.4	0.3117
9	23.515	829.9	0.2735	25.222	771.0	0.2768	27.469	782.7	0.2779
10	6.563	631.4	0.2590	7.044	615.5	0.2622	7.707	620.9	0.2634

Table 4-170. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E8

Assembly Number E8									
Node No.	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.701	606.3	0.7396	2.141	617.0	0.7396
2	0.000		0.7396	3.278	809.0	0.7396	9.879	867.3	0.7396
3	0.000	Data Not	0.7025	4.969	903.6	0.7068	13.837	928.9	0.6998
4	0.000	Required	0.5805	5.709	969.5	0.6055	14.783	939.8	0.5968
5	0.000		0.4810	5.964	993.5	0.5023	15.446	961.8	0.4986
6	0.000		0.4133	5.671	966.0	0.4221	15.232	966.1	0.4240
7	0.000		0.3599	5.265	929.4	0.3551	14.696	959.0	0.3589
8	0.000		0.3272	4.147	835.7	0.3094	12.748	915.0	0.3132
9	0.000		0.3070	3.110	757.8	0.2805	9.816	823.1	0.2810
10	0.000		0.2982	0.869	612.1	0.2678	2.776	627.8	0.2665

Node No.	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.147	647.2	0.7396	3.950	641.1	0.7396	3.990	607.2	0.7396
2	14.102	1011.7	0.7388	17.311	913.4	0.7384	17.465	744.4	0.7385
3	18.961	1045.7	0.6893	22.972	992.3	0.6872	23.175	795.8	0.6877
4	19.827	1035.6	0.5801	23.957	1009.3	0.5758	24.199	849.4	0.5767
5	20.495	1036.2	0.4811	24.696	1019.6	0.4756	24.977	906.7	0.4767
6	20.215	1027.9	0.4075	24.398	1017.0	0.4017	24.683	913.6	0.4027
7	19.656	1025.0	0.3432	23.812	1013.1	0.3375	24.080	887.6	0.3383
8	17.486	997.8	0.2971	21.432	983.4	0.2913	21.670	843.7	0.2920
9	13.399	868.8	0.2661	16.413	862.9	0.2604	16.582	750.4	0.2610
10	3.789	637.1	0.2523	4.676	639.2	0.2466	4.725	612.4	0.2472

Table 4-170. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E8

Assembly Number E8									
Node No.	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.408	608.5	0.7396	4.982	622.2	0.7396	5.637	640.0	0.7396
2	19.043	746.4	0.7391	21.178	800.1	0.7395	23.563	870.4	0.7395
3	25.270	798.7	0.6918	28.115	872.5	0.6940	31.188	952.4	0.6936
4	26.702	854.9	0.5856	29.996	935.0	0.5894	33.213	976.2	0.5883
5	27.881	914.0	0.4868	31.472	978.8	0.4900	34.721	981.6	0.4885
6	27.651	923.8	0.4111	31.181	969.6	0.4131	34.335	965.7	0.4119
7	26.894	900.2	0.3447	30.115	924.5	0.3461	33.055	930.8	0.3453
8	24.172	854.7	0.2975	26.931	861.2	0.2990	29.511	875.4	0.2985
9	18.335	755.4	0.2658	20.228	754.4	0.2674	22.016	765.5	0.2672
10	5.234	613.5	0.2520	5.790	613.9	0.2538	6.324	617.5	0.2539

Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.012	633.3	0.7396	6.336	601.0	0.7396	7.021	630.9	0.7396
2	24.892	832.6	0.7396	26.028	717.0	0.7396	28.326	830.1	0.7396
3	32.843	887.5	0.6944	34.312	737.6	0.6963	37.182	856.0	0.6977
4	34.921	900.7	0.5898	36.680	777.7	0.5948	39.889	899.5	0.5976
5	36.513	921.8	0.4902	38.578	822.4	0.4976	42.040	933.2	0.5003
6	36.209	943.2	0.4135	38.393	840.2	0.4214	41.873	935.8	0.4235
7	35.003	962.7	0.3466	37.164	836.9	0.3540	40.495	915.5	0.3557
8	31.425	953.8	0.2995	33.422	812.2	0.3062	36.475	879.2	0.3077
9	23.459	838.9	0.2679	24.880	731.7	0.2737	27.101	779.7	0.2750
10	6.768	637.1	0.2545	7.150	604.2	0.2594	7.797	619.4	0.2608

Table 4-171. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E9

Assembly Number E9									
Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.832	615.4	0.7396	2.841	641.1	0.7396
2	0.000		0.7396	3.880	864.2	0.7396	12.775	1004.6	0.7352
3	0.000	Data Not	0.6594	5.964	994.1	0.6881	17.251	1066.0	0.6643
4	0.000	Required	0.5168	7.055	1103.7	0.5596	18.017	1046.4	0.5358
5	0.000		0.4191	7.388	1139.6	0.4399	18.552	1058.5	0.4326
6	0.000		0.3578	6.785	1075.4	0.3592	18.101	1067.7	0.3612
7	0.000		0.3109	5.857	983.8	0.2980	17.072	1061.6	0.3022
8	0.000		0.2826	4.530	866.7	0.2606	14.769	1004.3	0.2623
9	0.000		0.2652	3.466	783.8	0.2368	11.390	882.0	0.2340
10	0.000		0.2576	1.000	619.8	0.2263	3.293	641.8	0.2215

Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.456	611.8	0.7396	3.932	606.7	0.7396	3.988	627.3	0.7396
2	15.233	773.5	0.7367	17.054	741.7	0.7377	17.287	859.9	0.7377
3	20.266	810.1	0.6739	22.491	771.2	0.6806	22.801	952.7	0.6807
4	21.224	829.1	0.5552	23.620	789.9	0.5691	23.951	988.8	0.5693
5	21.976	851.0	0.4558	24.559	811.0	0.4733	24.916	1031.5	0.4732
6	21.573	855.9	0.3839	24.231	819.5	0.4015	24.586	1030.4	0.4013
7	20.511	852.5	0.3232	23.203	823.4	0.3398	23.524	971.1	0.3395
8	18.026	834.1	0.2821	20.638	814.3	0.2979	20.906	888.0	0.2977
9	13.882	761.3	0.2521	15.936	753.3	0.2666	16.113	761.3	0.2664
10	3.986	612.7	0.2382	4.574	612.3	0.2520	4.621	609.8	0.2519

Table 4-171. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E9

Assembly Number E9									
Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.715	647.1	0.7396	5.357	630.0	0.7396	5.877	622.6	0.7396
2	20.093	928.0	0.7376	22.461	831.5	0.7380	24.302	788.8	0.7384
3	26.179	989.5	0.6802	29.103	883.0	0.6828	31.362	828.5	0.6855
4	27.301	984.9	0.5678	30.429	911.1	0.5726	32.888	857.4	0.5781
5	28.274	986.3	0.4711	31.544	931.5	0.4757	34.211	888.3	0.4821
6	27.836	968.4	0.3993	31.064	925.4	0.4032	33.819	901.8	0.4091
7	26.563	934.9	0.3377	29.734	917.3	0.3409	32.512	905.3	0.3459
8	23.573	878.7	0.2960	26.555	891.0	0.2985	29.192	883.9	0.3025
9	17.937	764.5	0.2654	20.087	785.0	0.2675	22.052	789.0	0.2708
10	5.108	611.2	0.2513	5.693	616.6	0.2534	6.245	619.5	0.2565

Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.154	613.3	0.7396	6.599	617.2	0.7396	7.380	641.5	0.7396
2	25.240	742.8	0.7387	26.798	764.4	0.7391	29.367	841.0	0.7392
3	32.479	765.9	0.6875	34.532	820.6	0.6902	37.684	891.9	0.6913
4	34.138	794.4	0.5824	36.535	873.8	0.5877	39.879	917.3	0.5894
5	35.657	838.1	0.4877	38.320	917.5	0.4931	41.786	933.8	0.4946
6	35.400	870.0	0.4147	38.099	923.6	0.4191	41.530	929.0	0.4202
7	34.205	897.1	0.3509	36.818	909.1	0.3543	40.106	909.8	0.3551
8	30.910	903.3	0.3068	33.296	872.3	0.3095	36.320	875.5	0.3102
9	23.402	817.3	0.2745	25.085	767.8	0.2769	27.289	777.8	0.2775
10	6.634	627.4	0.2600	7.102	614.2	0.2623	7.747	619.2	0.2631

Table 4-172. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E10

Assembly Number E10									
Node No.	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.901	620.3	0.7396	2.974	643.8	0.7396
2	0.000		0.7356	4.160	858.8	0.7390	13.088	963.8	0.7346
3	0.000	Data Not	0.6256	6.323	1029.0	0.6805	17.450	1056.2	0.6606
4	0.000	Required	0.4781	7.513	1153.7	0.5409	18.463	1045.6	0.5276
5	0.000		0.3855	7.863	1193.1	0.4178	19.225	1070.6	0.4229
6	0.000		0.3290	7.141	1113.1	0.3393	18.888	1094.4	0.3523
7	0.000		0.2857	6.014	998.8	0.2815	17.873	1101.4	0.2943
8	0.000		0.2595	4.704	881.0	0.2469	15.698	1048.5	0.2544
9	0.000		0.2432	3.656	798.0	0.2243	12.273	917.3	0.2256
10	0.000		0.2357	1.077	624.4	0.2141	3.642	651.9	0.2128

Node No.	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.791	629.9	0.7396	4.459	626.7	0.7396	4.517	629.8	0.7396
2	16.409	863.8	0.7355	19.061	840.0	0.7361	19.295	862.2	0.7362
3	21.652	934.9	0.6671	25.066	911.9	0.6717	25.390	975.9	0.6719
4	22.789	949.0	0.5394	26.333	928.7	0.5479	26.681	1017.5	0.5482
5	23.633	958.5	0.4351	27.222	934.6	0.4441	27.575	1025.3	0.4443
6	23.215	949.0	0.3635	26.749	927.4	0.3718	27.084	995.7	0.3720
7	22.020	928.6	0.3042	25.476	917.3	0.3118	25.780	942.7	0.3119
8	19.451	885.6	0.2635	22.641	883.5	0.2704	22.901	875.9	0.2706
9	15.049	788.0	0.2340	17.427	788.7	0.2404	17.602	759.6	0.2405
10	4.426	619.5	0.2209	5.109	620.7	0.2270	5.156	611.4	0.2272



Table 4-172. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E10

Assembly Number E10									
Node No.	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.231	645.4	0.7396	5.924	636.0	0.7396	6.480	627.2	0.7396
2	21.928	900.0	0.7364	24.386	843.9	0.7368	26.291	798.0	0.7372
3	28.587	960.0	0.6734	31.639	900.6	0.6762	33.978	839.8	0.6789
4	29.946	970.9	0.5508	33.244	935.5	0.5560	35.780	868.6	0.5618
5	30.913	982.8	0.4468	34.377	959.8	0.4522	37.127	901.0	0.4592
6	30.323	966.6	0.3743	33.719	949.8	0.3790	36.559	914.9	0.3857
7	28.804	932.6	0.3139	32.020	923.6	0.3179	34.876	917.5	0.3237
8	25.578	880.1	0.2724	28.483	880.6	0.2759	31.179	892.9	0.2810
9	19.451	767.7	0.2425	21.505	773.5	0.2457	23.493	792.0	0.2501
10	5.666	613.5	0.2293	6.239	615.5	0.2325	6.809	621.3	0.2366

Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.774	616.7	0.7396	6.934	579.5	0.7396	7.284	595.0	0.7396
2	27.259	749.3	0.7375	27.809	626.8	0.7377	28.918	669.9	0.7381
3	35.132	774.0	0.6809	35.826	639.9	0.6824	37.117	680.4	0.6849
4	37.074	804.1	0.5663	37.889	654.5	0.5703	39.319	694.4	0.5766
5	38.631	851.6	0.4652	39.599	673.1	0.4721	41.216	713.5	0.4815
6	38.217	888.7	0.3916	39.309	688.5	0.4013	41.047	726.1	0.4123
7	36.666	921.5	0.3291	38.083	731.0	0.3424	39.928	737.5	0.3544
8	32.987	926.0	0.2858	34.953	807.6	0.3032	37.113	771.9	0.3175
9	24.889	828.0	0.2542	26.440	749.3	0.2694	28.209	729.7	0.2827
10	7.217	630.8	0.2404	7.613	605.9	0.2527	8.102	605.1	0.2646

Table 4-173. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E11

Assembly Number E11									
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.827	615.1	0.7396	2.637	632.6	0.7396
2	0.000		0.7396	3.879	864.1	0.7396	12.112	963.2	0.7370
3	0.000	Data Not	0.6849	5.879	985.8	0.6891	16.514	1027.0	0.6733
4	0.000	Required	0.5529	6.604	1056.5	0.5660	16.991	1012.6	0.5501
5	0.000		0.4538	6.754	1071.9	0.4548	17.299	1021.8	0.4504
6	0.000		0.3891	6.271	1023.4	0.3775	16.848	1023.6	0.3802
7	0.000		0.3388	5.539	954.2	0.3162	15.914	1011.9	0.3208
8	0.000		0.3084	4.278	846.1	0.2771	13.652	956.1	0.2803
9	0.000		0.2896	3.202	764.4	0.2524	10.391	846.1	0.2515
10	0.000		0.2815	0.906	614.3	0.2415	2.941	632.4	0.2384

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.474	631.7	0.7396	4.155	628.1	0.7396	4.179	587.6	0.7396
2	15.529	874.6	0.7373	18.174	839.5	0.7377	18.274	674.5	0.7378
3	20.695	932.4	0.6771	23.937	889.8	0.6806	24.075	713.0	0.6810
4	21.277	944.3	0.5578	24.642	905.4	0.5651	24.814	755.5	0.5662
5	21.688	956.2	0.4579	25.148	917.7	0.4657	25.442	931.4	0.4680
6	21.169	948.4	0.3866	24.603	914.3	0.3938	24.987	1083.1	0.3959
7	20.086	931.4	0.3261	23.454	905.7	0.3324	23.793	1002.8	0.3336
8	17.514	897.3	0.2847	20.690	881.7	0.2903	20.968	903.3	0.2910
9	13.255	796.4	0.2554	15.657	791.4	0.2604	15.843	773.0	0.2609
10	3.717	619.0	0.2423	4.390	619.8	0.2471	4.437	610.8	0.2476

Table 4-173. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E11

Assembly Number E11									
Node No.	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.744	626.6	0.7396	5.136	601.7	0.7396	5.498	602.8	0.7396
2	20.422	826.0	0.7380	21.861	714.0	0.7383	23.162	714.7	0.7387
3	26.734	877.3	0.6829	28.490	738.2	0.6853	30.193	753.8	0.6883
4	27.670	906.6	0.5708	29.622	760.7	0.5774	31.566	785.3	0.5844
5	28.437	927.9	0.4729	30.604	786.1	0.4829	32.815	821.9	0.4924
6	27.972	926.4	0.4008	30.221	796.1	0.4126	32.582	843.1	0.4223
7	26.744	921.2	0.3383	29.531	865.3	0.3542	32.079	870.4	0.3635
8	23.575	869.9	0.2945	26.628	900.9	0.3104	29.099	859.0	0.3181
9	17.663	763.9	0.2638	19.964	803.4	0.2766	21.865	780.2	0.2833
10	4.915	610.3	0.2503	5.516	618.2	0.2610	6.045	617.0	0.2673

Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	5.735	605.2	0.7396	6.171	616.0	0.7396	6.967	643.2	0.7396
2	23.964	713.7	0.7390	25.538	766.8	0.7394	28.253	860.0	0.7394
3	31.135	730.0	0.6902	33.264	832.1	0.6928	36.678	927.0	0.6931
4	32.636	756.2	0.5890	35.162	894.8	0.5937	38.778	954.7	0.5935
5	34.080	797.8	0.4987	36.891	942.7	0.5029	40.585	965.6	0.5016
6	33.984	828.1	0.4290	36.802	944.1	0.4316	40.397	951.6	0.4299
7	33.564	847.4	0.3693	36.222	916.6	0.3706	39.559	916.4	0.3686
8	30.631	858.4	0.3233	33.025	873.5	0.3242	36.020	871.8	0.3224
9	23.118	795.7	0.2881	24.802	767.9	0.2890	26.943	770.7	0.2878
10	6.406	622.6	0.2720	6.878	614.4	0.2731	7.501	617.3	0.2721

Table 4-174. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E12

Assembly Number E12									
Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.864	617.7	0.7396	2.851	640.1	0.7396
2	0.000		0.7396	4.021	877.6	0.7388	12.706	949.8	0.7353
3	0.000	Data Not	0.6564	6.090	1006.1	0.6805	17.037	1045.4	0.6647
4	0.000	Required	0.5131	7.017	1099.5	0.5505	17.851	1038.8	0.5357
5	0.000		0.4153	7.294	1129.3	0.4363	18.539	1063.4	0.4330
6	0.000		0.3540	6.807	1077.6	0.3585	18.245	1075.2	0.3622
7	0.000		0.3071	6.089	1005.9	0.2980	17.464	1071.4	0.3031
8	0.000		0.2789	4.731	883.4	0.2590	15.210	1018.1	0.2623
9	0.000		0.2616	3.533	788.9	0.2345	11.616	890.0	0.2336
10	0.000		0.2541	1.005	620.1	0.2237	3.345	643.6	0.2208

Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.752	637.5	0.7396	4.443	629.1	0.7396	4.505	634.9	0.7396
2	16.351	900.6	0.7358	19.079	849.6	0.7363	19.321	872.6	0.7363
3	21.565	972.5	0.6686	25.052	921.4	0.6726	25.367	961.7	0.6728
4	22.436	979.3	0.5425	26.080	941.9	0.5498	26.420	1003.6	0.5501
5	23.172	985.0	0.4395	26.886	951.4	0.4470	27.244	1034.2	0.4472
6	22.784	973.8	0.3680	26.456	945.8	0.3748	26.802	1012.9	0.3749
7	21.823	952.8	0.3081	25.432	937.3	0.3141	25.748	963.3	0.3142
8	19.214	912.8	0.2670	22.593	907.4	0.2723	22.868	898.5	0.2724
9	14.617	809.7	0.2381	17.173	808.8	0.2429	17.358	772.7	0.2430
10	4.201	624.9	0.2253	4.941	625.9	0.2300	4.992	614.0	0.2302

Table 4-174. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E12

Assembly Number E12									
	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.199	642.9	0.7396	5.971	645.2	0.7396	6.584	634.6	0.7396
2	21.911	893.3	0.7366	24.694	889.8	0.7368	26.826	831.6	0.7369
3	28.588	963.7	0.6742	32.107	968.1	0.6756	34.736	882.6	0.6769
4	29.802	990.1	0.5522	33.570	1006.1	0.5540	36.330	902.5	0.5572
5	30.754	1011.7	0.4487	34.629	1023.1	0.4499	37.547	927.3	0.4544
6	30.212	994.9	0.3760	33.943	1000.4	0.3767	37.028	954.4	0.3820
7	28.926	956.9	0.3149	32.382	958.7	0.3155	35.683	990.5	0.3206
8	25.690	901.8	0.2731	28.736	900.0	0.2736	31.757	944.3	0.2772
9	19.290	778.4	0.2439	21.379	777.7	0.2446	23.518	813.1	0.2473
10	5.523	615.8	0.2312	6.105	616.4	0.2321	6.716	625.7	0.2345

	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.935	628.4	0.7396	7.301	606.6	0.7396	7.737	604.1	0.7396
2	27.983	791.9	0.7371	29.217	717.6	0.7375	30.586	697.8	0.7379
3	36.103	820.0	0.6783	37.654	748.8	0.6813	39.256	711.8	0.6842
4	37.809	845.9	0.5606	39.541	773.9	0.5673	41.318	730.3	0.5745
5	39.194	885.8	0.4588	41.094	797.9	0.4676	43.094	754.2	0.4779
6	38.834	925.6	0.3866	40.795	806.8	0.3957	42.905	766.4	0.4069
7	37.717	985.8	0.3250	39.751	817.7	0.3336	41.922	773.2	0.3445
8	33.860	1004.9	0.2810	35.946	825.5	0.2895	38.187	781.1	0.3004
9	25.093	870.0	0.2500	26.658	751.3	0.2578	28.480	735.4	0.2684
10	7.177	640.3	0.2370	7.599	608.8	0.2439	8.114	607.4	0.2539

Table 4-175. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E13

Assembly Number E13									
Node No.	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.707	606.7	0.7396	2.156	617.4	0.7396
2	0.000		0.7396	3.303	811.2	0.7396	9.941	869.3	0.7396
3	0.000	Data Not	0.7025	5.000	906.3	0.7061	13.902	930.7	0.6991
4	0.000	Required	0.5806	5.731	971.6	0.6040	14.829	941.1	0.5956
5	0.000		0.4811	5.981	995.1	0.5007	15.483	962.9	0.4973
6	0.000		0.4134	5.686	967.4	0.4207	15.268	967.3	0.4229
7	0.000		0.3600	5.279	930.6	0.3539	14.732	960.2	0.3579
8	0.000		0.3273	4.158	836.6	0.3083	12.779	916.1	0.3123
9	0.000		0.3070	3.119	758.4	0.2795	9.840	823.8	0.2802
10	0.000		0.2982	0.872	612.2	0.2669	2.783	628.0	0.2657

Node No.	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.130	644.2	0.7396	3.966	644.6	0.7396	4.010	612.2	0.7396
2	13.950	982.6	0.7392	17.224	922.4	0.7387	17.396	768.9	0.7387
3	18.680	1002.5	0.6920	22.662	988.2	0.6892	22.894	836.5	0.6896
4	19.479	987.0	0.5849	23.462	988.4	0.5801	23.737	898.9	0.5809
5	20.183	992.9	0.4862	24.198	993.0	0.4809	24.511	958.3	0.4816
6	20.008	997.8	0.4120	24.031	994.1	0.4069	24.345	959.4	0.4074
7	19.573	1010.3	0.3470	23.632	999.1	0.3418	23.921	920.5	0.3422
8	17.498	995.4	0.3002	21.454	984.7	0.2948	21.703	860.2	0.2952
9	13.454	872.0	0.2684	16.539	871.4	0.2630	16.709	752.5	0.2633
10	3.831	639.8	0.2542	4.770	643.8	0.2485	4.819	613.5	0.2489

Table 4-175. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E13

Assembly Number E13									
Node No.	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.522	620.0	0.7396	5.146	628.0	0.7396	5.812	641.4	0.7396
2	19.344	797.1	0.7392	21.692	828.6	0.7395	24.131	878.9	0.7393
3	25.452	862.7	0.6923	28.602	914.4	0.6935	31.743	963.5	0.6929
4	26.639	913.7	0.5860	30.185	972.1	0.5875	33.456	985.3	0.5860
5	27.683	955.9	0.4863	31.411	999.9	0.4867	34.735	994.3	0.4848
6	27.485	950.8	0.4108	31.081	979.6	0.4105	34.366	987.7	0.4087
7	26.846	917.2	0.3447	30.147	936.0	0.3443	33.304	966.2	0.3426
8	24.260	862.8	0.2974	27.119	874.5	0.2974	29.940	912.4	0.2959
9	18.454	754.4	0.2655	20.383	758.8	0.2658	22.339	787.9	0.2647
10	5.317	612.3	0.2512	5.871	613.6	0.2519	6.449	622.2	0.2510

Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.239	644.2	0.7396	6.640	611.3	0.7396	7.321	630.5	0.7396
2	25.618	872.1	0.7394	26.997	754.9	0.7396	29.258	825.0	0.7396
3	33.535	922.2	0.6930	35.311	780.0	0.6954	38.147	851.8	0.6969
4	35.289	932.4	0.5865	37.399	829.3	0.5918	40.601	898.5	0.5950
5	36.679	961.5	0.4854	39.118	880.5	0.4921	42.588	934.4	0.4954
6	36.409	988.3	0.4091	38.942	895.7	0.4153	42.428	936.6	0.4181
7	35.431	1011.6	0.3427	37.906	886.3	0.3481	41.231	914.8	0.3503
8	32.007	995.0	0.2956	34.281	854.3	0.3005	37.321	877.6	0.3024
9	23.871	859.9	0.2643	25.493	759.2	0.2684	27.709	779.1	0.2703
10	6.919	641.7	0.2505	7.370	612.1	0.2543	8.017	619.5	0.2561

Table 4-176. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E14

Assembly Number E14									
Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.880	618.8	0.7396	2.970	644.6	0.7396
2	0.000		0.7356	4.094	853.0	0.7392	13.127	969.9	0.7344
3	0.000	Data Not	0.6256	6.280	1024.8	0.6816	17.533	1063.9	0.6596
4	0.000	Required	0.4778	7.520	1154.5	0.5424	18.539	1049.8	0.5263
5	0.000		0.3848	7.913	1199.0	0.4185	19.345	1074.9	0.4211
6	0.000		0.3280	7.209	1120.5	0.3391	19.063	1101.1	0.3501
7	0.000		0.2844	6.053	1002.6	0.2810	18.051	1110.3	0.2921
8	0.000		0.2581	4.665	877.8	0.2463	15.807	1057.4	0.2524
9	0.000		0.2416	3.587	792.8	0.2241	12.307	922.8	0.2237
10	0.000		0.2340	1.052	623.0	0.2140	3.647	652.9	0.2109

Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.699	621.9	0.7396	4.277	617.2	0.7396	4.326	618.4	0.7396
2	16.053	821.3	0.7356	18.281	788.5	0.7366	18.479	805.9	0.7367
3	21.148	870.8	0.6680	23.917	832.5	0.6745	24.178	877.9	0.6749
4	22.310	887.4	0.5428	25.237	851.1	0.5552	25.524	916.2	0.5560
5	23.267	903.6	0.4395	26.326	867.2	0.4537	26.634	950.1	0.4544
6	22.974	902.5	0.3675	26.056	869.9	0.3811	26.361	945.3	0.3818
7	21.872	892.7	0.3079	24.947	869.1	0.3205	25.225	903.4	0.3210
8	19.365	864.9	0.2670	22.290	851.0	0.2788	22.526	840.9	0.2792
9	14.973	777.6	0.2370	17.211	773.1	0.2477	17.372	741.6	0.2481
10	4.391	616.5	0.2233	5.032	616.9	0.2334	5.075	606.1	0.2338



Table 4-176. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly E14

Assembly Number E14									
Node No.	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.938	632.5	0.7396	5.462	616.5	0.7396	5.862	607.5	0.7396
2	20.765	846.5	0.7372	22.638	766.9	0.7378	24.013	724.5	0.7383
3	26.922	889.7	0.6778	29.202	799.9	0.6819	30.860	748.0	0.6853
4	28.317	897.2	0.5614	30.815	827.1	0.5701	32.673	773.9	0.5777
5	29.495	907.3	0.4605	32.201	853.9	0.4710	34.308	807.3	0.4813
6	29.166	899.0	0.3874	31.906	858.4	0.3976	34.156	827.2	0.4084
7	27.876	876.2	0.3261	30.606	856.9	0.3353	32.936	838.6	0.3453
8	24.886	834.8	0.2839	27.491	840.9	0.2924	29.769	831.2	0.3015
9	19.041	744.9	0.2525	20.990	761.0	0.2601	22.762	763.1	0.2683
10	5.534	608.3	0.2381	6.080	613.0	0.2453	6.591	615.0	0.2531

Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.066	598.6	0.7396	6.355	596.4	0.7396	6.904	616.1	0.7396
2	24.687	687.1	0.7385	25.810	701.7	0.7389	27.709	757.7	0.7392
3	31.650	700.4	0.6869	33.590	803.8	0.6899	35.971	797.2	0.6924
4	33.583	723.8	0.5821	36.080	890.3	0.5885	38.641	818.3	0.5937
5	35.409	762.6	0.4881	38.251	948.3	0.4946	40.927	832.1	0.5008
6	35.414	796.2	0.4162	38.263	949.5	0.4209	40.914	829.1	0.4271
7	34.331	826.6	0.3530	37.044	926.1	0.3563	39.578	815.1	0.3618
8	31.227	841.0	0.3088	33.717	888.8	0.3113	36.026	789.0	0.3163
9	23.957	783.2	0.2750	25.765	785.5	0.2775	27.415	717.4	0.2821
10	6.944	621.1	0.2594	7.446	618.0	0.2616	7.899	601.9	0.2659

Table 4-177. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F1

Assembly Number F1									
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.982	626.0	0.7396	3.035	643.0	0.7396
2	0.000		0.7310	4.205	862.8	0.7388	12.824	946.2	0.7352
3	0.000	Data Not	0.6096	6.423	1039.2	0.6801	17.247	1038.3	0.6637
4	0.000	Required	0.4659	7.492	1151.4	0.5393	18.203	1031.6	0.5316
5	0.000		0.3788	7.631	1166.9	0.4180	18.887	1064.3	0.4273
6	0.000		0.3252	6.929	1090.7	0.3418	18.722	1097.6	0.3569
7	0.000		0.2831	5.808	979.4	0.2853	17.851	1113.3	0.2984
8	0.000		0.2569	4.449	860.1	0.2516	15.642	1060.7	0.2579
9	0.000		0.2404	3.269	769.3	0.2305	12.005	923.8	0.2288
10	0.000		0.2326	1.010	620.4	0.2211	3.694	656.3	0.2156

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.559	603.8	0.7396	3.961	599.1	0.7396	3.989	592.5	0.7396
2	14.913	737.6	0.7368	16.473	712.9	0.7377	16.589	695.7	0.7377
3	19.859	771.9	0.6740	21.827	744.0	0.6807	21.990	741.9	0.6812
4	21.014	790.6	0.5534	23.162	762.9	0.5684	23.356	783.7	0.5695
5	21.919	811.8	0.4545	24.244	782.2	0.4737	24.555	958.0	0.4756
6	21.819	818.2	0.3839	24.220	790.5	0.4036	24.615	1102.8	0.4051
7	20.944	817.8	0.3235	23.391	795.7	0.3424	23.739	1018.0	0.3430
8	18.582	803.0	0.2820	20.962	788.1	0.3001	21.248	915.8	0.3005
9	14.298	743.3	0.2514	16.192	736.5	0.2684	16.381	777.1	0.2687
10	4.336	608.8	0.2355	4.878	608.2	0.2511	4.926	612.4	0.2513

Table 4-177. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F1

Assembly Number F1									
Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.608	633.4	0.7396	5.068	609.3	0.7396	5.505	612.2	0.7396
2	18.958	858.9	0.7378	20.661	745.7	0.7382	22.240	751.8	0.7386
3	24.934	920.3	0.6822	27.053	780.5	0.6849	29.139	804.7	0.6879
4	26.443	942.5	0.5717	28.758	804.3	0.5784	31.061	834.8	0.5845
5	27.729	956.5	0.4772	30.216	825.7	0.4861	32.727	865.1	0.4932
6	27.746	949.6	0.4065	30.248	827.6	0.4160	32.863	880.5	0.4226
7	26.813	940.4	0.3444	29.777	889.3	0.3560	32.543	903.6	0.3620
8	23.946	883.4	0.3010	27.094	914.2	0.3118	29.719	882.1	0.3163
9	18.237	768.6	0.2691	20.556	805.9	0.2777	22.524	789.4	0.2814
10	5.427	612.6	0.2522	6.050	620.5	0.2594	6.613	620.5	0.2631

Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	5.793	615.5	0.7396	6.263	620.6	0.7396	7.009	637.7	0.7396
2	23.217	751.4	0.7389	24.858	777.0	0.7393	27.330	828.4	0.7395
3	30.297	774.5	0.6899	32.397	827.8	0.6924	35.445	878.6	0.6937
4	32.332	799.2	0.5887	34.715	871.6	0.5933	37.994	908.7	0.5954
5	34.177	839.1	0.4984	36.806	912.0	0.5029	40.248	930.6	0.5043
6	34.431	867.1	0.4275	37.102	918.8	0.4310	40.520	927.5	0.4317
7	34.188	885.6	0.3660	36.753	901.1	0.3683	39.996	904.1	0.3685
8	31.385	890.7	0.3198	33.725	864.9	0.3216	36.693	868.6	0.3216
9	23.849	811.8	0.2844	25.516	765.5	0.2861	27.688	774.2	0.2864
10	7.003	627.6	0.2661	7.479	615.0	0.2680	8.128	619.7	0.2686

Table 4-178. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F2

Assembly Number F2									
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	1.204	642.0	0.7396	3.222	641.5	0.7396
2	0.000		0.7194	5.092	943.9	0.7347	13.554	937.4	0.7334
3	0.000	Data Not	0.5693	7.321	1132.8	0.6549	17.895	1023.6	0.6525
4	0.000	Required	0.4271	7.819	1188.3	0.5027	18.562	1033.6	0.5160
5	0.000		0.3477	7.862	1193.3	0.3882	19.271	1073.7	0.4154
6	0.000		0.2997	7.121	1111.2	0.3185	19.099	1109.2	0.3487
7	0.000		0.2618	5.940	992.0	0.2669	18.185	1126.3	0.2929
8	0.000		0.2375	4.497	864.1	0.2361	15.869	1071.6	0.2541
9	0.000		0.2211	3.252	768.1	0.2172	12.125	931.0	0.2258
10	0.000		0.2139	1.013	620.6	0.2088	3.752	658.3	0.2126

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	4.091	634.6	0.7396	4.801	631.1	0.7396	4.857	627.3	0.7396
2	17.027	880.7	0.7344	19.841	860.7	0.7351	20.050	822.3	0.7351
3	22.368	966.2	0.6596	26.083	951.7	0.6644	26.353	891.6	0.6648
4	23.166	981.6	0.5277	27.018	970.3	0.5356	27.324	947.7	0.5364
5	23.909	985.7	0.4261	27.752	969.0	0.4335	28.084	990.9	0.4343
6	23.604	970.0	0.3577	27.341	954.5	0.3641	27.667	980.6	0.3647
7	22.465	943.8	0.3004	26.091	939.7	0.3060	26.394	942.3	0.3065
8	19.708	895.0	0.2610	23.024	899.5	0.2659	23.292	887.9	0.2664
9	14.969	794.6	0.2324	17.428	798.0	0.2370	17.611	769.6	0.2374
10	4.575	622.5	0.2190	5.291	623.7	0.2235	5.343	615.1	0.2239

Table 4-178. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F2

Assembly Number F2									
Node No.	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.477	633.5	0.7396	6.200	639.5	0.7396	6.808	633.9	0.7396
2	22.278	838.0	0.7357	24.800	852.7	0.7361	26.856	820.2	0.7364
3	29.159	899.2	0.6684	32.389	926.0	0.6713	34.950	872.4	0.6734
4	30.417	943.4	0.5431	33.993	976.8	0.5480	36.709	895.8	0.5523
5	31.389	977.5	0.4408	35.128	1001.7	0.4451	37.998	919.9	0.4505
6	30.919	968.9	0.3699	34.540	983.6	0.3733	37.572	945.9	0.3792
7	29.457	938.8	0.3106	32.819	944.8	0.3132	36.062	980.8	0.3189
8	26.032	889.6	0.2698	28.986	887.4	0.2721	31.946	934.4	0.2762
9	19.508	773.9	0.2405	21.535	770.4	0.2427	23.630	806.9	0.2460
10	5.873	615.8	0.2269	6.449	615.8	0.2292	7.059	625.8	0.2323

Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.171	630.9	0.7396	7.346	581.5	0.7396	7.619	587.0	0.7396
2	28.024	794.6	0.7366	28.573	626.7	0.7368	29.385	639.3	0.7371
3	36.330	823.3	0.6749	37.004	637.7	0.6764	37.927	644.9	0.6783
4	38.190	846.4	0.5558	39.015	655.8	0.5600	40.050	655.5	0.5650
5	39.636	883.9	0.4550	40.659	679.8	0.4624	41.873	672.9	0.4707
6	39.369	923.5	0.3838	40.542	698.7	0.3940	41.905	687.7	0.4049
7	38.092	984.9	0.3233	39.391	715.1	0.3352	40.883	700.6	0.3480
8	34.045	1004.2	0.2800	35.410	723.7	0.2931	36.989	709.5	0.3072
9	25.207	870.7	0.2488	26.291	687.8	0.2616	27.600	682.4	0.2760
10	7.535	642.7	0.2348	7.821	593.5	0.2454	8.182	593.6	0.2581

Table 4-179. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F3

Assembly Number F3									
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.924	621.9	0.7396	2.926	640.8	0.7396
2	0.000		0.7390	3.973	873.1	0.7396	12.454	978.4	0.7360
3	0.000	Data Not	0.6431	6.061	1003.5	0.6877	16.881	1038.1	0.6678
4	0.000	Required	0.4998	7.095	1108.1	0.5538	17.892	1036.7	0.5378
5	0.000		0.4062	7.317	1132.0	0.4341	18.500	1059.8	0.4343
6	0.000		0.3483	6.652	1061.9	0.3566	18.125	1077.6	0.3640
7	0.000		0.3035	5.651	964.6	0.2985	17.144	1078.8	0.3054
8	0.000		0.2760	4.561	869.2	0.2630	15.153	1024.9	0.2648
9	0.000		0.2589	3.529	788.6	0.2392	11.827	901.0	0.2354
10	0.000		0.2513	1.092	625.4	0.2281	3.612	650.2	0.2220

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.849	639.5	0.7396	4.624	638.1	0.7396	4.669	613.4	0.7396
2	16.145	905.9	0.7362	19.163	887.5	0.7365	19.333	767.1	0.7365
3	21.470	979.9	0.6705	25.334	972.2	0.6726	25.556	820.4	0.6731
4	22.532	986.0	0.5431	26.552	993.7	0.5467	26.809	871.4	0.5478
5	23.206	993.9	0.4394	27.294	1003.4	0.4426	27.584	921.5	0.4438
6	22.825	993.2	0.3683	26.911	1003.1	0.3709	27.202	924.2	0.3719
7	21.969	1008.5	0.3086	26.071	1005.5	0.3103	26.345	896.3	0.3111
8	19.872	995.6	0.2666	23.782	978.4	0.2676	24.023	849.1	0.2684
9	15.428	870.8	0.2366	18.431	861.7	0.2374	18.603	754.3	0.2380
10	4.692	642.4	0.2232	5.623	643.1	0.2240	5.674	613.5	0.2246

Table 4-179. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F3

Assembly Number F3									
Node No.	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.141	615.1	0.7396	5.769	628.4	0.7396	6.420	639.5	0.7396
2	21.062	766.8	0.7373	23.281	811.5	0.7378	25.498	844.5	0.7380
3	27.786	817.0	0.6778	30.630	872.3	0.6810	33.393	903.3	0.6825
4	29.407	868.7	0.5575	32.641	926.5	0.5637	35.570	929.1	0.5668
5	30.537	921.6	0.4549	34.047	966.8	0.4612	37.069	944.0	0.4646
6	30.203	929.0	0.3815	33.668	960.1	0.3867	36.650	937.6	0.3899
7	29.199	906.5	0.3189	32.395	921.0	0.3230	35.220	912.9	0.3259
8	26.558	859.6	0.2750	29.315	861.0	0.2787	31.825	865.0	0.2814
9	20.392	759.9	0.2438	22.305	756.9	0.2473	24.077	763.4	0.2499
10	6.193	614.6	0.2301	6.758	614.8	0.2336	7.292	617.4	0.2363

Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.757	625.5	0.7396	6.975	587.0	0.7396	7.222	584.3	0.7396
2	26.612	782.2	0.7383	27.304	644.9	0.7385	28.043	631.9	0.7388
3	34.759	820.2	0.6843	35.587	655.9	0.6860	36.416	636.1	0.6875
4	37.035	842.8	0.5704	37.985	670.9	0.5750	38.915	645.6	0.5793
5	38.667	874.2	0.4691	39.793	692.9	0.4769	40.903	662.7	0.4843
6	38.361	901.6	0.3943	39.634	711.7	0.4046	40.912	679.2	0.4151
7	37.035	927.9	0.3300	38.477	734.0	0.3421	39.934	697.1	0.3552
8	33.650	930.6	0.2851	35.206	749.4	0.2980	36.827	713.9	0.3130
9	25.493	832.5	0.2531	26.735	708.0	0.2653	28.150	693.0	0.2810
10	7.732	636.4	0.2393	8.071	599.5	0.2496	8.474	597.4	0.2635

Table 4-180. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F4

Assembly Number F4									
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.864	617.7	0.7396	2.844	639.9	0.7396
2	0.000		0.7396	3.790	856.0	0.7396	12.538	995.7	0.7358
3	0.000	Data Not	0.6854	5.868	985.1	0.6923	17.169	1067.0	0.6669
4	0.000	Required	0.5541	6.741	1070.8	0.5681	17.622	1041.8	0.5409
5	0.000		0.4556	6.909	1088.3	0.4534	17.827	1043.9	0.4410
6	0.000		0.3912	6.323	1028.8	0.3748	17.265	1045.3	0.3711
7	0.000		0.3411	5.428	944.3	0.3140	16.149	1032.3	0.3126
8	0.000		0.3107	4.195	839.6	0.2764	13.815	969.7	0.2730
9	0.000		0.2919	3.147	760.5	0.2524	10.492	853.8	0.2449
10	0.000		0.2836	0.958	617.3	0.2417	3.109	636.6	0.2321

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.494	614.9	0.7396	4.007	610.5	0.7396	4.054	615.9	0.7396
2	15.138	787.8	0.7372	17.117	759.5	0.7382	17.310	799.3	0.7382
3	20.405	832.1	0.6759	22.884	799.2	0.6822	23.148	881.0	0.6825
4	21.081	854.6	0.5589	23.762	822.2	0.5718	24.047	914.2	0.5725
5	21.481	875.0	0.4616	24.327	841.6	0.4770	24.617	920.0	0.4775
6	20.938	877.0	0.3906	23.830	847.0	0.4055	24.105	898.3	0.4060
7	19.756	870.1	0.3302	22.658	848.2	0.3439	22.908	861.5	0.3443
8	17.174	844.5	0.2892	19.940	832.2	0.3019	20.156	812.9	0.3023
9	13.025	765.2	0.2595	15.152	761.2	0.2710	15.306	732.4	0.2714
10	3.800	612.6	0.2453	4.397	613.1	0.2560	4.439	605.6	0.2564



Table 4-180. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F4

Assembly Number F4									
Node No.	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.602	624.5	0.7396	5.069	610.1	0.7396	5.400	599.0	0.7396
2	19.354	811.1	0.7388	21.014	740.6	0.7394	22.143	704.3	0.7396
3	25.608	848.8	0.6858	27.608	766.3	0.6899	28.948	708.7	0.6928
4	26.597	861.6	0.5787	28.834	794.7	0.5878	30.374	733.2	0.5951
5	27.269	876.4	0.4844	29.767	827.1	0.4959	31.585	768.7	0.5068
6	26.729	872.3	0.4124	29.299	836.3	0.4236	31.300	793.0	0.4358
7	25.401	853.5	0.3500	27.940	832.3	0.3600	30.060	809.2	0.3718
8	22.402	819.2	0.3073	24.802	814.8	0.3165	26.934	810.9	0.3275
9	16.944	740.9	0.2761	18.770	746.6	0.2844	20.489	756.3	0.2944
10	4.893	607.8	0.2610	5.406	609.7	0.2688	5.901	613.4	0.2782

Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	5.564	590.7	0.7396	6.033	620.5	0.7396	6.676	626.4	0.7396
2	22.685	668.6	0.7396	24.286	791.3	0.7396	26.445	811.3	0.7396
3	29.576	670.0	0.6941	31.580	813.2	0.6961	34.343	843.0	0.6981
4	31.110	690.3	0.5988	33.409	858.3	0.6025	36.564	892.5	0.6057
5	32.516	728.0	0.5132	35.112	906.5	0.5167	38.542	928.9	0.5189
6	32.407	764.1	0.4440	35.110	924.2	0.4466	38.569	933.1	0.4474
7	31.332	799.3	0.3806	34.025	922.7	0.3822	37.383	919.3	0.3820
8	28.297	819.3	0.3360	30.811	893.1	0.3367	33.912	885.5	0.3358
9	21.642	774.1	0.3023	23.474	789.0	0.3027	25.758	787.0	0.3019
10	6.241	618.9	0.2856	6.764	620.4	0.2859	7.438	621.9	0.2853

Table 4-181. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F5

Assembly Number F5									
	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.911	621.0	0.7396	2.999	644.5	0.7396
2	0.000		0.7396	3.884	864.6	0.7396	12.632	995.1	0.7353
3	0.000	Data Not	0.6500	6.000	997.8	0.6892	17.063	1052.5	0.6641
4	0.000	Required	0.5085	7.167	1115.9	0.5554	18.116	1045.8	0.5337
5	0.000		0.4131	7.482	1150.2	0.4339	18.878	1072.9	0.4299
6	0.000		0.3529	6.840	1081.4	0.3548	18.668	1099.8	0.3590
7	0.000		0.3061	5.769	975.7	0.2960	17.736	1108.5	0.3002
8	0.000		0.2774	4.516	865.6	0.2607	15.551	1051.2	0.2597
9	0.000		0.2597	3.409	779.6	0.2379	11.975	915.0	0.2306
10	0.000		0.2519	1.058	623.3	0.2274	3.665	653.4	0.2174

	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.962	643.2	0.7396	4.874	652.9	0.7396	4.903	593.7	0.7396
2	16.481	924.4	0.7355	20.037	962.0	0.7352	20.148	689.6	0.7353
3	21.910	1011.2	0.6662	26.389	1061.2	0.6654	26.541	728.9	0.6659
4	22.992	1014.6	0.5370	27.425	1054.2	0.5354	27.607	767.9	0.5367
5	23.802	1020.7	0.4329	28.167	1043.8	0.4314	28.375	801.2	0.4331
6	23.564	1017.1	0.3615	27.842	1031.0	0.3603	28.049	800.5	0.3620
7	22.647	1018.9	0.3019	26.876	1023.8	0.3007	27.072	786.2	0.3022
8	20.232	991.0	0.2605	24.227	990.5	0.2592	24.495	889.6	0.2611
9	15.502	863.1	0.2312	18.523	863.9	0.2301	18.748	827.3	0.2318
10	4.744	642.3	0.2182	5.687	644.2	0.2172	5.747	624.2	0.2185

Table 4-181. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F5

Assembly Number F5									
Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.211	595.2	0.7396	5.576	598.7	0.7396	6.071	619.5	0.7396
2	21.308	692.7	0.7359	22.681	706.1	0.7366	24.446	777.7	0.7371
3	28.093	730.0	0.6707	29.975	752.6	0.6757	32.197	823.5	0.6786
4	29.453	766.4	0.5484	31.675	792.9	0.5598	34.052	845.5	0.5658
5	30.466	798.4	0.4487	32.901	819.2	0.4629	35.408	864.3	0.4698
6	30.157	800.5	0.3773	32.548	813.8	0.3909	35.088	869.3	0.3974
7	29.170	799.2	0.3164	31.393	793.0	0.3282	33.891	863.1	0.3339
8	26.988	853.8	0.2767	29.005	768.5	0.2871	31.350	840.9	0.2921
9	20.944	813.2	0.2469	22.319	696.8	0.2555	24.165	772.9	0.2606
10	6.363	624.8	0.2313	6.742	597.1	0.2391	7.295	619.4	0.2441

Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.515	647.8	0.7396	6.661	577.7	0.7396	6.875	580.8	0.7396
2	25.910	866.5	0.7372	26.371	615.9	0.7374	27.016	622.4	0.7376
3	33.897	899.1	0.6797	34.448	623.4	0.6809	35.174	626.4	0.6824
4	35.810	913.6	0.5677	36.459	634.8	0.5710	37.276	634.9	0.5751
5	37.301	948.2	0.4717	38.090	651.4	0.4775	39.063	649.7	0.4843
6	37.097	979.2	0.3989	38.029	668.7	0.4075	39.155	664.3	0.4173
7	35.999	1006.5	0.3350	37.176	699.4	0.3473	38.484	682.2	0.3600
8	33.376	983.9	0.2925	34.789	730.0	0.3075	36.282	700.8	0.3226
9	25.669	853.3	0.2608	26.837	698.4	0.2753	28.146	682.4	0.2911
10	7.756	640.3	0.2443	8.072	596.8	0.2565	8.446	594.8	0.2707

Table 4-182. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F6

Assembly Number F6									
Node No.	Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.950	623.8	0.7396	3.066	645.7	0.7396
2	0.000		0.7379	4.079	851.8	0.7394	12.960	961.2	0.7346
3	0.000	Data Not	0.6389	6.271	1024.1	0.6824	17.420	1057.8	0.6602
4	0.000	Required	0.4956	7.356	1136.4	0.5440	18.360	1049.1	0.5276
5	0.000		0.4020	7.620	1165.6	0.4234	19.106	1078.4	0.4241
6	0.000		0.3435	6.963	1094.3	0.3461	18.930	1108.5	0.3539
7	0.000		0.2980	5.840	982.4	0.2886	17.984	1119.8	0.2958
8	0.000		0.2700	4.480	862.7	0.2543	15.705	1062.6	0.2559
9	0.000		0.2527	3.327	773.6	0.2327	12.031	922.2	0.2272
10	0.000		0.2452	1.023	621.2	0.2229	3.666	654.7	0.2141

Node No.	Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	4.041	644.3	0.7396	4.768	633.0	0.7396	4.813	613.4	0.7396
2	16.779	920.9	0.7350	19.526	852.3	0.7356	19.693	762.8	0.7357
3	22.080	988.3	0.6638	25.532	917.0	0.6683	25.754	821.1	0.6689
4	23.053	992.4	0.5341	26.697	942.0	0.5425	26.956	873.8	0.5436
5	23.840	997.4	0.4305	27.596	957.1	0.4390	27.883	917.6	0.4403
6	23.581	987.3	0.3596	27.324	955.3	0.3673	27.610	916.3	0.3683
7	22.497	970.8	0.3008	26.219	952.6	0.3075	26.494	897.3	0.3084
8	19.888	932.9	0.2604	23.406	925.5	0.2662	23.677	892.2	0.2670
9	15.196	826.0	0.2315	17.888	824.4	0.2367	18.089	793.5	0.2375
10	4.591	630.4	0.2184	5.398	631.8	0.2235	5.454	619.9	0.2241

Table 4-182. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F6

Assembly Number F6									
Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.284	615.0	0.7396	5.918	629.1	0.7396	6.625	646.8	0.7396
2	21.434	768.4	0.7365	23.715	819.6	0.7370	26.125	874.7	0.7372
3	28.042	824.8	0.6739	31.024	891.2	0.6773	33.948	928.4	0.6786
4	29.599	875.2	0.5534	32.906	936.9	0.5595	35.888	937.7	0.5620
5	30.811	917.6	0.4511	34.273	959.7	0.4570	37.314	947.2	0.4597
6	30.542	918.2	0.3777	33.896	943.8	0.3828	36.926	945.5	0.3854
7	29.332	904.1	0.3163	32.426	906.6	0.3205	35.366	930.9	0.3228
8	26.404	887.5	0.2741	29.097	852.5	0.2779	31.779	890.9	0.2799
9	20.117	791.0	0.2436	21.958	748.7	0.2472	23.901	786.0	0.2491
10	6.031	620.7	0.2298	6.556	610.9	0.2333	7.138	622.7	0.2353

Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.068	647.6	0.7396	7.181	573.5	0.7396	7.479	589.6	0.7396
2	27.544	855.3	0.7374	27.917	605.0	0.7375	28.836	650.1	0.7378
3	35.578	881.7	0.6797	36.052	614.5	0.6808	37.118	658.6	0.6829
4	37.570	894.5	0.5643	38.143	626.0	0.5673	39.333	670.5	0.5728
5	39.132	928.6	0.4625	39.830	640.6	0.4676	41.191	687.5	0.4763
6	38.868	961.2	0.3880	39.676	653.6	0.3954	41.153	699.1	0.4061
7	37.421	991.8	0.3250	38.555	694.2	0.3372	40.146	710.8	0.3492
8	33.808	984.5	0.2816	35.511	769.8	0.3003	37.409	743.2	0.3155
9	25.445	862.7	0.2504	26.838	727.8	0.2679	28.421	710.3	0.2829
10	7.617	643.2	0.2366	7.982	602.4	0.2506	8.431	601.4	0.2639

Table 4-183. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F7

Assembly Number F7									
Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.860	617.4	0.7396	2.835	639.6	0.7396
2	0.000		0.7396	3.772	854.3	0.7396	12.502	994.6	0.7359
3	0.000	Data Not	0.6854	5.845	982.9	0.6927	17.134	1066.3	0.6671
4	0.000	Required	0.5541	6.725	1069.2	0.5688	17.597	1041.2	0.5412
5	0.000		0.4555	6.898	1087.1	0.4540	17.805	1043.2	0.4412
6	0.000		0.3912	6.314	1027.9	0.3753	17.244	1044.6	0.3713
7	0.000		0.3411	5.421	943.6	0.3144	16.128	1031.5	0.3127
8	0.000		0.3106	4.193	839.4	0.2766	13.799	969.0	0.2730
9	0.000		0.2919	3.146	760.4	0.2526	10.481	853.2	0.2450
10	0.000		0.2836	0.956	617.3	0.2419	3.105	636.5	0.2322

Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.488	615.2	0.7396	4.003	610.7	0.7396	4.050	615.9	0.7396
2	15.113	788.8	0.7372	17.099	760.3	0.7382	17.291	798.6	0.7382
3	20.379	832.9	0.6760	22.864	800.0	0.6822	23.127	879.5	0.6827
4	21.058	854.9	0.5590	23.742	822.5	0.5718	24.026	912.7	0.5725
5	21.461	875.2	0.4617	24.308	841.8	0.4769	24.597	919.2	0.4775
6	20.919	877.3	0.3906	23.812	847.2	0.4054	24.087	898.3	0.4059
7	19.737	870.3	0.3301	22.640	848.4	0.3438	22.890	861.5	0.3442
8	17.158	844.5	0.2891	19.924	832.2	0.3018	20.140	813.4	0.3021
9	13.013	765.2	0.2595	15.142	761.4	0.2709	15.296	732.0	0.2713
10	3.797	612.6	0.2453	4.394	613.1	0.2559	4.437	605.6	0.2563

Table 4-183. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F7

Assembly Number F7									
Node No.	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.595	624.2	0.7396	5.062	610.1	0.7396	5.392	598.8	0.7396
2	19.329	810.2	0.7388	20.985	740.2	0.7394	22.115	704.2	0.7396
3	25.581	847.9	0.6859	27.575	765.7	0.6900	28.914	708.5	0.6928
4	26.570	860.7	0.5787	28.800	793.9	0.5878	30.337	732.8	0.5952
5	27.245	875.8	0.4844	29.737	826.5	0.4959	31.552	768.2	0.5068
6	26.708	871.8	0.4123	29.275	836.0	0.4236	31.273	792.5	0.4358
7	25.379	852.8	0.3499	27.918	832.4	0.3599	30.036	808.9	0.3717
8	22.379	818.2	0.3073	24.782	815.1	0.3164	26.912	810.7	0.3274
9	16.927	740.1	0.2760	18.755	746.9	0.2843	20.472	756.0	0.2943
10	4.889	607.6	0.2609	5.400	609.7	0.2687	5.896	613.4	0.2782

Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	5.556	590.7	0.7396	6.027	620.8	0.7396	6.685	628.0	0.7396
2	22.659	669.4	0.7396	24.284	795.2	0.7396	26.527	822.8	0.7396
3	29.545	670.6	0.6942	31.617	823.4	0.6963	34.530	861.5	0.6979
4	31.076	690.7	0.5989	33.463	872.5	0.6026	36.765	911.9	0.6050
5	32.483	728.0	0.5132	35.176	922.9	0.5167	38.729	945.9	0.5175
6	32.380	764.0	0.4440	35.166	938.6	0.4462	38.720	946.0	0.4458
7	31.308	799.3	0.3806	34.061	933.0	0.3815	37.472	926.5	0.3804
8	28.276	819.6	0.3359	30.827	899.1	0.3360	33.947	888.0	0.3344
9	21.627	774.4	0.3022	23.468	790.4	0.3021	25.741	785.7	0.3006
10	6.236	618.9	0.2855	6.766	621.2	0.2854	7.437	621.7	0.2842

**Table 4-184. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F8**

<b>Assembly Number F8</b>									
	<b>Datapoint 5 (BOC Cy 11)</b>			<b>Datapoint 6 (180 EFPD Cy 11)</b>			<b>Datapoint 7 (BOC Cy 12)</b>		
<b>Node No.</b>	<b>Burnup (GWd/MTU)</b>	<b>Fuel Temp. (K)</b>	<b>Mod. Dens. (g/cm<sup>3</sup>)</b>	<b>Burnup (GWd/MTU)</b>	<b>Fuel Temp. (K)</b>	<b>Mod. Dens. (g/cm<sup>3</sup>)</b>	<b>Burnup (GWd/MTU)</b>	<b>Fuel Temp. (K)</b>	<b>Mod. Dens. (g/cm<sup>3</sup>)</b>
<b>EFPD</b>	<b>BOC Cy 11</b>	<b>BOC Cy 11</b>	<b>BOC Cy 11</b>	<b>180 Cy 11</b>	<b>180 Cy 11</b>	<b>180 Cy 11</b>	<b>BOC Cy 12</b>	<b>BOC Cy 12</b>	<b>BOC Cy 12</b>
1	0.000		0.7396	0.821	614.7	0.7396	2.793	639.5	0.7396
2	0.000		0.7396	3.533	832.0	0.7396	11.894	971.1	0.7370
3	0.000	Data Not	0.6562	5.537	954.4	0.6988	16.309	1035.3	0.6737
4	0.000	Required	0.5158	6.816	1078.8	0.5744	17.533	1032.0	0.5482
5	0.000		0.4192	7.297	1129.8	0.4531	18.477	1059.7	0.4427
6	0.000		0.3577	6.732	1070.1	0.3704	18.349	1086.5	0.3689
7	0.000		0.3100	5.672	966.7	0.3084	17.417	1094.4	0.3081
8	0.000		0.2807	4.374	854.0	0.2712	15.244	1041.3	0.2662
9	0.000		0.2627	3.301	771.6	0.2475	11.795	911.2	0.2364
10	0.000		0.2548	1.021	621.1	0.2366	3.611	652.8	0.2228

	<b>Datapoint 8 (142 EFPD Cy 12)</b>			<b>Statepoint 9 (BOC Cy 13)</b>			<b>Statepoint 10 (10 EFPD Cy 13)</b>		
<b>Node No.</b>	<b>Burnup (GWd/MTU)</b>	<b>Fuel Temp. (K)</b>	<b>Mod. Dens. (g/cm<sup>3</sup>)</b>	<b>Burnup (GWd/MTU)</b>	<b>Fuel Temp. (K)</b>	<b>Mod. Dens. (g/cm<sup>3</sup>)</b>	<b>Burnup (GWd/MTU)</b>	<b>Fuel Temp. (K)</b>	<b>Mod. Dens. (g/cm<sup>3</sup>)</b>
<b>EFPD</b>	<b>142 Cy 12</b>	<b>142 Cy 12</b>	<b>142 Cy 12</b>	<b>BOC Cy 13</b>	<b>BOC Cy 13</b>	<b>BOC Cy 13</b>	<b>10 Cy 13</b>	<b>10 Cy 13</b>	<b>10 Cy 13</b>
1	3.449	615.4	0.7396	3.975	611.8	0.7396	4.029	624.8	0.7396
2	14.571	795.4	0.7382	16.688	775.3	0.7390	16.900	827.4	0.7390
3	19.712	848.9	0.6817	22.458	829.9	0.6873	22.732	896.9	0.6875
4	21.094	865.3	0.5642	23.989	847.4	0.5754	24.287	934.8	0.5758
5	22.167	878.8	0.4611	25.142	856.9	0.4741	25.460	967.5	0.4745
6	22.014	876.2	0.3865	24.972	855.0	0.3991	25.287	960.6	0.3994
7	20.978	865.3	0.3243	23.896	850.2	0.3361	24.191	928.9	0.3364
8	18.511	835.2	0.2815	21.234	827.2	0.2927	21.498	881.4	0.2928
9	14.268	759.7	0.2506	16.350	756.4	0.2609	16.536	773.8	0.2611
10	4.304	612.7	0.2357	4.896	612.7	0.2454	4.948	615.6	0.2456



Table 4-184. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F8

Assembly Number F8									
Node No.	Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.589	626.0	0.7396	5.342	643.0	0.7396	6.020	643.0	0.7396
2	19.059	827.5	0.7393	21.851	891.1	0.7392	24.233	870.3	0.7389
3	25.491	892.2	0.6895	29.004	967.3	0.6891	31.829	912.8	0.6886
4	27.301	931.1	0.5794	30.996	994.8	0.5784	33.810	911.0	0.5787
5	28.690	965.4	0.4778	32.466	1007.4	0.4763	35.308	915.4	0.4778
6	28.495	961.9	0.4020	32.134	986.3	0.4005	34.939	909.6	0.4028
7	27.235	935.8	0.3381	30.577	942.1	0.3369	33.264	891.4	0.3393
8	24.234	889.1	0.2942	27.126	879.0	0.2932	29.541	851.2	0.2956
9	18.466	778.1	0.2624	20.444	764.7	0.2621	22.146	754.3	0.2643
10	5.488	616.7	0.2472	6.049	614.3	0.2472	6.535	612.4	0.2494

Node No.	Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	6.335	621.0	0.7396	6.772	616.2	0.7396	7.516	637.4	0.7396
2	25.287	768.5	0.7391	26.781	755.1	0.7395	29.201	847.1	0.7396
3	33.055	789.1	0.6899	35.042	810.8	0.6925	38.060	874.8	0.6938
4	35.106	804.6	0.5819	37.475	869.6	0.5874	40.743	907.2	0.5901
5	36.740	835.0	0.4823	39.421	920.7	0.4884	42.860	930.3	0.4911
6	36.485	861.8	0.4076	39.220	929.8	0.4127	42.642	927.9	0.4151
7	34.926	889.7	0.3440	37.584	916.8	0.3480	40.867	909.2	0.3499
8	31.354	927.4	0.3003	33.783	879.2	0.3035	36.782	872.5	0.3051
9	23.616	845.3	0.2683	25.341	773.7	0.2711	27.514	774.4	0.2726
10	6.967	635.1	0.2529	7.460	617.0	0.2556	8.108	619.5	0.2573

Table 4-185. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F9

Assembly Number F9									
Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.858	617.3	0.7396	2.940	644.2	0.7396
2	0.000		0.7396	3.680	845.5	0.7396	12.467	997.8	0.7355
3	0.000	Data Not	0.6705	5.691	968.5	0.6932	16.875	1059.9	0.6658
4	0.000	Required	0.5334	6.855	1082.9	0.5682	17.837	1047.7	0.5384
5	0.000		0.4346	7.277	1127.6	0.4494	18.573	1066.7	0.4356
6	0.000		0.3709	6.733	1070.2	0.3677	18.326	1085.0	0.3635
7	0.000		0.3215	5.756	974.5	0.3058	17.366	1086.0	0.3037
8	0.000		0.2915	4.459	861.0	0.2679	15.105	1028.1	0.2629
9	0.000		0.2730	3.342	774.7	0.2438	11.550	896.5	0.2340
10	0.000		0.2649	1.025	621.3	0.2329	3.490	648.2	0.2210

Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.906	643.5	0.7396	4.760	646.6	0.7396	4.812	622.2	0.7396
2	16.267	918.7	0.7357	19.557	924.5	0.7357	19.753	803.8	0.7358
3	21.561	991.5	0.6681	25.692	1009.7	0.6690	25.952	875.1	0.6695
4	22.541	993.8	0.5423	26.685	1011.4	0.5434	26.984	937.1	0.5442
5	23.354	1003.0	0.4391	27.475	1008.2	0.4400	27.811	997.8	0.4408
6	23.129	1005.7	0.3667	27.202	1001.4	0.3676	27.541	1001.5	0.3683
7	22.211	1010.9	0.3061	26.297	1003.2	0.3069	26.608	955.3	0.3073
8	19.746	986.2	0.2643	23.710	986.0	0.2646	23.976	884.5	0.2649
9	15.098	865.1	0.2349	18.159	868.7	0.2350	18.336	761.8	0.2353
10	4.580	643.2	0.2219	5.544	646.1	0.2220	5.594	613.5	0.2223

Table 4-185. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F9

Assembly Number F9									
Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	5.455	636.4	0.7396	6.145	635.6	0.7396	6.782	637.7	0.7396
2	22.055	848.9	0.7363	24.482	839.4	0.7367	26.656	838.1	0.7370
3	28.849	913.0	0.6725	31.988	912.9	0.6753	34.741	901.7	0.6772
4	30.132	952.2	0.5495	33.610	961.9	0.5545	36.555	931.8	0.5582
5	31.145	982.4	0.4460	34.788	986.9	0.4506	37.876	954.8	0.4547
6	30.812	972.1	0.3725	34.355	971.7	0.3764	37.490	962.6	0.3803
7	29.673	939.0	0.3108	33.026	943.6	0.3141	36.142	959.6	0.3174
8	26.663	881.7	0.2681	29.663	893.8	0.2711	32.513	916.9	0.2738
9	20.161	764.7	0.2383	22.237	776.3	0.2410	24.260	796.9	0.2434
10	6.115	614.7	0.2252	6.715	618.2	0.2279	7.315	624.6	0.2303

Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	7.154	632.7	0.7396	7.269	573.7	0.7396	7.452	577.7	0.7396
2	27.870	805.3	0.7372	28.224	602.6	0.7374	28.759	611.5	0.7375
3	36.200	841.4	0.6789	36.626	609.1	0.6798	37.221	614.6	0.6810
4	38.127	868.0	0.5616	38.650	620.2	0.5643	39.318	621.2	0.5676
5	39.613	908.2	0.4589	40.271	635.9	0.4637	41.069	633.2	0.4693
6	39.353	940.5	0.3842	40.135	650.5	0.3914	41.063	645.3	0.3995
7	38.126	972.5	0.3209	39.048	667.4	0.3309	40.126	659.7	0.3420
8	34.481	968.2	0.2767	35.502	679.6	0.2893	36.705	671.8	0.3032
9	25.742	848.1	0.2458	26.596	659.2	0.2594	27.641	656.6	0.2749
10	7.766	638.4	0.2325	7.991	586.7	0.2438	8.279	587.1	0.2575

Table 4-186. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F10

Assembly Number F10									
Datapoint 5 (BOC Cy 11)			Datapoint 6 (180 EFPD Cy 11)			Datapoint 7 (BOC Cy 12)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 11	BOC Cy 11	BOC Cy 11	180 Cy 11	180 Cy 11	180 Cy 11	BOC Cy 12	BOC Cy 12	BOC Cy 12
1	0.000		0.7396	0.866	617.8	0.7396	2.942	644.0	0.7396
2	0.000		0.7376	3.714	848.7	0.7396	12.537	1000.2	0.7355
3	0.000	Data Not	0.6376	5.890	987.5	0.6948	17.129	1063.2	0.6656
4	0.000	Required	0.4954	7.228	1122.5	0.5622	18.219	1048.3	0.5357
5	0.000		0.4030	7.498	1152.0	0.4372	18.903	1073.4	0.4303
6	0.000		0.3451	6.817	1079.0	0.3567	18.687	1102.3	0.3584
7	0.000		0.2997	5.728	971.9	0.2973	17.775	1113.6	0.2989
8	0.000		0.2716	4.425	858.2	0.2619	15.533	1055.5	0.2580
9	0.000		0.2542	3.294	771.1	0.2395	11.908	917.5	0.2291
10	0.000		0.2465	1.030	621.6	0.2293	3.661	654.3	0.2160

Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13
1	3.603	615.9	0.7396	4.107	609.6	0.7396	4.130	586.4	0.7396
2	15.159	789.9	0.7369	17.111	756.5	0.7379	17.203	664.2	0.7379
3	20.380	833.5	0.6746	22.847	797.9	0.6811	22.970	694.5	0.6815
4	21.643	851.0	0.5538	24.289	818.3	0.5669	24.441	729.5	0.5680
5	22.510	869.9	0.4515	25.313	836.6	0.4674	25.495	768.0	0.4691
6	22.310	871.8	0.3787	25.155	841.5	0.3943	25.347	779.5	0.3961
7	21.339	865.5	0.3175	24.197	843.0	0.3322	24.380	768.7	0.3338
8	18.878	843.0	0.2757	21.615	828.8	0.2894	21.778	742.8	0.2909
9	14.494	770.1	0.2455	16.646	763.8	0.2583	16.783	711.6	0.2598
10	4.399	616.1	0.2309	5.027	615.8	0.2428	5.081	618.3	0.2447

Table 4-186. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly F10

Assembly Number F10									
Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13
1	4.377	587.9	0.7396	4.714	595.6	0.7396	5.192	617.3	0.7396
2	18.175	669.8	0.7385	19.481	698.3	0.7391	21.225	774.9	0.7395
3	24.278	700.9	0.6854	26.047	739.8	0.6899	28.238	819.1	0.6925
4	26.039	735.6	0.5786	28.135	777.8	0.5890	30.461	838.2	0.5940
5	27.382	771.6	0.4846	29.706	805.4	0.4979	32.141	853.8	0.5034
6	27.315	782.2	0.4126	29.630	804.2	0.4255	32.089	857.5	0.4305
7	26.278	773.1	0.3487	28.431	784.5	0.3601	30.847	851.1	0.3643
8	23.488	749.4	0.3045	25.350	750.4	0.3146	27.541	819.1	0.3182
9	18.142	707.1	0.2727	19.402	684.5	0.2814	20.944	734.0	0.2845
10	5.451	599.1	0.2558	5.780	592.3	0.2635	6.220	607.5	0.2666

Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14	211 Cy 14	211 Cy 14	211 Cy 14
1	5.617	643.8	0.7396	6.068	618.0	0.7396	6.897	646.9	0.7396
2	22.660	859.0	0.7395	24.316	800.7	0.7396	27.099	900.1	0.7396
3	29.892	887.6	0.6930	32.099	844.1	0.6955	35.422	914.6	0.6955
4	32.148	895.6	0.5950	34.657	892.1	0.5990	38.000	917.4	0.5990
5	33.944	924.9	0.5041	36.650	924.8	0.5077	40.017	920.6	0.5074
6	34.017	957.4	0.4309	36.701	921.2	0.4334	40.002	911.7	0.4332
7	32.907	993.0	0.3642	35.479	902.4	0.3662	38.630	891.8	0.3662
8	29.592	990.7	0.3174	31.939	866.1	0.3191	34.827	858.5	0.3191
9	22.512	868.2	0.2835	24.149	761.5	0.2850	26.203	761.0	0.2853
10	6.708	644.9	0.2657	7.160	612.2	0.2673	7.746	613.9	0.2680

Table 4-187. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G1

Assembly Number G1									
Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.677	617.3	0.7396	1.261	617.9	0.7396
2	0.000		0.7396	2.865	840.6	0.7396	5.449	860.0	0.7396
3	0.000	Data Not	0.7080	3.951	907.0	0.7080	7.699	956.0	0.7037
4	0.000	Required	0.6117	4.154	929.4	0.6117	8.037	974.5	0.6011
5	0.000		0.5100	4.303	946.3	0.5100	8.160	970.9	0.4980
6	0.000		0.4309	4.190	933.5	0.4309	7.901	950.9	0.4204
7	0.000		0.3633	3.952	907.0	0.3633	7.475	926.0	0.3544
8	0.000		0.3178	3.340	842.6	0.3178	6.357	862.2	0.3097
9	0.000		0.2885	2.459	758.5	0.2885	4.646	767.9	0.2810
10	0.000		0.2763	0.654	609.7	0.2763	1.237	611.9	0.2691

Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.288	591.2	0.7396	1.896	632.0	0.7396	2.488	624.3	0.7396
2	5.599	758.5	0.7396	8.322	952.1	0.7396	10.817	878.0	0.7396
3	8.063	1046.7	0.7042	11.739	1040.5	0.6953	14.881	913.2	0.6963
4	8.441	1120.4	0.6000	12.047	1028.2	0.5842	15.361	937.8	0.5876
5	8.551	1095.6	0.4958	12.109	1020.0	0.4797	15.576	960.2	0.4837
6	8.259	1035.9	0.4183	11.628	988.1	0.4042	15.009	947.6	0.4077
7	7.786	955.3	0.3526	10.850	938.9	0.3411	14.046	920.9	0.3438
8	6.600	851.1	0.3084	9.146	861.2	0.2987	12.003	874.2	0.3007
9	4.805	738.1	0.2800	6.502	748.6	0.2722	8.506	767.8	0.2734
10	1.277	602.4	0.2683	1.704	604.9	0.2614	2.207	608.8	0.2624

Table 4-187. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G1

Assembly Number G1									
Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	2.926	612.3	0.7396	3.144	601.4	0.7396	3.833	651.0	0.7396
2	12.574	797.5	0.7396	13.413	736.1	0.7396	16.145	1002.2	0.7396
3	17.066	818.2	0.6998	18.097	748.3	0.7025	21.476	1047.3	0.6972
4	17.753	847.6	0.5966	18.932	779.2	0.6037	22.312	1047.4	0.5939
5	18.225	885.5	0.4959	19.632	829.3	0.5064	23.028	1050.5	0.4956
6	17.740	898.1	0.4195	19.291	862.7	0.4303	22.575	1028.9	0.4205
7	16.780	898.5	0.3539	18.442	889.4	0.3637	21.577	1001.1	0.3549
8	14.594	876.8	0.3094	16.275	894.2	0.3181	19.143	953.1	0.3097
9	10.426	782.9	0.2804	11.740	809.4	0.2877	13.712	809.9	0.2803
10	2.700	613.2	0.2685	3.046	619.9	0.2750	3.543	617.4	0.2680

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.650	645.5	0.7396
2	19.135	931.3	0.7396
3	25.077	952.5	0.6957
4	25.986	962.7	0.5915
5	26.773	972.9	0.4927
6	26.216	958.1	0.4176
7	25.048	934.5	0.3524
8	22.375	902.6	0.3071
9	16.095	798.4	0.2775
10	4.180	618.5	0.2653

Table 4-188. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G2

Assembly Number G2									
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.861	633.9	0.7396	1.587	632.8	0.7396
2	0.000		0.7375	3.561	890.4	0.7375	6.754	910.6	0.7370
3	0.000	Data Not	0.6800	4.824	1008.3	0.6800	9.352	1068.6	0.6747
4	0.000	Required	0.5543	4.996	1029.5	0.5543	9.671	1091.0	0.5427
5	0.000		0.4449	5.127	1046.1	0.4449	9.816	1093.3	0.4326
6	0.000		0.3694	5.041	1035.1	0.3694	9.643	1079.7	0.3580
7	0.000		0.3061	4.928	1021.1	0.3061	9.457	1068.4	0.2958
8	0.000		0.2630	4.353	952.3	0.2630	8.385	995.7	0.2535
9	0.000		0.2350	3.263	835.8	0.2350	6.226	857.1	0.2263
10	0.000		0.2234	0.927	630.5	0.2234	1.773	635.2	0.2150

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.656	644.0	0.7396	2.386	647.5	0.7396	3.082	636.3	0.7396
2	7.064	986.2	0.7368	10.167	977.9	0.7360	12.987	895.0	0.7365
3	9.767	1139.9	0.6737	13.628	1073.7	0.6690	17.204	976.6	0.6723
4	10.080	1131.4	0.5410	13.897	1065.4	0.5354	17.694	1010.7	0.5417
5	10.219	1117.5	0.4311	14.055	1069.1	0.4267	18.001	1034.3	0.4330
6	10.017	1064.7	0.3569	13.685	1039.1	0.3538	17.499	1013.3	0.3592
7	9.791	994.1	0.2952	13.174	990.5	0.2935	16.715	971.4	0.2982
8	8.666	908.3	0.2531	11.617	921.5	0.2526	14.744	911.3	0.2571
9	6.415	778.1	0.2261	8.442	791.1	0.2263	10.603	786.6	0.2305
10	1.820	610.8	0.2149	2.335	614.1	0.2155	2.886	613.4	0.2195



Table 4-188. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G2

Assembly Number G2									
Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.661	630.2	0.7396	3.983	622.4	0.7396	4.221	589.6	0.7396
2	15.208	845.0	0.7370	16.385	796.3	0.7375	17.349	680.2	0.7381
3	19.977	904.7	0.6761	21.406	834.1	0.6791	22.778	724.7	0.6836
4	20.653	933.9	0.5502	22.215	865.3	0.5569	23.940	773.0	0.5693
5	21.159	966.3	0.4427	22.933	917.4	0.4512	24.978	819.3	0.4689
6	20.693	972.4	0.3681	22.605	953.3	0.3763	24.701	826.8	0.3941
7	19.854	963.2	0.3058	21.867	980.3	0.3130	23.859	811.3	0.3286
8	17.667	928.3	0.2637	19.654	973.0	0.2698	21.422	779.0	0.2837
9	12.736	812.1	0.2362	14.248	854.8	0.2413	15.437	701.3	0.2534
10	3.455	621.3	0.2247	3.871	632.1	0.2293	4.151	592.8	0.2397

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.853	625.1	0.7396
2	19.701	812.8	0.7382
3	25.824	878.5	0.6852
4	27.498	946.5	0.5736
5	28.774	980.2	0.4732
6	28.447	973.1	0.3977
7	27.337	935.6	0.3315
8	24.510	883.9	0.2863
9	17.587	771.9	0.2559
10	4.728	613.1	0.2420

Table 4-189. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G3

Assembly Number G3									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.739	622.8	0.7396	1.360	621.7	0.7396
2	0.000		0.7396	3.132	872.2	0.7396	5.898	885.7	0.7396
3	0.000	Data Not	0.6972	4.276	943.3	0.6972	8.244	986.4	0.6941
4	0.000	Required	0.5911	4.419	959.7	0.5911	8.478	999.2	0.5828
5	0.000		0.4873	4.529	972.6	0.4873	8.545	993.2	0.4780
6	0.000		0.4103	4.390	956.3	0.4103	8.250	971.3	0.4022
7	0.000		0.3451	4.136	927.4	0.3451	7.804	945.3	0.3382
8	0.000		0.3014	3.518	860.9	0.3014	6.683	880.4	0.2951
9	0.000		0.2731	2.597	771.2	0.2731	4.902	780.8	0.2671
10	0.000		0.2614	0.692	612.5	0.2614	1.307	614.7	0.2556

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.415	626.0	0.7396	2.005	629.8	0.7396	2.509	614.3	0.7396
2	6.151	927.5	0.7396	8.717	923.5	0.7395	10.801	816.6	0.7396
3	8.603	1037.0	0.6935	11.872	971.6	0.6916	14.488	842.2	0.6969
4	8.837	1036.9	0.5816	12.070	965.7	0.5794	14.909	871.6	0.5915
5	8.894	1017.5	0.4768	12.143	968.4	0.4755	15.224	904.6	0.4904
6	8.571	972.7	0.4012	11.693	947.9	0.4006	14.767	903.6	0.4143
7	8.089	912.8	0.3375	10.975	911.3	0.3375	13.926	886.7	0.3493
8	6.913	832.0	0.2946	9.371	848.6	0.2950	12.055	851.1	0.3055
9	5.057	734.2	0.2669	6.758	749.0	0.2677	8.699	760.2	0.2767
10	1.347	603.5	0.2555	1.784	605.9	0.2564	2.278	608.0	0.2647

Table 4-189. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G3

Assembly Number G3									
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	2.868	602.4	0.7396	3.047	593.7	0.7396	3.364	600.1	0.7396
2	12.216	745.5	0.7396	12.899	700.0	0.7396	14.327	763.5	0.7396
3	16.243	760.4	0.7018	17.076	708.6	0.7044	19.631	900.0	0.7064
4	16.885	789.6	0.6040	17.852	735.2	0.6112	20.996	1002.9	0.6126
5	17.500	830.9	0.5079	18.692	781.9	0.5194	22.122	1057.2	0.5168
6	17.180	850.5	0.4322	18.541	819.0	0.4453	21.875	1038.5	0.4401
7	16.395	858.8	0.3655	17.893	850.2	0.3780	21.002	996.1	0.3719
8	14.465	850.2	0.3201	16.015	862.4	0.3315	18.817	941.5	0.3255
9	10.562	775.2	0.2894	11.820	796.8	0.2996	13.776	807.6	0.2945
10	2.766	612.6	0.2763	3.104	618.6	0.2855	3.599	617.2	0.2807

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	3.952	620.4	0.7396
2	16.670	836.7	0.7396
3	22.653	875.2	0.7066
4	24.111	887.2	0.6136
5	25.267	890.9	0.5185
6	24.894	874.8	0.4419
7	23.822	849.8	0.3739
8	21.344	814.4	0.3273
9	15.521	727.4	0.2963
10	4.035	600.3	0.2822

**Table 4-190. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G4**

Assembly Number G4									
Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.880	635.6	0.7396	1.589	631.0	0.7396
2	0.000		0.7370	3.661	901.8	0.7370	6.821	906.1	0.7368
3	0.000	Data Not	0.6764	4.977	1027.2	0.6764	9.492	1066.5	0.6736
4	0.000	Required	0.5475	5.101	1042.7	0.5475	9.731	1084.1	0.5407
5	0.000		0.4385	5.183	1053.3	0.4385	9.796	1081.4	0.4310
6	0.000		0.3644	5.032	1034.1	0.3644	9.518	1061.9	0.3574
7	0.000		0.3032	4.787	1003.7	0.3032	9.149	1043.3	0.2968
8	0.000		0.2624	4.116	925.4	0.2624	7.944	967.3	0.2559
9	0.000		0.2361	3.047	814.4	0.2361	5.828	835.2	0.2297
10	0.000		0.2250	0.856	625.0	0.2250	1.636	629.3	0.2189

Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.646	628.5	0.7396	2.371	646.8	0.7396	3.041	633.3	0.7396
2	7.093	921.4	0.7368	10.255	988.0	0.7359	13.002	884.4	0.7364
3	9.884	1098.6	0.6733	13.841	1091.1	0.6681	17.308	960.2	0.6719
4	10.135	1121.0	0.5399	13.967	1068.2	0.5336	17.601	985.3	0.5418
5	10.201	1123.3	0.4301	13.983	1059.2	0.4255	17.730	1002.7	0.4344
6	9.899	1077.6	0.3567	13.482	1024.4	0.3536	17.107	983.9	0.3616
7	9.485	996.5	0.2963	12.751	971.2	0.2947	16.173	953.5	0.3018
8	8.211	886.6	0.2557	10.965	891.7	0.2552	14.045	904.7	0.2617
9	5.998	753.5	0.2297	7.819	764.4	0.2300	9.967	784.9	0.2357
10	1.678	605.0	0.2189	2.131	607.7	0.2197	2.672	612.5	0.2249

Table 4-190. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G4

Assembly Number G4									
Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.555	621.9	0.7396	3.817	610.2	0.7396	4.208	609.9	0.7396
2	15.006	812.2	0.7371	15.983	751.1	0.7377	17.463	752.8	0.7381
3	19.819	865.0	0.6767	21.022	784.2	0.6802	22.955	802.7	0.6836
4	20.317	895.9	0.5527	21.677	818.7	0.5610	23.923	850.1	0.5693
5	20.671	931.1	0.4477	22.254	870.5	0.4585	24.821	901.3	0.4694
6	20.104	940.0	0.3742	21.818	902.4	0.3849	24.467	915.1	0.3955
7	19.143	935.7	0.3126	20.956	927.4	0.3222	23.539	904.0	0.3313
8	16.821	905.1	0.2711	18.633	927.1	0.2798	20.987	867.1	0.2875
9	11.989	796.9	0.2439	13.381	826.9	0.2514	15.037	764.0	0.2581
10	3.196	616.5	0.2323	3.566	624.1	0.2391	3.990	609.0	0.2446

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.878	629.3	0.7396
2	19.903	824.1	0.7385
3	26.128	894.7	0.6863
4	27.484	947.0	0.5742
5	28.673	988.3	0.4736
6	28.294	984.6	0.3983
7	27.170	956.7	0.3332
8	24.271	909.5	0.2889
9	17.382	794.1	0.2592
10	4.631	618.9	0.2460

Table 4-191. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G5

Assembly Number G5									
Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.681	617.6	0.7396	1.268	618.2	0.7396
2	0.000		0.7396	2.879	842.4	0.7396	5.477	861.7	0.7396
3	0.000	Data Not	0.7073	3.968	908.8	0.7073	7.729	957.9	0.7030
4	0.000	Required	0.6105	4.165	930.7	0.6105	8.056	975.5	0.6000
5	0.000		0.5088	4.310	947.1	0.5088	8.171	971.5	0.4969
6	0.000		0.4299	4.196	934.1	0.4299	7.910	951.4	0.4195
7	0.000		0.3625	3.956	907.5	0.3625	7.482	926.4	0.3537
8	0.000		0.3171	3.344	842.9	0.3171	6.362	862.4	0.3091
9	0.000		0.2878	2.461	758.7	0.2878	4.649	768.0	0.2804
10	0.000		0.2757	0.655	609.8	0.2757	1.238	611.9	0.2686

Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.294	590.0	0.7396	1.903	632.1	0.7396	2.494	624.2	0.7396
2	5.626	758.5	0.7396	8.348	951.9	0.7396	10.841	877.6	0.7396
3	8.092	1045.8	0.7035	11.764	1039.8	0.6949	14.903	912.7	0.6960
4	8.459	1119.1	0.5989	12.062	1027.7	0.5836	15.373	937.3	0.5871
5	8.563	1095.6	0.4948	12.118	1019.6	0.4791	15.584	960.1	0.4833
6	8.269	1036.5	0.4174	11.636	987.9	0.4037	15.018	947.6	0.4073
7	7.793	955.3	0.3519	10.855	938.6	0.3406	14.055	921.3	0.3435
8	6.606	851.6	0.3077	9.147	860.6	0.2983	12.008	874.7	0.3005
9	4.807	737.7	0.2794	6.501	748.1	0.2718	8.507	768.1	0.2732
10	1.278	602.4	0.2677	1.704	604.8	0.2611	2.207	608.9	0.2622

Table 4-191. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G5

Assembly Number G5									
Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	2.932	612.3	0.7396	3.151	601.6	0.7396	3.840	651.0	0.7396
2	12.597	797.4	0.7396	13.440	737.0	0.7396	16.172	1002.3	0.7396
3	17.088	818.1	0.6995	18.122	749.0	0.7023	21.500	1046.9	0.6970
4	17.764	847.4	0.5962	18.945	779.6	0.6033	22.318	1046.2	0.5936
5	18.231	885.2	0.4956	19.638	829.4	0.5059	23.028	1049.3	0.4953
6	17.748	897.9	0.4192	19.299	862.8	0.4300	22.587	1029.8	0.4202
7	16.789	898.5	0.3537	18.451	889.6	0.3635	21.609	1005.3	0.3546
8	14.599	876.9	0.3091	16.283	894.8	0.3178	19.175	957.4	0.3093
9	10.428	783.0	0.2802	11.745	809.9	0.2875	13.730	812.0	0.2799
10	2.700	613.1	0.2683	3.047	620.1	0.2748	3.547	617.7	0.2677

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.657	645.5	0.7396
2	19.160	930.9	0.7396
3	25.098	952.1	0.6955
4	25.992	962.8	0.5913
5	26.776	973.3	0.4925
6	26.233	958.8	0.4173
7	25.093	936.3	0.3521
8	22.422	904.4	0.3067
9	16.122	799.5	0.2772
10	4.186	618.7	0.2649

Table 4-192. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G6

Assembly Number G6									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.862	633.9	0.7396	1.588	632.8	0.7396
2	0.000		0.7375	3.563	890.6	0.7375	6.757	910.8	0.7369
3	0.000	Data Not	0.6799	4.826	1008.4	0.6799	9.354	1068.6	0.6746
4	0.000	Required	0.5541	4.996	1029.5	0.5541	9.669	1090.8	0.5425
5	0.000		0.4447	5.125	1045.8	0.4447	9.813	1093.1	0.4324
6	0.000		0.3692	5.039	1034.9	0.3692	9.639	1079.5	0.3579
7	0.000		0.3060	4.926	1020.8	0.3060	9.452	1068.1	0.2957
8	0.000		0.2629	4.351	952.0	0.2629	8.381	995.4	0.2534
9	0.000		0.2350	3.261	835.6	0.2350	6.222	856.9	0.2263
10	0.000		0.2233	0.927	630.4	0.2233	1.772	635.2	0.2149

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.657	644.0	0.7396	2.385	647.2	0.7396	3.081	636.3	0.7396
2	7.066	985.3	0.7368	10.163	976.9	0.7360	12.978	894.2	0.7365
3	9.767	1137.9	0.6735	13.619	1071.9	0.6691	17.185	975.1	0.6723
4	10.077	1128.8	0.5409	13.882	1063.3	0.5355	17.667	1008.7	0.5419
5	10.214	1115.6	0.4310	14.040	1067.2	0.4268	17.977	1032.8	0.4332
6	10.013	1064.1	0.3568	13.675	1038.0	0.3539	17.484	1012.7	0.3594
7	9.787	994.7	0.2951	13.163	989.3	0.2936	16.705	971.6	0.2983
8	8.662	908.8	0.2531	11.598	919.2	0.2527	14.730	912.0	0.2572
9	6.412	779.1	0.2260	8.425	789.1	0.2264	10.590	787.1	0.2306
10	1.820	611.4	0.2148	2.330	613.6	0.2156	2.883	613.6	0.2196



Table 4-192. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G6

Assembly Number G6									
Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.660	630.2	0.7396	3.985	623.0	0.7396	4.211	588.1	0.7396
2	15.200	845.1	0.7370	16.386	798.5	0.7375	17.288	671.9	0.7380
3	19.956	904.4	0.6761	21.392	835.9	0.6791	22.646	709.2	0.6832
4	20.619	932.8	0.5503	22.183	866.0	0.5570	23.749	750.7	0.5686
5	21.127	965.0	0.4429	22.901	917.3	0.4513	24.785	795.6	0.4688
6	20.673	971.4	0.3683	22.584	953.0	0.3764	24.557	808.5	0.3949
7	19.842	962.9	0.3060	21.858	980.7	0.3130	23.767	799.3	0.3298
8	17.654	928.4	0.2638	19.645	974.3	0.2698	21.361	771.6	0.2850
9	12.722	811.9	0.2363	14.238	856.0	0.2413	15.404	698.3	0.2545
10	3.451	621.1	0.2248	3.868	632.4	0.2293	4.140	592.0	0.2403

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.800	620.5	0.7396
2	19.477	792.5	0.7383
3	25.497	853.7	0.6856
4	27.164	927.0	0.5747
5	28.511	970.2	0.4752
6	28.274	968.9	0.4001
7	27.241	934.9	0.3338
8	24.463	885.7	0.2884
9	17.581	774.9	0.2577
10	4.727	613.9	0.2434

Table 4-193. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G7

Assembly Number G7									
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.825	630.6	0.7396	1.527	630.3	0.7396
2	0.000		0.7380	3.500	883.4	0.7380	6.703	911.9	0.7372
3	0.000	Data Not	0.6819	4.858	1012.5	0.6819	9.492	1084.9	0.6753
4	0.000	Required	0.5565	5.009	1031.2	0.5565	9.685	1091.3	0.5434
5	0.000		0.4477	5.076	1039.6	0.4477	9.644	1074.6	0.4346
6	0.000		0.3731	4.884	1015.6	0.3731	9.259	1045.3	0.3617
7	0.000		0.3118	4.562	976.6	0.3118	8.743	1016.8	0.3020
8	0.000		0.2714	3.833	894.3	0.2714	7.424	935.3	0.2622
9	0.000		0.2457	2.782	788.7	0.2457	5.332	808.5	0.2369
10	0.000		0.2350	0.764	618.0	0.2350	1.462	622.0	0.2266

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.570	610.9	0.7396	2.207	635.7	0.7396	2.729	616.3	0.7396
2	6.906	813.3	0.7374	9.667	920.2	0.7372	11.817	802.1	0.7382
3	9.783	922.3	0.6761	13.264	1006.8	0.6758	15.981	855.4	0.6821
4	10.009	976.6	0.5451	13.492	1007.2	0.5470	16.439	886.1	0.5617
5	10.020	1066.8	0.4363	13.535	1012.6	0.4393	16.691	915.1	0.4575
6	9.646	1088.1	0.3629	13.040	992.2	0.3663	16.188	914.0	0.3836
7	9.087	1010.3	0.3026	12.259	956.0	0.3061	15.474	923.6	0.3223
8	7.695	891.7	0.2626	10.386	882.4	0.2659	13.483	907.0	0.2807
9	5.507	759.0	0.2373	7.313	762.5	0.2404	9.544	795.1	0.2529
10	1.505	606.1	0.2270	1.954	607.3	0.2299	2.510	613.9	0.2408

Table 4-193. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G7

Assembly Number G7									
Node No.	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.158	611.2	0.7396	3.394	605.0	0.7396	3.808	613.0	0.7396
2	13.516	768.4	0.7389	14.406	732.1	0.7394	16.065	801.3	0.7396
3	18.132	813.5	0.6874	19.213	758.6	0.6907	21.507	857.5	0.6943
4	18.822	846.3	0.5739	20.040	787.4	0.5818	22.738	923.7	0.5886
5	19.330	884.1	0.4730	20.757	834.0	0.4839	23.770	978.4	0.4901
6	18.920	898.2	0.3986	20.475	863.9	0.4096	23.480	977.0	0.4139
7	18.241	903.6	0.3353	19.891	886.6	0.3453	22.729	947.6	0.3480
8	16.121	883.9	0.2920	17.795	892.6	0.3012	20.324	895.4	0.3031
9	11.519	790.2	0.2628	12.844	811.9	0.2710	14.575	774.6	0.2727
10	3.024	615.4	0.2499	3.380	621.6	0.2575	3.823	611.1	0.2592

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.584	641.0	0.7396
2	18.972	918.8	0.7396
3	25.217	968.0	0.6929
4	26.681	1001.6	0.5857
5	27.858	1023.2	0.4858
6	27.461	1007.4	0.4096
7	26.441	968.1	0.3442
8	23.637	913.3	0.2995
9	16.897	791.5	0.2695
10	4.451	617.8	0.2563

Table 4-194. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G8

Assembly Number G8									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.907	638.1	0.7396	1.813	652.2	0.7396
2	0.000		0.7362	3.775	915.2	0.7362	7.762	1026.1	0.7332
3	0.000	Data Not	0.6709	5.083	1040.6	0.6709	10.440	1203.2	0.6519
4	0.000	Required	0.5392	5.148	1048.7	0.5392	10.305	1169.3	0.5094
5	0.000		0.4316	5.254	1062.4	0.4316	10.245	1141.6	0.4044
6	0.000		0.3579	5.188	1053.9	0.3579	10.007	1113.8	0.3352
7	0.000		0.2963	5.057	1037.3	0.2963	9.716	1088.5	0.2776
8	0.000		0.2544	4.449	963.5	0.2544	8.604	1013.2	0.2382
9	0.000		0.2274	3.325	842.2	0.2274	6.377	868.0	0.2129
10	0.000		0.2159	0.955	632.6	0.2159	1.835	638.4	0.2023

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.855	609.7	0.7396	2.316	613.8	0.7396	2.958	630.0	0.7396
2	7.952	796.0	0.7335	9.979	807.8	0.7355	12.709	881.6	0.7361
3	10.713	895.3	0.6535	13.535	901.7	0.6654	17.248	997.7	0.6694
4	10.617	957.3	0.5125	13.811	959.5	0.5346	17.823	1045.0	0.5401
5	10.583	1001.0	0.4076	14.044	1003.4	0.4294	18.160	1062.1	0.4333
6	10.337	986.6	0.3378	13.728	991.8	0.3559	17.635	1028.1	0.3591
7	10.018	940.6	0.2797	13.157	950.8	0.2944	16.666	966.6	0.2975
8	8.858	867.0	0.2400	11.550	882.5	0.2530	14.488	885.3	0.2564
9	6.552	759.5	0.2145	8.385	765.7	0.2260	10.309	758.5	0.2297
10	1.884	612.4	0.2038	2.365	610.6	0.2144	2.867	608.7	0.2182

Table 4-194. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G8

Assembly Number G8									
Node No.	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.688	649.8	0.7396	4.145	650.5	0.7396	4.642	624.3	0.7396
2	15.619	957.4	0.7358	17.310	925.3	0.7359	19.214	817.6	0.7366
3	20.907	1053.8	0.6684	22.908	976.8	0.6694	25.517	908.6	0.6735
4	21.444	1046.8	0.5387	23.449	978.1	0.5409	26.472	980.5	0.5484
5	21.761	1043.1	0.4323	23.875	1007.9	0.4350	27.165	1030.1	0.4420
6	21.132	1024.6	0.3587	23.338	1034.1	0.3613	26.579	1020.6	0.3668
7	19.968	990.8	0.2976	22.264	1060.3	0.2996	25.338	989.6	0.3041
8	17.390	925.2	0.2567	19.631	1044.2	0.2580	22.410	937.6	0.2619
9	12.286	790.8	0.2302	13.951	892.1	0.2308	15.882	803.7	0.2343
10	3.404	617.7	0.2190	3.880	642.9	0.2194	4.389	618.8	0.2226

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	5.432	642.5	0.7396
2	22.023	872.6	0.7369
3	29.052	943.3	0.6758
4	30.200	970.4	0.5527
5	31.004	986.5	0.4464
6	30.304	970.1	0.3710
7	28.853	940.6	0.3080
8	25.603	897.4	0.2656
9	18.159	786.3	0.2378
10	5.011	617.2	0.2261

Table 4-195. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G9

Assembly Number G9									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.909	638.2	0.7396	1.799	650.5	0.7396
2	0.000		0.7363	3.768	914.3	0.7363	7.666	1012.4	0.7337
3	0.000	Data Not	0.6713	5.092	1041.7	0.6713	10.359	1187.8	0.6545
4	0.000	Required	0.5388	5.216	1057.5	0.5388	10.349	1165.3	0.5121
5	0.000		0.4301	5.326	1071.8	0.4301	10.316	1141.4	0.4058
6	0.000		0.3563	5.200	1055.5	0.3563	9.999	1110.6	0.3360
7	0.000		0.2956	4.942	1022.9	0.2956	9.523	1076.5	0.2786
8	0.000		0.2554	4.226	937.8	0.2554	8.206	988.5	0.2403
9	0.000		0.2296	3.140	823.5	0.2296	6.035	848.8	0.2159
10	0.000		0.2187	0.910	629.1	0.2187	1.750	634.7	0.2056

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.852	623.5	0.7396	2.407	625.4	0.7396	3.145	641.2	0.7396
2	7.902	864.3	0.7339	10.318	865.7	0.7352	13.334	924.1	0.7355
3	10.681	974.1	0.6555	13.881	960.5	0.6637	17.753	1022.5	0.6657
4	10.699	1019.8	0.5140	14.181	1007.2	0.5283	18.294	1061.5	0.5315
5	10.686	1056.6	0.4076	14.409	1048.8	0.4209	18.668	1086.0	0.4232
6	10.358	1036.9	0.3374	14.014	1037.1	0.3481	18.109	1058.6	0.3499
7	9.851	984.5	0.2798	13.255	993.9	0.2883	16.981	999.8	0.2899
8	8.482	899.6	0.2413	11.408	917.7	0.2487	14.579	917.7	0.2504
9	6.221	774.1	0.2168	8.202	785.1	0.2232	10.326	782.1	0.2251
10	1.799	611.9	0.2064	2.303	613.1	0.2123	2.852	613.2	0.2143

Table 4-195. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G9

Assembly Number G9									
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.795	639.4	0.7396	4.083	615.5	0.7396	4.589	625.5	0.7396
2	15.823	887.0	0.7354	16.883	769.5	0.7358	18.739	810.3	0.7365
3	20.806	949.1	0.6665	22.097	803.5	0.6696	24.481	871.8	0.6737
4	21.405	958.6	0.5353	22.799	826.4	0.5427	25.523	927.9	0.5508
5	21.845	969.5	0.4295	23.395	862.5	0.4392	26.461	988.2	0.4481
6	21.216	958.0	0.3570	22.876	888.9	0.3672	26.017	1002.1	0.3747
7	19.913	929.6	0.2971	21.676	914.6	0.3069	24.750	989.8	0.3127
8	17.170	877.1	0.2574	19.085	953.7	0.2676	21.898	943.5	0.2720
9	12.113	765.5	0.2315	13.647	860.3	0.2406	15.643	813.2	0.2443
10	3.319	610.3	0.2199	3.735	632.3	0.2276	4.267	621.5	0.2310

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	5.242	627.4	0.7396
2	21.076	811.0	0.7371
3	27.526	878.2	0.6778
4	28.992	934.4	0.5587
5	30.252	979.4	0.4558
6	29.807	979.3	0.3809
7	28.382	956.9	0.3176
8	25.202	912.1	0.2760
9	18.017	797.5	0.2477
10	4.922	620.1	0.2345

Table 4-196. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G10

Assembly Number G10									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.895	637.0	0.7396	1.754	647.1	0.7396
2	0.000		0.7368	3.716	908.3	0.7368	7.474	991.4	0.7346
3	0.000	Data Not	0.6744	5.013	1031.7	0.6744	10.094	1156.5	0.6604
4	0.000	Required	0.5447	5.124	1045.7	0.5447	10.073	1134.8	0.5217
5	0.000		0.4364	5.209	1056.6	0.4364	10.006	1110.3	0.4154
6	0.000		0.3627	5.046	1035.8	0.3627	9.633	1077.4	0.3452
7	0.000		0.3022	4.743	998.3	0.3022	9.075	1039.0	0.2876
8	0.000		0.2623	4.015	914.2	0.2623	7.737	952.7	0.2492
9	0.000		0.2368	2.946	804.4	0.2368	5.624	823.1	0.2249
10	0.000		0.2260	0.835	623.3	0.2260	1.595	627.6	0.2147

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.815	633.7	0.7396	2.527	645.2	0.7396	3.167	629.8	0.7396
2	7.757	940.0	0.7347	10.788	965.5	0.7347	13.350	857.9	0.7357
3	10.495	1114.8	0.6604	14.250	1054.4	0.6610	17.454	922.0	0.6675
4	10.480	1126.9	0.5215	14.169	1042.7	0.5237	17.602	955.2	0.5371
5	10.402	1105.1	0.4150	14.082	1041.2	0.4179	17.703	983.3	0.4320
6	9.999	1049.0	0.3449	13.514	1012.7	0.3478	17.059	971.8	0.3603
7	9.398	974.5	0.2874	12.633	966.3	0.2904	15.982	942.8	0.3011
8	7.998	878.5	0.2493	10.765	893.5	0.2523	13.774	894.9	0.2618
9	5.798	757.6	0.2250	7.677	771.7	0.2280	9.800	781.9	0.2363
10	1.640	607.7	0.2149	2.117	610.1	0.2178	2.657	612.4	0.2253



Table 4-196. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G10

Assembly Number G10									
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.646	617.4	0.7396	3.891	606.8	0.7396	4.394	625.1	0.7396
2	15.169	785.6	0.7366	16.061	732.6	0.7372	17.937	813.5	0.7377
3	19.715	828.9	0.6737	20.806	760.6	0.6774	23.193	872.1	0.6806
4	20.098	862.8	0.5507	21.347	794.3	0.5594	24.036	922.1	0.5657
5	20.472	904.0	0.4486	21.961	848.2	0.4605	24.950	974.3	0.4669
6	19.921	918.5	0.3760	21.568	885.9	0.3881	24.633	988.1	0.3936
7	18.855	920.2	0.3149	20.627	916.8	0.3259	23.643	979.3	0.3301
8	16.509	898.7	0.2741	18.301	922.1	0.2840	21.062	934.3	0.2871
9	11.843	799.7	0.2470	13.248	829.7	0.2556	15.221	810.0	0.2582
10	3.196	618.0	0.2349	3.576	625.9	0.2428	4.084	618.8	0.2449

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.884	609.8	0.7396
2	19.731	745.4	0.7382
3	25.506	789.4	0.6847
4	26.708	831.7	0.5755
5	27.938	870.8	0.4791
6	27.658	875.4	0.4052
7	26.549	860.5	0.3402
8	23.716	829.5	0.2960
9	17.124	744.3	0.2662
10	4.575	605.2	0.2520

Table 4-197. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G11

Assembly Number G11									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.909	638.2	0.7396	1.731	643.1	0.7396
2	0.000		0.7368	3.718	908.5	0.7368	7.286	963.5	0.7353
3	0.000	Data Not	0.6760	4.888	1016.0	0.6760	9.704	1113.4	0.6656
4	0.000	Required	0.5515	4.860	1012.6	0.5515	9.539	1091.8	0.5327
5	0.000		0.4460	4.966	1025.7	0.4460	9.554	1077.5	0.4277
6	0.000		0.3719	4.946	1023.3	0.3719	9.437	1062.7	0.3561
7	0.000		0.3086	4.869	1013.7	0.3086	9.319	1056.5	0.2953
8	0.000		0.2655	4.287	944.6	0.2655	8.363	1001.9	0.2532
9	0.000		0.2374	3.238	833.3	0.2374	6.304	869.6	0.2257
10	0.000		0.2256	0.930	630.7	0.2256	1.816	639.0	0.2142

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.765	599.8	0.7396	2.289	621.5	0.7396	2.693	603.0	0.7396
2	7.443	748.5	0.7356	9.703	842.1	0.7368	11.362	740.0	0.7379
3	9.931	828.1	0.6671	12.837	914.2	0.6747	14.955	780.3	0.6825
4	9.809	890.4	0.5360	12.832	932.3	0.5513	15.203	811.2	0.5705
5	9.885	989.3	0.4316	12.995	945.9	0.4481	15.621	843.5	0.4736
6	9.790	1026.3	0.3593	12.815	932.7	0.3746	15.500	851.0	0.4004
7	9.633	960.8	0.2975	12.481	905.5	0.3114	15.315	870.8	0.3365
8	8.612	859.3	0.2549	11.053	846.3	0.2677	13.861	867.5	0.2915
9	6.468	745.6	0.2273	8.149	746.5	0.2389	10.233	777.1	0.2598
10	1.857	604.0	0.2156	2.283	604.9	0.2261	2.812	611.3	0.2442

Table 4-197. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly G11

Assembly Number G11									
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.025	599.1	0.7396	3.210	594.9	0.7396	3.827	640.9	0.7396
2	12.687	717.8	0.7388	13.391	692.9	0.7392	15.883	916.9	0.7389
3	16.658	753.7	0.6887	17.520	714.3	0.6919	20.876	1042.8	0.6897
4	17.153	786.0	0.5855	18.145	740.4	0.5936	21.483	1039.2	0.5869
5	17.846	823.7	0.4934	19.038	781.9	0.5053	22.307	1026.2	0.4963
6	17.841	840.3	0.4203	19.161	809.7	0.4332	22.281	998.2	0.4248
7	17.717	849.0	0.3543	19.125	829.5	0.3663	22.078	967.8	0.3592
8	16.186	837.8	0.3075	17.633	838.5	0.3187	20.335	924.3	0.3128
9	12.023	765.5	0.2745	13.202	779.7	0.2850	15.087	797.0	0.2805
10	3.287	611.2	0.2578	3.610	616.0	0.2678	4.093	615.7	0.2642

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.329	611.1	0.7396
2	17.778	757.2	0.7393
3	23.206	791.4	0.6928
4	23.969	809.4	0.5944
5	24.945	827.5	0.5060
6	24.895	824.6	0.4345
7	24.595	813.1	0.3680
8	22.725	798.2	0.3210
9	17.239	771.3	0.2910
10	4.731	618.6	0.2756

Table 4-198. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H1

Assembly Number H1									
Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.845	632.3	0.7396	1.648	641.0	0.7396
2	0.000		0.7379	3.509	884.0	0.7379	7.025	955.4	0.7363
3	0.000	Data Not	0.6827	4.746	998.0	0.6827	9.550	1110.6	0.6703
4	0.000	Required	0.5606	4.866	1012.6	0.5606	9.551	1091.8	0.5390
5	0.000		0.4532	4.964	1024.8	0.4532	9.501	1068.9	0.4331
6	0.000		0.3782	4.810	1005.8	0.3782	9.138	1037.5	0.3615
7	0.000		0.3160	4.535	972.7	0.3160	8.613	1001.4	0.3023
8	0.000		0.2740	4.023	914.5	0.2740	7.646	938.9	0.2621
9	0.000		0.2469	2.820	792.0	0.2469	5.343	804.9	0.2363
10	0.000		0.2360	0.789	619.8	0.2360	1.497	622.8	0.2259

Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.679	596.1	0.7396	2.333	637.7	0.7396	2.959	628.1	0.7396
2	7.195	764.7	0.7365	10.043	934.1	0.7364	12.596	856.3	0.7371
3	9.932	1077.6	0.6717	13.644	1046.1	0.6714	16.835	919.7	0.6762
4	9.966	1140.9	0.5399	13.630	1037.6	0.5397	17.031	949.9	0.5504
5	9.901	1113.7	0.4331	13.545	1034.0	0.4330	17.119	975.7	0.4447
6	9.506	1053.1	0.3613	12.975	1004.2	0.3614	16.470	963.8	0.3718
7	8.936	973.9	0.3021	12.114	956.4	0.3026	15.420	936.1	0.3114
8	7.909	880.1	0.2621	10.633	886.6	0.2629	13.607	889.5	0.2707
9	5.511	750.1	0.2364	7.310	761.3	0.2376	9.397	777.3	0.2446
10	1.539	605.5	0.2260	1.994	607.8	0.2274	2.522	611.2	0.2336

Table 4-198. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H1

Assembly Number H1									
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.426	615.9	0.7396	3.661	604.8	0.7396	3.987	601.2	0.7396
2	14.401	783.1	0.7379	15.278	729.2	0.7384	16.680	740.5	0.7389
3	19.076	825.6	0.6815	20.149	756.5	0.6849	22.600	882.5	0.6890
4	19.497	857.9	0.5628	20.724	789.2	0.5711	23.782	986.6	0.5784
5	19.851	897.8	0.4602	21.314	841.5	0.4718	24.700	1047.9	0.4771
6	19.292	911.6	0.3867	20.906	877.6	0.3985	24.227	1035.3	0.4011
7	18.254	913.4	0.3245	19.990	907.5	0.3353	23.104	996.4	0.3361
8	16.291	890.5	0.2820	18.044	911.5	0.2916	20.858	943.0	0.2919
9	11.397	793.4	0.2546	12.772	822.8	0.2631	14.768	813.0	0.2635
10	3.044	616.1	0.2426	3.413	623.8	0.2503	3.923	618.8	0.2505

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.569	619.6	0.7396
2	18.889	794.6	0.7393
3	25.409	848.0	0.6917
4	26.757	868.8	0.5844
5	27.781	882.2	0.4845
6	27.224	871.4	0.4084
7	25.929	849.9	0.3428
8	23.403	816.2	0.2981
9	16.561	732.4	0.2692
10	4.378	602.0	0.2556

Table 4-199. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H2

Assembly Number H2									
Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.851	632.9	0.7396	1.548	629.7	0.7396
2	0.000		0.7374	3.595	893.8	0.7374	6.766	907.0	0.7370
3	0.000	Data Not	0.6783	4.948	1022.9	0.6783	9.525	1075.3	0.6740
4	0.000	Required	0.5504	5.065	1037.5	0.5504	9.713	1086.1	0.5411
5	0.000		0.4416	5.121	1044.5	0.4416	9.695	1074.7	0.4320
6	0.000		0.3677	4.935	1021.2	0.3677	9.338	1048.6	0.3591
7	0.000		0.3069	4.640	985.3	0.3069	8.878	1024.3	0.2994
8	0.000		0.2661	4.083	921.2	0.2661	7.863	960.1	0.2588
9	0.000		0.2398	2.874	797.2	0.2398	5.504	817.4	0.2327
10	0.000		0.2292	0.794	620.2	0.2292	1.518	624.3	0.2224

Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.600	622.1	0.7396	2.321	646.2	0.7396	3.000	634.2	0.7396
2	7.003	864.5	0.7371	10.111	978.0	0.7360	12.924	893.2	0.7363
3	9.865	1001.4	0.6744	13.817	1089.3	0.6684	17.475	988.6	0.6706
4	10.082	1052.9	0.5416	14.019	1086.5	0.5337	17.881	1020.3	0.5388
5	10.106	1134.1	0.4322	14.073	1092.1	0.4252	18.036	1036.2	0.4305
6	9.756	1146.9	0.3589	13.563	1062.9	0.3529	17.390	1014.7	0.3576
7	9.250	1059.9	0.2989	12.771	1013.0	0.2940	16.479	996.2	0.2981
8	8.164	939.1	0.2584	11.170	929.6	0.2544	14.567	949.6	0.2578
9	5.689	771.9	0.2325	7.615	777.8	0.2295	9.937	806.2	0.2322
10	1.564	609.2	0.2222	2.048	610.8	0.2198	2.635	616.8	0.2221

Table 4-199. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H2

Assembly Number H2									
Node No.	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.602	633.1	0.7396	3.944	626.4	0.7396	4.251	598.7	0.7396
2	15.313	870.6	0.7366	16.600	822.0	0.7370	17.814	714.3	0.7378
3	20.550	952.1	0.6731	22.132	869.6	0.6758	23.787	762.8	0.6810
4	21.113	978.0	0.5443	22.811	897.9	0.5503	24.763	805.2	0.5627
5	21.412	1002.7	0.4368	23.291	943.8	0.4440	25.483	841.2	0.4601
6	20.778	1004.9	0.3633	22.762	971.4	0.3701	24.955	841.4	0.3857
7	19.811	995.1	0.3027	21.871	992.3	0.3085	23.954	824.5	0.3222
8	17.612	947.3	0.2614	19.627	980.2	0.2662	21.484	791.3	0.2786
9	12.091	814.8	0.2350	13.601	854.2	0.2390	14.862	710.5	0.2503
10	3.199	620.7	0.2246	3.607	630.7	0.2281	3.905	594.7	0.2380

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	5.024	640.5	0.7396
2	20.601	869.1	0.7376
3	27.215	928.3	0.6812
4	28.355	950.7	0.5644
5	29.174	964.4	0.4627
6	28.541	949.8	0.3884
7	27.332	921.4	0.3249
8	24.543	879.6	0.2813
9	17.055	776.4	0.2529
10	4.494	614.2	0.2402

Table 4-200. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H3

Assembly Number H3									
Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.815	629.6	0.7396	1.596	638.6	0.7396
2	0.000		0.7383	3.417	873.6	0.7383	6.894	949.8	0.7363
3	0.000	Data Not	0.6843	4.664	988.2	0.6843	9.555	1124.5	0.6692
4	0.000	Required	0.5629	4.811	1005.9	0.5629	9.703	1124.7	0.5350
5	0.000		0.4550	4.944	1022.3	0.4550	9.757	1111.9	0.4275
6	0.000		0.3788	4.903	1017.2	0.3788	9.600	1093.6	0.3547
7	0.000		0.3135	4.979	1026.6	0.3135	9.599	1081.8	0.2933
8	0.000		0.2665	4.758	999.6	0.2665	9.034	1030.2	0.2499
9	0.000		0.2358	3.431	852.7	0.2358	6.496	869.3	0.2215
10	0.000		0.2235	0.971	633.7	0.2235	1.846	637.9	0.2101

Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.657	633.6	0.7396	2.429	652.8	0.7396	3.184	643.1	0.7396
2	7.180	944.5	0.7362	10.517	1018.6	0.7349	13.632	938.5	0.7350
3	9.959	1119.6	0.6688	14.168	1137.6	0.6610	18.183	1044.9	0.6624
4	10.119	1142.2	0.5339	14.210	1115.4	0.5229	18.351	1065.3	0.5253
5	10.182	1160.7	0.4262	14.234	1107.9	0.4164	18.412	1071.6	0.4183
6	10.006	1122.9	0.3535	13.842	1068.3	0.3455	17.827	1039.9	0.3471
7	9.957	1034.7	0.2924	13.439	1006.4	0.2870	17.147	996.2	0.2886
8	9.325	922.1	0.2494	12.275	920.9	0.2464	15.554	932.5	0.2482
9	6.676	766.2	0.2213	8.583	775.2	0.2199	10.814	794.9	0.2221
10	1.891	608.1	0.2100	2.374	610.7	0.2094	2.947	615.5	0.2115



Table 4-200. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H3

Assembly Number H3									
Node No.	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.808	635.9	0.7396	4.142	624.8	0.7396	4.656	626.5	0.7396
2	16.085	880.8	0.7354	17.335	813.0	0.7359	19.233	816.5	0.7365
3	21.306	960.0	0.6655	22.851	860.8	0.6688	25.255	874.6	0.6726
4	21.611	982.8	0.5321	23.294	894.2	0.5391	25.999	924.3	0.5471
5	21.811	1006.6	0.4257	23.687	942.9	0.4340	26.681	974.6	0.4429
6	21.224	1006.4	0.3539	23.204	970.5	0.3617	26.252	984.2	0.3697
7	20.459	991.8	0.2942	22.516	991.3	0.3009	25.486	970.2	0.3075
8	18.561	941.4	0.2529	20.566	977.2	0.2585	23.253	921.2	0.2642
9	12.939	810.8	0.2262	14.433	850.5	0.2311	16.346	800.6	0.2363
10	3.509	620.4	0.2153	3.914	630.1	0.2197	4.413	617.7	0.2245

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	5.176	613.0	0.7396
2	21.094	753.0	0.7371
3	27.613	794.2	0.6771
4	28.688	833.3	0.5578
5	29.666	870.0	0.4565
6	29.259	872.9	0.3827
7	28.359	856.0	0.3189
8	25.861	823.7	0.2744
9	18.220	741.0	0.2459
10	4.904	605.1	0.2331

Table 4-201. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H4

Assembly Number H4									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.840	631.9	0.7396	1.579	634.1	0.7396
2	0.000		0.7377	3.534	886.8	0.7377	6.864	929.0	0.7366
3	0.000	Data Not	0.6800	4.887	1015.3	0.6800	9.639	1102.4	0.6713
4	0.000	Required	0.5527	5.056	1036.3	0.5527	9.821	1104.4	0.5367
5	0.000		0.4433	5.146	1047.7	0.4433	9.803	1087.4	0.4279
6	0.000		0.3686	4.965	1024.9	0.3686	9.432	1058.3	0.3554
7	0.000		0.3073	4.653	986.9	0.3073	8.931	1030.1	0.2961
8	0.000		0.2663	4.079	920.7	0.2663	7.876	962.4	0.2560
9	0.000		0.2402	2.842	794.1	0.2402	5.455	815.4	0.2305
10	0.000		0.2297	0.789	619.8	0.2297	1.513	624.2	0.2204

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.640	633.6	0.7396	2.380	648.6	0.7396	3.185	649.0	0.7396
2	7.146	936.0	0.7366	10.323	990.3	0.7356	13.631	968.5	0.7352
3	10.032	1097.7	0.6709	14.102	1111.4	0.6648	18.374	1087.4	0.6630
4	10.231	1131.1	0.5359	14.315	1113.9	0.5267	18.728	1111.5	0.5238
5	10.226	1158.7	0.4268	14.355	1122.3	0.4179	18.808	1118.5	0.4147
6	9.837	1122.2	0.3543	13.780	1087.7	0.3464	18.018	1081.7	0.3433
7	9.293	1042.4	0.2951	12.901	1028.0	0.2885	16.806	1027.1	0.2859
8	8.175	935.8	0.2553	11.256	941.4	0.2497	14.650	949.3	0.2475
9	5.640	772.3	0.2300	7.606	783.0	0.2256	9.856	797.4	0.2236
10	1.559	609.7	0.2200	2.055	611.9	0.2163	2.626	615.4	0.2145

Table 4-201. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H4

Assembly Number H4									
Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.810	636.0	0.7396	4.160	628.1	0.7396	4.609	617.7	0.7396
2	16.085	880.8	0.7352	17.383	824.6	0.7355	19.142	794.5	0.7364
3	21.474	956.2	0.6640	23.057	869.8	0.6665	25.432	870.0	0.6717
4	21.917	971.0	0.5281	23.613	897.3	0.5341	26.310	922.8	0.5443
5	22.145	995.9	0.4219	24.008	939.9	0.4294	26.902	956.6	0.4401
6	21.504	1022.0	0.3519	23.511	978.0	0.3594	26.332	943.9	0.3684
7	20.499	1059.2	0.2942	22.730	1040.7	0.3012	25.392	916.8	0.3087
8	17.965	992.6	0.2528	20.233	1051.5	0.2589	22.655	877.5	0.2657
9	12.137	833.0	0.2272	13.794	890.1	0.2317	15.468	766.4	0.2380
10	3.219	623.8	0.2174	3.665	637.3	0.2210	4.085	608.5	0.2268

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	5.363	638.4	0.7396
2	21.832	856.3	0.7368
3	28.712	908.3	0.6748
4	29.666	918.4	0.5509
5	30.326	927.6	0.4475
6	29.654	913.9	0.3754
7	28.533	890.0	0.3149
8	25.541	857.6	0.2717
9	17.532	761.9	0.2439
10	4.624	609.5	0.2325

Table 4-202. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H5

Assembly Number H5									
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.822	630.2	0.7396	1.630	641.5	0.7396
2	0.000		0.7382	3.437	875.8	0.7382	7.020	965.1	0.7358
3	0.000	Data Not	0.6840	4.645	985.8	0.6840	9.611	1136.7	0.6670
4	0.000	Required	0.5641	4.729	995.9	0.5641	9.609	1122.8	0.5333
5	0.000		0.4578	4.858	1011.6	0.4578	9.619	1103.9	0.4276
6	0.000		0.3819	4.847	1010.3	0.3819	9.491	1085.3	0.3557
7	0.000		0.3162	4.963	1024.6	0.3162	9.546	1076.0	0.2946
8	0.000		0.2685	4.780	1002.2	0.2685	9.069	1032.1	0.2509
9	0.000		0.2372	3.461	855.8	0.2372	6.561	873.6	0.2221
10	0.000		0.2246	0.987	635.0	0.2246	1.880	639.5	0.2105

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.689	631.0	0.7396	2.347	638.2	0.7396	3.119	645.1	0.7396
2	7.287	912.6	0.7358	10.140	934.8	0.7359	13.368	956.0	0.7357
3	9.984	1062.4	0.6671	13.751	1055.9	0.6670	18.022	1087.4	0.6655
4	10.001	1095.9	0.5332	13.889	1077.6	0.5319	18.332	1116.8	0.5283
5	10.020	1112.7	0.4272	13.994	1093.3	0.4245	18.455	1120.0	0.4200
6	9.870	1073.1	0.3552	13.665	1060.9	0.3523	17.866	1075.5	0.3482
7	9.888	1006.5	0.2943	13.368	1006.1	0.2922	17.154	1008.3	0.2893
8	9.366	931.8	0.2508	12.415	936.2	0.2501	15.628	923.2	0.2486
9	6.755	784.1	0.2222	8.788	791.6	0.2225	10.904	781.0	0.2222
10	1.929	613.4	0.2106	2.457	615.3	0.2114	3.006	613.2	0.2115

Table 4-202. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H5

Assembly Number H5									
Node No.	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.857	650.8	0.7396	4.298	647.0	0.7396	4.815	627.0	0.7396
2	16.287	958.2	0.7354	17.920	909.3	0.7356	19.906	830.4	0.7362
3	21.710	1058.1	0.6644	23.669	965.2	0.6659	26.298	911.3	0.6700
4	22.029	1059.9	0.5277	24.050	981.5	0.5311	26.959	959.5	0.5392
5	22.186	1066.0	0.4200	24.350	1021.2	0.4239	27.422	988.7	0.4322
6	21.545	1056.5	0.3484	23.803	1048.4	0.3518	26.801	975.1	0.3590
7	20.702	1032.9	0.2893	23.042	1072.5	0.2919	25.953	959.8	0.2982
8	18.786	966.1	0.2486	21.033	1045.5	0.2504	23.784	932.1	0.2560
9	13.087	819.0	0.2221	14.724	885.1	0.2234	16.635	800.5	0.2283
10	3.596	623.4	0.2115	4.052	639.1	0.2126	4.544	616.9	0.2171

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	5.591	640.9	0.7396
2	22.644	862.6	0.7366
3	29.651	917.9	0.6730
4	30.443	935.7	0.5457
5	30.984	946.5	0.4395
6	30.248	930.8	0.3659
7	29.224	907.0	0.3045
8	26.840	879.2	0.2619
9	18.859	779.9	0.2341
10	5.142	614.9	0.2226

Table 4-203. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H6

Assembly Number H6									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.898	637.1	0.7396	1.782	649.7	0.7396
2	0.000		0.7362	3.760	912.8	0.7362	7.675	1014.5	0.7335
3	0.000	Data Not	0.6704	5.118	1044.3	0.6704	10.438	1195.6	0.6527
4	0.000	Required	0.5365	5.232	1058.8	0.5365	10.412	1172.0	0.5088
5	0.000		0.4276	5.338	1072.5	0.4276	10.378	1148.8	0.4024
6	0.000		0.3540	5.232	1058.8	0.3540	10.098	1120.5	0.3328
7	0.000		0.2930	5.064	1037.3	0.2930	9.763	1094.1	0.2753
8	0.000		0.2513	4.590	979.5	0.2513	8.844	1027.0	0.2359
9	0.000		0.2244	3.260	835.3	0.2244	6.255	860.8	0.2106
10	0.000		0.2134	0.927	630.3	0.2134	1.780	635.9	0.2004

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.831	618.4	0.7396	2.366	622.8	0.7396	3.075	637.7	0.7396
2	7.890	830.2	0.7337	10.203	849.5	0.7352	13.172	916.2	0.7355
3	10.743	944.9	0.6540	13.921	956.6	0.6631	17.963	1049.3	0.6649
4	10.754	1005.9	0.5112	14.253	1009.3	0.5269	18.579	1096.6	0.5285
5	10.744	1047.7	0.4047	14.461	1047.1	0.4192	18.859	1108.9	0.4195
6	10.453	1027.9	0.3346	14.063	1028.3	0.3463	18.211	1066.8	0.3464
7	10.088	977.1	0.2768	13.430	983.0	0.2863	17.153	998.6	0.2867
8	9.126	908.3	0.2372	12.048	916.6	0.2457	15.169	910.3	0.2468
9	6.439	770.8	0.2117	8.376	778.9	0.2195	10.403	770.3	0.2212
10	1.830	613.4	0.2015	2.344	614.0	0.2088	2.880	611.9	0.2108

Table 4-203. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H6

Assembly Number H6									
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.841	654.5	0.7396	4.316	654.2	0.7396	4.743	614.7	0.7396
2	16.214	980.0	0.7351	17.984	946.5	0.7351	19.622	776.0	0.7359
3	21.851	1095.4	0.6628	23.982	1012.0	0.6635	26.280	858.0	0.6690
4	22.430	1088.3	0.5257	24.559	1011.5	0.5276	27.359	940.6	0.5388
5	22.678	1082.4	0.4174	24.909	1040.6	0.4197	28.063	1003.6	0.4315
6	21.925	1062.9	0.3450	24.241	1065.4	0.3472	27.381	1001.1	0.3570
7	20.680	1029.3	0.2858	23.072	1088.1	0.2874	26.043	970.5	0.2953
8	18.264	955.8	0.2460	20.553	1057.6	0.2470	23.212	916.6	0.2538
9	12.506	807.9	0.2206	14.167	890.9	0.2210	16.020	791.9	0.2272
10	3.457	622.0	0.2104	3.929	642.1	0.2106	4.416	616.0	0.2162

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	5.511	640.0	0.7396
2	22.343	860.2	0.7363
3	29.733	931.5	0.6720
4	31.069	967.4	0.5446
5	31.930	989.9	0.4375
6	31.151	975.8	0.3625
7	29.577	942.7	0.3003
8	26.370	892.4	0.2584
9	18.248	780.4	0.2316
10	5.023	615.7	0.2204

Table 4-204. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H7

Assembly Number H7									
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.903	637.6	0.7396	1.726	643.1	0.7396
2	0.000		0.7362	3.785	915.9	0.7362	7.444	976.0	0.7346
3	0.000	Data Not	0.6703	5.158	1049.4	0.6703	10.205	1149.9	0.6594
4	0.000	Required	0.5357	5.288	1066.1	0.5357	10.287	1142.0	0.5176
5	0.000		0.4263	5.368	1076.4	0.4263	10.255	1123.9	0.4096
6	0.000		0.3533	5.194	1053.9	0.3533	9.896	1094.5	0.3390
7	0.000		0.2936	4.898	1016.6	0.2936	9.416	1066.1	0.2814
8	0.000		0.2535	4.328	948.9	0.2535	8.369	996.4	0.2424
9	0.000		0.2279	3.042	813.5	0.2279	5.853	838.6	0.2175
10	0.000		0.2174	0.861	625.2	0.2174	1.657	630.8	0.2075

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.752	590.0	0.7396	2.041	592.9	0.7396	2.415	599.6	0.7396
2	7.568	704.8	0.7348	8.881	711.3	0.7368	10.546	740.2	0.7383
3	10.386	765.8	0.6609	12.252	768.7	0.6740	14.590	806.7	0.6843
4	10.503	811.5	0.5213	12.698	811.9	0.5517	15.379	850.2	0.5732
5	10.495	846.7	0.4144	12.941	846.2	0.4525	15.798	873.4	0.4766
6	10.132	840.3	0.3435	12.548	842.1	0.3795	15.296	859.0	0.4016
7	9.636	818.8	0.2853	12.012	836.5	0.3179	14.517	827.7	0.3371
8	8.669	938.2	0.2475	11.469	898.3	0.2810	13.690	792.5	0.2966
9	6.090	843.8	0.2221	8.447	835.5	0.2536	9.912	706.3	0.2667
10	1.714	620.4	0.2110	2.303	621.9	0.2374	2.662	595.1	0.2497



Table 4-204. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H7

Assembly Number H7									
Node No.	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	2.945	623.8	0.7396	3.421	654.5	0.7396	4.118	652.0	0.7396
2	12.722	837.5	0.7385	14.507	950.7	0.7382	17.191	951.3	0.7379
3	17.347	901.7	0.6863	19.434	999.8	0.6847	22.770	1038.1	0.6826
4	18.215	913.9	0.5772	20.300	999.2	0.5745	23.668	1044.4	0.5698
5	18.723	928.0	0.4806	20.934	1034.9	0.4771	24.338	1051.1	0.4713
6	18.213	926.6	0.4051	20.530	1065.7	0.4013	23.828	1030.9	0.3961
7	17.334	910.9	0.3398	19.734	1090.6	0.3354	22.873	1000.9	0.3311
8	16.276	875.7	0.2985	18.547	1052.4	0.2934	21.354	941.9	0.2894
9	11.905	792.4	0.2692	13.564	890.2	0.2639	15.496	803.6	0.2605
10	3.200	617.8	0.2524	3.663	640.6	0.2475	4.168	618.2	0.2450

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.904	642.0	0.7396
2	20.011	873.8	0.7380
3	26.216	930.5	0.6839
4	27.252	949.5	0.5722
5	28.036	965.7	0.4732
6	27.439	953.3	0.3977
7	26.315	930.0	0.3327
8	24.504	891.3	0.2905
9	17.850	794.7	0.2615
10	4.826	620.4	0.2465

Table 4-205. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H8

Assembly Number H8									
Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.831	631.0	0.7396	1.596	636.9	0.7396
2	0.000		0.7382	3.475	880.2	0.7382	6.831	932.6	0.7369
3	0.000	Data Not	0.6841	4.710	993.7	0.6841	9.340	1083.2	0.6747
4	0.000	Required	0.5629	4.840	1009.4	0.5629	9.414	1074.7	0.5457
5	0.000		0.4554	4.941	1022.0	0.4554	9.406	1058.0	0.4389
6	0.000		0.3802	4.786	1002.9	0.3802	9.061	1029.7	0.3664
7	0.000		0.3178	4.507	969.4	0.3178	8.557	997.3	0.3063
8	0.000		0.2756	3.988	910.7	0.2756	7.591	936.2	0.2655
9	0.000		0.2486	2.774	787.7	0.2486	5.266	801.4	0.2394
10	0.000		0.2378	0.754	617.2	0.2378	1.434	620.4	0.2290

Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.656	632.3	0.7396	2.271	632.8	0.7396	2.788	615.7	0.7396
2	7.106	925.1	0.7369	9.769	903.9	0.7372	11.879	796.6	0.7384
3	9.713	1061.4	0.6746	13.056	983.0	0.6764	15.706	846.3	0.6836
4	9.781	1049.3	0.5455	13.079	975.7	0.5505	15.971	878.3	0.5666
5	9.759	1025.5	0.4388	13.065	976.9	0.4450	16.203	912.2	0.4640
6	9.387	979.3	0.3663	12.556	954.7	0.3726	15.677	909.7	0.3901
7	8.846	919.0	0.3064	11.779	917.9	0.3125	14.770	891.8	0.3277
8	7.832	847.7	0.2658	10.394	863.1	0.2717	13.131	857.6	0.2853
9	5.424	737.3	0.2398	7.155	752.6	0.2455	9.118	762.5	0.2579
10	1.475	603.4	0.2294	1.919	606.7	0.2349	2.418	608.3	0.2461

Table 4-205. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H8

Assembly Number H8									
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.154	603.2	0.7396	3.338	594.6	0.7396	3.857	627.2	0.7396
2	13.307	731.3	0.7392	14.002	702.4	0.7396	16.070	872.7	0.7396
3	17.486	763.3	0.6896	18.337	712.0	0.6925	21.044	924.6	0.6939
4	17.989	795.0	0.5810	18.984	740.6	0.5891	21.936	967.1	0.5904
5	18.529	837.6	0.4836	19.755	788.9	0.4959	22.899	1002.0	0.4952
6	18.134	856.6	0.4098	19.529	826.2	0.4235	22.642	996.2	0.4215
7	17.277	863.8	0.3455	18.805	856.8	0.3586	21.768	969.0	0.3561
8	15.572	854.4	0.3012	17.142	866.8	0.3131	19.779	912.9	0.3106
9	11.002	777.8	0.2726	12.275	799.7	0.2836	14.072	783.9	0.2812
10	2.911	613.0	0.2595	3.252	619.0	0.2695	3.705	612.3	0.2674

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.709	649.4	0.7396
2	19.189	950.9	0.7394
3	24.853	981.4	0.6915
4	25.848	996.5	0.5858
5	26.909	1010.7	0.4893
6	26.558	996.9	0.4155
7	25.477	967.3	0.3506
8	23.135	918.6	0.3055
9	16.460	798.8	0.2763
10	4.347	618.9	0.2629

Table 4-206. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H9

Assembly Number H9									
	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.878	635.3	0.7396	1.677	640.5	0.7396
2	0.000		0.7374	3.579	892.1	0.7374	7.039	947.3	0.7360
3	0.000	Data Not	0.6804	4.716	994.4	0.6804	9.434	1096.9	0.6697
4	0.000	Required	0.5592	4.753	998.8	0.5592	9.401	1086.0	0.5389
5	0.000		0.4534	4.897	1016.4	0.4534	9.470	1074.6	0.4332
6	0.000		0.3779	4.908	1017.8	0.3779	9.394	1061.1	0.3604
7	0.000		0.3129	4.924	1019.8	0.3129	9.387	1057.6	0.2984
8	0.000		0.2670	4.624	983.5	0.2670	8.859	1024.1	0.2545
9	0.000		0.2369	3.364	845.8	0.2369	6.455	872.3	0.2256
10	0.000		0.2247	0.972	633.8	0.2247	1.871	640.1	0.2139

	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.719	609.6	0.7396	2.296	628.0	0.7396	2.816	616.0	0.7396
2	7.246	818.7	0.7362	9.780	883.5	0.7370	11.933	802.0	0.7381
3	9.758	977.1	0.6707	13.025	970.6	0.6751	15.754	856.6	0.6824
4	9.753	1024.9	0.5405	13.007	968.4	0.5490	15.946	884.7	0.5649
5	9.824	1025.5	0.4344	13.066	966.7	0.4438	16.181	908.7	0.4621
6	9.723	985.5	0.3614	12.806	941.2	0.3706	15.860	900.3	0.3875
7	9.676	919.5	0.2993	12.488	899.7	0.3082	15.395	880.2	0.3233
8	9.094	838.7	0.2554	11.499	840.7	0.2643	14.141	845.3	0.2782
9	6.607	729.1	0.2266	8.221	738.1	0.2355	10.118	754.7	0.2487
10	1.909	601.8	0.2147	2.322	603.4	0.2231	2.810	607.4	0.2351

Table 4-206. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H9

Assembly Number H9									
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.197	605.1	0.7396	3.385	595.4	0.7396	3.689	598.3	0.7396
2	13.435	741.2	0.7390	14.149	695.0	0.7394	15.471	746.0	0.7396
3	17.641	777.4	0.6882	18.524	718.1	0.6913	20.875	866.5	0.6951
4	18.053	807.0	0.5788	19.078	746.9	0.5870	22.060	972.9	0.5935
5	18.547	843.5	0.4807	19.789	792.2	0.4930	23.135	1040.1	0.4970
6	18.318	856.7	0.4061	19.698	822.8	0.4195	22.990	1029.7	0.4204
7	17.861	857.9	0.3400	19.344	846.4	0.3526	22.413	988.2	0.3520
8	16.483	840.0	0.2932	17.986	851.0	0.3048	20.733	931.4	0.3042
9	11.889	762.9	0.2627	13.088	783.7	0.2735	15.037	806.0	0.2734
10	3.278	610.4	0.2479	3.602	616.1	0.2578	4.107	618.2	0.2578

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.255	617.9	0.7396
2	17.652	813.9	0.7396
3	23.678	847.3	0.6974
4	25.062	872.1	0.5983
5	26.269	889.0	0.5026
6	26.040	878.4	0.4258
7	25.270	854.0	0.3570
8	23.277	816.1	0.3089
9	16.819	731.2	0.2778
10	4.565	602.3	0.2620

Table 4-207. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H10

Assembly Number H10									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.890	636.4	0.7396	1.791	651.5	0.7396
2	0.000		0.7368	3.659	901.2	0.7368	7.605	1019.1	0.7336
3	0.000	Data Not	0.6745	4.954	1023.6	0.6745	10.293	1199.1	0.6541
4	0.000	Required	0.5452	5.085	1039.9	0.5452	10.233	1166.8	0.5128
5	0.000		0.4369	5.222	1057.5	0.4369	10.199	1138.4	0.4075
6	0.000		0.3622	5.144	1047.5	0.3622	9.935	1108.4	0.3377
7	0.000		0.3001	4.938	1021.5	0.3001	9.521	1076.0	0.2800
8	0.000		0.2580	4.436	961.4	0.2580	8.576	1010.4	0.2406
9	0.000		0.2308	3.190	828.0	0.2308	6.138	854.8	0.2152
10	0.000		0.2195	0.943	631.6	0.2195	1.812	637.3	0.2048

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.841	619.6	0.7396	2.423	628.7	0.7396	3.125	636.9	0.7396
2	7.828	843.8	0.7338	10.326	877.9	0.7350	13.231	906.8	0.7355
3	10.609	961.2	0.6553	13.953	983.5	0.6625	17.859	1027.4	0.6654
4	10.585	1024.4	0.5148	14.198	1028.8	0.5265	18.424	1079.6	0.5300
5	10.579	1074.2	0.4093	14.382	1062.1	0.4194	18.724	1099.3	0.4212
6	10.305	1056.5	0.3391	13.988	1041.0	0.3469	18.119	1063.9	0.3481
7	9.857	996.8	0.2810	13.249	991.3	0.2873	17.013	1005.0	0.2884
8	8.857	908.0	0.2415	11.766	914.6	0.2472	14.976	922.8	0.2485
9	6.317	764.7	0.2160	8.203	772.4	0.2213	10.310	779.9	0.2230
10	1.860	610.8	0.2055	2.350	611.5	0.2105	2.900	613.2	0.2124

Table 4-207. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H10

Assembly Number H10									
	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.826	645.9	0.7396	4.260	645.6	0.7396	4.861	638.5	0.7396
2	16.004	933.1	0.7355	17.626	906.3	0.7356	19.858	871.4	0.7361
3	21.449	1040.4	0.6655	23.431	970.9	0.6669	26.289	950.7	0.6698
4	22.098	1055.5	0.5305	24.123	982.8	0.5336	27.217	992.8	0.5391
5	22.445	1064.4	0.4221	24.596	1017.5	0.4257	27.859	1024.3	0.4312
6	21.794	1055.8	0.3492	24.041	1045.2	0.3525	27.238	1011.8	0.3572
7	20.569	1034.3	0.2893	22.915	1074.3	0.2919	25.962	984.2	0.2960
8	18.124	964.5	0.2490	20.391	1051.2	0.2509	23.152	933.8	0.2546
9	12.456	813.7	0.2233	14.109	889.1	0.2245	16.028	801.5	0.2279
10	3.479	622.3	0.2127	3.945	641.0	0.2137	4.451	618.3	0.2168

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	5.701	648.0	0.7396
2	22.798	889.9	0.7363
3	29.925	956.9	0.6718
4	31.009	978.9	0.5433
5	31.747	992.7	0.4357
6	31.006	975.5	0.3616
7	29.530	947.3	0.3001
8	26.419	906.7	0.2584
9	18.407	797.8	0.2316
10	5.110	620.5	0.2204

Table 4-208. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H11

Assembly Number H11									
Node No.	Datapoint 7 (BOC Cy 12)			Datapoint 8 (142 EFPD Cy 12)			Statepoint 9 (BOC Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 12	BOC Cy 12	BOC Cy 12	142 Cy 12	142 Cy 12	142 Cy 12	BOC Cy 13	BOC Cy 13	BOC Cy 13
1	0.000		0.7396	0.850	632.8	0.7396	1.656	641.3	0.7396
2	0.000		0.7379	3.525	885.8	0.7379	7.056	957.4	0.7362
3	0.000	Data Not	0.6820	4.763	1000.1	0.6820	9.580	1112.6	0.6697
4	0.000	Required	0.5595	4.876	1013.9	0.5595	9.567	1092.7	0.5380
5	0.000		0.4521	4.970	1025.5	0.4521	9.510	1069.5	0.4321
6	0.000		0.3773	4.815	1006.4	0.3773	9.146	1037.9	0.3606
7	0.000		0.3152	4.539	973.3	0.3152	8.620	1001.7	0.3016
8	0.000		0.2733	4.027	915.0	0.2733	7.652	939.2	0.2615
9	0.000		0.2464	2.823	792.3	0.2464	5.349	805.3	0.2358
10	0.000		0.2355	0.789	619.8	0.2355	1.499	623.0	0.2254

Node No.	Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			Statepoint 12 (224 EFPD Cy 13)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13	224 Cy 13	224 Cy 13	224 Cy 13
1	1.687	596.1	0.7396	2.343	638.0	0.7396	2.971	628.3	0.7396
2	7.226	766.1	0.7364	10.081	935.2	0.7363	12.638	856.9	0.7370
3	9.962	1081.3	0.6710	13.681	1047.2	0.6708	16.880	920.7	0.6757
4	9.982	1142.3	0.5389	13.654	1038.9	0.5387	17.062	951.0	0.5495
5	9.912	1114.7	0.4322	13.561	1034.9	0.4320	17.141	976.5	0.4438
6	9.514	1053.1	0.3605	12.988	1005.0	0.3606	16.486	964.2	0.3710
7	8.943	973.4	0.3014	12.126	957.3	0.3019	15.432	936.0	0.3108
8	7.915	880.1	0.2615	10.646	887.7	0.2623	13.618	889.2	0.2701
9	5.516	748.8	0.2358	7.323	762.2	0.2371	9.407	777.0	0.2440
10	1.541	605.5	0.2255	1.999	608.1	0.2269	2.527	611.1	0.2331



Table 4-208. (Cont'd) Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly H11

Assembly Number H11									
Node No.	Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			Statepoint 15 (94 EFPD Cy 14)		
	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14	94 Cy 14	94 Cy 14	94 Cy 14
1	3.437	615.7	0.7396	3.672	604.8	0.7396	4.000	601.5	0.7396
2	14.444	783.3	0.7378	15.317	728.3	0.7383	16.726	741.6	0.7389
3	19.123	826.0	0.6810	20.192	755.7	0.6844	22.649	883.5	0.6886
4	19.533	858.6	0.5619	20.759	789.0	0.5703	23.749	974.1	0.5773
5	19.878	898.6	0.4594	21.341	841.9	0.4710	24.623	1027.7	0.4764
6	19.311	912.2	0.3859	20.927	877.9	0.3978	24.205	1027.0	0.4011
7	18.267	913.8	0.3238	20.004	907.5	0.3347	23.171	1006.2	0.3362
8	16.303	890.7	0.2814	18.055	911.2	0.2910	20.901	948.7	0.2916
9	11.409	793.6	0.2540	12.782	822.3	0.2626	14.787	814.3	0.2631
10	3.049	616.1	0.2421	3.417	623.7	0.2498	3.933	619.5	0.2502

Statepoint 16 (211 EFPD Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	211 Cy 14	211 Cy 14	211 Cy 14
1	4.581	619.5	0.7396
2	18.935	794.5	0.7392
3	25.458	848.0	0.6913
4	26.732	869.7	0.5834
5	27.715	883.7	0.4839
6	27.210	872.5	0.4083
7	26.004	851.0	0.3428
8	23.455	817.2	0.2977
9	16.585	732.8	0.2687
10	4.389	602.0	0.2553

Table 4-209. Burnup and TH Feedback Parameters by 10 Axial Nodes for Assembly J1

Assembly Number J1									
Statepoint 9 (BOC Cy 13)			Statepoint 10 (10 EFPD Cy 13)			Statepoint 11 (113 EFPD Cy 13)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	BOC Cy 13	BOC Cy 13	BOC Cy 13	10 Cy 13	10 Cy 13	10 Cy 13	113 Cy 13	113 Cy 13	113 Cy 13
1	0.000		0.7396	0.054	624.6	0.7396	0.722	639.4	0.7396
2	0.000		0.7396	0.222	871.9	0.7396	2.856	934.7	0.7383
3	0.000	Data Not	0.6930	0.327	981.3	0.6930	3.962	1031.8	0.6786
4	0.000	Required	0.5716	0.356	1030.7	0.5716	4.090	1049.2	0.5481
5	0.000		0.4568	0.377	1067.8	0.4568	4.194	1064.0	0.4372
6	0.000		0.3766	0.359	1036.1	0.3766	3.980	1029.4	0.3624
7	0.000		0.3136	0.319	967.2	0.3136	3.593	971.3	0.3028
8	0.000		0.2736	0.262	877.7	0.2736	3.005	889.3	0.2641
9	0.000		0.2500	0.161	740.6	0.2500	1.873	750.0	0.2407
10	0.000		0.2413	0.042	604.9	0.2413	0.494	607.4	0.2321

Statepoint 12 (224 EFPD Cy 13)			Statepoint 13 (325 EFPD Cy 13)			Statepoint 14 (BOC Cy 14)			
Node No.	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )	Burnup (GWd/MTU)	Fuel Temp. (K)	Mod. Dens. (g/cm <sup>3</sup> )
EFPD	224 Cy 13	224 Cy 13	224 Cy 13	325 Cy 13	325 Cy 13	325 Cy 13	BOC Cy 14	BOC Cy 14	BOC Cy 14
1	1.457	640.7	0.7396	2.102	638.5	0.7396	2.462	630.1	0.7396
2	5.917	929.4	0.7372	8.735	939.9	0.7363	10.283	886.2	0.7367
3	8.416	1118.1	0.6702	12.342	1101.8	0.6657	14.360	980.3	0.6687
4	8.665	1139.0	0.5308	12.568	1097.4	0.5263	14.652	998.3	0.5326
5	8.721	1130.5	0.4198	12.622	1096.9	0.4172	14.840	1036.3	0.4241
6	8.211	1079.8	0.3473	12.038	1083.1	0.3454	14.339	1060.3	0.3515
7	7.408	1012.3	0.2899	11.087	1055.9	0.2874	13.461	1081.7	0.2921
8	6.219	922.9	0.2526	9.435	975.3	0.2489	11.688	1046.7	0.2519
9	3.885	768.5	0.2300	5.952	803.0	0.2255	7.491	861.5	0.2271
10	1.022	611.2	0.2216	1.560	617.7	0.2169	1.958	628.9	0.2178