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MFN 08-797

Docket No. 52-010

October 23, 2008

U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D.C. 20555-0001

Subject: Response to Portion of NRC Request for Additional Information Letter No. 229 - Related To Design Control Document (DCD) Revision 5 – RAI Number 4.3-19

The purpose of this letter is to submit the GE Hitachi Nuclear Energy (GEH) response to the U.S. Nuclear Regulatory Commission (NRC) Request for Additional Information (RAI) sent by the Reference 1 NRC letter. GEH response to RAI Number 4.3-19 is addressed in Enclosure 1.

If you have any questions or require additional information, please contact me.

Sincerely,

Lee F. Dougherty for

Richard E. Kingston
Vice President, ESBWR Licensing

D068
NRO

Reference:

1. MFN 08-611, Letter from U.S. Nuclear Regulatory Commission to Robert E. Brown, *Request For Additional Information Letter No. 229 Related To Design Control Document (DCD) Revision 5*, dated July 30, 2008.

Enclosure:

1. MFN 08-797 – Response to Portion of NRC Request for Additional Information Letter No. 229 - Related To Design Control Document (DCD) Revision 5 – RAI Number 4.3-19

cc:	AE Cubbage	USNRC (with enclosure)
	RE Brown	GEH/Wilmington (with enclosure)
	DH Hinds	GEH/Wilmington (with enclosure)
	eDRF	0000-0089-1937

Enclosure 1

MFN 08-797

Response to Portion of NRC Request for

Additional Information Letter No. 229

Related To Design Control Document (DCD) Revision 5

RAI Number 4.3-19

NRC RAI 4.3-19

Provide additional data, such as flow distribution and core pressure drop. In DCD Revision 5, Chapter 4, Appendix A, provide data similar to Figures 4A.1a through 4A.1e for operating points SP1M, "SP1M following the loss of heating event," and the following power/temperature operating points:

1. *(169C, 96%P) which corresponds to 30F LOFWH from (186C, 90%P)*
2. *(168C, 86%P) which corresponds to 30F LOFWH from (184C, 80%P)*
3. *(163C, 56%P) which corresponds to 30F LOFWH from (180C, 50%P)*

In addition, for above points, provide the 2-D channel flow distribution in the core and the core pressure drop. Please identify the location where the pressure drop is measured (e.g. lower to upper tie plate, channel inlet to outlet). Provide the above data for beginning of cycle (BOC), middle of cycle (MOC), and end of cycle (EOC) conditions.

GEH Response

Figures 4.3-19-1 through 4.3-19-100 were developed in response to RAI 4.3-19. The operating points provided are slightly different than the requested points due to the variation in core void coefficient. Operating points prior to and after the 30°F LOFWH have been provided. The conditions following the feedwater temperature (FWT) reduction are driven by the core average void coefficient and the change in power is not constant at all points on the Power Feedwater Temperature Operating Domain (P-FWTOD) map and also vary during the cycle.

The core pressure drop is calculated from before the core inlet orifice to down stream of upper tie plate of the bundle. The pressure drop methodology is provided in NEDC-33239P, Revision 3, Section 1.5. For each case presented, the core pressure drop is included on the summary edit.

Summary data, 2D power and 2D flow have been provided for BOC (0.0 GWd/MT), MOC (3.78 GWd/MT), and EOC (11.75 GWd/MT) conditions. The bundle exposures are independent of the state point conditions and provided for the MOC cases in Figures 4.3-19-37 and 38 and for the EOC cases in Figures 4.3-19-71 and 72. The BOC exposures are not provided because they are at zero exposure for an initial core.

The control rod patterns are based upon an 80 notch control rod stroke.

DCD Impact

No DCD changes will be made in response to this RAI.

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Power: RP	(MWth)	4500.00	(100.0 %)
Pressure: PRV	(psia)	1050.58	
Core Flow: WCT	(Mlb/hr)	81.75	(103.0 %)
Bypass Flow: WBPRIN	(Mlb/hr)	11.30	(13.8 %)
Inlet Enthalpy: HCI	(BTU/lb)	504.47	
Inlet Temp.: TWI	(deg F)	514.01	
Core Press Drop: CPD	(psi)	9.13	
Pre-burn: DELBRN	(MWd/MT)	0.00	
Post-burn: DELTE	(MWd/MT)	0.00	
Initial Exposure	(MWd/MT)	0.00	
Final Exposure: EXCORE	(MWd/MT)	0.00	
Cycle Exposure: CYCEXP	(MWd/MT)	0.00	
Cycle Energy: CYCENR	(GWd)	0.00	

Neutron Multiplication: AMDA 1.00291419

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/MT)	0.0	38	38	0
Max Bundle Exposure (MWd/MT)	0.0	38	38	
Peak Axial Power	1.7740			4
Maximum Nodal Power	2.4792	12	6	4
Maximum Bundle Power	1.3305	19	5	
Maximum APLHGR	10.3969	12	6	4

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.0000	15	1	1
Minimum Critical Power Ratio(CPR)	1.3984	12	6	16
Maximum KW/ft	12.9746	18	5	3
Maximum MFLPD	0.9683	18	5	3

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71																		
5	67																		
7	63							36				36							
9	59																		
11	55					14				0				14					
13	51																		
15	47			36				39				39				36			
17	43																		
19	39					0				0				0					
21	35																		
23	31			36				39				39				36			
25	27																		
27	23					14				0				14					
29	19																		
31	15							36				36							
33	11																		
35	7																		
37	3																		

Figure RAI 4.3-19- 1 Control Rod Pattern Summary at BOC /100% Power /FWT 372 F

K(node)	Axial Power
20	0.1382
19	0.3016
18	0.4267
17	0.5514
16	0.6683
15	0.7588
14	0.8063
13	0.8700
12	0.9798
11	1.0434
10	1.1124
9	1.2002
8	1.3070
7	1.4304
6	1.5650
5	1.6945
4	1.7740
3	1.6844
2	1.2674
1	0.4203

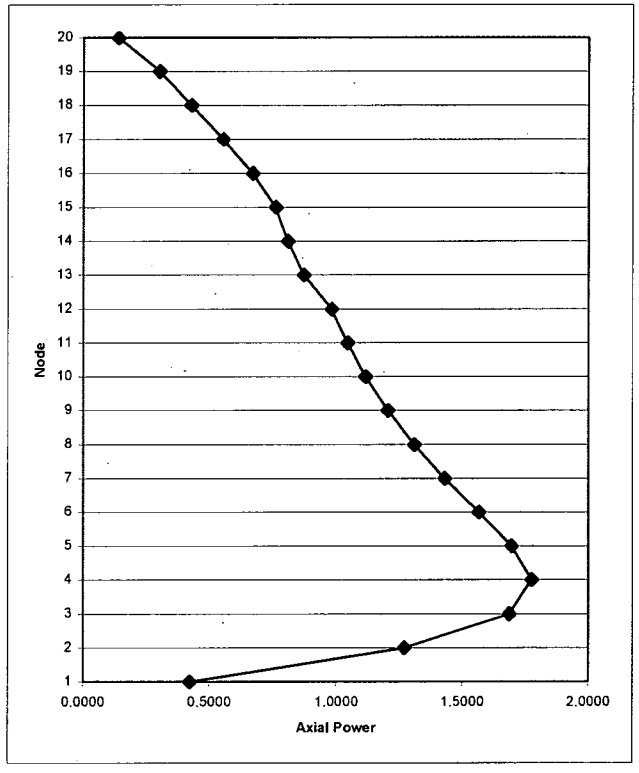

Figure RAI 4.3-19- 2 Relative Axial Power at BOC / 100% Power / FWT 372 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.19	0.25	0.31	0.33	0.32
2													0.28	0.34	0.39	0.75	0.81	0.85	0.86
3											0.33	0.43	0.82	0.89	0.64	0.67	1.06	1.03	0.75
4									0.28	0.40	0.84	0.99	1.06	1.14	0.78	0.81	1.16	1.27	0.87
5								0.30	0.68	0.89	0.97	1.11	1.15	1.16	1.27	1.25	1.28	1.30	1.33
6							0.28	0.73	0.88	1.08	1.17	1.29	1.20	1.25	1.18	1.20	1.25	1.28	1.32
7						0.28	0.47	0.60	1.00	1.20	0.88	0.91	1.30	1.20	0.70	0.71	1.23	1.30	0.96
8					0.30	0.73	0.60	0.72	1.18	1.19	0.90	0.92	1.31	1.21	0.71	0.71	1.23	1.29	0.95
9				0.28	0.68	0.88	1.00	1.18	1.16	1.24	1.23	1.25	1.24	1.24	1.22	1.22	1.29	1.25	1.27
10				0.40	0.89	1.08	1.20	1.19	1.24	1.19	1.15	1.16	1.26	1.25	1.28	1.28	1.25	1.22	1.16
11			0.33	0.84	0.97	1.17	0.88	0.90	1.23	1.15	0.59	0.60	1.17	1.26	0.93	0.93	1.26	1.15	0.56
12			0.43	0.99	1.11	1.29	0.91	0.92	1.25	1.16	0.60	0.60	1.17	1.26	0.93	0.93	1.26	1.15	0.56
13		0.28	0.82	1.06	1.15	1.20	1.30	1.31	1.24	1.26	1.17	1.17	1.22	1.25	1.28	1.28	1.25	1.22	1.15
14		0.34	0.89	1.14	1.16	1.25	1.20	1.21	1.24	1.25	1.26	1.26	1.25	1.25	1.23	1.23	1.24	1.25	1.26
15	0.19	0.39	0.64	0.78	1.27	1.18	0.70	0.71	1.22	1.28	0.93	0.93	1.28	1.23	0.74	0.74	1.23	1.27	0.93
16	0.25	0.75	0.67	0.81	1.25	1.20	0.71	0.71	1.22	1.28	0.93	0.93	1.28	1.23	0.74	0.74	1.23	1.27	0.93
17	0.31	0.81	1.06	1.16	1.28	1.25	1.23	1.23	1.29	1.25	1.26	1.26	1.25	1.24	1.23	1.23	1.24	1.25	1.25
18	0.33	0.85	1.03	1.27	1.30	1.28	1.30	1.29	1.25	1.22	1.15	1.15	1.22	1.25	1.27	1.27	1.25	1.22	1.15
19	0.32	0.86	0.75	0.87	1.33	1.32	0.96	0.95	1.27	1.16	0.56	0.56	1.15	1.26	0.93	0.93	1.25	1.15	0.56

Figure RAI 4.3-19- 3 Relative Integrated Power at BOC / 100% Power / FWT 372 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.57E+04	4.55E+04	4.52E+04	4.51E+04	4.52E+04
2													4.53E+04	4.51E+04	7.70E+04	7.06E+04	6.91E+04	6.83E+04	6.80E+04
3											4.51E+04	4.47E+04	6.87E+04	6.75E+04	7.25E+04	7.20E+04	6.38E+04	6.46E+04	7.06E+04
4									4.54E+04	4.48E+04	6.82E+04	6.50E+04	6.36E+04	6.21E+04	6.98E+04	6.92E+04	6.17E+04	5.94E+04	6.80E+04
5							4.53E+04	7.18E+04	6.71E+04	6.52E+04	6.24E+04	6.17E+04	6.17E+04	5.96E+04	6.00E+04	5.94E+04	5.89E+04	5.83E+04	
6						4.53E+04	7.09E+04	6.72E+04	6.30E+04	6.12E+04	5.89E+04	6.08E+04	6.00E+04	6.18E+04	6.15E+04	6.02E+04	5.94E+04	5.86E+04	
7					4.53E+04	7.56E+04	7.32E+04	6.48E+04	6.06E+04	6.76E+04	6.71E+04	5.90E+04	6.15E+04	7.23E+04	7.23E+04	6.11E+04	5.93E+04	6.63E+04	
8				4.53E+04	7.09E+04	7.32E+04	7.11E+04	6.10E+04	6.09E+04	6.72E+04	6.70E+04	5.90E+04	6.13E+04	7.22E+04	7.22E+04	6.12E+04	5.96E+04	6.67E+04	
9			4.54E+04	7.18E+04	6.72E+04	6.48E+04	6.10E+04	6.15E+04	6.00E+04	6.05E+04	6.02E+04	6.03E+04	6.05E+04	6.14E+04	6.14E+04	5.95E+04	6.02E+04	6.00E+04	
10			4.48E+04	6.71E+04	6.30E+04	6.06E+04	6.09E+04	6.00E+04	6.12E+04	6.23E+04	6.22E+04	5.99E+04	6.03E+04	5.99E+04	5.99E+04	6.03E+04	6.08E+04	6.23E+04	
11		4.51E+04	6.82E+04	6.52E+04	6.12E+04	6.76E+04	6.72E+04	6.05E+04	6.23E+04	7.36E+04	7.34E+04	6.22E+04	6.01E+04	6.71E+04	6.71E+04	6.02E+04	6.24E+04	7.39E+04	
12		4.47E+04	6.50E+04	6.24E+04	5.89E+04	6.71E+04	6.70E+04	6.02E+04	6.22E+04	7.34E+04	7.38E+04	6.22E+04	6.02E+04	6.71E+04	6.72E+04	6.03E+04	6.25E+04	7.40E+04	
13	4.53E+04	6.87E+04	6.36E+04	6.17E+04	6.08E+04	5.90E+04	5.90E+04	6.03E+04	5.99E+04	6.22E+04	6.22E+04	6.09E+04	6.04E+04	6.00E+04	6.01E+04	6.05E+04	6.11E+04	6.26E+04	
14	4.51E+04	6.75E+04	6.21E+04	6.17E+04	6.00E+04	6.15E+04	6.13E+04	6.05E+04	6.03E+04	6.01E+04	6.02E+04	6.04E+04	6.06E+04	6.17E+04	6.18E+04	6.07E+04	6.05E+04	6.04E+04	
15	4.57E+04	7.70E+04	7.25E+04	6.98E+04	5.96E+04	6.18E+04	7.23E+04	7.22E+04	6.14E+04	5.99E+04	6.71E+04	6.71E+04	6.00E+04	6.17E+04	7.18E+04	7.18E+04	6.18E+04	6.01E+04	6.73E+04
16	4.55E+04	7.06E+04	7.20E+04	6.92E+04	6.00E+04	6.15E+04	7.23E+04	7.22E+04	6.14E+04	5.99E+04	6.71E+04	6.72E+04	6.01E+04	6.18E+04	7.18E+04	7.18E+04	6.18E+04	6.02E+04	6.73E+04
17	4.52E+04	6.91E+04	6.38E+04	6.17E+04	5.94E+04	6.02E+04	6.11E+04	6.12E+04	5.95E+04	6.03E+04	6.02E+04	6.03E+04	6.05E+04	6.07E+04	6.18E+04	6.18E+04	6.07E+04	6.06E+04	6.05E+04
18	4.51E+04	6.83E+04	6.46E+04	5.94E+04	5.89E+04	5.94E+04	5.96E+04	5.96E+04	6.02E+04	6.08E+04	6.24E+04	6.26E+04	6.11E+04	6.05E+04	6.01E+04	6.02E+04	6.06E+04	6.12E+04	6.26E+04
19	4.52E+04	6.80E+04	7.06E+04	6.80E+04	5.83E+04	5.86E+04	6.63E+04	6.67E+04	6.00E+04	6.23E+04	7.39E+04	7.40E+04	6.26E+04	6.04E+04	6.73E+04	6.73E+04	6.05E+04	6.26E+04	7.40E+04

Figure RAI 4.3-19- 4 Channel Flow (lbs/hr) at BOC / 100% Power / FWT 372 F

Power: RP	(MWth)	4765.90	(105.9 %)
Pressure: PRV	(psia)	1053.28	
Core Flow: WCT	(Mlb/hr)	81.99	(103.3 %)
Bypass Flow: WBPRIN	(Mlb/hr)	11.43	(13.9 %)
Inlet Enthalpy: HCI	(BTU/lb)	497.25	
Inlet Temp.: TWI	(deg F)	507.99	
Core Press Drop: CPD	(psi)	9.15	
Pre-burn: DELBRN	(MWd/MT)	0.00	
Post-burn: DELTE	(MWd/MT)	0.00	
Initial Exposure	(MWd/MT)	0.00	
Final Exposure: EXCORE	(MWd/MT)	0.00	
Cycle Exposure: CYCEXP	(MWd/MT)	0.00	
Cycle Energy: CYCENR	(GWd)	0.00	

Neutron Multiplication: AMDA 1.00232148

Core Values:			Location: I	J	K
Max Nodal Exposure	(MWd/MT)	0.0	38	38	0
Max Bundle Exposure	(MWd/MT)	0.0	38	38	
Peak Axial Power		1.8023			4
Maximum Nodal Power		2.5163	33	12	3
Maximum Bundle Power		1.3275	20	5	
Maximum APLHGR		11.1733	33	12	3

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.0000	15	1	1
Minimum Critical Power Ratio(CPR)	1.3380	6	12	16
Maximum KW/ft	14.0524	21	34	3
Maximum MFLPD	1.0487	21	34	3

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71																		
5	67																		
7	63							36				36							
9	59																		
11	55					14				0				14					
13	51																		
15	47			36				39				39				36			
17	43																		
19	39					0				0				0					
21	35																		
23	31			36				39				39				36			
25	27																		
27	23					14				0				14					
29	19																		
31	15							36				36							
33	11																		
35	7																		
37	3																		

Figure RAI 4.3-19- 5 Control Rod Pattern Summary at BOC / SP1M – 30F / FWT 342 F

K(node)	Axial Power
20	0.1357
19	0.2957
18	0.4182
17	0.5406
16	0.6553
15	0.7447
14	0.7927
13	0.857
12	0.9673
11	1.0325
10	1.1032
9	1.1933
8	1.3029
7	1.4308
6	1.5718
5	1.7106
4	1.8023
3	1.722
2	1.2956
1	0.4279

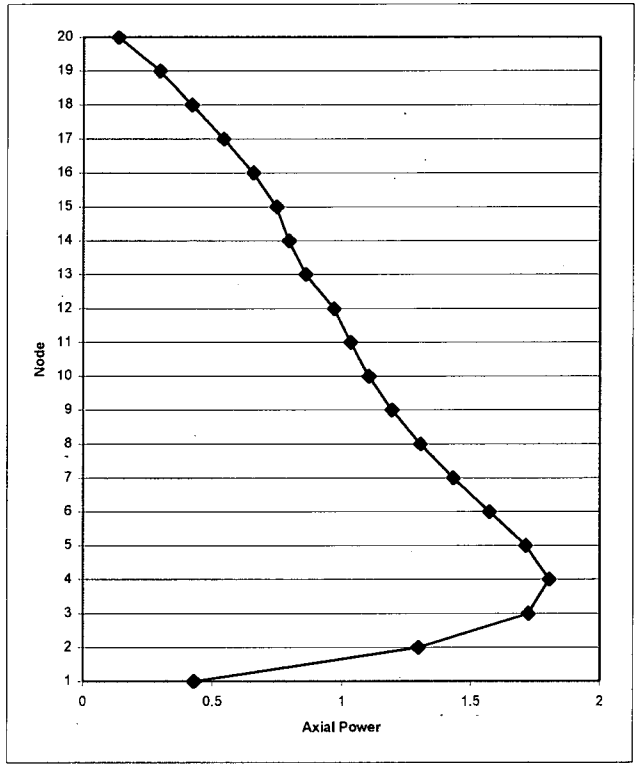

Figure RAI 4.3-19- 6 Relative Axial Power at BOC / SP1M – 30F / FWT 342 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.19	0.25	0.31	0.33	0.33
2													0.28	0.34	0.39	0.76	0.81	0.85	0.87
3											0.33	0.43	0.83	0.89	0.65	0.67	1.07	1.03	0.75
4									0.28	0.40	0.85	0.99	1.06	1.14	0.78	0.81	1.16	1.27	0.87
5								0.30	0.69	0.89	0.98	1.11	1.15	1.16	1.27	1.25	1.27	1.30	1.33
6							0.28	0.74	0.89	1.08	1.18	1.29	1.20	1.25	1.18	1.20	1.24	1.28	1.32
7						0.28	0.47	0.61	1.00	1.21	0.88	0.91	1.30	1.20	0.71	0.71	1.22	1.29	0.96
8					0.30	0.74	0.61	0.73	1.19	1.19	0.90	0.92	1.30	1.21	0.71	0.72	1.22	1.28	0.95
9				0.28	0.69	0.89	1.00	1.19	1.16	1.24	1.23	1.24	1.24	1.24	1.21	1.22	1.29	1.25	1.26
10				0.40	0.89	1.08	1.21	1.19	1.24	1.19	1.15	1.16	1.26	1.24	1.27	1.27	1.25	1.22	1.15
11			0.33	0.85	0.98	1.18	0.88	0.90	1.23	1.15	0.60	0.60	1.16	1.26	0.93	0.93	1.25	1.15	0.57
12			0.43	0.99	1.11	1.29	0.91	0.92	1.24	1.16	0.60	0.60	1.17	1.26	0.93	0.93	1.25	1.15	0.57
13		0.28	0.83	1.06	1.15	1.20	1.30	1.30	1.24	1.26	1.16	1.17	1.22	1.25	1.27	1.27	1.24	1.21	1.15
14		0.34	0.89	1.14	1.16	1.25	1.20	1.21	1.24	1.24	1.26	1.26	1.25	1.24	1.22	1.23	1.24	1.24	1.25
15	0.19	0.39	0.65	0.78	1.27	1.18	0.71	0.71	1.21	1.27	0.93	0.93	1.27	1.22	0.74	0.74	1.22	1.27	0.93
16	0.25	0.76	0.67	0.81	1.25	1.20	0.71	0.72	1.22	1.27	0.93	0.93	1.27	1.23	0.74	0.74	1.22	1.27	0.93
17	0.31	0.81	1.07	1.16	1.27	1.24	1.22	1.22	1.29	1.25	1.25	1.25	1.24	1.24	1.22	1.22	1.24	1.24	1.25
18	0.33	0.85	1.03	1.27	1.30	1.28	1.29	1.28	1.25	1.22	1.15	1.15	1.21	1.24	1.27	1.27	1.24	1.21	1.15
19	0.33	0.87	0.75	0.87	1.33	1.32	0.96	0.95	1.26	1.15	0.57	0.57	1.15	1.25	0.93	0.93	1.25	1.15	0.56

Figure RAI 4.3-19- 7 Relative Integrated Power at BOC / SP1M – 30F / FWT 342 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.61E+04	4.59E+04	4.56E+04	4.55E+04	4.55E+04
2													4.57E+04	4.54E+04	7.78E+04	7.12E+04	6.95E+04	6.85E+04	6.83E+04
3											4.55E+04	4.50E+04	6.90E+04	6.77E+04	7.31E+04	7.26E+04	6.38E+04	6.46E+04	7.12E+04
4									4.57E+04	4.52E+04	6.84E+04	6.51E+04	6.36E+04	6.20E+04	7.03E+04	6.96E+04	6.16E+04	5.91E+04	6.83E+04
5								4.56E+04	7.23E+04	6.72E+04	6.52E+04	6.23E+04	6.15E+04	6.16E+04	5.93E+04	5.98E+04	5.91E+04	5.86E+04	5.80E+04
6							4.57E+04	7.14E+04	6.73E+04	6.29E+04	6.10E+04	5.85E+04	6.06E+04	5.97E+04	6.17E+04	6.14E+04	6.01E+04	5.92E+04	5.84E+04
7						4.57E+04	7.63E+04	7.38E+04	6.48E+04	6.04E+04	6.79E+04	6.74E+04	5.88E+04	6.14E+04	7.29E+04	7.29E+04	6.10E+04	5.91E+04	6.66E+04
8					4.56E+04	7.14E+04	7.38E+04	7.16E+04	6.08E+04	6.07E+04	6.75E+04	6.73E+04	5.87E+04	6.13E+04	7.28E+04	7.28E+04	6.12E+04	5.94E+04	6.70E+04
9				4.57E+04	7.23E+04	6.73E+04	6.48E+04	6.08E+04	6.14E+04	5.98E+04	6.03E+04	6.00E+04	6.01E+04	6.03E+04	6.13E+04	6.13E+04	5.93E+04	6.01E+04	5.98E+04
10				4.52E+04	6.72E+04	6.29E+04	6.04E+04	6.07E+04	5.98E+04	6.10E+04	6.22E+04	6.21E+04	5.97E+04	6.02E+04	5.98E+04	5.98E+04	6.02E+04	6.08E+04	6.23E+04
11			4.55E+04	6.84E+04	6.52E+04	6.10E+04	6.79E+04	6.75E+04	6.03E+04	6.22E+04	7.41E+04	7.40E+04	6.22E+04	6.00E+04	6.75E+04	6.75E+04	6.01E+04	6.24E+04	7.46E+04
12			4.50E+04	6.51E+04	6.23E+04	5.85E+04	6.74E+04	6.73E+04	6.00E+04	6.21E+04	7.40E+04	7.44E+04	6.22E+04	6.01E+04	6.75E+04	6.75E+04	6.02E+04	6.25E+04	7.46E+04
13		4.57E+04	6.90E+04	6.36E+04	6.15E+04	6.06E+04	5.88E+04	5.87E+04	6.01E+04	5.97E+04	6.22E+04	6.22E+04	6.09E+04	6.03E+04	5.99E+04	6.00E+04	6.04E+04	6.11E+04	6.26E+04
14		4.54E+04	6.77E+04	6.20E+04	6.16E+04	5.97E+04	6.14E+04	6.13E+04	6.03E+04	6.02E+04	6.00E+04	6.01E+04	6.03E+04	6.06E+04	6.14E+04	6.18E+04	6.06E+04	6.05E+04	6.03E+04
15	4.61E+04	7.78E+04	7.31E+04	7.03E+04	5.93E+04	6.17E+04	7.29E+04	7.28E+04	6.13E+04	5.98E+04	6.75E+04	6.75E+04	5.99E+04	6.14E+04	7.24E+04	7.24E+04	6.19E+04	6.01E+04	6.77E+04
16	4.59E+04	7.12E+04	7.26E+04	6.96E+04	5.98E+04	6.14E+04	7.29E+04	7.28E+04	6.13E+04	5.98E+04	6.75E+04	6.75E+04	6.00E+04	6.18E+04	7.24E+04	7.24E+04	6.19E+04	6.01E+04	6.77E+04
17	4.56E+04	6.95E+04	6.38E+04	6.16E+04	5.91E+04	6.01E+04	6.10E+04	6.12E+04	5.93E+04	6.02E+04	6.01E+04	6.02E+04	6.04E+04	6.06E+04	6.19E+04	6.19E+04	6.07E+04	6.05E+04	6.04E+04
18	4.55E+04	6.85E+04	6.46E+04	5.91E+04	5.86E+04	5.92E+04	5.91E+04	5.94E+04	6.01E+04	6.08E+04	6.24E+04	6.25E+04	6.11E+04	6.05E+04	6.01E+04	6.01E+04	6.05E+04	6.11E+04	6.27E+04
19	4.55E+04	6.83E+04	7.12E+04	6.83E+04	5.80E+04	5.84E+04	6.66E+04	6.70E+04	5.98E+04	6.23E+04	7.46E+04	7.46E+04	6.26E+04	6.03E+04	6.77E+04	6.77E+04	6.04E+04	6.27E+04	7.46E+04

Figure RAI 4.3-19- 8 Channel Flow (lbs/hr) at BOC / SP1M – 30F / FWT 342 F

Power: RP	(MWth)	4050.00	(90.0 %)
Pressure: PRV	(psia)	1040.73	
Core Flow: WCT	(Mlb/hr)	82.47	(103.9 %)
Bypass Flow: WBPRIN	(Mlb/hr)	11.05	(13.4 %)
Inlet Enthalpy: HCI	(BTU/lb)	507.69	
Inlet Temp.: TWI	(deg F)	516.66	
Core Press Drop: CPD	(psi)	9.15	
Pre-burn: DELBRN	(MWd/MT)	0.00	
Post-burn: DELTE	(MWd/MT)	0.00	
Initial Exposure	(MWd/MT)	0.00	
Final Exposure: EXCORE	(MWd/MT)	0.00	
Cycle Exposure: CYCEXP	(MWd/MT)	0.00	
Cycle Energy: CYCENR	(GWd)	0.00	

Neutron Multiplication: AMDA 1.00315917

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/MT)	0.0	38	38	0
Max Bundle Exposure (MWd/MT)	0.0	38	38	
Peak Axial Power	1.8286			4
Maximum Nodal Power	2.6170	12	6	4
Maximum Bundle Power	1.3232	12	6	
Maximum APLHGR	9.8691	12	6	4

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.0000	15	1	1
Minimum Critical Power Ratio(CPR)	1.5153	12	6	16
Maximum KW/ft	12.1240	12	6	4
Maximum MFLPD	0.9524	12	6	4

Control Rod Configuration
In Notches Withdrawn

PANAC		1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site		2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																			
3	71										60									
5	67																			
7	63								20				20							
9	59																			
11	55						10				6				10					
13	51																			
15	47				20				26				26				20			
17	43																			
19	39		60				6				0				6				60	
21	35																			
23	31				20				26				26				20			
25	27																			
27	23						10				6				10					
29	19																			
31	15								20				20							
33	11																			
35	7										60									
37	3																			

Figure RAI 4.3-19- 9 Control Rod Pattern Summary at BOC / 90% Power / FWT 369 F

K(node)	Axial Power
20	0.1332
19	0.2954
18	0.4149
17	0.5301
16	0.6381
15	0.7156
14	0.7461
13	0.7995
12	0.9107
11	0.9983
10	1.103
9	1.2195
8	1.3487
7	1.4891
6	1.6329
5	1.7591
4	1.8286
3	1.7223
2	1.2888
1	0.4262

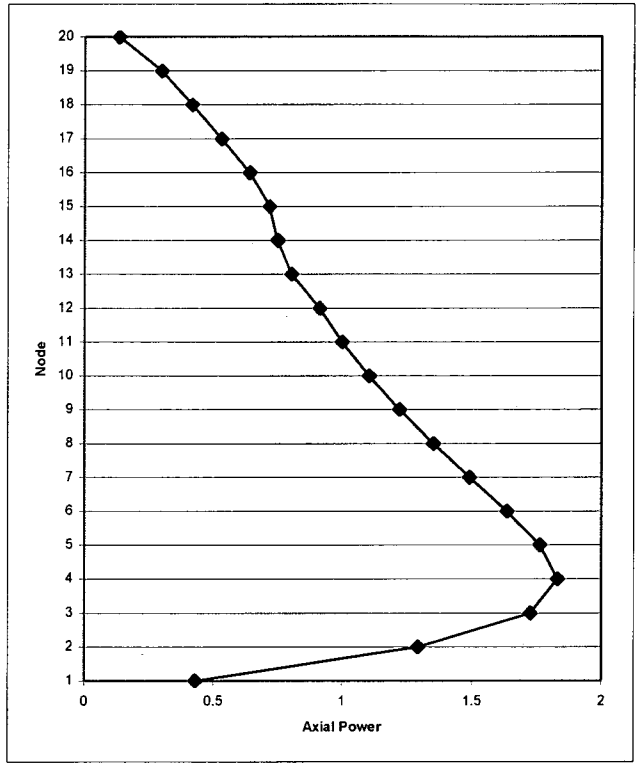

Figure RAI 4.3-19- 10 Relative Axial Power at BOC / 90% Power / FWT 369 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.18	0.24	0.30	0.31	0.30
2													0.28	0.34	0.38	0.74	0.80	0.82	0.82
3											0.33	0.43	0.84	0.90	0.64	0.66	1.05	0.99	0.66
4									0.28	0.41	0.86	1.01	1.08	1.16	0.78	0.81	1.16	1.24	0.78
5								0.31	0.70	0.92	1.00	1.14	1.17	1.17	1.27	1.25	1.27	1.29	1.30
6							0.29	0.76	0.91	1.12	1.21	1.32	1.22	1.26	1.16	1.17	1.24	1.28	1.31
7						0.29	0.48	0.62	1.03	1.24	0.90	0.92	1.31	1.18	0.62	0.62	1.20	1.29	0.95
8					0.31	0.76	0.62	0.75	1.22	1.23	0.92	0.93	1.32	1.19	0.63	0.63	1.20	1.29	0.95
9				0.28	0.70	0.91	1.03	1.22	1.20	1.28	1.26	1.27	1.26	1.25	1.19	1.19	1.29	1.26	1.28
10				0.41	0.92	1.12	1.24	1.23	1.28	1.22	1.17	1.17	1.28	1.26	1.28	1.28	1.26	1.24	1.17
11			0.33	0.86	1.00	1.21	0.90	0.92	1.26	1.17	0.58	0.59	1.18	1.27	0.94	0.94	1.27	1.17	0.58
12			0.43	1.01	1.14	1.32	0.92	0.93	1.27	1.17	0.59	0.59	1.18	1.27	0.94	0.94	1.27	1.17	0.57
13		0.28	0.84	1.08	1.17	1.22	1.31	1.32	1.26	1.28	1.18	1.18	1.23	1.26	1.28	1.28	1.26	1.23	1.17
14		0.34	0.90	1.16	1.17	1.26	1.18	1.19	1.25	1.26	1.27	1.27	1.26	1.25	1.21	1.21	1.24	1.26	1.27
15	0.18	0.38	0.64	0.78	1.27	1.16	0.62	0.63	1.19	1.28	0.94	0.94	1.28	1.21	0.66	0.66	1.21	1.28	0.93
16	0.24	0.74	0.66	0.81	1.25	1.17	0.62	0.63	1.19	1.28	0.94	0.94	1.28	1.21	0.66	0.66	1.21	1.28	0.93
17	0.30	0.80	1.05	1.16	1.27	1.24	1.20	1.20	1.29	1.26	1.27	1.27	1.26	1.24	1.21	1.21	1.24	1.26	1.27
18	0.31	0.82	0.99	1.24	1.29	1.28	1.29	1.29	1.26	1.24	1.17	1.17	1.23	1.26	1.28	1.28	1.26	1.23	1.16
19	0.30	0.82	0.66	0.78	1.30	1.31	0.95	0.95	1.28	1.17	0.58	0.57	1.17	1.27	0.93	0.93	1.27	1.16	0.56

Figure RAI 4.3-19- 11 Relative Integrated Power at BOC / 90% Power / FWT 369 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.53E+04	4.53E+04	4.51E+04	4.50E+04	4.49E+04
2													4.51E+04	4.49E+04	7.68E+04	7.12E+04	7.02E+04	6.98E+04	7.02E+04
3											4.50E+04	4.46E+04	6.91E+04	6.81E+04	7.28E+04	7.25E+04	6.52E+04	6.66E+04	7.30E+04
4									4.51E+04	4.47E+04	6.85E+04	6.55E+04	6.42E+04	6.30E+04	7.04E+04	7.00E+04	6.32E+04	6.16E+04	7.08E+04
5								4.50E+04	7.18E+04	6.74E+04	6.56E+04	6.30E+04	6.24E+04	6.26E+04	6.08E+04	6.13E+04	6.09E+04	6.06E+04	6.05E+04
6							4.51E+04	7.08E+04	6.74E+04	6.36E+04	6.18E+04	5.96E+04	6.16E+04	6.10E+04	6.32E+04	6.30E+04	6.17E+04	6.09E+04	6.03E+04
7						4.51E+04	7.53E+04	7.31E+04	6.51E+04	6.11E+04	6.80E+04	6.76E+04	6.00E+04	6.28E+04	7.36E+04	7.36E+04	6.27E+04	6.08E+04	6.74E+04
8					4.50E+04	7.08E+04	7.31E+04	7.11E+04	6.15E+04	6.15E+04	6.76E+04	6.75E+04	6.00E+04	6.27E+04	7.36E+04	7.36E+04	6.28E+04	6.09E+04	6.76E+04
9				4.51E+04	7.18E+04	6.74E+04	6.51E+04	6.15E+04	6.20E+04	6.06E+04	6.11E+04	6.10E+04	6.12E+04	6.15E+04	6.28E+04	6.28E+04	6.08E+04	6.13E+04	6.11E+04
10				4.47E+04	6.74E+04	6.36E+04	6.11E+04	6.15E+04	6.06E+04	6.17E+04	6.29E+04	6.30E+04	6.08E+04	6.13E+04	6.11E+04	6.11E+04	6.14E+04	6.18E+04	6.32E+04
11			4.50E+04	6.85E+04	6.56E+04	6.18E+04	6.80E+04	6.76E+04	6.11E+04	6.29E+04	7.37E+04	7.37E+04	6.31E+04	6.12E+04	6.78E+04	6.78E+04	6.13E+04	6.33E+04	7.39E+04
12			4.46E+04	6.55E+04	6.30E+04	5.96E+04	6.76E+04	6.75E+04	6.10E+04	6.30E+04	7.37E+04	7.40E+04	6.31E+04	6.13E+04	6.79E+04	6.79E+04	6.14E+04	6.33E+04	7.41E+04
13		4.51E+04	6.91E+04	6.42E+04	6.24E+04	6.16E+04	6.00E+04	6.00E+04	6.12E+04	6.08E+04	6.31E+04	6.31E+04	6.19E+04	6.15E+04	6.13E+04	6.13E+04	6.16E+04	6.21E+04	6.34E+04
14		4.49E+04	6.81E+04	6.30E+04	6.26E+04	6.10E+04	6.28E+04	6.27E+04	6.15E+04	6.13E+04	6.12E+04	6.13E+04	6.15E+04	6.18E+04	6.32E+04	6.32E+04	6.19E+04	6.16E+04	6.15E+04
15	4.53E+04	7.68E+04	7.28E+04	7.04E+04	6.08E+04	6.32E+04	7.36E+04	7.36E+04	6.28E+04	6.11E+04	6.78E+04	6.79E+04	6.13E+04	6.32E+04	7.31E+04	7.31E+04	6.32E+04	6.14E+04	6.80E+04
16	4.53E+04	7.12E+04	7.25E+04	7.00E+04	6.13E+04	6.30E+04	7.36E+04	7.36E+04	6.28E+04	6.11E+04	6.78E+04	6.79E+04	6.13E+04	6.32E+04	7.31E+04	7.31E+04	6.32E+04	6.14E+04	6.80E+04
17	4.51E+04	7.02E+04	6.52E+04	6.32E+04	6.09E+04	6.17E+04	6.27E+04	6.28E+04	6.08E+04	6.14E+04	6.13E+04	6.14E+04	6.16E+04	6.19E+04	6.32E+04	6.32E+04	6.20E+04	6.17E+04	6.15E+04
18	4.50E+04	6.98E+04	6.66E+04	6.16E+04	6.06E+04	6.09E+04	6.08E+04	6.09E+04	6.13E+04	6.18E+04	6.33E+04	6.33E+04	6.21E+04	6.16E+04	6.14E+04	6.14E+04	6.17E+04	6.22E+04	6.36E+04
19	4.49E+04	7.02E+04	7.30E+04	7.08E+04	6.05E+04	6.03E+04	6.74E+04	6.76E+04	6.11E+04	6.32E+04	7.39E+04	7.41E+04	6.34E+04	6.15E+04	6.80E+04	6.80E+04	6.15E+04	6.36E+04	7.41E+04

Figure RAI 4.3-19- 12 Channel Flow (lbs/hr) at BOC / 90% Power / FWT 369 F

Power: RP	(MWth)	4281.93	(95.2 %)
Pressure: PRV	(psia)	1042.31	
Core Flow: WCT	(Mlb/hr)	82.72	(104.2 %)
Bypass Flow: WBPRIN	(Mlb/hr)	11.19	(13.5 %)
Inlet Enthalpy: HCI	(BTU/lb)	501.10	
Inlet Temp.: TWI	(deg F)	511.20	
Core Press Drop: CPD	(psi)	9.18	
Pre-burn: DELBRN	(MWd/MT)	0.00	
Post-burn: DELTE	(MWd/MT)	0.00	
Initial Exposure	(MWd/MT)	0.00	
Final Exposure: EXCORE	(MWd/MT)	0.00	
Cycle Exposure: CYCEXP	(MWd/MT)	0.00	
Cycle Energy: CYCENR	(GWd)	0.00	

Neutron Multiplication: AMDA 1.00267184

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/MT)	0.0	38	38	0
Max Bundle Exposure (MWd/MT)	0.0	38	38	
Peak Axial Power	1.8559			4
Maximum Nodal Power	2.6488	33	12	4
Maximum Bundle Power	1.3221	12	6	
Maximum APLHGR	10.5583	33	12	4

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.0000	15	1	1
Minimum Critical Power Ratio(CPR)	1.4521	12	6	16
Maximum KW/ft	12.9781	33	12	4
Maximum MFLPD	0.9926	33	12	4

Control Rod Configuration
In Notches Withdrawn

PANAC		1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site		2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																			
3	71										60									
5	67																			
7	63								20				20							
9	59																			
11	55						10				6				10					
13	51																			
15	47				20				26				26				20			
17	43																			
19	39		60				6				0				6				60	
21	35																			
23	31				20				26				26				20			
25	27																			
27	23						10				6				10					
29	19																			
31	15								20				20							
33	11																			
35	7										60									
37	3																			

Figure RAI 4.3-19- 13 Control Rod Pattern Summary at BOC / 90% Power-30F / FWT 339 F

K(node)	Axial Power
20	0.1307
19	0.2893
18	0.4063
17	0.5192
16	0.6254
15	0.7025
14	0.7339
13	0.7882
12	0.8997
11	0.9883
10	1.0943
9	1.2126
8	1.3445
7	1.4895
6	1.6398
5	1.7751
4	1.8559
3	1.7575
2	1.3143
1	0.4329

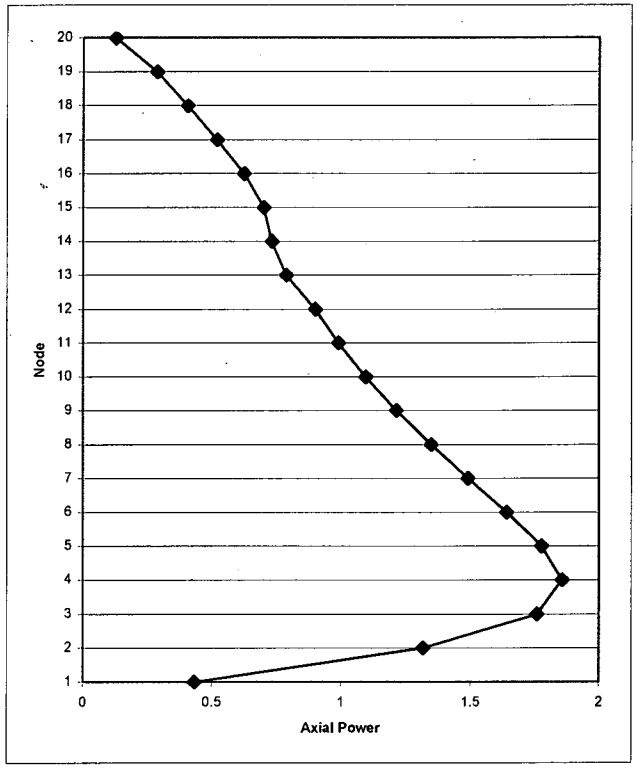

Figure RAI 4.3-19- 14 Relative Axial Power at BOC / 90% Power-30F / FWT 339 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.18	0.24	0.30	0.31	0.31
2													0.28	0.34	0.38	0.75	0.80	0.83	0.82
3											0.34	0.44	0.84	0.90	0.65	0.67	1.06	1.00	0.66
4									0.29	0.41	0.87	1.02	1.08	1.16	0.78	0.81	1.16	1.24	0.78
5								0.31	0.71	0.92	1.01	1.14	1.17	1.17	1.27	1.25	1.27	1.29	1.30
6							0.29	0.76	0.92	1.12	1.21	1.32	1.22	1.26	1.16	1.17	1.24	1.27	1.31
7						0.29	0.48	0.62	1.04	1.24	0.90	0.92	1.31	1.18	0.62	0.63	1.19	1.29	0.95
8					0.31	0.76	0.62	0.75	1.23	1.23	0.92	0.93	1.32	1.19	0.63	0.63	1.19	1.28	0.95
9				0.29	0.71	0.92	1.04	1.23	1.20	1.27	1.26	1.27	1.26	1.24	1.19	1.19	1.29	1.26	1.27
10				0.41	0.92	1.12	1.24	1.23	1.27	1.22	1.17	1.17	1.28	1.26	1.27	1.27	1.25	1.23	1.17
11			0.34	0.87	1.01	1.21	0.90	0.92	1.26	1.17	0.59	0.59	1.17	1.27	0.94	0.94	1.27	1.17	0.58
12			0.44	1.02	1.14	1.32	0.92	0.93	1.27	1.17	0.59	0.59	1.17	1.27	0.94	0.93	1.26	1.16	0.58
13		0.28	0.84	1.08	1.17	1.22	1.31	1.32	1.26	1.28	1.17	1.17	1.23	1.25	1.27	1.27	1.25	1.23	1.16
14		0.34	0.90	1.16	1.17	1.26	1.18	1.19	1.24	1.26	1.27	1.27	1.25	1.24	1.20	1.20	1.24	1.25	1.26
15	0.18	0.38	0.65	0.78	1.27	1.16	0.62	0.63	1.19	1.27	0.94	0.94	1.27	1.20	0.66	0.66	1.20	1.27	0.93
16	0.24	0.75	0.67	0.81	1.25	1.17	0.63	0.63	1.19	1.27	0.94	0.93	1.27	1.20	0.66	0.66	1.20	1.27	0.93
17	0.30	0.80	1.06	1.16	1.27	1.24	1.19	1.19	1.29	1.25	1.27	1.26	1.25	1.24	1.20	1.20	1.24	1.25	1.26
18	0.31	0.83	1.00	1.24	1.29	1.27	1.29	1.28	1.26	1.23	1.17	1.16	1.23	1.25	1.27	1.27	1.25	1.22	1.16
19	0.31	0.82	0.66	0.78	1.30	1.31	0.95	0.95	1.27	1.17	0.58	0.58	1.16	1.26	0.93	0.93	1.26	1.16	0.57

Figure RAI 4.3-19- 15 Relative Integrated Power at BOC / 90% Power-30F / FWT 339 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.56E+04	4.54E+04	4.54E+04	4.53E+04	4.52E+04
2													4.55E+04	4.52E+04	7.75E+04	7.17E+04	7.06E+04	7.01E+04	7.06E+04
3											4.53E+04	4.49E+04	6.94E+04	6.83E+04	7.33E+04	7.30E+04	6.53E+04	6.67E+04	7.36E+04
4									4.55E+04	4.50E+04	6.88E+04	6.56E+04	6.42E+04	6.28E+04	7.09E+04	7.04E+04	6.31E+04	6.15E+04	7.13E+04
5								4.54E+04	7.23E+04	6.75E+04	6.57E+04	6.29E+04	6.23E+04	6.25E+04	6.06E+04	6.12E+04	6.07E+04	6.04E+04	6.03E+04
6							4.54E+04	7.12E+04	6.76E+04	6.34E+04	6.16E+04	5.93E+04	6.14E+04	6.08E+04	6.31E+04	6.30E+04	6.15E+04	6.07E+04	6.01E+04
7						4.54E+04	7.59E+04	7.37E+04	6.51E+04	6.09E+04	6.82E+04	6.78E+04	5.98E+04	6.27E+04	7.41E+04	7.41E+04	6.27E+04	6.06E+04	6.76E+04
8					4.54E+04	7.12E+04	7.37E+04	7.17E+04	6.13E+04	6.13E+04	6.79E+04	6.78E+04	5.98E+04	6.26E+04	7.41E+04	7.41E+04	6.27E+04	6.08E+04	6.79E+04
9				4.55E+04	7.23E+04	6.76E+04	6.51E+04	6.13E+04	6.19E+04	6.04E+04	6.10E+04	6.08E+04	6.10E+04	6.14E+04	6.28E+04	6.28E+04	6.06E+04	6.12E+04	6.10E+04
10				4.50E+04	6.75E+04	6.34E+04	6.09E+04	6.13E+04	6.04E+04	6.16E+04	6.29E+04	6.29E+04	6.06E+04	6.12E+04	6.10E+04	6.10E+04	6.13E+04	6.18E+04	6.32E+04
11			4.53E+04	6.88E+04	6.57E+04	6.16E+04	6.82E+04	6.79E+04	6.10E+04	6.29E+04	7.43E+04	7.43E+04	6.30E+04	6.11E+04	6.81E+04	6.82E+04	6.12E+04	6.33E+04	7.45E+04
12			4.49E+04	6.56E+04	6.29E+04	5.93E+04	6.78E+04	6.78E+04	6.08E+04	6.29E+04	7.43E+04	7.46E+04	6.31E+04	6.12E+04	6.82E+04	6.82E+04	6.13E+04	6.34E+04	7.47E+04
13		4.55E+04	6.94E+04	6.42E+04	6.23E+04	6.14E+04	5.98E+04	5.98E+04	6.10E+04	6.06E+04	6.30E+04	6.31E+04	6.19E+04	6.14E+04	6.12E+04	6.12E+04	6.15E+04	6.20E+04	6.34E+04
14		4.52E+04	6.83E+04	6.28E+04	6.25E+04	6.08E+04	6.27E+04	6.26E+04	6.14E+04	6.12E+04	6.11E+04	6.12E+04	6.14E+04	6.18E+04	6.32E+04	6.32E+04	6.19E+04	6.15E+04	6.14E+04
15	4.56E+04	7.75E+04	7.33E+04	7.09E+04	6.06E+04	6.31E+04	7.41E+04	7.41E+04	6.28E+04	6.10E+04	6.81E+04	6.82E+04	6.12E+04	6.32E+04	7.37E+04	7.37E+04	6.33E+04	6.13E+04	6.84E+04
16	4.54E+04	7.17E+04	7.30E+04	7.04E+04	6.12E+04	6.30E+04	7.41E+04	7.41E+04	6.28E+04	6.10E+04	6.82E+04	6.82E+04	6.12E+04	6.32E+04	7.37E+04	7.37E+04	6.33E+04	6.13E+04	6.84E+04
17	4.54E+04	7.06E+04	6.53E+04	6.31E+04	6.07E+04	6.15E+04	6.27E+04	6.27E+04	6.06E+04	6.13E+04	6.12E+04	6.13E+04	6.15E+04	6.19E+04	6.33E+04	6.33E+04	6.19E+04	6.16E+04	6.15E+04
18	4.53E+04	7.01E+04	6.67E+04	6.15E+04	6.04E+04	6.07E+04	6.06E+04	6.08E+04	6.12E+04	6.18E+04	6.33E+04	6.34E+04	6.20E+04	6.15E+04	6.13E+04	6.13E+04	6.16E+04	6.21E+04	6.36E+04
19	4.52E+04	7.06E+04	7.36E+04	7.13E+04	6.03E+04	6.01E+04	6.76E+04	6.79E+04	6.10E+04	6.32E+04	7.45E+04	7.47E+04	6.34E+04	6.14E+04	6.84E+04	6.84E+04	6.15E+04	6.36E+04	7.47E+04

Figure RAI 4.3-19- 16 Channel Flow (lbs/hr) at BOC / 90% Power-30F / FWT 339 F

Power: RP	(MWth)	3600.00	(80.0 %)
Pressure: PRV	(psia)	1026.87	
Core Flow: WCT	(Mlb/hr)	82.86	(104.4 %)
Bypass Flow: WBPRIN	(Mlb/hr)	10.71	(12.9 %)
Inlet Enthalpy: HCI	(BTU/lb)	509.63	
Inlet Temp.: TWI	(deg F)	518.25	
Core Press Drop: CPD	(psi)	9.05	
Pre-burn: DELBRN	(MWd/MT)	0.00	
Post-burn: DELTE	(MWd/MT)	0.00	
Initial Exposure	(MWd/MT)	0.00	
Final Exposure: EXCORE	(MWd/MT)	0.00	
Cycle Exposure: CYCEXP	(MWd/MT)	0.00	
Cycle Energy: CYCENR	(GWd)	0.00	

Neutron Multiplication: AMDA 1.00305891

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/MT)	0.0	38	38	0
Max Bundle Exposure (MWd/MT)	0.0	38	38	
Peak Axial Power	1.8330			4
Maximum Nodal Power	2.5169	30	17	4
Maximum Bundle Power	1.3243	18	16	
Maximum APLHGR	8.4310	30	17	4

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.0000	15	1	1
Minimum Critical Power Ratio(CPR)	1.7222	33	12	16
Maximum KW/ft	10.6244	18	31	4
Maximum MFLPD	0.8810	18	31	4

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71									34									
5	67																		
7	63					60		0				0		60					
9	59																		
11	55			60		0				0				0		60			
13	51																		
15	47			0				16				16				0			
17	43																		
19	39		34			0				0				0				34	
21	35																		
23	31			0				16				16				0			
25	27																		
27	23			60		0				0				0		60			
29	19																		
31	15					60		0				0		60					
33	11																		
35	7									34									
37	3																		

Figure RAI 4.3-19- 17 Control Rod Pattern Summary at BOC / 80% Power / FWT 365 F

K(node)	Axial Power
20	0.1167
19	0.2615
18	0.3738
17	0.4878
16	0.5974
15	0.6825
14	0.7306
13	0.8029
12	0.9289
11	1.0237
10	1.1362
9	1.2607
8	1.3968
7	1.5404
6	1.6803
5	1.7886
4	1.833
3	1.6975
2	1.2509
1	0.4099

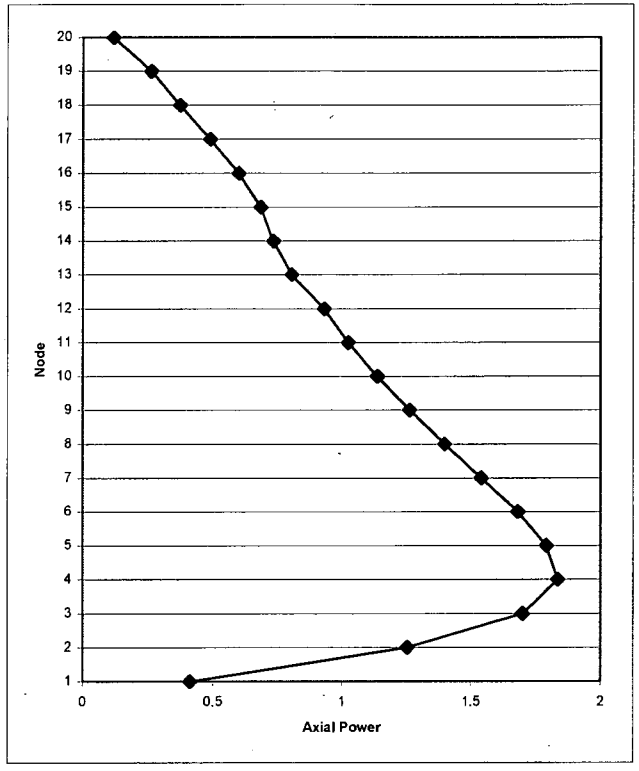

Figure RAI 4.3-19- 18 Relative Axial Power at BOC / 80% Power / FWT 365 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.18	0.23	0.28	0.28	0.26
2													0.28	0.34	0.37	0.72	0.76	0.76	0.70
3											0.34	0.44	0.85	0.91	0.64	0.65	1.01	0.91	0.49
4									0.28	0.41	0.88	1.03	1.10	1.17	0.78	0.80	1.13	1.16	0.60
5								0.31	0.71	0.93	1.01	1.16	1.19	1.19	1.28	1.25	1.26	1.26	1.23
6							0.29	0.76	0.92	1.12	1.19	1.31	1.23	1.27	1.15	1.16	1.23	1.27	1.29
7						0.29	0.48	0.62	1.04	1.23	0.81	0.83	1.29	1.17	0.56	0.57	1.18	1.29	0.95
8					0.31	0.76	0.62	0.75	1.23	1.22	0.83	0.84	1.30	1.18	0.57	0.58	1.20	1.30	0.95
9				0.28	0.71	0.92	1.04	1.23	1.21	1.28	1.24	1.25	1.27	1.26	1.20	1.20	1.32	1.29	1.31
10				0.41	0.93	1.12	1.23	1.22	1.28	1.23	1.17	1.18	1.30	1.29	1.31	1.31	1.30	1.27	1.20
11			0.34	0.88	1.01	1.19	0.81	0.83	1.24	1.17	0.57	0.57	1.20	1.31	0.96	0.96	1.31	1.21	0.58
12			0.44	1.03	1.16	1.31	0.83	0.84	1.25	1.18	0.57	0.58	1.20	1.31	0.96	0.96	1.31	1.21	0.58
13		0.28	0.85	1.10	1.19	1.23	1.29	1.30	1.27	1.30	1.20	1.20	1.28	1.30	1.32	1.32	1.30	1.28	1.21
14		0.34	0.91	1.17	1.19	1.27	1.17	1.18	1.26	1.29	1.31	1.31	1.30	1.28	1.23	1.23	1.29	1.31	1.32
15	0.18	0.37	0.64	0.78	1.28	1.15	0.56	0.57	1.20	1.31	0.96	0.96	1.32	1.23	0.63	0.63	1.23	1.32	0.97
16	0.23	0.72	0.65	0.80	1.25	1.16	0.57	0.58	1.20	1.31	0.96	0.96	1.32	1.23	0.63	0.63	1.23	1.32	0.97
17	0.28	0.76	1.01	1.13	1.26	1.23	1.18	1.20	1.32	1.30	1.31	1.31	1.30	1.29	1.23	1.23	1.29	1.31	1.32
18	0.28	0.76	0.91	1.16	1.26	1.27	1.29	1.30	1.29	1.27	1.21	1.21	1.28	1.31	1.32	1.32	1.31	1.28	1.21
19	0.26	0.70	0.49	0.60	1.23	1.29	0.95	0.95	1.31	1.20	0.58	0.58	1.21	1.32	0.97	0.97	1.32	1.21	0.58

Figure RAI 4.3-19- 19 Relative Integrated Power at BOC / 80% Power / FWT 365 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.47E+04	4.47E+04	4.46E+04	4.46E+04	4.45E+04
2													4.46E+04	4.44E+04	7.61E+04	7.17E+04	7.11E+04	7.13E+04	7.25E+04
3											4.45E+04	4.42E+04	6.92E+04	6.84E+04	7.28E+04	7.26E+04	6.68E+04	6.88E+04	7.48E+04
4									4.46E+04	4.43E+04	6.88E+04	6.60E+04	6.48E+04	6.37E+04	7.06E+04	7.04E+04	6.47E+04	6.44E+04	7.36E+04
5								4.45E+04	7.18E+04	6.79E+04	6.64E+04	6.39E+04	6.33E+04	6.34E+04	6.19E+04	6.26E+04	6.24E+04	6.25E+04	6.32E+04
6							4.46E+04	7.10E+04	6.80E+04	6.46E+04	6.35E+04	6.16E+04	6.28E+04	6.22E+04	6.42E+04	6.42E+04	6.29E+04	6.23E+04	6.20E+04
7						4.46E+04	7.48E+04	7.30E+04	6.60E+04	6.30E+04	7.06E+04	7.02E+04	6.20E+04	6.40E+04	7.37E+04	7.37E+04	6.38E+04	6.20E+04	6.79E+04
8					4.45E+04	7.10E+04	7.30E+04	7.14E+04	6.28E+04	6.33E+04	7.03E+04	7.02E+04	6.19E+04	6.39E+04	7.36E+04	7.36E+04	6.36E+04	6.18E+04	6.78E+04
9				4.46E+04	7.18E+04	6.80E+04	6.60E+04	6.28E+04	6.32E+04	6.20E+04	6.29E+04	6.28E+04	6.24E+04	6.25E+04	6.36E+04	6.36E+04	6.15E+04	6.19E+04	6.18E+04
10				4.43E+04	6.79E+04	6.46E+04	6.30E+04	6.33E+04	6.20E+04	6.29E+04	6.41E+04	6.40E+04	6.17E+04	6.20E+04	6.18E+04	6.17E+04	6.19E+04	6.23E+04	6.35E+04
11			4.45E+04	6.88E+04	6.64E+04	6.35E+04	7.06E+04	7.03E+04	6.29E+04	6.41E+04	7.37E+04	7.36E+04	6.36E+04	6.17E+04	6.77E+04	6.77E+04	6.17E+04	6.35E+04	7.36E+04
12			4.42E+04	6.60E+04	6.39E+04	6.16E+04	7.02E+04	7.02E+04	6.28E+04	6.40E+04	7.36E+04	7.36E+04	6.36E+04	6.17E+04	6.77E+04	6.77E+04	6.17E+04	6.35E+04	7.36E+04
13		4.46E+04	6.92E+04	6.48E+04	6.33E+04	6.28E+04	6.20E+04	6.19E+04	6.24E+04	6.17E+04	6.36E+04	6.36E+04	6.23E+04	6.19E+04	6.17E+04	6.17E+04	6.18E+04	6.23E+04	6.35E+04
14		4.44E+04	6.84E+04	6.37E+04	6.34E+04	6.22E+04	6.40E+04	6.39E+04	6.25E+04	6.20E+04	6.17E+04	6.17E+04	6.19E+04	6.22E+04	6.33E+04	6.33E+04	6.22E+04	6.18E+04	6.17E+04
15	4.47E+04	7.61E+04	7.28E+04	7.06E+04	6.19E+04	6.42E+04	7.37E+04	7.36E+04	6.36E+04	6.18E+04	6.77E+04	6.77E+04	6.17E+04	6.33E+04	7.33E+04	7.33E+04	6.33E+04	6.16E+04	6.77E+04
16	4.47E+04	7.17E+04	7.26E+04	7.04E+04	6.26E+04	6.42E+04	7.37E+04	7.36E+04	6.36E+04	6.17E+04	6.77E+04	6.77E+04	6.17E+04	6.33E+04	7.33E+04	7.33E+04	6.33E+04	6.16E+04	6.77E+04
17	4.46E+04	7.11E+04	6.68E+04	6.47E+04	6.24E+04	6.29E+04	6.38E+04	6.36E+04	6.15E+04	6.19E+04	6.17E+04	6.17E+04	6.18E+04	6.22E+04	6.33E+04	6.33E+04	6.22E+04	6.18E+04	6.17E+04
18	4.46E+04	7.13E+04	6.88E+04	6.44E+04	6.25E+04	6.23E+04	6.20E+04	6.18E+04	6.19E+04	6.23E+04	6.35E+04	6.35E+04	6.23E+04	6.18E+04	6.16E+04	6.16E+04	6.18E+04	6.22E+04	6.35E+04
19	4.45E+04	7.25E+04	7.48E+04	7.36E+04	6.32E+04	6.20E+04	6.79E+04	6.78E+04	6.18E+04	6.36E+04	7.36E+04	7.36E+04	6.36E+04	6.17E+04	6.77E+04	6.77E+04	6.17E+04	6.35E+04	7.36E+04

Figure RAI 4.3-19- 20 Channel Flow (lbs/hr) at BOC / 80% Power / FWT 365 F

Power: RP	(MWth)	3817.98	(84.8 %)
Pressure: PRV	(psia)	1029.39	
Core Flow: WCT	(Mlb/hr)	83.18	(104.8 %)
Bypass Flow: WBPRIN	(Mlb/hr)	10.85	(13.0 %)
Inlet Enthalpy: HCI	(BTU/lb)	503.91	
Inlet Temp.: TWI	(deg F)	513.52	
Core Press Drop: CPD	(psi)	9.08	
Pre-burn: DELBRN	(MWd/MT)	0.00	
Post-burn: DELTE	(MWd/MT)	0.00	
Initial Exposure	(MWd/MT)	0.00	
Final Exposure: EXCORE	(MWd/MT)	0.00	
Cycle Exposure: CYCEXP	(MWd/MT)	0.00	
Cycle Energy: CYCENR	(GWd)	0.00	

Neutron Multiplication: AMDA 1.00250769

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/MT)	0.0	38	38	0
Max Bundle Exposure (MWd/MT)	0.0	38	38	
Peak Axial Power	1.8594			4
Maximum Nodal Power	2.5476	5	24	4
Maximum Bundle Power	1.3193	18	16	
Maximum APLHGR	9.0487	5	24	4

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.0000	15	1	1
Minimum Critical Power Ratio(CPR)	1.6479	12	6	16
Maximum KW/ft	11.4202	33	20	4
Maximum MFLPD	0.9221	33	20	4

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71									34									
5	67																		
7	63					60		0				0		60					
9	59																		
11	55			60		0				0				0		60			
13	51																		
15	47			0				16				16				0			
17	43																		
19	39		34			0				0				0				34	
21	35																		
23	31			0				16				16				0			
25	27																		
27	23			60		0				0				0		60			
29	19																		
31	15					60		0				0		60					
33	11																		
35	7									34									
37	3																		

Figure RAI 4.3-19- 21 Control Rod Pattern Summary at BOC / 80.0% Power-30F / FWT 335 F

K(node)	Axial Power
20	0.1149
19	0.2569
18	0.3672
17	0.4793
16	0.5872
15	0.6715
14	0.7202
13	0.7923
12	0.9178
11	1.0127
10	1.1259
9	1.2517
8	1.3905
7	1.5389
6	1.686
5	1.8038
4	1.8594
3	1.7313
2	1.276
1	0.4168

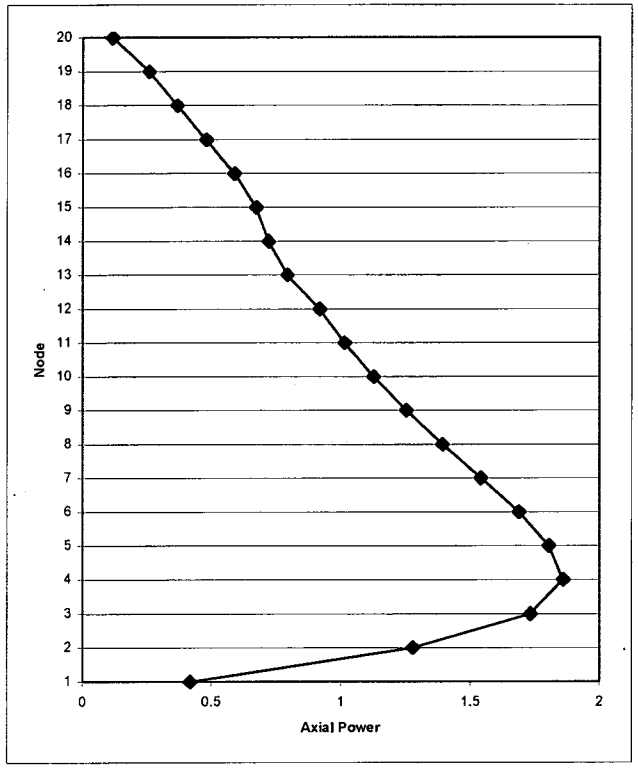

Figure RAI 4.3-19- 22 Relative Axial Power at BOC / 80.0% Power-30F / FWT 335 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.17	0.23	0.28	0.28	0.26
2													0.28	0.34	0.38	0.73	0.77	0.77	0.71
3											0.34	0.44	0.86	0.91	0.64	0.65	1.02	0.91	0.50
4									0.29	0.41	0.88	1.04	1.10	1.17	0.78	0.80	1.13	1.16	0.61
5								0.31	0.71	0.93	1.02	1.16	1.19	1.19	1.28	1.25	1.26	1.26	1.23
6							0.29	0.77	0.93	1.12	1.19	1.31	1.23	1.26	1.15	1.16	1.23	1.27	1.29
7						0.29	0.48	0.62	1.04	1.23	0.81	0.83	1.29	1.16	0.57	0.57	1.18	1.29	0.95
8					0.31	0.77	0.62	0.75	1.23	1.21	0.83	0.84	1.29	1.18	0.58	0.58	1.19	1.30	0.95
9				0.29	0.71	0.93	1.04	1.23	1.21	1.28	1.24	1.25	1.26	1.26	1.19	1.20	1.31	1.29	1.30
10				0.41	0.93	1.12	1.23	1.21	1.28	1.23	1.17	1.17	1.30	1.28	1.30	1.31	1.29	1.27	1.20
11			0.34	0.88	1.02	1.19	0.81	0.83	1.24	1.17	0.57	0.58	1.20	1.30	0.96	0.96	1.31	1.20	0.58
12			0.44	1.04	1.16	1.31	0.83	0.84	1.25	1.17	0.58	0.58	1.20	1.31	0.96	0.96	1.31	1.21	0.59
13		0.28	0.86	1.10	1.19	1.23	1.29	1.29	1.26	1.30	1.20	1.20	1.27	1.30	1.31	1.31	1.30	1.27	1.21
14		0.34	0.91	1.17	1.19	1.26	1.16	1.18	1.26	1.28	1.30	1.31	1.30	1.28	1.22	1.23	1.28	1.30	1.31
15	0.17	0.38	0.64	0.78	1.28	1.15	0.57	0.58	1.19	1.30	0.96	0.96	1.31	1.22	0.63	0.63	1.23	1.32	0.97
16	0.23	0.73	0.65	0.80	1.25	1.16	0.57	0.58	1.20	1.31	0.96	0.96	1.31	1.23	0.63	0.63	1.23	1.32	0.97
17	0.28	0.77	1.02	1.13	1.26	1.23	1.18	1.19	1.31	1.29	1.31	1.31	1.30	1.28	1.23	1.23	1.28	1.30	1.32
18	0.28	0.77	0.91	1.16	1.26	1.27	1.29	1.30	1.29	1.27	1.20	1.21	1.27	1.30	1.32	1.32	1.30	1.28	1.21
19	0.26	0.71	0.50	0.61	1.23	1.29	0.95	0.95	1.30	1.20	0.58	0.59	1.21	1.31	0.97	0.97	1.32	1.21	0.59

Figure RAI 4.3-19- 23 Relative Integrated Power at BOC / 80.0% Power-30F / FWT 335 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.50E+04	4.51E+04	4.49E+04	4.49E+04	4.48E+04
2													4.49E+04	4.48E+04	7.68E+04	7.23E+04	7.15E+04	7.17E+04	7.31E+04
3											4.48E+04	4.45E+04	6.95E+04	6.86E+04	7.34E+04	7.32E+04	6.69E+04	6.91E+04	7.53E+04
4									4.49E+04	4.46E+04	6.91E+04	6.61E+04	6.48E+04	6.37E+04	7.10E+04	7.08E+04	6.48E+04	6.44E+04	7.41E+04
5								4.49E+04	7.24E+04	6.81E+04	6.65E+04	6.39E+04	6.33E+04	6.34E+04	6.18E+04	6.25E+04	6.23E+04	6.23E+04	6.31E+04
6							4.49E+04	7.15E+04	6.82E+04	6.46E+04	6.35E+04	6.14E+04	6.28E+04	6.21E+04	6.43E+04	6.42E+04	6.28E+04	6.22E+04	6.19E+04
7						4.49E+04	7.54E+04	7.36E+04	6.62E+04	6.30E+04	7.11E+04	7.07E+04	6.19E+04	6.41E+04	7.43E+04	7.43E+04	6.38E+04	6.19E+04	6.82E+04
8					4.49E+04	7.15E+04	7.36E+04	7.17E+04	6.28E+04	6.33E+04	7.08E+04	7.07E+04	6.18E+04	6.39E+04	7.42E+04	7.42E+04	6.36E+04	6.17E+04	6.81E+04
9				4.49E+04	7.24E+04	6.82E+04	6.62E+04	6.28E+04	6.32E+04	6.19E+04	6.29E+04	6.27E+04	6.23E+04	6.24E+04	6.36E+04	6.36E+04	6.14E+04	6.18E+04	6.17E+04
10				4.46E+04	6.81E+04	6.46E+04	6.30E+04	6.33E+04	6.19E+04	6.29E+04	6.42E+04	6.40E+04	6.16E+04	6.20E+04	6.17E+04	6.16E+04	6.18E+04	6.22E+04	6.36E+04
11			4.48E+04	6.91E+04	6.65E+04	6.35E+04	7.11E+04	7.08E+04	6.29E+04	6.42E+04	7.43E+04	7.42E+04	6.37E+04	6.17E+04	6.81E+04	6.80E+04	6.16E+04	6.36E+04	7.41E+04
12			4.45E+04	6.61E+04	6.39E+04	6.14E+04	7.07E+04	7.07E+04	6.27E+04	6.40E+04	7.42E+04	7.42E+04	6.36E+04	6.17E+04	6.81E+04	6.81E+04	6.16E+04	6.36E+04	7.41E+04
13		4.49E+04	6.95E+04	6.48E+04	6.33E+04	6.28E+04	6.19E+04	6.18E+04	6.23E+04	6.16E+04	6.37E+04	6.36E+04	6.23E+04	6.18E+04	6.16E+04	6.16E+04	6.18E+04	6.22E+04	6.36E+04
14		4.48E+04	6.86E+04	6.37E+04	6.34E+04	6.21E+04	6.41E+04	6.39E+04	6.24E+04	6.20E+04	6.17E+04	6.17E+04	6.18E+04	6.22E+04	6.34E+04	6.33E+04	6.22E+04	6.18E+04	6.16E+04
15	4.50E+04	7.68E+04	7.34E+04	7.10E+04	6.18E+04	6.43E+04	7.43E+04	7.42E+04	6.36E+04	6.17E+04	6.81E+04	6.81E+04	6.16E+04	6.34E+04	7.39E+04	7.39E+04	6.33E+04	6.16E+04	6.81E+04
16	4.51E+04	7.23E+04	7.32E+04	7.08E+04	6.25E+04	6.42E+04	7.43E+04	7.42E+04	6.36E+04	6.16E+04	6.80E+04	6.81E+04	6.16E+04	6.33E+04	7.39E+04	7.39E+04	6.33E+04	6.16E+04	6.80E+04
17	4.49E+04	7.15E+04	6.69E+04	6.48E+04	6.23E+04	6.28E+04	6.38E+04	6.36E+04	6.14E+04	6.18E+04	6.16E+04	6.16E+04	6.18E+04	6.22E+04	6.33E+04	6.33E+04	6.21E+04	6.18E+04	6.16E+04
18	4.49E+04	7.17E+04	6.91E+04	6.44E+04	6.23E+04	6.22E+04	6.19E+04	6.17E+04	6.18E+04	6.22E+04	6.36E+04	6.36E+04	6.22E+04	6.18E+04	6.16E+04	6.16E+04	6.18E+04	6.22E+04	6.36E+04
19	4.48E+04	7.31E+04	7.53E+04	7.41E+04	6.31E+04	6.19E+04	6.82E+04	6.81E+04	6.17E+04	6.36E+04	7.41E+04	7.41E+04	6.36E+04	6.16E+04	6.81E+04	6.80E+04	6.16E+04	6.36E+04	7.41E+04

Figure RAI 4.3-19- 24 Channel Flow (lbs/hr) at BOC / 80.0% Power-30F / FWT 335 F

Power: RP	(MWth)	2250.00	(50.0 %)
Pressure: PRV	(psia)	1005.21	
Core Flow: WCT	(Mlb/hr)	83.10	(104.7 %)
Bypass Flow: WBPRIN	(Mlb/hr)	9.02	(10.9 %)
Inlet Enthalpy: HCI	(BTU/lb)	518.20	
Inlet Temp.: TWI	(deg F)	525.23	
Core Press Drop: CPD	(psi)	8.90	
Pre-burn: DELBRN	(MWd/MT)	0.00	
Post-burn: DELTE	(MWd/MT)	0.00	
Initial Exposure	(MWd/MT)	0.00	
Final Exposure: EXCORE	(MWd/MT)	0.00	
Cycle Exposure: CYCEXP	(MWd/MT)	0.00	
Cycle Energy: CYCENR	(GWd)	0.00	

Neutron Multiplication: AMDA 1.00297320

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/St)	0.0	38	38	0
Max Bundle Exposure (MWd/St)	0.0	38	38	
Peak Axial Power	1.8951			4
Maximum Nodal Power	3.0698	24	5	4
Maximum Bundle Power	1.5320	5	15	
Maximum APLHGR	6.4093	24	5	4

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.0000	15	1	1
Minimum Critical Power Ratio(CPR)	2.3624	15	5	16
Maximum KW/ft	8.0554	26	5	4
Maximum MFLPD	0.8015	26	5	4

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71									0									
5	67																		
7	63					40		0		25		0		40					
9	59																		
11	55			40		0		0		0		0		0		40			
13	51																		
15	47			0		0		0		0		0		0		0			
17	43																		
19	39		0	25		0		0		0		0		0		25		0	
21	35																		
23	31			0		0		0		0		0		0		0			
25	27																		
27	23			40		0		0		0		0		0		40			
29	19																		
31	15					40		0		25		0		40					
33	11																		
35	7									0									
37	3																		

Figure RAI 4.3-19- 25 Control Rod Pattern Summary at BOC / 50% Power / FWT 358 F

K(node)	Axial Power
20	0.1025
19	0.2436
18	0.3543
17	0.4676
16	0.5786
15	0.6674
14	0.7118
13	0.7816
12	0.9131
11	1.0172
10	1.129
9	1.2539
8	1.4033
7	1.5692
6	1.736
5	1.8689
4	1.8951
3	1.6987
2	1.2164
1	0.3918

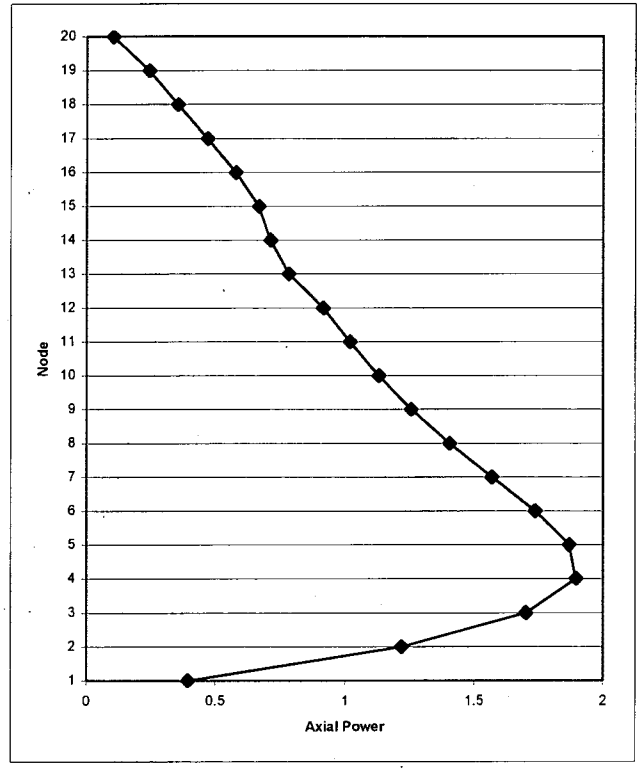

Figure RAI 4.3-19- 26 Relative Axial Power at BOC / 50% Power / FWT 358 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.20	0.26	0.31	0.31	0.28
2													0.34	0.40	0.43	0.83	0.87	0.85	0.74
3											0.39	0.52	1.03	1.10	0.74	0.75	1.17	1.00	0.43
4									0.33	0.48	1.04	1.25	1.34	1.42	0.92	0.92	1.30	1.28	0.54
5								0.35	0.82	1.09	1.20	1.38	1.43	1.43	1.53	1.46	1.44	1.39	1.29
6							0.32	0.88	1.08	1.31	1.35	1.49	1.44	1.50	1.35	1.32	1.37	1.35	1.27
7						0.32	0.54	0.70	1.20	1.37	0.77	0.79	1.44	1.33	0.62	0.60	1.25	1.25	0.65
8					0.35	0.88	0.70	0.85	1.42	1.35	0.78	0.78	1.40	1.29	0.59	0.58	1.21	1.22	0.63
9				0.33	0.82	1.08	1.20	1.42	1.39	1.46	1.35	1.33	1.36	1.33	1.21	1.19	1.31	1.26	1.19
10				0.48	1.09	1.31	1.37	1.35	1.46	1.39	1.29	1.26	1.37	1.29	1.18	1.16	1.24	1.23	1.15
11			0.39	1.04	1.20	1.35	0.77	0.78	1.35	1.29	0.59	0.57	1.19	1.17	0.54	0.53	1.12	1.12	0.52
12			0.52	1.25	1.38	1.49	0.79	0.78	1.33	1.26	0.57	0.55	1.15	1.13	0.52	0.51	1.09	1.09	0.51
13		0.34	1.03	1.34	1.43	1.44	1.44	1.40	1.36	1.37	1.19	1.15	1.21	1.19	1.09	1.08	1.16	1.15	1.07
14		0.40	1.10	1.42	1.43	1.50	1.33	1.29	1.33	1.29	1.17	1.13	1.19	1.18	1.08	1.07	1.15	1.14	1.06
15	0.20	0.43	0.74	0.92	1.53	1.35	0.62	0.59	1.21	1.18	0.54	0.52	1.09	1.08	0.50	0.49	1.06	1.05	0.49
16	0.26	0.83	0.75	0.92	1.46	1.32	0.60	0.58	1.19	1.16	0.53	0.51	1.08	1.07	0.49	0.49	1.05	1.05	0.48
17	0.31	0.87	1.17	1.30	1.44	1.37	1.25	1.21	1.31	1.24	1.12	1.09	1.16	1.15	1.06	1.05	1.12	1.12	1.04
18	0.31	0.85	1.00	1.28	1.39	1.35	1.25	1.22	1.26	1.23	1.12	1.09	1.15	1.14	1.05	1.05	1.12	1.12	1.04
19	0.28	0.74	0.43	0.54	1.29	1.27	0.65	0.63	1.19	1.15	0.52	0.51	1.07	1.06	0.49	0.48	1.04	1.04	0.48

Figure RAI 4.3-19- 27 Relative Integrated Power at BOC / 50% Power / FWT 358 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.26E+04	4.26E+04	4.26E+04	4.26E+04	4.26E+04
2													4.25E+04	4.25E+04	7.28E+04	7.02E+04	6.97E+04	7.01E+04	7.08E+04
3											4.25E+04	4.25E+04	6.81E+04	6.76E+04	7.08E+04	7.08E+04	6.68E+04	6.85E+04	7.28E+04
4									4.25E+04	4.25E+04	6.81E+04	6.60E+04	6.50E+04	6.43E+04	6.92E+04	6.92E+04	6.55E+04	6.57E+04	7.21E+04
5								4.25E+04	7.03E+04	6.77E+04	6.66E+04	6.47E+04	6.42E+04	6.42E+04	6.33E+04	6.39E+04	6.41E+04	6.46E+04	6.57E+04
6							4.25E+04	6.99E+04	6.78E+04	6.56E+04	6.53E+04	6.39E+04	6.42E+04	6.36E+04	6.51E+04	6.53E+04	6.48E+04	6.51E+04	6.60E+04
7						4.25E+04	7.22E+04	7.11E+04	6.67E+04	6.52E+04	7.09E+04	7.08E+04	6.45E+04	6.54E+04	7.16E+04	7.17E+04	6.62E+04	6.62E+04	7.16E+04
8					4.25E+04	6.99E+04	7.11E+04	7.01E+04	6.46E+04	6.54E+04	7.09E+04	7.09E+04	6.49E+04	6.59E+04	7.18E+04	7.19E+04	6.66E+04	6.66E+04	7.17E+04
9				4.25E+04	7.03E+04	6.78E+04	6.67E+04	6.46E+04	6.48E+04	6.42E+04	6.55E+04	6.57E+04	6.51E+04	6.54E+04	6.66E+04	6.68E+04	6.55E+04	6.60E+04	6.69E+04
10				4.25E+04	6.77E+04	6.56E+04	6.52E+04	6.54E+04	6.42E+04	6.49E+04	6.60E+04	6.62E+04	6.50E+04	6.57E+04	6.68E+04	6.70E+04	6.62E+04	6.63E+04	6.72E+04
11			4.25E+04	6.81E+04	6.66E+04	6.53E+04	7.09E+04	7.09E+04	6.55E+04	6.60E+04	7.18E+04	7.19E+04	6.68E+04	6.69E+04	7.21E+04	7.22E+04	6.74E+04	6.74E+04	7.23E+04
12			4.25E+04	6.60E+04	6.47E+04	6.39E+04	7.08E+04	7.09E+04	6.57E+04	6.62E+04	7.19E+04	7.21E+04	6.71E+04	6.73E+04	7.23E+04	7.23E+04	6.76E+04	6.77E+04	7.24E+04
13		4.25E+04	6.81E+04	6.50E+04	6.42E+04	6.42E+04	6.45E+04	6.49E+04	6.51E+04	6.50E+04	6.68E+04	6.71E+04	6.65E+04	6.66E+04	6.76E+04	6.77E+04	6.69E+04	6.70E+04	6.78E+04
14		4.25E+04	6.76E+04	6.43E+04	6.42E+04	6.36E+04	6.54E+04	6.59E+04	6.54E+04	6.57E+04	6.69E+04	6.73E+04	6.66E+04	6.68E+04	6.77E+04	6.78E+04	6.70E+04	6.71E+04	6.79E+04
15	4.26E+04	7.28E+04	7.08E+04	6.92E+04	6.33E+04	6.51E+04	7.16E+04	7.18E+04	6.66E+04	6.68E+04	7.21E+04	7.23E+04	6.76E+04	6.77E+04	7.24E+04	7.24E+04	6.80E+04	6.80E+04	7.25E+04
16	4.26E+04	7.02E+04	7.08E+04	6.92E+04	6.39E+04	6.53E+04	7.17E+04	7.19E+04	6.68E+04	6.70E+04	7.22E+04	7.23E+04	6.77E+04	6.78E+04	7.24E+04	7.25E+04	6.80E+04	6.80E+04	7.25E+04
17	4.26E+04	6.97E+04	6.68E+04	6.55E+04	6.41E+04	6.48E+04	6.62E+04	6.66E+04	6.55E+04	6.62E+04	6.74E+04	6.76E+04	6.69E+04	6.70E+04	6.80E+04	6.80E+04	6.72E+04	6.72E+04	6.81E+04
18	4.26E+04	7.01E+04	6.85E+04	6.57E+04	6.46E+04	6.51E+04	6.62E+04	6.66E+04	6.60E+04	6.63E+04	6.74E+04	6.77E+04	6.70E+04	6.71E+04	6.80E+04	6.80E+04	6.72E+04	6.73E+04	6.81E+04
19	4.26E+04	7.08E+04	7.28E+04	7.21E+04	6.57E+04	6.60E+04	7.16E+04	7.17E+04	6.69E+04	6.72E+04	7.23E+04	7.24E+04	6.78E+04	6.79E+04	7.25E+04	7.25E+04	6.81E+04	6.81E+04	7.25E+04

Figure RAI 4.3-19- 28 Channel Flow (lbs/hr) at BOC / 50% Power / FWT 358 F

Power: RP	(MWth)	2370.60	(52.7 %)
Pressure: PRV	(psia)	1005.91	
Core Flow: WCT	(Mlb/hr)	83.21	(104.8 %)
Bypass Flow: WBPRIN	(Mlb/hr)	9.06	(10.9 %)
Inlet Enthalpy: HCI	(BTU/lb)	516.29	
Inlet Temp.: TWI	(deg F)	523.68	
Core Press Drop: CPD	(psi)	8.95	
Pre-burn: DELBRN	(MWd/MT)	0.00	
Post-burn: DELTE	(MWd/MT)	0.00	
Initial Exposure	(MWd/MT)	0.00	
Final Exposure: EXCORE	(MWd/MT)	0.00	
Cycle Exposure: CYCEXP	(MWd/MT)	0.00	
Cycle Energy: CYCENR	(GWd)	0.00	

Neutron Multiplication: AMDA 1.00195777

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/MT)	0.0	38	38	0
Max Bundle Exposure (MWd/MT)	0.0	38	38	
Peak Axial Power	1.9094			4
Maximum Nodal Power	3.0726	5	15	4
Maximum Bundle Power	1.5261	15	5	
Maximum APLHGR	6.7596	5	15	4

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.0000	15	1	1
Minimum Critical Power Ratio(CPR)	2.2584	15	5	16
Maximum KW/ft	8.4924	13	5	4
Maximum MFLPD	0.8302	13	5	4

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1 75																			
3 71										0									
5 67																			
7 63						40		0		25		0		40					
9 59																			
11 55				40		0		0		0		0		0		40			
13 51																			
15 47				0		0		0		0		0		0		0			
17 43																			
19 39		0		25		0		0		0		0		0		25		0	
21 35																			
23 31				0		0		0		0		0		0		0			
25 27																			
27 23				40		0		0		0		0		0		40			
29 19																			
31 15						40		0		25		0		40					
33 11																			
35 7										0									
37 3																			

Figure RAI 4.3-19- 29 Control Rod Pattern Summary at BOC / 50% Power-30F / FWT 327 F

K(node)	Axial Power
20	0.1028
19	0.2428
18	0.3526
17	0.4651
16	0.5751
15	0.6633
14	0.7075
13	0.7766
12	0.9069
11	1.0101
10	1.1212
9	1.2458
8	1.3956
7	1.5632
6	1.7339
5	1.8736
4	1.9094
3	1.7206
2	1.236
1	0.3981

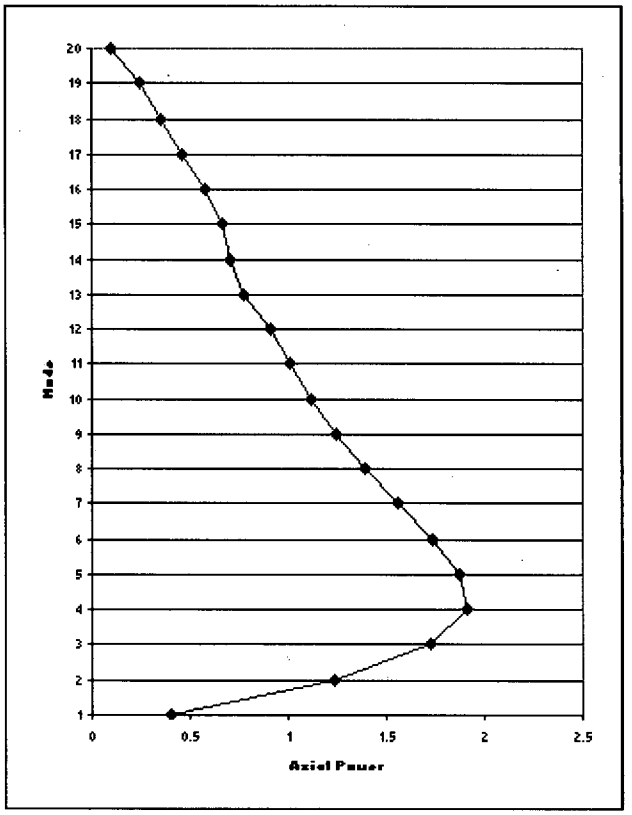

Figure RAI 4.3-19- 30 Relative Axial Power at BOC / 50% Power-30F / FWT 327 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.20	0.26	0.31	0.31	0.28
2													0.34	0.40	0.43	0.84	0.88	0.85	0.74
3											0.40	0.52	1.03	1.09	0.75	0.75	1.17	1.00	0.44
4									0.33	0.48	1.04	1.25	1.34	1.42	0.92	0.92	1.30	1.27	0.55
5								0.35	0.83	1.09	1.19	1.38	1.43	1.43	1.53	1.46	1.44	1.39	1.29
6							0.32	0.88	1.08	1.30	1.35	1.49	1.43	1.49	1.34	1.32	1.37	1.34	1.26
7						0.32	0.54	0.71	1.20	1.37	0.77	0.79	1.43	1.32	0.62	0.60	1.24	1.25	0.65
8					0.35	0.88	0.71	0.85	1.42	1.35	0.78	0.78	1.40	1.28	0.59	0.58	1.21	1.22	0.63
9				0.33	0.83	1.08	1.20	1.42	1.39	1.45	1.34	1.33	1.36	1.33	1.21	1.18	1.31	1.26	1.19
10				0.48	1.09	1.30	1.37	1.35	1.45	1.38	1.28	1.26	1.37	1.29	1.18	1.16	1.23	1.23	1.15
11			0.40	1.04	1.19	1.35	0.77	0.78	1.34	1.28	0.59	0.58	1.19	1.17	0.54	0.53	1.12	1.12	0.52
12			0.52	1.25	1.38	1.49	0.79	0.78	1.33	1.26	0.58	0.55	1.15	1.13	0.52	0.52	1.09	1.09	0.51
13		0.34	1.03	1.34	1.43	1.43	1.43	1.40	1.36	1.37	1.19	1.15	1.21	1.19	1.10	1.08	1.16	1.16	1.07
14		0.40	1.09	1.42	1.43	1.49	1.32	1.28	1.33	1.29	1.17	1.13	1.19	1.18	1.08	1.07	1.15	1.14	1.06
15	0.20	0.43	0.75	0.92	1.53	1.34	0.62	0.59	1.21	1.18	0.54	0.52	1.10	1.08	0.50	0.50	1.06	1.06	0.49
16	0.26	0.84	0.75	0.92	1.46	1.32	0.60	0.58	1.18	1.16	0.53	0.52	1.08	1.07	0.50	0.49	1.05	1.05	0.49
17	0.31	0.88	1.17	1.30	1.44	1.37	1.24	1.21	1.31	1.23	1.12	1.09	1.16	1.15	1.06	1.05	1.13	1.12	1.04
18	0.31	0.85	1.00	1.27	1.39	1.34	1.25	1.22	1.26	1.23	1.12	1.09	1.16	1.14	1.06	1.05	1.12	1.12	1.04
19	0.28	0.74	0.44	0.55	1.29	1.26	0.65	0.63	1.19	1.15	0.52	0.51	1.07	1.06	0.49	0.49	1.04	1.04	0.48

Figure RAI 4.3-19- 31 Relative Integrated Power at BOC / 50% Power-30F / FWT 327 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.29E+04	4.29E+04	4.28E+04	4.28E+04	4.29E+04
2													4.28E+04	4.28E+04	7.33E+04	7.04E+04	6.99E+04	7.03E+04	7.11E+04
3											4.28E+04	4.27E+04	6.82E+04	6.76E+04	7.11E+04	7.10E+04	6.68E+04	6.86E+04	7.32E+04
4									4.28E+04	4.27E+04	6.82E+04	6.59E+04	6.49E+04	6.41E+04	6.94E+04	6.94E+04	6.54E+04	6.57E+04	7.25E+04
5								4.28E+04	7.05E+04	6.77E+04	6.65E+04	6.46E+04	6.40E+04	6.40E+04	6.30E+04	6.37E+04	6.39E+04	6.44E+04	6.56E+04
6							4.28E+04	7.01E+04	6.79E+04	6.55E+04	6.52E+04	6.37E+04	6.41E+04	6.34E+04	6.50E+04	6.52E+04	6.47E+04	6.50E+04	6.60E+04
7					4.28E+04	7.25E+04	7.14E+04	6.66E+04	6.51E+04	7.12E+04	7.11E+04	6.44E+04	6.53E+04	7.20E+04	7.21E+04	6.61E+04	6.62E+04	7.19E+04	
8				4.28E+04	7.01E+04	7.14E+04	7.03E+04	6.44E+04	6.53E+04	7.12E+04	7.12E+04	6.48E+04	6.58E+04	7.22E+04	7.23E+04	6.66E+04	6.65E+04	7.20E+04	
9			4.28E+04	7.05E+04	6.79E+04	6.66E+04	6.44E+04	6.47E+04	6.41E+04	6.54E+04	6.56E+04	6.50E+04	6.53E+04	6.66E+04	6.68E+04	6.54E+04	6.60E+04	6.69E+04	
10			4.27E+04	6.77E+04	6.55E+04	6.51E+04	6.53E+04	6.41E+04	6.48E+04	6.59E+04	6.61E+04	6.49E+04	6.57E+04	6.68E+04	6.70E+04	6.62E+04	6.62E+04	6.72E+04	
11		4.28E+04	6.82E+04	6.65E+04	6.52E+04	7.12E+04	7.12E+04	6.54E+04	6.59E+04	7.22E+04	7.23E+04	6.68E+04	6.69E+04	7.25E+04	7.26E+04	6.74E+04	6.74E+04	7.26E+04	
12		4.27E+04	6.59E+04	6.46E+04	6.37E+04	7.11E+04	7.12E+04	6.56E+04	6.61E+04	7.23E+04	7.24E+04	6.71E+04	6.73E+04	7.26E+04	7.27E+04	6.76E+04	6.77E+04	7.27E+04	
13	4.28E+04	6.82E+04	6.49E+04	6.40E+04	6.41E+04	6.44E+04	6.48E+04	6.50E+04	6.49E+04	6.68E+04	6.71E+04	6.64E+04	6.66E+04	6.76E+04	6.77E+04	6.69E+04	6.69E+04	6.79E+04	
14	4.28E+04	6.76E+04	6.41E+04	6.40E+04	6.34E+04	6.53E+04	6.58E+04	6.53E+04	6.57E+04	6.69E+04	6.73E+04	6.66E+04	6.67E+04	6.77E+04	6.78E+04	6.70E+04	6.70E+04	6.79E+04	
15	4.29E+04	7.33E+04	7.11E+04	6.94E+04	6.30E+04	6.50E+04	7.20E+04	7.22E+04	6.66E+04	6.68E+04	7.25E+04	7.26E+04	6.76E+04	6.77E+04	7.28E+04	7.28E+04	6.80E+04	6.80E+04	7.28E+04
16	4.29E+04	7.04E+04	7.10E+04	6.94E+04	6.37E+04	6.52E+04	7.21E+04	7.23E+04	6.68E+04	6.70E+04	7.26E+04	7.27E+04	6.77E+04	6.78E+04	7.28E+04	7.28E+04	6.81E+04	6.81E+04	7.29E+04
17	4.28E+04	6.99E+04	6.68E+04	6.54E+04	6.39E+04	6.47E+04	6.61E+04	6.66E+04	6.54E+04	6.62E+04	6.74E+04	6.76E+04	6.69E+04	6.70E+04	6.80E+04	6.81E+04	6.72E+04	6.72E+04	6.81E+04
18	4.28E+04	7.03E+04	6.86E+04	6.57E+04	6.44E+04	6.50E+04	6.62E+04	6.65E+04	6.60E+04	6.62E+04	6.74E+04	6.77E+04	6.69E+04	6.70E+04	6.80E+04	6.81E+04	6.72E+04	6.72E+04	6.81E+04
19	4.29E+04	7.11E+04	7.32E+04	7.25E+04	6.56E+04	6.60E+04	7.19E+04	7.20E+04	6.69E+04	6.72E+04	7.26E+04	7.27E+04	6.79E+04	6.79E+04	7.28E+04	7.29E+04	6.81E+04	6.81E+04	7.29E+04

Figure RAI 4.3-19- 32 Channel Flow (lbs/hr) at BOC / 50% Power-30F / FWT 327 F

Power: RP	(MWth)	4500.00	(100.0 %)
Pressure: PRV	(psia)	1050.33	
Core Flow: WCT	(Mlb/hr)	80.71	(101.7 %)
Bypass Flow: WBPRIN	(Mlb/hr)	11.32	(14.0 %)
Inlet Enthalpy: HCI	(BTU/lb)	503.61	
Inlet Temp.: TWI	(deg F)	513.29	
Core Press Drop: CPD	(psi)	8.88	
Pre-burn: DELBRN	(MWd/MT):	0.00	
Post-burn: DELTE	(MWd/MT):	0.00	
Initial Exposure	(MWd/MT):	3782.20	
Final Exposure: EXCORE	(MWd/MT):	3782.20	
Cycle Exposure: CYCEXP	(MWd/MT):	3782.21	
Cycle Energy: CYCENR	(GWd)	630.72	

Neutron Multiplication: AMDA 1.00232267

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/MT):	7812.02	27	33	4
Max Bundle Exposure (MWd/MT):	5026.56	22	30	
Peak Axial Power	1.7217			4
Maximum Nodal Power	2.3221	13	10	4
Maximum Bundle Power	1.3411	10	13	
Maximum APLHGR	9.7361	13	10	4

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.1341	14	6	4
Minimum Critical Power Ratio(CPR)	1.4327	10	13	17
Maximum KW/ft	11.4898	11	13	4
Maximum MFLPD	0.8574			

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71							33				33							
5	67																		
7	63					25				0				25					
9	59																		
11	55			25				0				0				25			
13	51																		
15	47		33			0				0				0				33	
17	43																		
19	39			0				0				0				0			
21	35																		
23	31		33			0				0				0				33	
25	27																		
27	23			25				0				0				25			
29	19																		
31	15					25				0				25					
33	11																		
35	7							33				33							
37	3																		

Figure RAI 4.3-19- 33 Control Rod Pattern Summary at MOC / 100% Power / FWT 372 F

K(node)	Axial Power
20	0.1347
19	0.2776
18	0.3939
17	0.5128
16	0.6293
15	0.7276
14	0.7910
13	0.8641
12	0.9933
11	1.0784
10	1.1780
9	1.2824
8	1.3902
7	1.5007
6	1.6072
4	1.7217
3	1.5955
2	1.1932
1	0.4343

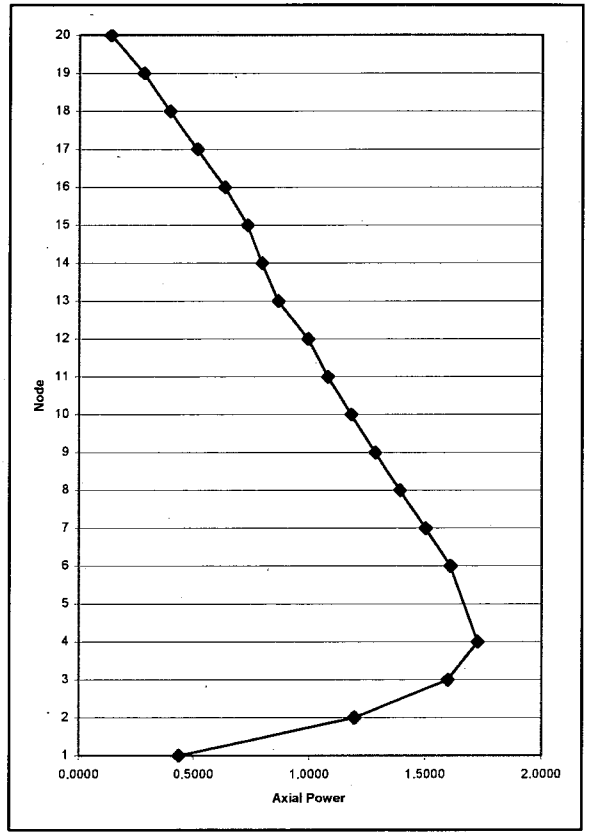

Figure RAI 4.3-19- 34 Relative Axial Power at MOC / 100% Power / FWT 372 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.16	0.23	0.30	0.33	0.34
2													0.28	0.32	0.33	0.63	0.74	0.81	0.83
3											0.35	0.45	0.78	0.79	0.46	0.49	0.95	0.96	0.75
4									0.30	0.43	0.83	0.96	1.03	1.05	0.61	0.63	1.06	1.19	0.86
5								0.34	0.70	0.87	0.97	1.08	1.16	1.15	1.21	1.18	1.22	1.23	1.22
6							0.31	0.74	0.88	1.03	1.05	1.17	1.18	1.27	1.26	1.26	1.24	1.21	1.14
7						0.31	0.50	0.64	1.01	1.09	0.64	0.68	1.23	1.28	1.01	1.01	1.27	1.17	0.63
8					0.34	0.74	0.64	0.77	1.17	1.11	0.68	0.71	1.25	1.30	1.02	1.02	1.29	1.19	0.64
9				0.30	0.70	0.88	1.01	1.17	1.20	1.24	1.20	1.22	1.28	1.30	1.30	1.30	1.33	1.27	1.20
10				0.43	0.87	1.03	1.09	1.11	1.24	1.26	1.29	1.31	1.34	1.28	1.21	1.21	1.27	1.30	1.30
11			0.35	0.83	0.97	1.05	0.64	0.68	1.20	1.29	1.03	1.04	1.31	1.22	0.65	0.65	1.21	1.31	1.03
12			0.45	0.96	1.08	1.17	0.68	0.71	1.22	1.31	1.04	1.04	1.31	1.21	0.65	0.65	1.21	1.31	1.03
13		0.28	0.78	1.03	1.16	1.18	1.23	1.25	1.28	1.34	1.31	1.31	1.30	1.28	1.21	1.21	1.28	1.30	1.31
14		0.32	0.79	1.05	1.15	1.27	1.28	1.30	1.30	1.28	1.22	1.21	1.28	1.30	1.31	1.31	1.30	1.28	1.21
15	0.16	0.33	0.46	0.61	1.21	1.26	1.01	1.02	1.30	1.21	0.65	0.65	1.21	1.31	1.04	1.04	1.31	1.21	0.65
16	0.23	0.63	0.49	0.63	1.18	1.26	1.01	1.02	1.30	1.21	0.65	0.65	1.21	1.31	1.04	1.04	1.31	1.21	0.65
17	0.30	0.74	0.95	1.06	1.22	1.24	1.27	1.29	1.33	1.27	1.21	1.21	1.28	1.30	1.31	1.31	1.30	1.28	1.21
18	0.33	0.81	0.96	1.19	1.23	1.21	1.17	1.19	1.27	1.30	1.31	1.31	1.30	1.28	1.21	1.21	1.28	1.30	1.31
19	0.34	0.83	0.75	0.86	1.22	1.14	0.63	0.64	1.20	1.30	1.03	1.03	1.31	1.21	0.65	0.65	1.21	1.31	1.04

Figure RAI 4.3-19- 35 Relative Integrated Power at MOC / 100% Power / FWT 372 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.49E+04	4.47E+04	4.47E+04	4.45E+04	4.45E+04
2													4.47E+04	4.46E+04	7.65E+04	7.19E+04	7.00E+04	6.83E+04	6.79E+04
3											4.45E+04	4.41E+04	6.88E+04	6.90E+04	7.47E+04	7.43E+04	6.57E+04	6.52E+04	6.99E+04
4									4.47E+04	4.42E+04	6.78E+04	6.49E+04	6.36E+04	6.36E+04	7.26E+04	7.23E+04	6.36E+04	6.05E+04	6.72E+04
5								4.45E+04	7.07E+04	6.69E+04	6.47E+04	6.26E+04	6.09E+04	6.13E+04	6.03E+04	6.08E+04	5.98E+04	5.96E+04	5.97E+04
6							4.46E+04	7.00E+04	6.67E+04	6.37E+04	6.34E+04	6.11E+04	6.06E+04	5.88E+04	5.92E+04	5.91E+04	5.93E+04	5.99E+04	6.14E+04
7						4.46E+04	7.39E+04	7.16E+04	6.39E+04	6.26E+04	7.21E+04	7.16E+04	6.00E+04	5.88E+04	6.43E+04	6.43E+04	5.88E+04	6.08E+04	7.19E+04
8					4.45E+04	7.00E+04	7.16E+04	6.90E+04	6.08E+04	6.23E+04	7.15E+04	7.12E+04	5.94E+04	5.83E+04	6.40E+04	6.40E+04	5.85E+04	6.05E+04	7.17E+04
9				4.47E+04	7.07E+04	6.67E+04	6.39E+04	6.08E+04	6.02E+04	5.94E+04	6.06E+04	6.01E+04	5.87E+04	5.82E+04	5.82E+04	5.83E+04	5.76E+04	5.89E+04	6.03E+04
10				4.42E+04	6.69E+04	6.37E+04	6.26E+04	6.23E+04	5.94E+04	5.91E+04	5.85E+04	5.82E+04	5.74E+04	5.87E+04	6.01E+04	6.01E+04	5.87E+04	5.83E+04	5.82E+04
11			4.45E+04	6.78E+04	6.47E+04	6.34E+04	7.21E+04	7.15E+04	6.06E+04	5.85E+04	6.40E+04	6.38E+04	5.81E+04	6.00E+04	7.14E+04	7.15E+04	6.01E+04	5.81E+04	6.38E+04
12			4.41E+04	6.49E+04	6.26E+04	6.11E+04	7.16E+04	7.12E+04	6.01E+04	5.82E+04	6.38E+04	6.38E+04	5.81E+04	6.01E+04	7.14E+04	7.15E+04	6.01E+04	5.81E+04	6.38E+04
13		4.47E+04	6.88E+04	6.36E+04	6.09E+04	6.06E+04	6.00E+04	5.94E+04	5.87E+04	5.74E+04	5.81E+04	5.81E+04	5.82E+04	5.87E+04	6.01E+04	6.01E+04	5.87E+04	5.82E+04	5.81E+04
14		4.46E+04	6.90E+04	6.36E+04	6.13E+04	5.88E+04	5.88E+04	5.83E+04	5.82E+04	5.87E+04	6.00E+04	6.01E+04	5.87E+04	5.82E+04	5.81E+04	5.81E+04	5.82E+04	5.87E+04	6.01E+04
15	4.49E+04	7.65E+04	7.47E+04	7.26E+04	6.03E+04	5.92E+04	6.43E+04	6.40E+04	5.82E+04	6.01E+04	7.14E+04	7.14E+04	6.01E+04	5.81E+04	6.37E+04	6.37E+04	5.81E+04	6.01E+04	7.15E+04
16	4.47E+04	7.19E+04	7.43E+04	7.23E+04	6.08E+04	5.91E+04	6.43E+04	6.40E+04	5.83E+04	6.01E+04	7.15E+04	7.15E+04	6.01E+04	5.81E+04	6.37E+04	6.37E+04	5.81E+04	6.01E+04	7.14E+04
17	4.47E+04	7.00E+04	6.57E+04	6.35E+04	5.98E+04	5.93E+04	5.88E+04	5.85E+04	5.76E+04	5.87E+04	6.01E+04	6.01E+04	5.87E+04	5.82E+04	5.81E+04	5.81E+04	5.82E+04	5.86E+04	6.01E+04
18	4.45E+04	6.83E+04	6.52E+04	6.05E+04	5.96E+04	5.99E+04	6.08E+04	6.05E+04	5.89E+04	5.83E+04	5.81E+04	5.81E+04	5.82E+04	5.87E+04	6.01E+04	6.01E+04	5.86E+04	5.82E+04	5.80E+04
19	4.45E+04	6.79E+04	6.99E+04	6.72E+04	5.97E+04	6.14E+04	7.19E+04	7.17E+04	6.03E+04	5.82E+04	6.38E+04	6.38E+04	5.81E+04	6.01E+04	7.15E+04	7.14E+04	6.01E+04	5.80E+04	6.37E+04

Figure RAI 4.3-19- 36 Channel Flow (lbs/hr) at MOC / 100% Power / FWT 372 F

K (node)	Axial Average Exposure GWd/Mt
20	0.708
19	1.454
18	2.048
17	2.630
16	3.159
15	3.530
14	3.697
13	3.806
12	3.678
11	3.862
10	4.102
9	4.372
8	4.679
7	5.015
6	5.353
5	5.649
4	5.758
3	5.344
2	3.992
1	1.362

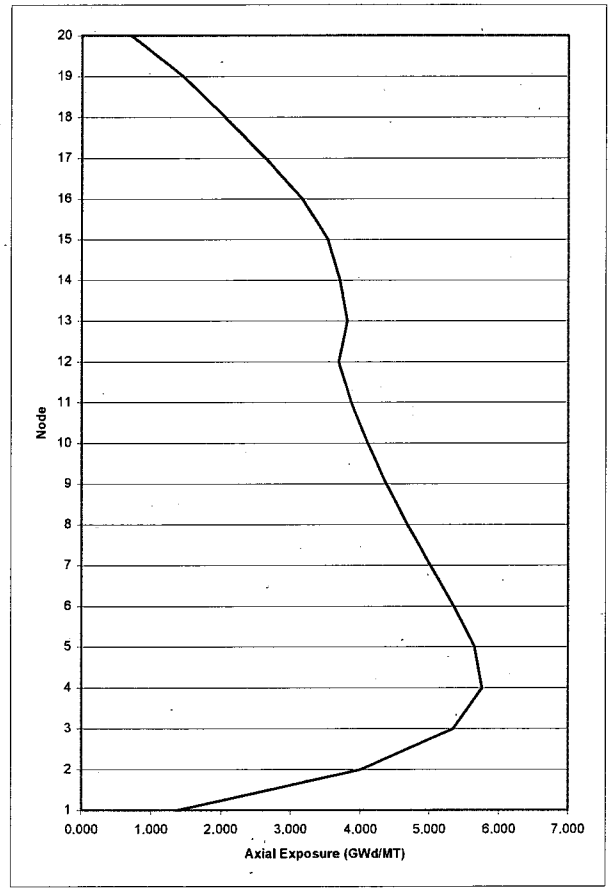

Figure RAI 4.3-19- 37 Relative Axial Exposure at MOC

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.58	0.77	0.96	1.02	1.00
2													0.94	1.11	1.20	2.30	2.52	2.63	2.61
3											1.12	1.46	2.71	2.85	1.90	1.97	3.32	3.17	2.13
4									0.94	1.36	2.80	3.30	3.53	3.72	2.39	2.46	3.69	3.99	2.53
5								0.99	2.28	2.94	3.32	3.72	3.95	3.90	4.21	4.12	4.19	4.21	4.20
6							0.85	2.30	2.89	3.56	3.83	4.25	4.08	4.28	4.11	4.14	4.20	4.23	4.22
7						0.85	1.28	1.73	3.32	3.92	2.71	2.85	4.36	4.21	2.77	2.77	4.26	4.29	2.92
8					0.99	2.30	1.73	2.14	3.89	3.95	2.84	2.93	4.45	4.30	2.82	2.83	4.32	4.36	2.96
9				0.94	2.28	2.89	3.32	3.89	4.01	4.26	4.22	4.32	4.38	4.40	4.36	4.36	4.56	4.42	4.39
10				1.36	2.94	3.56	3.92	3.95	4.26	4.22	4.26	4.32	4.55	4.42	4.40	4.41	4.44	4.43	4.38
11			1.12	2.80	3.32	3.83	2.71	2.84	4.22	4.26	2.81	2.85	4.37	4.41	2.99	2.99	4.42	4.39	2.86
12			1.46	3.30	3.72	4.25	2.85	2.93	4.32	4.32	2.85	2.86	4.38	4.41	2.99	2.99	4.42	4.39	2.86
13		0.94	2.71	3.53	3.95	4.08	4.36	4.45	4.38	4.55	4.37	4.38	4.43	4.44	4.41	4.41	4.44	4.44	4.39
14		1.11	2.85	3.72	3.90	4.28	4.21	4.30	4.40	4.42	4.41	4.41	4.44	4.43	4.37	4.38	4.43	4.45	4.42
15	0.58	1.20	1.90	2.39	4.21	4.11	2.77	2.82	4.36	4.40	2.99	2.99	4.41	4.37	2.82	2.82	4.38	4.42	3.00
16	0.77	2.30	1.97	2.46	4.12	4.14	2.77	2.83	4.36	4.41	2.99	2.99	4.41	4.38	2.82	2.82	4.38	4.41	3.00
17	0.96	2.52	3.32	3.69	4.19	4.20	4.26	4.32	4.56	4.44	4.42	4.42	4.44	4.43	4.38	4.38	4.43	4.44	4.41
18	1.02	2.63	3.17	3.99	4.21	4.23	4.29	4.36	4.42	4.43	4.39	4.39	4.44	4.45	4.42	4.41	4.44	4.43	4.37
19	1.00	2.61	2.13	2.53	4.20	4.22	2.92	2.96	4.39	4.38	2.86	2.86	4.39	4.42	3.00	3.00	4.41	4.37	2.82

Figure RAI 4.3-19- 38 Average Bundle Exposure GWd/MT at MOC

Power: RP	(MWth)	4800.30	(106.7 %)
Pressure: PRV	(psia)	1054.04	
Core Flow: WCT	(Mlb/hr)	80.71	(101.7 %)
Bypass Flow: WBPRIN	(Mlb/hr)	11.25	(13.9 %)
Inlet Enthalpy: HCI	(BTU/lb)	495.28	
Inlet Temp.: TWI	(deg F)	506.34	
Core Press Drop: CPD	(psi)	8.91	
Pre-burn: DELBRN	(MWd/MT):	0.00	
Post-burn: DELTE	(MWd/MT):	0.00	
Initial Exposure	(MWd/MT):	3782.20	
Final Exposure: EXCORE	(MWd/MT):	3782.20	
Cycle Exposure: CYCEXP	(MWd/MT):	3782.21	
Cycle Energy: CYCENR	(GWd)	630.72	

Neutron Multiplication: AMDA 1.00186443

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/MT):	7812.02	27	33	4
Max Bundle Exposure (MWd/MT):	5026.56	22	30	
Peak Axial Power	1.7512			4
Maximum Nodal Power	2.3507	26	29	4
Maximum Bundle Power	1.3359	29	26	
Maximum APLHGR	10.5105	29	26	4

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.1341	14	6	4
Minimum Critical Power Ratio(CPR)	1.3675	26	29	17
Maximum KW/ft	12.4295	28	26	4
Maximum MFLPD	0.9276	28	26	4

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71							33				33							
5	67																		
7	63					25				0				25					
9	59																		
11	55			25				0				0				25			
13	51																		
15	47		33			0				0				0				33	
17	43																		
19	39			0				0				0				0			
21	35																		
23	31		33			0				0				0				33	
25	27																		
27	23			25				0				0				25			
29	19																		
31	15					25				0				25					
33	11																		
35	7							33				33							
37	3																		

Figure RAI 4.3-19- 39 Control Rod Pattern Summary at MOC SP1M-30F/ FWT 341 F

K(node)	Axial Power
20	0.1323
19	0.272
18	0.3859
17	0.5025
16	0.6169
15	0.714
14	0.7775
13	0.8508
12	0.98
11	1.0665
10	1.1677
9	1.2743
8	1.3854
7	1.5008
6	1.6148
5	1.7115
4	1.7512
3	1.6331
2	1.2206
1	0.4423

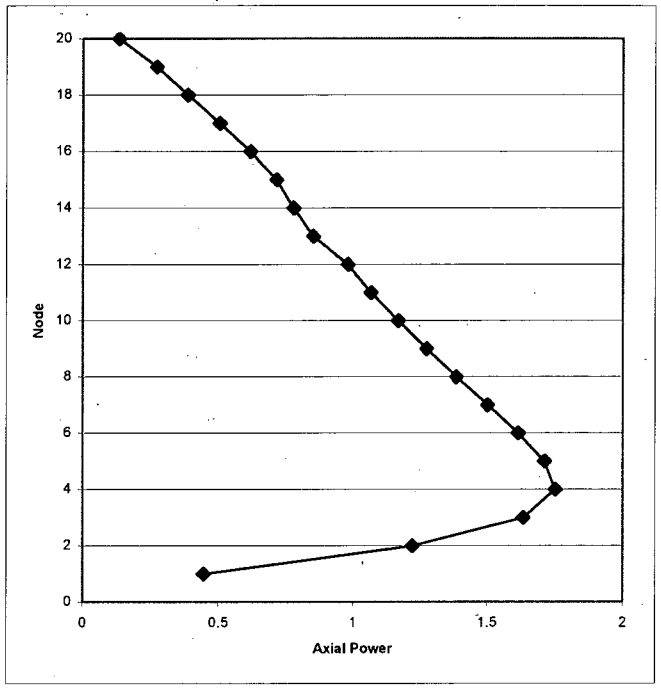

Figure RAI 4.3-19- 40 Relative Axial Power at MOC SP1M-30F / FWT 341 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.16	0.23	0.30	0.34	0.34
2													0.28	0.32	0.33	0.63	0.75	0.81	0.84
3											0.35	0.46	0.79	0.80	0.46	0.50	0.95	0.97	0.75
4									0.30	0.43	0.83	0.97	1.03	1.05	0.62	0.64	1.06	1.19	0.87
5								0.34	0.71	0.87	0.97	1.08	1.16	1.14	1.21	1.18	1.22	1.23	1.22
6							0.32	0.75	0.88	1.03	1.05	1.17	1.18	1.27	1.25	1.26	1.24	1.21	1.14
7						0.32	0.50	0.65	1.02	1.09	0.65	0.68	1.22	1.27	1.01	1.01	1.27	1.17	0.63
8					0.34	0.75	0.65	0.78	1.17	1.11	0.69	0.71	1.25	1.29	1.02	1.02	1.28	1.19	0.64
9				0.30	0.71	0.88	1.02	1.17	1.20	1.24	1.20	1.22	1.27	1.30	1.30	1.30	1.32	1.26	1.20
10				0.43	0.87	1.03	1.09	1.11	1.24	1.26	1.29	1.30	1.34	1.27	1.21	1.21	1.27	1.29	1.30
11			0.35	0.83	0.97	1.05	0.65	0.69	1.20	1.29	1.03	1.03	1.31	1.21	0.66	0.66	1.21	1.30	1.03
12			0.46	0.97	1.08	1.17	0.68	0.71	1.22	1.30	1.03	1.04	1.31	1.21	0.66	0.66	1.21	1.30	1.03
13		0.28	0.79	1.03	1.16	1.18	1.22	1.25	1.27	1.34	1.31	1.31	1.30	1.27	1.21	1.21	1.27	1.29	1.30
14		0.32	0.80	1.05	1.14	1.27	1.27	1.29	1.30	1.27	1.21	1.21	1.27	1.30	1.30	1.30	1.29	1.27	1.21
15	0.16	0.33	0.46	0.62	1.21	1.25	1.01	1.02	1.30	1.21	0.66	0.66	1.21	1.30	1.04	1.04	1.30	1.21	0.66
16	0.23	0.63	0.50	0.64	1.18	1.26	1.01	1.02	1.30	1.21	0.66	0.66	1.21	1.30	1.04	1.04	1.30	1.21	0.66
17	0.30	0.75	0.95	1.06	1.22	1.24	1.27	1.28	1.32	1.27	1.21	1.21	1.27	1.29	1.30	1.30	1.29	1.27	1.21
18	0.34	0.81	0.97	1.19	1.23	1.21	1.17	1.19	1.26	1.29	1.30	1.30	1.29	1.27	1.21	1.21	1.27	1.29	1.30
19	0.34	0.84	0.75	0.87	1.22	1.14	0.63	0.64	1.20	1.30	1.03	1.03	1.30	1.21	0.66	0.66	1.21	1.30	1.04

Figure RAI 4.3-19- 41 Relative Integrated Power at MOC SP1M-30F / FWT 341 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.52E+04	4.50E+04	4.50E+04	4.49E+04	4.48E+04
2													4.51E+04	4.49E+04	7.71E+04	7.25E+04	7.03E+04	6.86E+04	6.81E+04
3											4.48E+04	4.44E+04	6.92E+04	6.95E+04	7.53E+04	7.48E+04	6.59E+04	6.53E+04	7.01E+04
4									4.50E+04	4.45E+04	6.81E+04	6.51E+04	6.36E+04	6.37E+04	7.32E+04	7.29E+04	6.36E+04	6.03E+04	6.75E+04
5								4.49E+04	7.13E+04	6.72E+04	6.48E+04	6.26E+04	6.08E+04	6.13E+04	6.01E+04	6.07E+04	5.96E+04	5.94E+04	5.95E+04
6							4.49E+04	7.06E+04	6.69E+04	6.37E+04	6.36E+04	6.10E+04	6.04E+04	5.86E+04	5.90E+04	5.89E+04	5.91E+04	5.98E+04	6.14E+04
7						4.49E+04	7.46E+04	7.22E+04	6.40E+04	6.26E+04	7.28E+04	7.23E+04	5.98E+04	5.86E+04	6.44E+04	6.44E+04	5.86E+04	6.07E+04	7.25E+04
8				4.49E+04	7.06E+04	7.22E+04	6.95E+04	6.07E+04	6.23E+04	7.22E+04	7.19E+04	5.93E+04	5.81E+04	6.42E+04	6.42E+04	5.82E+04	6.03E+04	7.23E+04	
9			4.50E+04	7.13E+04	6.69E+04	6.40E+04	6.07E+04	6.00E+04	5.92E+04	6.05E+04	6.00E+04	5.85E+04	5.80E+04	5.80E+04	5.80E+04	5.73E+04	5.86E+04	6.01E+04	
10			4.45E+04	6.72E+04	6.37E+04	6.26E+04	6.23E+04	5.92E+04	5.89E+04	5.83E+04	5.80E+04	5.71E+04	5.85E+04	6.00E+04	6.00E+04	5.86E+04	5.80E+04	5.79E+04	
11		4.48E+04	6.81E+04	6.48E+04	6.36E+04	7.28E+04	7.22E+04	6.05E+04	5.83E+04	6.41E+04	6.40E+04	5.78E+04	5.99E+04	7.21E+04	7.21E+04	6.00E+04	5.79E+04	6.39E+04	
12		4.44E+04	6.51E+04	6.26E+04	6.10E+04	7.23E+04	7.19E+04	6.00E+04	5.80E+04	6.40E+04	6.39E+04	5.78E+04	5.99E+04	7.21E+04	7.21E+04	6.00E+04	5.79E+04	6.39E+04	
13	4.51E+04	6.92E+04	6.36E+04	6.08E+04	6.04E+04	5.98E+04	5.93E+04	5.86E+04	5.71E+04	5.78E+04	5.78E+04	5.79E+04	5.84E+04	5.99E+04	6.00E+04	5.86E+04	5.80E+04	5.79E+04	
14	4.49E+04	6.95E+04	6.37E+04	6.13E+04	5.86E+04	5.86E+04	5.81E+04	5.80E+04	5.85E+04	5.99E+04	5.99E+04	5.84E+04	5.79E+04	5.78E+04	5.78E+04	5.80E+04	5.85E+04	6.00E+04	
15	4.52E+04	7.71E+04	7.53E+04	7.32E+04	6.01E+04	5.90E+04	6.44E+04	6.42E+04	5.80E+04	6.00E+04	7.21E+04	7.21E+04	5.99E+04	5.78E+04	6.39E+04	6.39E+04	5.78E+04	6.00E+04	7.21E+04
16	4.50E+04	7.25E+04	7.48E+04	7.29E+04	6.07E+04	5.89E+04	6.44E+04	6.42E+04	5.80E+04	6.00E+04	7.21E+04	7.21E+04	6.00E+04	5.78E+04	6.39E+04	6.39E+04	5.78E+04	6.00E+04	7.21E+04
17	4.50E+04	7.03E+04	6.59E+04	6.36E+04	5.96E+04	5.91E+04	5.86E+04	5.82E+04	5.73E+04	5.85E+04	6.00E+04	6.00E+04	5.85E+04	5.80E+04	5.78E+04	5.78E+04	5.80E+04	5.85E+04	5.99E+04
18	4.49E+04	6.86E+04	6.53E+04	6.03E+04	5.94E+04	5.98E+04	6.07E+04	6.03E+04	5.86E+04	5.80E+04	5.79E+04	5.79E+04	5.80E+04	5.85E+04	6.00E+04	6.00E+04	5.85E+04	5.79E+04	5.78E+04
19	4.48E+04	6.81E+04	7.01E+04	6.75E+04	5.95E+04	6.14E+04	7.25E+04	7.23E+04	6.01E+04	5.79E+04	6.39E+04	6.39E+04	5.79E+04	6.00E+04	7.21E+04	7.21E+04	5.99E+04	5.78E+04	6.39E+04

Figure RAI 4.3-19- 42 Channel Flow (lbs/hr) at MOC SP1M-30F / FWT 341 F

Power: RP	(MWth)	4050.00	(90.0 %)
Pressure: PRV	(psia)	1040.42	
Core Flow: WCT	(Mlb/hr)	81.10	(102.2 %)
Bypass Flow: WBPRIN	(Mlb/hr)	10.85	(13.4 %)
Inlet Enthalpy: HCI	(BTU/lb)	506.83	
Inlet Temp.: TWI	(deg F)	515.95	
Core Press Drop: CPD	(psi)	8.94	
Pre-burn: DELBRN	(MWd/MT):	0.00	
Post-burn: DELTE	(MWd/MT):	0.00	
Initial Exposure	(MWd/MT):	3782.20	
Final Exposure: EXCORE	(MWd/MT):	3782.20	
Cycle Exposure: CYCEXP	(MWd/MT):	3782.21	
Cycle Energy: CYCENR	(GWd)	630.72	

Neutron Multiplication: AMDA 1.00310421

Core Values:			Location: I	J	K
Max Nodal Exposure	(MWd/MT):	7812.02	27	33	4
Max Bundle Exposure	(MWd/MT):	5026.56	22	30	
Peak Axial Power		1.7382			4
Maximum Nodal Power		2.4107	13	10	4
Maximum Bundle Power		1.3676	9	17	
Maximum APLHGR		9.0910	13	10	4

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.1341	14	6	4
Minimum Critical Power Ratio(CPR)	1.5562	17	9	17
Maximum KW/ft	10.7276	13	10	4
Maximum MFLPD	0.8427	13	10	4

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71							24				24							
5	67																		
7	63						0			0				0					
9	59																		
11	55				0			0				0				0			
13	51																		
15	47		24				0		54		0		54		0			24	
17	43																		
19	39				0			0				0				0			
21	35																		
23	31		24				0		54		0		54		0			24	
25	27																		
27	23				0			0				0				0			
29	19																		
31	15						0			0				0					
33	11																		
35	7							24				24							
37	3																		

Figure RAI 4.3-19- 43 Control Rod Pattern Summary at MOC / 90% Power / FWT 369 F

K(node)	Axial Power
20	0.122
19	0.2525
18	0.3603
17	0.4727
16	0.586
15	0.6849
14	0.7533
13	0.8405
12	0.9863
11	1.096
10	1.213
9	1.3296
8	1.445
7	1.5548
6	1.6494
5	1.7261
4	1.7382
3	1.5894
2	1.1749
1	0.4252

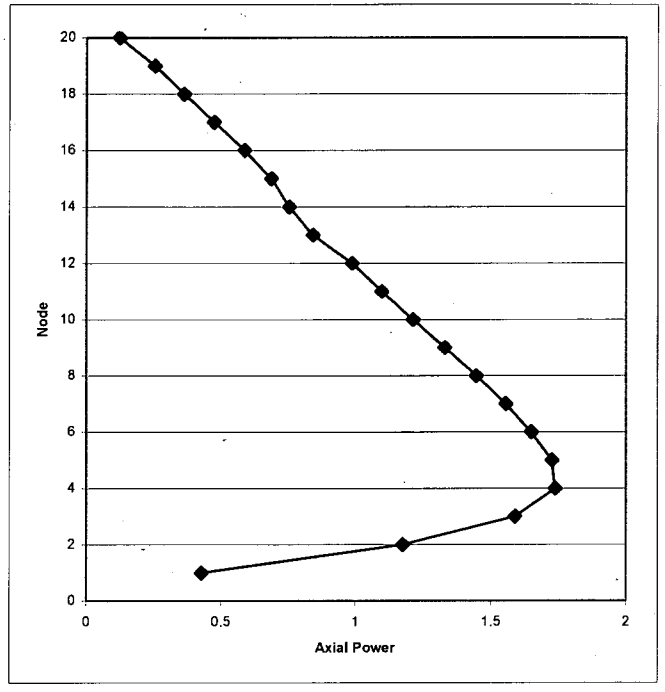

Figure RAI 4.3-19- 44 Relative Axial Power at MOC / 90% Power / FWT 369 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.15	0.22	0.30	0.33	0.34
2													0.28	0.31	0.31	0.60	0.74	0.81	0.84
3											0.34	0.45	0.78	0.77	0.42	0.45	0.94	0.97	0.76
4									0.29	0.42	0.82	0.96	1.03	1.03	0.57	0.59	1.06	1.21	0.88
5								0.33	0.69	0.85	0.96	1.07	1.16	1.15	1.21	1.19	1.24	1.25	1.25
6							0.30	0.73	0.86	1.01	1.01	1.13	1.18	1.27	1.27	1.28	1.27	1.24	1.17
7						0.30	0.49	0.63	1.00	1.05	0.56	0.60	1.20	1.28	1.02	1.02	1.30	1.20	0.64
8					0.33	0.73	0.63	0.76	1.15	1.07	0.60	0.62	1.23	1.31	1.04	1.04	1.32	1.23	0.65
9				0.29	0.69	0.86	1.00	1.15	1.19	1.23	1.17	1.20	1.28	1.32	1.33	1.33	1.37	1.31	1.24
10				0.42	0.85	1.01	1.05	1.07	1.23	1.25	1.29	1.31	1.35	1.30	1.24	1.24	1.31	1.34	1.35
11			0.34	0.82	0.96	1.01	0.56	0.60	1.17	1.29	1.03	1.04	1.33	1.23	0.66	0.66	1.24	1.35	1.06
12			0.45	0.96	1.07	1.13	0.60	0.62	1.20	1.31	1.04	1.04	1.33	1.23	0.66	0.66	1.24	1.34	1.06
13		0.28	0.78	1.03	1.16	1.18	1.20	1.23	1.28	1.35	1.33	1.33	1.32	1.29	1.22	1.22	1.30	1.33	1.34
14		0.31	0.77	1.03	1.15	1.27	1.28	1.31	1.32	1.30	1.23	1.23	1.29	1.30	1.28	1.28	1.30	1.30	1.24
15	0.15	0.31	0.42	0.57	1.21	1.27	1.02	1.04	1.33	1.24	0.66	0.66	1.22	1.28	0.92	0.92	1.29	1.22	0.66
16	0.22	0.60	0.45	0.59	1.19	1.28	1.02	1.04	1.33	1.24	0.66	0.66	1.22	1.28	0.92	0.92	1.29	1.22	0.66
17	0.30	0.74	0.94	1.06	1.24	1.27	1.30	1.32	1.37	1.31	1.24	1.24	1.30	1.30	1.29	1.29	1.31	1.30	1.24
18	0.33	0.81	0.97	1.21	1.25	1.24	1.20	1.23	1.31	1.34	1.35	1.34	1.33	1.30	1.22	1.22	1.30	1.33	1.34
19	0.34	0.84	0.76	0.88	1.25	1.17	0.64	0.65	1.24	1.35	1.06	1.06	1.34	1.24	0.66	0.66	1.24	1.34	1.06

Figure RAI 4.3-19- 45 Relative Integrated Power at MOC / 90% Power / FWT 369 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.47E+04	4.45E+04	4.43E+04	4.43E+04	4.43E+04
2													4.45E+04	4.43E+04	7.64E+04	7.25E+04	7.01E+04	6.88E+04	6.83E+04
3											4.43E+04	4.39E+04	6.93E+04	6.97E+04	7.50E+04	7.45E+04	6.64E+04	6.57E+04	6.99E+04
4									4.44E+04	4.40E+04	6.83E+04	6.56E+04	6.43E+04	6.45E+04	7.29E+04	7.26E+04	6.42E+04	6.12E+04	6.76E+04
5								4.43E+04	7.08E+04	6.75E+04	6.55E+04	6.34E+04	6.18E+04	6.22E+04	6.12E+04	6.17E+04	6.05E+04	6.02E+04	6.03E+04
6							4.44E+04	7.03E+04	6.73E+04	6.45E+04	6.45E+04	6.23E+04	6.15E+04	5.97E+04	6.00E+04	5.98E+04	6.00E+04	6.05E+04	6.19E+04
7						4.44E+04	7.39E+04	7.17E+04	6.48E+04	6.38E+04	7.28E+04	7.22E+04	6.12E+04	5.97E+04	6.49E+04	6.48E+04	5.94E+04	6.14E+04	7.16E+04
8					4.43E+04	7.03E+04	7.17E+04	6.98E+04	6.19E+04	6.35E+04	7.22E+04	7.19E+04	6.07E+04	5.93E+04	6.46E+04	6.45E+04	5.91E+04	6.10E+04	7.14E+04
9				4.44E+04	7.08E+04	6.73E+04	6.48E+04	6.19E+04	6.12E+04	6.05E+04	6.19E+04	6.13E+04	5.97E+04	5.91E+04	5.90E+04	5.89E+04	5.82E+04	5.94E+04	6.07E+04
10				4.40E+04	6.75E+04	6.45E+04	6.38E+04	6.35E+04	6.05E+04	6.01E+04	5.96E+04	5.93E+04	5.84E+04	5.95E+04	6.08E+04	6.07E+04	5.93E+04	5.88E+04	5.87E+04
11			4.43E+04	6.83E+04	6.55E+04	6.45E+04	7.28E+04	7.22E+04	6.19E+04	5.96E+04	6.47E+04	6.46E+04	5.90E+04	6.09E+04	7.13E+04	7.13E+04	6.07E+04	5.88E+04	6.43E+04
12			4.39E+04	6.56E+04	6.34E+04	6.23E+04	7.22E+04	7.19E+04	6.13E+04	5.93E+04	6.46E+04	6.45E+04	5.90E+04	6.10E+04	7.18E+04	7.17E+04	6.09E+04	5.89E+04	6.44E+04
13		4.45E+04	6.93E+04	6.43E+04	6.18E+04	6.15E+04	6.12E+04	6.07E+04	5.97E+04	5.84E+04	5.90E+04	5.90E+04	5.92E+04	5.99E+04	6.17E+04	6.17E+04	5.98E+04	5.92E+04	5.90E+04
14		4.43E+04	6.97E+04	6.45E+04	6.22E+04	5.97E+04	5.97E+04	5.93E+04	5.91E+04	5.95E+04	6.09E+04	6.10E+04	5.99E+04	5.98E+04	6.07E+04	6.06E+04	6.01E+04	5.99E+04	6.13E+04
15	4.47E+04	7.64E+04	7.50E+04	7.29E+04	6.12E+04	6.00E+04	6.49E+04	6.46E+04	5.90E+04	6.08E+04	7.13E+04	7.18E+04	6.17E+04	6.07E+04	6.79E+04	6.79E+04	6.07E+04	6.17E+04	7.18E+04
16	4.45E+04	7.25E+04	7.45E+04	7.26E+04	6.17E+04	5.98E+04	6.48E+04	6.45E+04	5.89E+04	6.07E+04	7.13E+04	7.17E+04	6.17E+04	6.06E+04	6.79E+04	6.79E+04	6.07E+04	6.17E+04	7.18E+04
17	4.43E+04	7.01E+04	6.64E+04	6.42E+04	6.05E+04	6.00E+04	5.94E+04	5.91E+04	5.82E+04	5.93E+04	6.07E+04	6.09E+04	5.98E+04	6.01E+04	6.07E+04	6.07E+04	6.01E+04	6.02E+04	6.13E+04
18	4.43E+04	6.88E+04	6.57E+04	6.12E+04	6.02E+04	6.05E+04	6.14E+04	6.10E+04	5.94E+04	5.88E+04	5.88E+04	5.89E+04	5.92E+04	5.99E+04	6.17E+04	6.17E+04	6.02E+04	5.92E+04	5.94E+04
19	4.43E+04	6.83E+04	6.99E+04	6.76E+04	6.03E+04	6.19E+04	7.16E+04	7.14E+04	6.07E+04	5.87E+04	6.43E+04	6.44E+04	5.90E+04	6.13E+04	7.18E+04	7.18E+04	6.13E+04	5.94E+04	6.45E+04

Figure RAI 4.3-19- 46 Channel Flow (lbs/hr) at MOC / 90% Power / FWT 369 F

Power: RP	(MWth)	4301.10	(95.6 %)
Pressure: PRV	(psia)	1043.03	
Core Flow: WCT	(Mlb/hr)	81.36	(102.5 %)
Bypass Flow: WBPRIN	(Mlb/hr)	11.00	(13.5 %)
Inlet Enthalpy: HCI	(BTU/lb)	499.62	
Inlet Temp.: TWI	(deg F)	509.96	
Core Press Drop: CPD	(psi)	8.98	
Pre-burn: DELBRN	(MWd/MT):	0.00	
Post-burn: DELTE	(MWd/MT):	0.00	
Initial Exposure	(MWd/MT):	3782.20	
Final Exposure: EXCORE	(MWd/MT):	3782.20	
Cycle Exposure: CYCEXP	(MWd/MT):	3782.21	
Cycle Energy: CYCENR	(GWd)	630.72	

Neutron Multiplication: AMDA 1.00275230

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/MT):	7812.02	27	33	4
Max Bundle Exposure (MWd/MT):	5026.56	22	30	
Peak Axial Power	1.7681			4
Maximum Nodal Power	2.4401	29	26	4
Maximum Bundle Power	1.3617	22	9	
Maximum APLHGR	9.7697	29	26	4

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.1341	14	6	4
Minimum Critical Power Ratio(CPR)	1.4913	22	9	17
Maximum KW/ft	11.5516	25	31	4
Maximum MFLPD	0.8815	25	31	4

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71							24				24							
5	67																		
7	63						0			0				0					
9	59																		
11	55				0			0				0				0			
13	51																		
15	47		24				0		54		0		54		0				24
17	43																		
19	39				0			0				0				0			
21	35																		
23	31		24				0		54		0		54		0				24
25	27																		
27	23				0			0				0				0			
29	19																		
31	15						0			0				0					
33	11																		
35	7							24				24							
37	3																		

Figure RAI 4.3-19- 47 Control Rod Pattern Summary at MOC / 90% Power –30 F / FWT 338 F

K(node)	Axial Power
20	0.1195
19	0.2469
18	0.3523
17	0.4623
16	0.5736
15	0.6713
14	0.7399
13	0.8272
12	0.9731
11	1.0838
10	1.2024
9	1.3214
8	1.4405
7	1.5561
6	1.6585
5	1.7449
4	1.7681
3	1.625
2	1.2003
1	0.4327

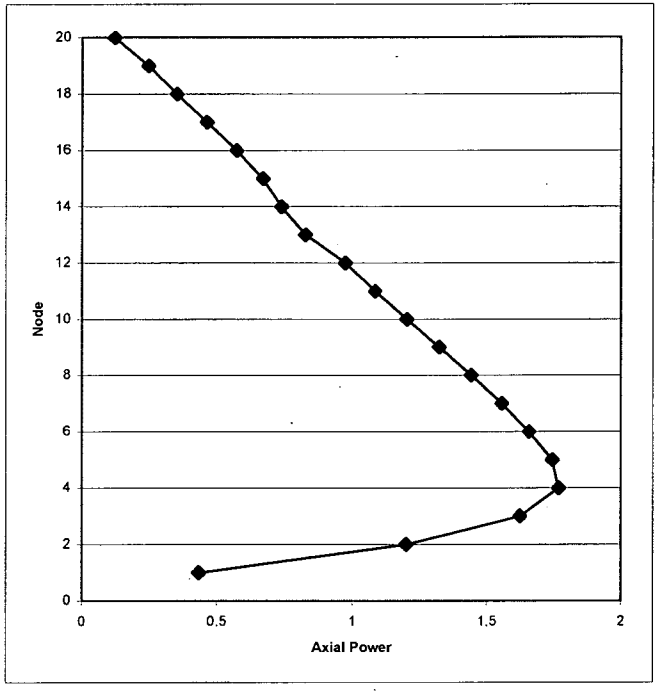

Figure RAI 4.3-19- 48 Relative Axial Power at MOC / 90% Power-30F / FWT 338 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.15	0.22	0.30	0.34	0.34
2													0.28	0.31	0.31	0.61	0.75	0.82	0.85
3											0.34	0.45	0.78	0.78	0.42	0.46	0.95	0.98	0.76
4									0.30	0.43	0.82	0.96	1.03	1.04	0.57	0.60	1.06	1.21	0.88
5								0.33	0.69	0.86	0.96	1.07	1.16	1.15	1.21	1.19	1.24	1.25	1.25
6							0.31	0.73	0.87	1.01	1.02	1.14	1.18	1.27	1.26	1.28	1.27	1.24	1.17
7						0.31	0.49	0.64	1.00	1.05	0.56	0.60	1.20	1.28	1.02	1.02	1.30	1.20	0.64
8					0.33	0.73	0.64	0.76	1.15	1.07	0.60	0.63	1.23	1.30	1.03	1.04	1.32	1.22	0.66
9				0.30	0.69	0.87	1.00	1.15	1.19	1.23	1.17	1.20	1.28	1.31	1.32	1.33	1.36	1.30	1.24
10				0.43	0.86	1.01	1.05	1.07	1.23	1.25	1.29	1.30	1.35	1.29	1.23	1.24	1.31	1.33	1.34
11			0.34	0.82	0.96	1.02	0.56	0.60	1.17	1.29	1.03	1.04	1.32	1.23	0.66	0.66	1.24	1.34	1.06
12			0.45	0.96	1.07	1.14	0.60	0.63	1.20	1.30	1.04	1.04	1.32	1.23	0.66	0.66	1.23	1.34	1.06
13		0.28	0.78	1.03	1.16	1.18	1.20	1.23	1.28	1.35	1.32	1.32	1.31	1.28	1.21	1.21	1.29	1.32	1.33
14		0.31	0.78	1.04	1.15	1.27	1.28	1.30	1.31	1.29	1.23	1.23	1.28	1.29	1.28	1.28	1.30	1.29	1.23
15	0.15	0.31	0.42	0.57	1.21	1.26	1.02	1.03	1.32	1.23	0.66	0.66	1.21	1.28	0.92	0.92	1.28	1.21	0.66
16	0.22	0.61	0.46	0.60	1.19	1.28	1.02	1.04	1.33	1.24	0.66	0.66	1.21	1.28	0.92	0.92	1.28	1.22	0.66
17	0.30	0.75	0.95	1.06	1.24	1.27	1.30	1.32	1.36	1.31	1.24	1.23	1.29	1.30	1.28	1.28	1.30	1.29	1.23
18	0.34	0.82	0.98	1.21	1.25	1.24	1.20	1.22	1.30	1.33	1.34	1.34	1.32	1.29	1.21	1.22	1.29	1.32	1.34
19	0.34	0.85	0.76	0.88	1.25	1.17	0.64	0.66	1.24	1.34	1.06	1.06	1.33	1.23	0.66	0.66	1.23	1.34	1.06

Figure RAI 4.3-19- 49 Relative Integrated Power at MOC / 90% Power-30F/ FWT 338 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.50E+04	4.48E+04	4.47E+04	4.46E+04	4.45E+04
2													4.48E+04	4.46E+04	7.70E+04	7.30E+04	7.06E+04	6.91E+04	6.86E+04
3											4.45E+04	4.41E+04	6.97E+04	7.01E+04	7.56E+04	7.51E+04	6.66E+04	6.58E+04	7.04E+04
4									4.47E+04	4.42E+04	6.87E+04	6.58E+04	6.44E+04	6.46E+04	7.35E+04	7.32E+04	6.43E+04	6.11E+04	6.79E+04
5								4.46E+04	7.14E+04	6.78E+04	6.56E+04	6.34E+04	6.17E+04	6.21E+04	6.11E+04	6.16E+04	6.04E+04	6.01E+04	6.02E+04
6							4.47E+04	7.08E+04	6.76E+04	6.46E+04	6.46E+04	6.22E+04	6.14E+04	5.96E+04	5.99E+04	5.97E+04	5.98E+04	6.04E+04	6.19E+04
7						4.47E+04	7.45E+04	7.23E+04	6.49E+04	6.39E+04	7.34E+04	7.28E+04	6.11E+04	5.96E+04	6.50E+04	6.50E+04	5.93E+04	6.13E+04	7.22E+04
8					4.46E+04	7.08E+04	7.23E+04	7.00E+04	6.18E+04	6.36E+04	7.28E+04	7.24E+04	6.06E+04	5.91E+04	6.48E+04	6.47E+04	5.89E+04	6.09E+04	7.20E+04
9				4.47E+04	7.14E+04	6.76E+04	6.49E+04	6.18E+04	6.11E+04	6.04E+04	6.18E+04	6.13E+04	5.96E+04	5.89E+04	5.88E+04	5.87E+04	5.80E+04	5.92E+04	6.07E+04
10				4.42E+04	6.78E+04	6.46E+04	6.39E+04	6.36E+04	6.04E+04	6.00E+04	5.94E+04	5.91E+04	5.82E+04	5.93E+04	6.07E+04	6.07E+04	5.92E+04	5.86E+04	5.86E+04
11			4.45E+04	6.87E+04	6.56E+04	6.46E+04	7.34E+04	7.28E+04	6.18E+04	5.94E+04	6.49E+04	6.47E+04	5.88E+04	6.08E+04	7.19E+04	7.19E+04	6.07E+04	5.86E+04	6.45E+04
12			4.41E+04	6.58E+04	6.34E+04	6.22E+04	7.28E+04	7.24E+04	6.13E+04	5.91E+04	6.47E+04	6.47E+04	5.89E+04	6.10E+04	7.20E+04	7.24E+04	6.09E+04	5.87E+04	6.46E+04
13		4.48E+04	6.97E+04	6.44E+04	6.17E+04	6.14E+04	6.11E+04	6.06E+04	5.96E+04	5.82E+04	5.88E+04	5.89E+04	5.91E+04	5.98E+04	6.17E+04	6.17E+04	5.97E+04	5.90E+04	5.88E+04
14		4.46E+04	7.01E+04	6.46E+04	6.21E+04	5.96E+04	5.96E+04	5.91E+04	5.89E+04	5.93E+04	6.08E+04	6.10E+04	5.98E+04	5.97E+04	6.06E+04	6.06E+04	6.00E+04	5.98E+04	6.10E+04
15	4.50E+04	7.70E+04	7.56E+04	7.35E+04	6.11E+04	5.99E+04	6.50E+04	6.48E+04	5.88E+04	6.07E+04	7.19E+04	7.20E+04	6.17E+04	6.06E+04	6.83E+04	6.83E+04	6.06E+04	6.17E+04	7.24E+04
16	4.48E+04	7.30E+04	7.51E+04	7.32E+04	6.16E+04	5.97E+04	6.50E+04	6.47E+04	5.87E+04	6.07E+04	7.19E+04	7.24E+04	6.17E+04	6.06E+04	6.83E+04	6.83E+04	6.07E+04	6.18E+04	7.24E+04
17	4.47E+04	7.06E+04	6.66E+04	6.43E+04	6.04E+04	5.98E+04	5.93E+04	5.89E+04	5.80E+04	5.92E+04	6.07E+04	6.09E+04	5.97E+04	6.00E+04	6.06E+04	6.07E+04	6.01E+04	6.01E+04	6.13E+04
18	4.46E+04	6.91E+04	6.58E+04	6.11E+04	6.01E+04	6.04E+04	6.13E+04	6.09E+04	5.92E+04	5.86E+04	5.86E+04	5.87E+04	5.90E+04	5.98E+04	6.17E+04	6.18E+04	6.01E+04	5.91E+04	5.93E+04
19	4.45E+04	6.86E+04	7.04E+04	6.79E+04	6.02E+04	6.19E+04	7.22E+04	7.20E+04	6.07E+04	5.86E+04	6.45E+04	6.46E+04	5.88E+04	6.10E+04	7.24E+04	7.24E+04	6.13E+04	5.93E+04	6.47E+04

Figure RAI 4.3-19- 50 Channel Flow (lbs/hr) at MOC / 90% Power –30F / FWT 338 F

Power: RP	(MWth)	3600.00	(80.0 %)
Pressure: PRV	(psia)	1025.61	
Core Flow: WCT	(Mlb/hr)	81.62	(102.8 %)
Bypass Flow: WBPRIN	(Mlb/hr)	10.52	(12.9 %)
Inlet Enthalpy: HCI	(BTU/lb)	509.00	
Inlet Temp.: TWI	(deg F)	517.73	
Core Press Drop: CPD	(psi)	8.99	
Pre-burn: DELBRN	(MWd/MT):	0.00	
Post-burn: DELTE	(MWd/MT):	0.00	
Initial Exposure	(MWd/MT):	3782.20	
Final Exposure: EXCORE	(MWd/MT):	3782.20	
Cycle Exposure: CYCEXP	(MWd/MT):	3782.21	
Cycle Energy: CYCENR	(GWd)	630.72	

Neutron Multiplication: AMDA 1.00298679

Core Values:			Location: I	J	K
Max Nodal Exposure	(MWd/MT):	7812.02	27	33	4
Max Bundle Exposure	(MWd/MT):	5026.56	22	30	
Peak Axial Power		1.7827			5
Maximum Nodal Power		2.5539	13	10	4
Maximum Bundle Power		1.4174	13	10	
Maximum APLHGR		8.5542	13	10	4

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.1341	14	6	4
Minimum Critical Power Ratio(CPR)	1.6916	13	10	16
Maximum KW/ft	10.1030	13	10	4
Maximum MFLPD	0.8377	13	10	4

Control Rod Configuration
In Notches Withdrawn

PANAC		1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site		2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																			
3	71								0				0							
5	67																			
7	63							0			0				0					
9	59																			
11	55				0				0		62		0				0			
13	51																			
15	47		0					0		20		0		20		0			0	
17	43																			
19	39				0		62		0		0		0		62		0			
21	35																			
23	31		0					0		20		0		20		0			0	
25	27																			
27	23				0				0		62		0				0			
29	19																			
31	15							0			0				0					
33	11																			
35	7								0				0							
37	3																			

Figure RAI 4.3-19- 51 Control Rod Pattern Summary at MOC / 80% Power / FWT 365 F

K(node)	Axial Power
20	0.1138
19	0.2382
18	0.3409
17	0.4484
16	0.5572
15	0.6521
14	0.7188
13	0.8121
12	0.9631
11	1.0807
10	1.2071
9	1.3353
8	1.4646
7	1.5911
6	1.705
5	1.7827
4	1.7773
3	1.6072
2	1.1796
1	0.4248

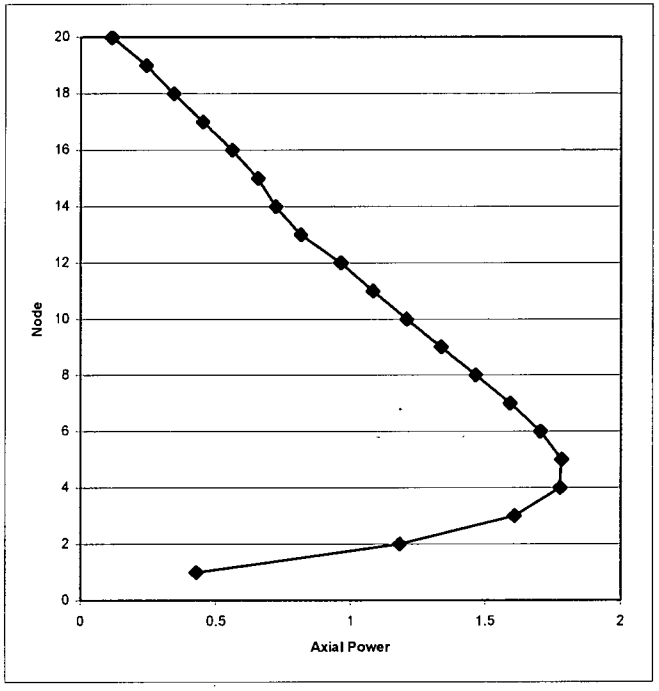

Figure RAI 4.3-19- 52 Relative Axial Power at MOC / 80% Power / FWT 365 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.15	0.22	0.30	0.34	0.35
2													0.28	0.31	0.30	0.60	0.76	0.84	0.87
3											0.36	0.47	0.81	0.78	0.38	0.41	0.96	1.01	0.79
4									0.31	0.45	0.86	1.01	1.08	1.06	0.54	0.56	1.08	1.26	0.92
5								0.35	0.73	0.91	1.02	1.13	1.22	1.20	1.25	1.22	1.29	1.31	1.31
6							0.33	0.77	0.92	1.07	1.08	1.20	1.24	1.34	1.33	1.34	1.33	1.30	1.23
7						0.33	0.52	0.67	1.06	1.12	0.59	0.63	1.27	1.35	1.07	1.07	1.36	1.26	0.66
8					0.35	0.77	0.67	0.81	1.23	1.14	0.63	0.66	1.30	1.37	1.08	1.08	1.38	1.27	0.67
9				0.31	0.73	0.92	1.06	1.23	1.27	1.31	1.24	1.26	1.35	1.38	1.39	1.38	1.42	1.34	1.27
10				0.45	0.91	1.07	1.12	1.14	1.31	1.33	1.36	1.37	1.42	1.35	1.28	1.28	1.34	1.35	1.34
11			0.36	0.86	1.02	1.08	0.59	0.63	1.24	1.36	1.08	1.08	1.37	1.27	0.67	0.66	1.24	1.32	0.98
12			0.47	1.01	1.13	1.20	0.63	0.66	1.26	1.37	1.08	1.08	1.36	1.24	0.64	0.63	1.20	1.29	0.96
13		0.28	0.81	1.08	1.22	1.24	1.27	1.30	1.35	1.42	1.37	1.36	1.32	1.26	1.15	1.14	1.23	1.26	1.26
14		0.31	0.78	1.06	1.20	1.34	1.35	1.37	1.38	1.35	1.27	1.24	1.26	1.23	1.14	1.13	1.19	1.20	1.15
15	0.15	0.30	0.38	0.54	1.25	1.33	1.07	1.08	1.39	1.28	0.67	0.64	1.15	1.14	0.64	0.63	1.09	1.08	0.58
16	0.22	0.60	0.41	0.56	1.22	1.34	1.07	1.08	1.38	1.28	0.66	0.63	1.14	1.13	0.63	0.62	1.06	1.04	0.55
17	0.30	0.76	0.96	1.08	1.29	1.33	1.36	1.38	1.42	1.34	1.24	1.20	1.23	1.19	1.09	1.06	1.09	1.08	1.00
18	0.34	0.84	1.01	1.26	1.31	1.30	1.26	1.27	1.34	1.35	1.32	1.29	1.26	1.20	1.08	1.04	1.08	1.06	0.99
19	0.35	0.87	0.79	0.92	1.31	1.23	0.66	0.67	1.27	1.34	0.98	0.96	1.26	1.15	0.58	0.55	1.00	0.99	0.52

Figure RAI 4.3-19- 53 Relative Integrated Power at MOC / 80% Power/ FWT 365 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.43E+04	4.43E+04	4.40E+04	4.39E+04	4.39E+04
2													4.41E+04	4.40E+04	7.61E+04	7.22E+04	7.00E+04	6.85E+04	6.81E+04
3											4.39E+04	4.36E+04	6.90E+04	6.95E+04	7.51E+04	7.46E+04	6.65E+04	6.57E+04	6.96E+04
4									4.40E+04	4.36E+04	6.79E+04	6.54E+04	6.42E+04	6.46E+04	7.30E+04	7.27E+04	6.44E+04	6.14E+04	6.74E+04
5								4.39E+04	7.04E+04	6.72E+04	6.52E+04	6.33E+04	6.18E+04	6.22E+04	6.15E+04	6.20E+04	6.08E+04	6.04E+04	6.05E+04
6							4.40E+04	6.98E+04	6.69E+04	6.43E+04	6.43E+04	6.22E+04	6.15E+04	5.99E+04	6.02E+04	6.01E+04	6.02E+04	6.07E+04	6.21E+04
7						4.40E+04	7.33E+04	7.12E+04	6.45E+04	6.36E+04	7.23E+04	7.18E+04	6.12E+04	5.99E+04	6.48E+04	6.48E+04	5.98E+04	6.16E+04	7.13E+04
8					4.39E+04	6.98E+04	7.12E+04	6.91E+04	6.17E+04	6.33E+04	7.17E+04	7.14E+04	6.08E+04	5.95E+04	6.46E+04	6.47E+04	5.96E+04	6.14E+04	7.12E+04
9				4.40E+04	7.04E+04	6.69E+04	6.45E+04	6.17E+04	6.10E+04	6.05E+04	6.18E+04	6.14E+04	5.99E+04	5.94E+04	5.94E+04	5.95E+04	5.89E+04	6.02E+04	6.17E+04
10				4.36E+04	6.72E+04	6.43E+04	6.36E+04	6.33E+04	6.05E+04	6.02E+04	5.97E+04	5.95E+04	5.88E+04	5.99E+04	6.13E+04	6.14E+04	6.03E+04	6.01E+04	6.05E+04
11			4.39E+04	6.79E+04	6.52E+04	6.43E+04	7.23E+04	7.17E+04	6.18E+04	5.97E+04	6.48E+04	6.47E+04	5.96E+04	6.15E+04	7.13E+04	7.14E+04	6.22E+04	6.11E+04	6.69E+04
12			4.36E+04	6.54E+04	6.33E+04	6.22E+04	7.18E+04	7.14E+04	6.14E+04	5.95E+04	6.47E+04	6.49E+04	6.00E+04	6.21E+04	7.19E+04	7.20E+04	6.30E+04	6.17E+04	6.73E+04
13		4.41E+04	6.90E+04	6.42E+04	6.18E+04	6.15E+04	6.12E+04	6.08E+04	5.99E+04	5.88E+04	5.96E+04	6.00E+04	6.06E+04	6.17E+04	6.37E+04	6.40E+04	6.25E+04	6.19E+04	6.22E+04
14		4.40E+04	6.95E+04	6.46E+04	6.22E+04	5.99E+04	5.99E+04	5.95E+04	5.94E+04	5.99E+04	6.15E+04	6.21E+04	6.17E+04	6.24E+04	6.41E+04	6.44E+04	6.33E+04	6.30E+04	6.40E+04
15	4.43E+04	7.61E+04	7.51E+04	7.30E+04	6.15E+04	6.02E+04	6.48E+04	6.46E+04	5.94E+04	6.13E+04	7.13E+04	7.19E+04	6.37E+04	6.41E+04	7.20E+04	7.21E+04	6.50E+04	6.51E+04	7.27E+04
16	4.43E+04	7.22E+04	7.46E+04	7.27E+04	6.20E+04	6.01E+04	6.48E+04	6.47E+04	5.95E+04	6.14E+04	7.14E+04	7.20E+04	6.40E+04	6.44E+04	7.21E+04	7.23E+04	6.56E+04	6.58E+04	7.30E+04
17	4.40E+04	7.00E+04	6.65E+04	6.44E+04	6.08E+04	6.02E+04	5.98E+04	5.96E+04	5.89E+04	6.03E+04	6.22E+04	6.30E+04	6.25E+04	6.33E+04	6.50E+04	6.56E+04	6.48E+04	6.50E+04	6.64E+04
18	4.39E+04	6.85E+04	6.57E+04	6.14E+04	6.04E+04	6.07E+04	6.16E+04	6.14E+04	6.02E+04	6.01E+04	6.11E+04	6.17E+04	6.19E+04	6.30E+04	6.51E+04	6.58E+04	6.50E+04	6.53E+04	6.66E+04
19	4.39E+04	6.81E+04	6.96E+04	6.74E+04	6.05E+04	6.21E+04	7.13E+04	7.12E+04	6.17E+04	6.05E+04	6.69E+04	6.73E+04	6.22E+04	6.40E+04	7.27E+04	7.30E+04	6.64E+04	6.66E+04	7.33E+04

Figure RAI 4.3-19- 54 Channel Flow (lbs/hr) at MOC / 80% Power / FWT 365 F

Power: RP	(MWth)	3820.30	(84.9 %)
Pressure: PRV	(psia)	1029.13	
Core Flow: WCT	(Mlb/hr)	82.00	(103.3 %)
Bypass Flow: WBPRIN	(Mlb/hr)	10.66	(13.0 %)
Inlet Enthalpy: HCI	(BTU/lb)	502.98	
Inlet Temp.: TWI	(deg F)	512.75	
Core Press Drop: CPD	(psi)	9.02	
Pre-burn: DELBRN	(MWd/MT):	0.00	
Post-burn: DELTE	(MWd/MT):	0.00	
Initial Exposure	(MWd/MT):	3782.20	
Final Exposure: EXCORE	(MWd/MT):	3782.20	
Cycle Exposure: CYCEXP	(MWd/MT):	3782.21	
Cycle Energy: CYCENR	(GWd)	630.72	

Neutron Multiplication: AMDA 1.00269270

Core Values:			Location: I	J	K
Max Nodal Exposure	(MWd/MT):	7812.02	27	33	4
Max Bundle Exposure	(MWd/MT):	5026.56	22	30	
Peak Axial Power		1.8052			4
Maximum Nodal Power		2.5779	26	29	4
Maximum Bundle Power		1.4102	13	10	
Maximum APLHGR		9.1604	26	29	4

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.1341	14	6	4
Minimum Critical Power Ratio(CPR)	1.6214	13	10	16
Maximum KW/ft	10.8358	25	32	4
Maximum MFLPD	0.8747	25	32	4

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71							0				0							
5	67																		
7	63						0			0				0					
9	59																		
11	55				0			0		62		0				0			
13	51																		
15	47		0				0		20		0		20		0			0	
17	43																		
19	39				0		62		0		0		0		62		0		
21	35																		
23	31		0				0		20		0		20		0			0	
25	27																		
27	23				0			0		62		0				0			
29	19																		
31	15						0			0				0					
33	11																		
35	7							0				0							
37	3																		

Figure RAI 4.3-19- 55 Control Rod Pattern Summary at MOC / 80% Power –30F/ FWT 335 F

K(node)	Axial Power
20	0.1116
19	0.2333
18	0.3339
17	0.4394
16	0.5465
15	0.6403
14	0.7072
13	0.8005
12	0.951
11	1.0692
10	1.1968
9	1.3272
8	1.4601
7	1.5923
6	1.7139
5	1.801
4	1.8052
3	1.6385
2	1.2009
1	0.4309

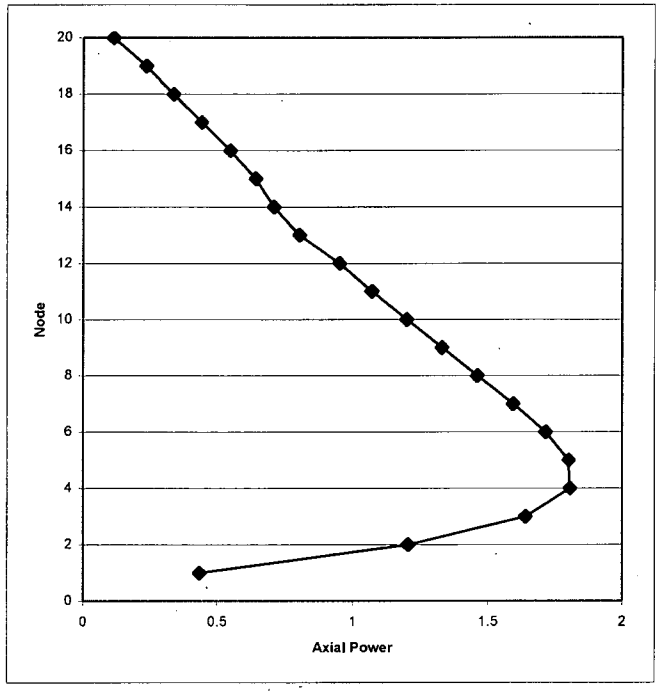

Figure RAI 4.3-19- 56 Relative Axial Power at MOC / 80% Power – 30 F/ FWT 335 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.15	0.22	0.30	0.34	0.35
2													0.28	0.32	0.30	0.60	0.76	0.85	0.88
3											0.36	0.47	0.81	0.79	0.38	0.42	0.97	1.01	0.79
4									0.31	0.45	0.87	1.01	1.08	1.06	0.54	0.56	1.08	1.26	0.92
5								0.35	0.74	0.91	1.02	1.13	1.22	1.20	1.25	1.22	1.29	1.31	1.31
6							0.33	0.78	0.92	1.08	1.08	1.20	1.24	1.34	1.32	1.33	1.32	1.30	1.22
7						0.33	0.52	0.67	1.06	1.12	0.59	0.63	1.26	1.34	1.07	1.07	1.36	1.25	0.67
8					0.35	0.78	0.67	0.81	1.23	1.14	0.63	0.66	1.30	1.37	1.08	1.08	1.37	1.27	0.67
9				0.31	0.74	0.92	1.06	1.23	1.26	1.30	1.23	1.26	1.34	1.37	1.38	1.38	1.41	1.34	1.26
10				0.45	0.91	1.08	1.12	1.14	1.30	1.32	1.35	1.37	1.41	1.35	1.28	1.27	1.33	1.35	1.34
11			0.36	0.87	1.02	1.08	0.59	0.63	1.23	1.35	1.07	1.08	1.37	1.26	0.67	0.66	1.24	1.32	0.98
12			0.47	1.01	1.13	1.20	0.63	0.66	1.26	1.37	1.08	1.07	1.35	1.23	0.65	0.64	1.20	1.29	0.96
13		0.28	0.81	1.08	1.22	1.24	1.26	1.30	1.34	1.41	1.37	1.35	1.32	1.26	1.15	1.14	1.22	1.26	1.26
14		0.32	0.79	1.06	1.20	1.34	1.34	1.37	1.37	1.35	1.26	1.23	1.26	1.23	1.14	1.13	1.19	1.20	1.15
15	0.15	0.30	0.38	0.54	1.25	1.32	1.07	1.08	1.38	1.28	0.67	0.65	1.15	1.14	0.65	0.64	1.09	1.08	0.58
16	0.22	0.60	0.42	0.56	1.22	1.33	1.07	1.08	1.38	1.27	0.66	0.64	1.14	1.13	0.64	0.62	1.06	1.04	0.56
17	0.30	0.76	0.97	1.08	1.29	1.32	1.36	1.37	1.41	1.33	1.24	1.20	1.22	1.19	1.09	1.06	1.10	1.08	1.01
18	0.34	0.85	1.01	1.26	1.31	1.30	1.25	1.27	1.34	1.35	1.32	1.29	1.26	1.20	1.08	1.04	1.08	1.07	0.99
19	0.35	0.88	0.79	0.92	1.31	1.22	0.67	0.67	1.26	1.34	0.98	0.96	1.26	1.15	0.58	0.56	1.01	0.99	0.53

Figure RAI 4.3-19- 57 Relative Integrated Power at MOC / 80% Power – 30F / FWT 335 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.46E+04	4.46E+04	4.43E+04	4.42E+04	4.42E+04
2													4.44E+04	4.43E+04	7.68E+04	7.28E+04	7.06E+04	6.89E+04	6.85E+04
3											4.42E+04	4.38E+04	6.95E+04	7.00E+04	7.58E+04	7.53E+04	6.68E+04	6.59E+04	7.01E+04
4									4.43E+04	4.39E+04	6.83E+04	6.56E+04	6.44E+04	6.48E+04	7.36E+04	7.33E+04	6.46E+04	6.14E+04	6.78E+04
5								4.42E+04	7.09E+04	6.75E+04	6.54E+04	6.34E+04	6.18E+04	6.23E+04	6.15E+04	6.20E+04	6.07E+04	6.04E+04	6.05E+04
6							4.43E+04	7.04E+04	6.73E+04	6.44E+04	6.45E+04	6.22E+04	6.15E+04	5.98E+04	6.02E+04	6.00E+04	6.02E+04	6.07E+04	6.21E+04
7						4.43E+04	7.39E+04	7.18E+04	6.47E+04	6.37E+04	7.29E+04	7.24E+04	6.13E+04	5.98E+04	6.51E+04	6.51E+04	5.97E+04	6.17E+04	7.19E+04
8					4.42E+04	7.04E+04	7.18E+04	6.96E+04	6.18E+04	6.35E+04	7.24E+04	7.20E+04	6.08E+04	5.94E+04	6.49E+04	6.49E+04	5.95E+04	6.15E+04	7.18E+04
9				4.43E+04	7.09E+04	6.73E+04	6.47E+04	6.18E+04	6.11E+04	6.05E+04	6.19E+04	6.15E+04	5.99E+04	5.93E+04	5.93E+04	5.94E+04	5.88E+04	6.02E+04	6.17E+04
10				4.39E+04	6.75E+04	6.44E+04	6.37E+04	6.35E+04	6.05E+04	6.01E+04	5.97E+04	5.95E+04	5.87E+04	5.99E+04	6.13E+04	6.15E+04	6.03E+04	6.01E+04	6.07E+04
11			4.42E+04	6.83E+04	6.54E+04	6.45E+04	7.29E+04	7.24E+04	6.19E+04	5.97E+04	6.50E+04	6.50E+04	5.96E+04	6.16E+04	7.19E+04	7.23E+04	6.22E+04	6.11E+04	6.73E+04
12			4.38E+04	6.56E+04	6.34E+04	6.22E+04	7.24E+04	7.20E+04	6.15E+04	5.95E+04	6.50E+04	6.51E+04	6.00E+04	6.22E+04	7.25E+04	7.26E+04	6.31E+04	6.17E+04	6.77E+04
13		4.44E+04	6.95E+04	6.44E+04	6.18E+04	6.15E+04	6.13E+04	6.08E+04	5.99E+04	5.87E+04	5.96E+04	6.00E+04	6.06E+04	6.17E+04	6.38E+04	6.42E+04	6.25E+04	6.19E+04	6.22E+04
14		4.43E+04	7.00E+04	6.48E+04	6.23E+04	5.98E+04	5.98E+04	5.94E+04	5.93E+04	5.99E+04	6.16E+04	6.22E+04	6.17E+04	6.24E+04	6.43E+04	6.45E+04	6.34E+04	6.30E+04	6.41E+04
15	4.46E+04	7.68E+04	7.58E+04	7.36E+04	6.15E+04	6.02E+04	6.51E+04	6.49E+04	5.93E+04	6.13E+04	7.19E+04	7.25E+04	6.38E+04	6.43E+04	7.25E+04	7.27E+04	6.52E+04	6.53E+04	7.33E+04
16	4.46E+04	7.28E+04	7.53E+04	7.33E+04	6.20E+04	6.00E+04	6.51E+04	6.49E+04	5.94E+04	6.15E+04	7.23E+04	7.26E+04	6.42E+04	6.45E+04	7.27E+04	7.29E+04	6.57E+04	6.60E+04	7.36E+04
17	4.43E+04	7.06E+04	6.68E+04	6.46E+04	6.07E+04	6.02E+04	5.97E+04	5.95E+04	5.88E+04	6.03E+04	6.22E+04	6.31E+04	6.25E+04	6.34E+04	6.52E+04	6.57E+04	6.49E+04	6.51E+04	6.66E+04
18	4.42E+04	6.89E+04	6.59E+04	6.14E+04	6.04E+04	6.07E+04	6.17E+04	6.15E+04	6.02E+04	6.01E+04	6.11E+04	6.17E+04	6.19E+04	6.30E+04	6.53E+04	6.60E+04	6.51E+04	6.54E+04	6.68E+04
19	4.42E+04	6.85E+04	7.01E+04	6.78E+04	6.05E+04	6.21E+04	7.19E+04	7.18E+04	6.17E+04	6.07E+04	6.73E+04	6.77E+04	6.22E+04	6.41E+04	7.33E+04	7.36E+04	6.66E+04	6.68E+04	7.39E+04

Figure RAI 4.3-19- 58 Channel Flow (lbs/hr) at MOC / 80% Power –30 F / FWT 335 F

Power: RP	(MWth)	2250.00	(50.0 %)
Pressure: PRV	(psia)	1005.26	
Core Flow: WCT	(Mlb/hr)	81.11	(102.2 %)
Bypass Flow: WBPRIN	(Mlb/hr)	8.84	(10.9 %)
Inlet Enthalpy: HCI	(BTU/lb)	518.69	
Inlet Temp.: TWI	(deg F)	525.63	
Core Press Drop: CPD	(psi)	8.59	
Pre-burn: DELBRN	(MWd/MT):	0.00	
Post-burn: DELTE	(MWd/MT):	0.00	
Initial Exposure	(MWd/MT):	3782.20	
Final Exposure: EXCORE	(MWd/MT):	3782.20	
Cycle Exposure: CYCEXP	(MWd/MT):	3782.21	
Cycle Energy: CYCENR	(GWd)	630.72	

Neutron Multiplication: AMDA 1.00280857

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/MT):	7812.02	27	33	4
Max Bundle Exposure (MWd/MT):	5026.56	22	30	
Peak Axial Power	1.8192			5
Maximum Nodal Power	2.8129	9	9	4
Maximum Bundle Power	1.4800	9	10	
Maximum APLHGR	5.8741	9	9	4

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.1341	14	6	4
Minimum Critical Power Ratio(CPR)	2.5338	8	9	16
Maximum KW/ft	6.9149	10	9	4
Maximum MFLPD	0.6881	10	9	4

Control Rod Configuration
In Notches Withdrawn

PANAC		1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site		2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																			
3	71								0		0		0							
5	67																			
7	63						0		0		0		0		0					
9	59																			
11	55				0		34		0		20		0		34		0			
13	51																			
15	47		0		0		0		0		0		0		0		0		0	
17	43																			
19	39		0		0		20		0		0		0		20		0		0	
21	35																			
23	31		0		0		0		0		0		0		0		0		0	
25	27																			
27	23				0		34		0		20		0		34		0			
29	19																			
31	15						0		0		0		0		0					
33	11																			
35	7								0		0		0							
37	3																			

Figure RAI 4.3-19- 59 Control Rod Pattern Summary at MOC / 50% Power / FWT 358 F

K(node)	Axial Power
20	0.1066
19	0.2347
18	0.3407
17	0.451
16	0.5624
15	0.6578
14	0.719
13	0.8118
12	0.9647
11	1.0811
10	1.2128
9	1.3519
8	1.4944
7	1.6327
6	1.7517
5	1.8192
4	1.7761
3	1.5454
2	1.0978
1	0.3881

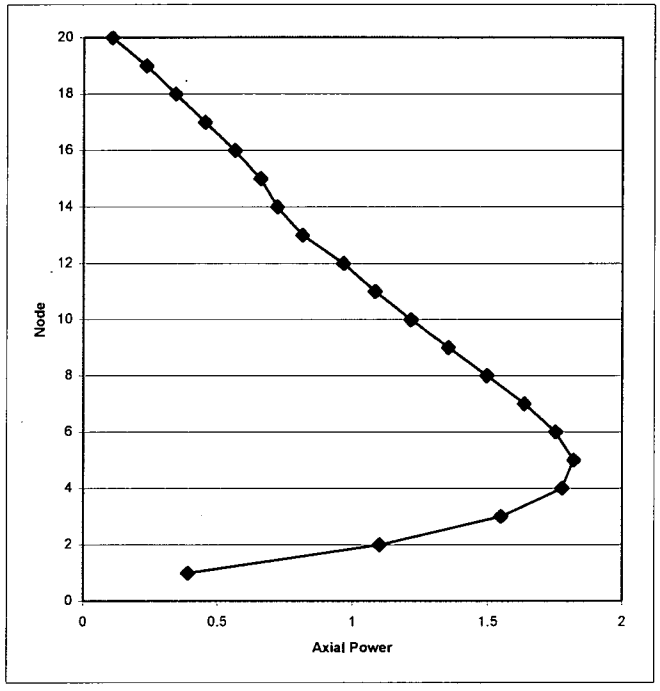

Figure RAI 4.3-19- 60 Relative Axial Power at MOC / 50% Power / FWT 358 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.14	0.19	0.25	0.27	0.25
2													0.30	0.33	0.29	0.55	0.68	0.71	0.63
3											0.41	0.53	0.90	0.85	0.37	0.38	0.88	0.83	0.40
4									0.36	0.52	1.01	1.17	1.22	1.16	0.53	0.52	1.01	1.08	0.52
5								0.41	0.87	1.08	1.19	1.30	1.36	1.28	1.25	1.18	1.24	1.23	1.15
6							0.38	0.92	1.10	1.28	1.26	1.36	1.35	1.37	1.21	1.18	1.25	1.24	1.15
7						0.38	0.60	0.79	1.27	1.32	0.66	0.67	1.31	1.25	0.64	0.62	1.18	1.18	0.61
8					0.41	0.92	0.79	0.95	1.46	1.32	0.69	0.68	1.32	1.27	0.65	0.63	1.21	1.20	0.62
9				0.36	0.87	1.10	1.27	1.46	1.48	1.48	1.34	1.32	1.39	1.37	1.25	1.23	1.35	1.31	1.22
10				0.52	1.08	1.28	1.32	1.32	1.48	1.45	1.38	1.36	1.45	1.38	1.26	1.24	1.32	1.32	1.24
11			0.41	1.01	1.19	1.26	0.66	0.69	1.34	1.38	0.83	0.83	1.34	1.29	0.66	0.65	1.23	1.25	0.69
12			0.53	1.17	1.30	1.36	0.67	0.68	1.32	1.36	0.83	0.82	1.34	1.28	0.65	0.64	1.23	1.24	0.69
13		0.30	0.90	1.22	1.36	1.35	1.31	1.32	1.39	1.45	1.34	1.34	1.38	1.35	1.24	1.23	1.31	1.32	1.24
14		0.33	0.85	1.16	1.28	1.37	1.25	1.27	1.37	1.38	1.29	1.28	1.35	1.34	1.23	1.22	1.30	1.30	1.22
15	0.14	0.29	0.37	0.53	1.25	1.21	0.64	0.65	1.25	1.26	0.66	0.65	1.24	1.23	0.64	0.63	1.21	1.21	0.63
16	0.19	0.55	0.38	0.52	1.18	1.18	0.62	0.63	1.23	1.24	0.65	0.64	1.23	1.22	0.63	0.63	1.20	1.20	0.62
17	0.25	0.68	0.88	1.01	1.24	1.25	1.18	1.21	1.35	1.32	1.23	1.23	1.31	1.30	1.21	1.20	1.28	1.28	1.19
18	0.27	0.71	0.83	1.08	1.23	1.24	1.18	1.20	1.31	1.32	1.25	1.24	1.32	1.30	1.21	1.20	1.28	1.28	1.19
19	0.25	0.63	0.40	0.52	1.15	1.15	0.61	0.62	1.22	1.24	0.69	0.69	1.24	1.22	0.63	0.62	1.19	1.19	0.62

Figure RAI 4.3-19- 61 Relative Integrated Power at MOC /50% Power / FWT 358 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.15E+04	4.15E+04	4.15E+04	4.15E+04	4.15E+04
2													4.15E+04	4.15E+04	7.15E+04	7.02E+04	6.94E+04	6.93E+04	6.97E+04
3											4.15E+04	4.15E+04	6.76E+04	6.81E+04	7.11E+04	7.11E+04	6.79E+04	6.84E+04	7.09E+04
4									4.15E+04	4.15E+04	6.66E+04	6.50E+04	6.45E+04	6.52E+04	7.02E+04	7.03E+04	6.66E+04	6.60E+04	7.03E+04
5								4.15E+04	6.79E+04	6.59E+04	6.47E+04	6.37E+04	6.32E+04	6.40E+04	6.44E+04	6.51E+04	6.45E+04	6.46E+04	6.54E+04
6							4.15E+04	6.75E+04	6.57E+04	6.40E+04	6.43E+04	6.33E+04	6.34E+04	6.33E+04	6.48E+04	6.51E+04	6.45E+04	6.46E+04	6.55E+04
7						4.15E+04	6.99E+04	6.89E+04	6.42E+04	6.37E+04	6.96E+04	6.95E+04	6.39E+04	6.45E+04	6.97E+04	6.98E+04	6.52E+04	6.53E+04	6.98E+04
8					4.15E+04	6.75E+04	6.89E+04	6.73E+04	6.25E+04	6.38E+04	6.94E+04	6.95E+04	6.39E+04	6.44E+04	6.96E+04	6.97E+04	6.50E+04	6.51E+04	6.98E+04
9				4.15E+04	6.79E+04	6.57E+04	6.42E+04	6.25E+04	6.23E+04	6.24E+04	6.39E+04	6.40E+04	6.33E+04	6.35E+04	6.46E+04	6.48E+04	6.37E+04	6.41E+04	6.50E+04
10				4.15E+04	6.59E+04	6.40E+04	6.37E+04	6.38E+04	6.24E+04	6.28E+04	6.37E+04	6.38E+04	6.29E+04	6.35E+04	6.46E+04	6.48E+04	6.40E+04	6.40E+04	6.49E+04
11			4.15E+04	6.66E+04	6.47E+04	6.43E+04	6.96E+04	6.94E+04	6.39E+04	6.37E+04	6.92E+04	6.93E+04	6.41E+04	6.44E+04	6.96E+04	6.96E+04	6.49E+04	6.49E+04	6.96E+04
12			4.15E+04	6.50E+04	6.37E+04	6.33E+04	6.95E+04	6.95E+04	6.40E+04	6.38E+04	6.93E+04	6.94E+04	6.44E+04	6.45E+04	6.96E+04	6.96E+04	6.50E+04	6.49E+04	6.96E+04
13		4.15E+04	6.76E+04	6.45E+04	6.32E+04	6.34E+04	6.39E+04	6.39E+04	6.33E+04	6.29E+04	6.41E+04	6.44E+04	6.36E+04	6.38E+04	6.48E+04	6.50E+04	6.41E+04	6.41E+04	6.49E+04
14		4.15E+04	6.81E+04	6.52E+04	6.40E+04	6.33E+04	6.45E+04	6.44E+04	6.35E+04	6.35E+04	6.44E+04	6.45E+04	6.38E+04	6.39E+04	6.49E+04	6.50E+04	6.42E+04	6.42E+04	6.51E+04
15	4.15E+04	7.15E+04	7.11E+04	7.02E+04	6.44E+04	6.48E+04	6.97E+04	6.96E+04	6.46E+04	6.46E+04	6.96E+04	6.96E+04	6.48E+04	6.49E+04	6.97E+04	6.97E+04	6.51E+04	6.51E+04	6.97E+04
16	4.15E+04	7.02E+04	7.11E+04	7.03E+04	6.51E+04	6.51E+04	6.98E+04	6.97E+04	6.48E+04	6.48E+04	6.96E+04	6.96E+04	6.50E+04	6.50E+04	6.97E+04	6.97E+04	6.52E+04	6.52E+04	6.98E+04
17	4.15E+04	6.94E+04	6.79E+04	6.66E+04	6.45E+04	6.45E+04	6.52E+04	6.50E+04	6.37E+04	6.40E+04	6.49E+04	6.50E+04	6.41E+04	6.42E+04	6.51E+04	6.52E+04	6.43E+04	6.44E+04	6.52E+04
18	4.15E+04	6.93E+04	6.84E+04	6.60E+04	6.46E+04	6.46E+04	6.53E+04	6.51E+04	6.41E+04	6.40E+04	6.49E+04	6.49E+04	6.41E+04	6.42E+04	6.51E+04	6.52E+04	6.44E+04	6.44E+04	6.52E+04
19	4.15E+04	6.97E+04	7.09E+04	7.03E+04	6.54E+04	6.55E+04	6.98E+04	6.98E+04	6.50E+04	6.49E+04	6.96E+04	6.96E+04	6.49E+04	6.51E+04	6.97E+04	6.98E+04	6.52E+04	6.52E+04	6.98E+04

Figure RAI 4.3-19- 62 Channel Flow (lbs/hr) at MOC / 50% Power / FWT 358 F

Power: RP	(MWth)	2368.90	(52.6 %)
Pressure: PRV	(psia)	1005.50	
Core Flow: WCT	(Mlb/hr)	81.55	(102.7 %)
Bypass Flow: WBPRIN	(Mlb/hr)	8.95	(11.0 %)
Inlet Enthalpy: HCI	(BTU/lb)	515.02	
Inlet Temp.: TWI	(deg F)	522.64	
Core Press Drop: CPD	(psi)	8.64	
Pre-burn: DELBRN	(MWd/MT):	0.00	
Post-burn: DELTE	(MWd/MT):	0.00	
Initial Exposure	(MWd/MT):	3782.20	
Final Exposure: EXCORE	(MWd/MT):	3782.20	
Cycle Exposure: CYCEXP	(MWd/MT):	3782.21	
Cycle Energy: CYCENR	(GWd)	630.72	

Neutron Multiplication: AMDA 1.00264645

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/MT):	7812.02	27	33	4
Max Bundle Exposure (MWd/MT):	5026.56	22	30	
Peak Axial Power	1.8397			5
Maximum Nodal Power	2.8428	30	30	4
Maximum Bundle Power	1.4737	30	29	
Maximum APLHGR	6.2489	30	30	4

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.1341	14	6	4
Minimum Critical Power Ratio(CPR)	2.4382	30	31	16
Maximum KW/ft	7.3621	30	29	4
Maximum MFLPD	0.7199	30	29	4

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71							0		0		0							
5	67																		
7	63					0		0		0		0		0					
9	59																		
11	55			0		34		0		20		0		34		0			
13	51																		
15	47		0		0		0		0		0		0		0		0		0
17	43																		
19	39		0		0		20		0		0		0		20		0		0
21	35																		
23	31		0		0		0		0		0		0		0		0		0
25	27																		
27	23			0		34		0		20		0		34		0			
29	19																		
31	15					0		0		0		0		0					
33	11																		
35	7							0		0		0							
37	3																		

Figure RAI 4.3-19- 63 Control Rod Pattern Summary at MOC / 50% Power –30F / FWT 328 F

K(node)	Axial Power
20	0.1046
19	0.23
18	0.3338
17	0.4421
16	0.5517
15	0.6459
14	0.707
13	0.7997
12	0.9523
11	1.0696
10	1.2032
9	1.3454
8	1.4925
7	1.6373
6	1.7642
5	1.8397
4	1.8025
3	1.5707
2	1.1147
1	0.3932

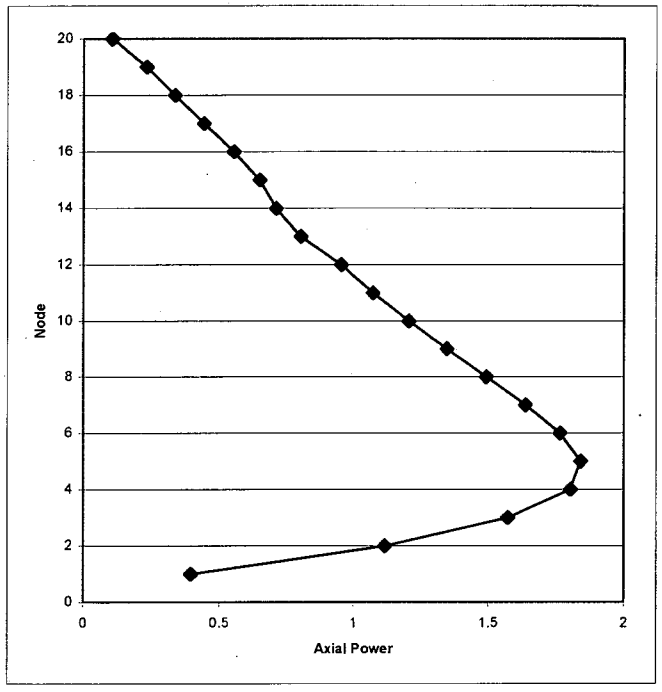

Figure RAI 4.3-19- 64 Relative Axial Power at MOC / 50% Power –30 F / FWT 328 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.14	0.19	0.26	0.27	0.26
2													0.30	0.33	0.29	0.55	0.69	0.72	0.64
3											0.41	0.53	0.91	0.86	0.37	0.38	0.89	0.84	0.40
4									0.36	0.52	1.01	1.17	1.22	1.16	0.54	0.53	1.02	1.09	0.52
5								0.41	0.87	1.08	1.19	1.30	1.36	1.28	1.25	1.18	1.24	1.23	1.15
6							0.38	0.92	1.10	1.28	1.25	1.36	1.34	1.36	1.21	1.18	1.25	1.24	1.15
7						0.38	0.60	0.79	1.27	1.32	0.66	0.67	1.31	1.25	0.64	0.62	1.18	1.18	0.61
8					0.41	0.92	0.79	0.95	1.45	1.32	0.69	0.68	1.32	1.26	0.65	0.64	1.20	1.20	0.62
9				0.36	0.87	1.10	1.27	1.45	1.47	1.47	1.33	1.32	1.38	1.36	1.25	1.23	1.35	1.30	1.22
10				0.52	1.08	1.28	1.32	1.32	1.47	1.44	1.37	1.36	1.44	1.37	1.26	1.24	1.32	1.32	1.24
11			0.41	1.01	1.19	1.25	0.66	0.69	1.33	1.37	0.83	0.83	1.34	1.29	0.66	0.65	1.23	1.24	0.70
12			0.53	1.17	1.30	1.36	0.67	0.68	1.32	1.36	0.83	0.82	1.33	1.28	0.66	0.65	1.23	1.24	0.69
13		0.30	0.91	1.22	1.36	1.34	1.31	1.32	1.38	1.44	1.34	1.33	1.38	1.35	1.24	1.23	1.31	1.31	1.24
14		0.33	0.86	1.16	1.28	1.36	1.25	1.26	1.36	1.37	1.29	1.28	1.35	1.33	1.23	1.22	1.30	1.30	1.22
15	0.14	0.29	0.37	0.54	1.25	1.21	0.64	0.65	1.25	1.26	0.66	0.66	1.24	1.23	0.64	0.63	1.21	1.20	0.63
16	0.19	0.55	0.38	0.53	1.18	1.18	0.62	0.64	1.23	1.24	0.65	0.65	1.23	1.22	0.63	0.63	1.20	1.20	0.62
17	0.26	0.69	0.89	1.02	1.24	1.25	1.18	1.20	1.35	1.32	1.23	1.23	1.31	1.30	1.21	1.20	1.28	1.28	1.19
18	0.27	0.72	0.84	1.09	1.23	1.24	1.18	1.20	1.30	1.32	1.24	1.24	1.31	1.30	1.20	1.20	1.28	1.27	1.19
19	0.26	0.64	0.40	0.52	1.15	1.15	0.61	0.62	1.22	1.24	0.70	0.69	1.24	1.22	0.63	0.62	1.19	1.19	0.62

Figure RAI 4.3-19- 65 Relative Integrated Power at MOC /50% Power – 30 F/ FWT 328 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.17E+04	4.17E+04	4.17E+04	4.17E+04	4.17E+04
2													4.18E+04	4.18E+04	7.20E+04	7.06E+04	6.99E+04	6.98E+04	7.02E+04
3											4.18E+04	4.18E+04	6.80E+04	6.85E+04	7.16E+04	7.16E+04	6.83E+04	6.88E+04	7.14E+04
4									4.18E+04	4.18E+04	6.69E+04	6.53E+04	6.47E+04	6.54E+04	7.07E+04	7.08E+04	6.69E+04	6.62E+04	7.08E+04
5								4.18E+04	6.83E+04	6.62E+04	6.50E+04	6.39E+04	6.33E+04	6.42E+04	6.46E+04	6.53E+04	6.47E+04	6.48E+04	6.56E+04
6							4.17E+04	6.79E+04	6.60E+04	6.42E+04	6.45E+04	6.35E+04	6.36E+04	6.34E+04	6.50E+04	6.54E+04	6.47E+04	6.48E+04	6.57E+04
7						4.17E+04	7.04E+04	6.94E+04	6.44E+04	6.39E+04	7.01E+04	7.00E+04	6.41E+04	6.47E+04	7.02E+04	7.03E+04	6.54E+04	6.55E+04	7.03E+04
8					4.18E+04	6.79E+04	6.94E+04	6.77E+04	6.26E+04	6.40E+04	6.99E+04	7.00E+04	6.41E+04	6.46E+04	7.01E+04	7.02E+04	6.53E+04	6.53E+04	7.03E+04
9				4.18E+04	6.83E+04	6.60E+04	6.44E+04	6.26E+04	6.24E+04	6.25E+04	6.41E+04	6.42E+04	6.35E+04	6.37E+04	6.49E+04	6.50E+04	6.38E+04	6.43E+04	6.52E+04
10				4.18E+04	6.62E+04	6.42E+04	6.39E+04	6.40E+04	6.25E+04	6.29E+04	6.39E+04	6.40E+04	6.30E+04	6.37E+04	6.49E+04	6.50E+04	6.42E+04	6.42E+04	6.51E+04
11			4.18E+04	6.69E+04	6.50E+04	6.45E+04	7.01E+04	6.99E+04	6.41E+04	6.39E+04	6.97E+04	6.98E+04	6.43E+04	6.47E+04	7.01E+04	7.01E+04	6.51E+04	6.51E+04	7.01E+04
12			4.18E+04	6.53E+04	6.39E+04	6.35E+04	7.00E+04	7.00E+04	6.42E+04	6.40E+04	6.98E+04	6.99E+04	6.46E+04	6.48E+04	7.01E+04	7.01E+04	6.52E+04	6.51E+04	7.01E+04
13		4.18E+04	6.80E+04	6.47E+04	6.33E+04	6.36E+04	6.41E+04	6.41E+04	6.35E+04	6.30E+04	6.43E+04	6.46E+04	6.38E+04	6.40E+04	6.51E+04	6.52E+04	6.43E+04	6.43E+04	6.52E+04
14		4.18E+04	6.85E+04	6.54E+04	6.42E+04	6.34E+04	6.47E+04	6.46E+04	6.37E+04	6.37E+04	6.47E+04	6.48E+04	6.40E+04	6.41E+04	6.52E+04	6.53E+04	6.44E+04	6.44E+04	6.53E+04
15	4.17E+04	7.20E+04	7.16E+04	7.07E+04	6.46E+04	6.50E+04	7.02E+04	7.01E+04	6.49E+04	6.49E+04	7.01E+04	7.01E+04	6.51E+04	6.52E+04	7.02E+04	7.02E+04	6.54E+04	6.54E+04	7.02E+04
16	4.17E+04	7.06E+04	7.16E+04	7.08E+04	6.53E+04	6.54E+04	7.03E+04	7.02E+04	6.50E+04	6.50E+04	7.01E+04	7.01E+04	6.52E+04	6.53E+04	7.02E+04	7.02E+04	6.54E+04	6.55E+04	7.03E+04
17	4.17E+04	6.99E+04	6.83E+04	6.69E+04	6.47E+04	6.47E+04	6.54E+04	6.53E+04	6.38E+04	6.42E+04	6.51E+04	6.52E+04	6.43E+04	6.44E+04	6.54E+04	6.54E+04	6.46E+04	6.46E+04	6.55E+04
18	4.17E+04	6.98E+04	6.88E+04	6.62E+04	6.48E+04	6.48E+04	6.55E+04	6.53E+04	6.43E+04	6.42E+04	6.51E+04	6.51E+04	6.43E+04	6.44E+04	6.54E+04	6.55E+04	6.46E+04	6.46E+04	6.55E+04
19	4.17E+04	7.02E+04	7.14E+04	7.08E+04	6.56E+04	6.57E+04	7.03E+04	7.03E+04	6.52E+04	6.51E+04	7.01E+04	7.01E+04	6.52E+04	6.53E+04	7.02E+04	7.03E+04	6.55E+04	6.55E+04	7.03E+04

Figure RAI 4.3-19- 66 Channel Flow (lbs/hr) at MOC / 50% Power – 30F / FWT 328 F

Power: RP	(MWth)	4500.00	(100.0 %)
Pressure: PRV	(psia)	1050.91	
Core Flow: WCT	(Mlb/hr)	83.09	(104.7 %)
Bypass Flow: WBPRIN	(Mlb/hr)	10.73	(12.9 %)
Inlet Enthalpy: HCI	(BTU/lb)	505.34	
Inlet Temp.: TWI	(deg F)	514.72	
Core Press Drop: CPD	(psi)	9.18	
Pre-burn: DELBRN	(MWd/MT)	0.00	
Post-burn: DELTE	(MWd/MT)	0.00	
Initial Exposure	(MWd/MT):	11755.90	
Final Exposure: EXCORE	(MWd/MT):	11755.90	
Cycle Exposure: CYCEXP	(MWd/MT):	11755.81	
Cycle Energy: CYCENR	(GWd)	1960.40	

Neutron Multiplication: AMDA 1.00106800

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/MT):	21648.43	33	25	4
Max Bundle Exposure (MWd/MT):	15503.77	22	30	
Peak Axial Power	1.4185			10
Maximum Nodal Power	1.8193	10	13	11
Maximum Bundle Power	1.2955	10	13	
Maximum APLHGR	8.0716	9	17	13

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.3604	6	14	4
Minimum Critical Power Ratio(CPR)	1.4573	10	13	19
Maximum KW/ft	9.5443	10	19	14
Maximum MFLPD	0.7777	19	10	14

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71																		
5	67																		
7	63																		
9	59																		
11	55									38									
13	51																		
15	47							22				22							
17	43																		
19	39					38								38					
21	35																		
23	31							22				22							
25	27																		
27	23									38									
29	19																		
31	15																		
33	11																		
35	7																		

Figure RAI 4.3-19- 67 Control Rod Pattern Summary at EOC / 100% Power / FWT 372 F

K(node)	Axial Power
20	0.2584
19	0.5043
18	0.7025
17	0.8899
16	1.0536
15	1.167
14	1.2084
13	1.2682
12	1.3937
11	1.4185
10	1.4185
9	1.397
8	1.3535
7	1.2863
6	1.1926
5	1.0682
4	0.9157
3	0.7449
2	0.5492
1	0.2095

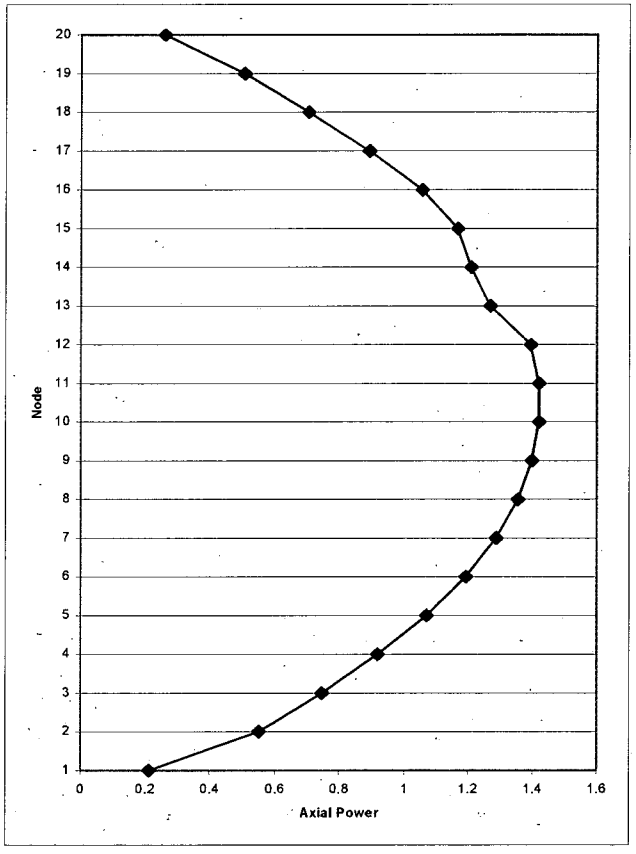

Figure RAI 4.3-19- 68 Relative Axial Power at EOC / 100% Power / FWT 372 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.20	0.26	0.32	0.34	0.33
2													0.30	0.36	0.40	0.69	0.76	0.79	0.79
3											0.36	0.46	0.78	0.83	0.61	0.65	0.97	0.95	0.71
4									0.32	0.46	0.83	0.95	1.02	1.06	0.78	0.80	1.08	1.14	0.83
5								0.36	0.72	0.89	1.01	1.09	1.16	1.14	1.20	1.18	1.21	1.21	1.20
6							0.32	0.73	0.90	1.06	1.12	1.21	1.19	1.24	1.21	1.21	1.22	1.23	1.22
7						0.32	0.48	0.64	1.03	1.15	0.89	0.93	1.25	1.23	0.96	0.96	1.24	1.24	0.96
8					0.36	0.73	0.64	0.77	1.16	1.17	0.93	0.95	1.27	1.25	0.98	0.98	1.25	1.24	0.96
9				0.32	0.72	0.90	1.03	1.16	1.21	1.25	1.23	1.24	1.26	1.26	1.25	1.25	1.28	1.24	1.22
10				0.46	0.89	1.06	1.15	1.17	1.25	1.24	1.25	1.25	1.30	1.26	1.25	1.24	1.24	1.22	1.19
11			0.36	0.83	1.01	1.12	0.89	0.93	1.23	1.25	0.98	0.98	1.25	1.24	0.96	0.95	1.21	1.18	0.82
12			0.46	0.95	1.09	1.21	0.93	0.95	1.24	1.25	0.98	0.98	1.24	1.23	0.95	0.94	1.19	1.16	0.81
13		0.30	0.78	1.02	1.16	1.19	1.25	1.27	1.26	1.30	1.25	1.24	1.23	1.21	1.18	1.17	1.18	1.18	1.15
14		0.36	0.83	1.06	1.14	1.24	1.23	1.25	1.26	1.26	1.24	1.23	1.21	1.18	1.12	1.11	1.16	1.17	1.17
15	0.20	0.40	0.61	0.78	1.20	1.21	0.96	0.98	1.25	1.25	0.96	0.95	1.18	1.12	0.70	0.69	1.10	1.15	0.91
16	0.26	0.69	0.65	0.80	1.18	1.21	0.96	0.98	1.25	1.24	0.95	0.94	1.17	1.11	0.69	0.69	1.10	1.16	0.91
17	0.32	0.76	0.97	1.08	1.21	1.22	1.24	1.25	1.28	1.24	1.21	1.19	1.18	1.16	1.10	1.10	1.16	1.18	1.18
18	0.34	0.79	0.95	1.14	1.21	1.23	1.24	1.24	1.24	1.22	1.18	1.16	1.18	1.17	1.15	1.16	1.18	1.19	1.20
19	0.33	0.79	0.71	0.83	1.20	1.22	0.96	0.96	1.22	1.19	0.82	0.81	1.15	1.17	0.91	0.91	1.18	1.20	0.94

Figure RAI 4.3-19- 69 Relative Integrated Power at EOC / 100% Power / FWT 372 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.49E+04	4.47E+04	4.46E+04	4.45E+04	4.45E+04
2													4.46E+04	4.45E+04	7.62E+04	7.23E+04	7.08E+04	7.02E+04	7.04E+04
3											4.45E+04	4.42E+04	7.04E+04	6.96E+04	7.33E+04	7.28E+04	6.71E+04	6.75E+04	7.19E+04
4									4.46E+04	4.42E+04	6.94E+04	6.71E+04	6.59E+04	6.55E+04	7.08E+04	7.05E+04	6.54E+04	6.42E+04	6.99E+04
5								4.45E+04	7.18E+04	6.81E+04	6.60E+04	6.46E+04	6.34E+04	6.40E+04	6.32E+04	6.35E+04	6.31E+04	6.30E+04	6.33E+04
6							4.46E+04	7.17E+04	6.79E+04	6.51E+04	6.42E+04	6.27E+04	6.32E+04	6.24E+04	6.31E+04	6.31E+04	6.29E+04	6.29E+04	6.31E+04
7						4.46E+04	7.50E+04	7.29E+04	6.57E+04	6.37E+04	6.86E+04	6.81E+04	6.23E+04	6.27E+04	6.76E+04	6.77E+04	6.28E+04	6.29E+04	6.80E+04
8					4.45E+04	7.17E+04	7.29E+04	7.07E+04	6.36E+04	6.36E+04	6.81E+04	6.78E+04	6.21E+04	6.25E+04	6.75E+04	6.76E+04	6.28E+04	6.29E+04	6.81E+04
9				4.46E+04	7.18E+04	6.79E+04	6.57E+04	6.36E+04	6.27E+04	6.22E+04	6.27E+04	6.26E+04	6.23E+04	6.23E+04	6.26E+04	6.28E+04	6.22E+04	6.30E+04	6.34E+04
10				4.42E+04	6.81E+04	6.51E+04	6.37E+04	6.36E+04	6.22E+04	6.24E+04	6.25E+04	6.25E+04	6.18E+04	6.25E+04	6.28E+04	6.30E+04	6.31E+04	6.35E+04	6.48E+04
11			4.45E+04	6.94E+04	6.60E+04	6.42E+04	6.86E+04	6.81E+04	6.27E+04	6.25E+04	6.75E+04	6.75E+04	6.27E+04	6.29E+04	6.81E+04	6.84E+04	6.38E+04	6.50E+04	7.16E+04
12			4.42E+04	6.71E+04	6.46E+04	6.27E+04	6.81E+04	6.78E+04	6.26E+04	6.25E+04	6.75E+04	6.77E+04	6.29E+04	6.33E+04	6.86E+04	6.86E+04	6.47E+04	6.53E+04	7.18E+04
13		4.46E+04	7.04E+04	6.59E+04	6.34E+04	6.32E+04	6.23E+04	6.21E+04	6.23E+04	6.18E+04	6.27E+04	6.29E+04	6.31E+04	6.36E+04	6.43E+04	6.46E+04	6.44E+04	6.50E+04	6.56E+04
14		4.45E+04	6.96E+04	6.55E+04	6.40E+04	6.24E+04	6.27E+04	6.25E+04	6.23E+04	6.25E+04	6.29E+04	6.33E+04	6.36E+04	6.43E+04	6.58E+04	6.60E+04	6.52E+04	6.50E+04	6.52E+04
15	4.49E+04	7.62E+04	7.33E+04	7.08E+04	6.32E+04	6.31E+04	6.76E+04	6.75E+04	6.26E+04	6.28E+04	6.81E+04	6.86E+04	6.43E+04	6.58E+04	7.27E+04	7.27E+04	6.62E+04	6.53E+04	6.92E+04
16	4.47E+04	7.23E+04	7.28E+04	7.05E+04	6.35E+04	6.31E+04	6.77E+04	6.76E+04	6.28E+04	6.30E+04	6.84E+04	6.86E+04	6.46E+04	6.60E+04	7.27E+04	7.27E+04	6.62E+04	6.53E+04	6.91E+04
17	4.46E+04	7.08E+04	6.71E+04	6.54E+04	6.31E+04	6.29E+04	6.28E+04	6.28E+04	6.22E+04	6.31E+04	6.38E+04	6.47E+04	6.44E+04	6.52E+04	6.62E+04	6.62E+04	6.49E+04	6.43E+04	6.43E+04
18	4.45E+04	7.02E+04	6.75E+04	6.42E+04	6.30E+04	6.29E+04	6.29E+04	6.29E+04	6.30E+04	6.35E+04	6.50E+04	6.53E+04	6.50E+04	6.50E+04	6.53E+04	6.53E+04	6.43E+04	6.40E+04	6.40E+04
19	4.45E+04	7.04E+04	7.19E+04	6.99E+04	6.33E+04	6.31E+04	6.80E+04	6.81E+04	6.34E+04	6.48E+04	7.16E+04	7.18E+04	6.56E+04	6.52E+04	6.92E+04	6.91E+04	6.43E+04	6.40E+04	6.87E+04

Figure RAI 4.3-19- 70 Channel Flow (lbs/hr) at EOC / 100% Power / FWT 372 F

K (node)	Axial Average Exposure GWd/Mt
20	2.486
19	4.859
18	6.781
17	8.624
16	10.280
15	11.493
14	12.152
13	12.585
12	12.223
11	12.863
10	13.569
9	14.260
8	14.936
7	15.576
6	16.114
5	16.437
4	16.231
3	14.759
2	11.022
1	3.950

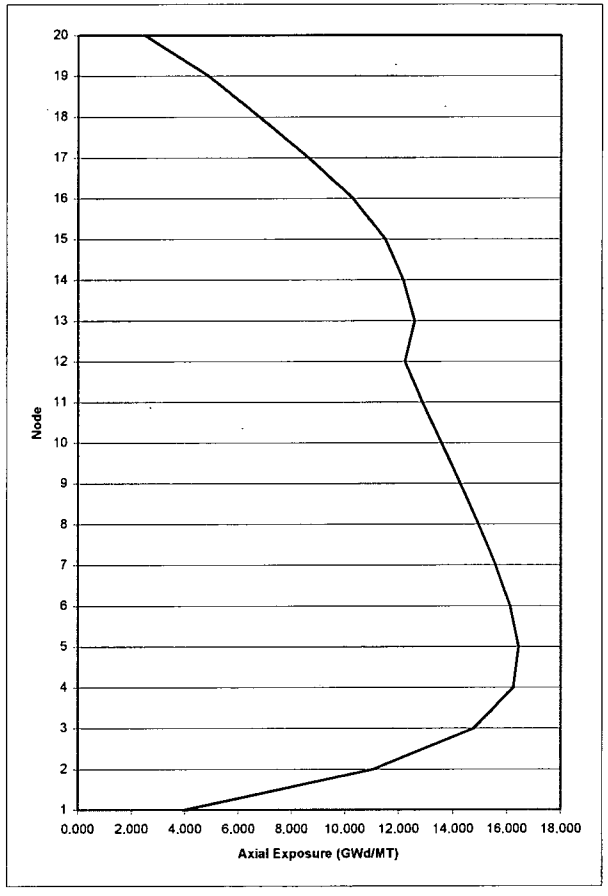

Figure RAI 4.3-19- 71 Relative Axial Exposure at EOC

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															2.01	2.62	3.19	3.37	3.30
2													3.11	3.69	4.03	7.34	7.98	8.27	8.15
3											3.65	4.74	8.41	8.93	6.27	6.55	10.37	9.90	6.83
4									3.14	4.49	8.71	10.19	10.97	11.50	7.86	8.09	11.52	12.27	8.07
5								3.39	7.31	9.20	10.45	11.56	12.38	12.17	12.96	12.75	12.99	13.02	12.92
6							2.96	7.34	9.15	11.03	11.72	12.89	12.63	13.23	12.69	12.78	13.06	13.13	12.95
7						2.96	4.37	5.85	10.53	12.00	8.36	8.75	13.31	12.95	8.65	8.68	13.09	13.17	8.98
8					3.39	7.34	5.85	7.11	12.08	12.16	8.76	9.01	13.59	13.22	8.82	8.84	13.29	13.36	9.11
9				3.14	7.31	9.15	10.53	12.08	12.63	13.19	12.98	13.25	13.55	13.62	13.39	13.41	14.06	13.68	13.48
10				4.49	9.20	11.03	12.00	12.16	13.19	13.11	13.11	13.27	14.03	13.69	13.52	13.54	13.75	13.74	13.47
11			3.65	8.71	10.45	11.72	8.36	8.76	12.98	13.11	8.81	8.91	13.44	13.55	9.24	9.25	13.58	13.51	8.94
12			4.74	10.19	11.56	12.89	8.75	9.01	13.25	13.27	8.91	8.96	13.50	13.56	9.25	9.26	13.59	13.53	8.96
13		3.11	8.41	10.97	12.38	12.63	13.31	13.59	13.55	14.03	13.44	13.50	13.76	13.79	13.58	13.58	13.81	13.79	13.54
14		3.69	8.93	11.50	12.17	13.23	12.95	13.22	13.62	13.69	13.55	13.56	13.79	13.77	13.50	13.50	13.78	13.81	13.60
15	2.01	4.03	6.27	7.86	12.96	12.69	8.65	8.82	13.39	13.52	9.24	9.25	13.58	13.50	8.87	8.88	13.51	13.59	9.26
16	2.62	7.34	6.55	8.09	12.75	12.78	8.68	8.84	13.41	13.54	9.25	9.26	13.58	13.50	8.88	8.88	13.51	13.59	9.26
17	3.19	7.98	10.37	11.52	12.99	13.06	13.09	13.29	14.06	13.75	13.58	13.59	13.81	13.78	13.51	13.51	13.79	13.81	13.60
18	3.37	8.27	9.90	12.27	13.02	13.13	13.17	13.36	13.68	13.74	13.51	13.53	13.79	13.81	13.59	13.59	13.81	13.79	13.52
19	3.30	8.15	6.83	8.07	12.92	12.95	8.98	9.11	13.48	13.47	8.94	8.96	13.54	13.60	9.26	9.26	13.60	13.52	8.90

Figure RAI 4.3-19- 72 Average Bundle Exposure GWd/MT at EOC

Power: RP	(MWth)	4743.80	(105.4 %)
Pressure: PRV	(psia)	1053.58	
Core Flow: WCT	(Mlb/hr)	83.39	(105.0 %)
Bypass Flow: WBPRIN	(Mlb/hr)	10.83	(13.0 %)
Inlet Enthalpy: HCI	(BTU/lb)	498.39	
Inlet Temp.: TWI	(deg F)	508.94	
Core Press Drop: CPD	(psi)	9.19	
Pre-burn: DELBRN	(MWd/MT)	0.00	
Post-burn: DELTE	(MWd/MT)	0.00	
Initial Exposure	(MWd/MT):	11755.90	
Final Exposure: EXCORE	(MWd/MT):	11755.90	
Cycle Exposure: CYCEXP	(MWd/MT):	11755.81	
Cycle Energy: CYCENR	(GWd)	1960.40	

Neutron Multiplication: AMDA 1.00083518

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/MT):	21648.43	33	25	4
Max Bundle Exposure (MWd/MT):	15503.77	22	30	
Peak Axial Power	1.4147			10
Maximum Nodal Power	1.8047	13	29	10
Maximum Bundle Power	1.2910	29	26	
Maximum APLHGR	8.3851	10	20	13

THERMAL LIMITS SUMMARY:		LOCATION: I	J	
Maximum NEXRAT	0.3604	6	14	4
Minimum Critical Power Ratio(CPR)	1.4097	29	13	19
Maximum KW/ft	9.9197	10	19	14
Maximum MFLPD	0.8076	10	20	14

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71																		
5	67																		
7	63																		
9	59																		
11	55									38									
13	51																		
15	47							22				22							
17	43																		
19	39					38								38					
21	35																		
23	31							22				22							
25	27																		
27	23									38									
29	19																		
31	15																		
33	11																		
35	7																		

Figure RAI 4.3-19- 73 Control Rod Pattern Summary at EOC SP1M-30F/ FWT 343 F

K(node)	Axial Power
20	0.2531
19	0.4935
18	0.6875
17	0.8714
16	1.0328
15	1.1459
14	1.1896
13	1.2516
12	1.3793
11	1.4087
10	1.4147
9	1.4005
8	1.3651
7	1.3064
6	1.2194
5	1.0969
4	0.9406
3	0.7647
2	0.564
1	0.2143

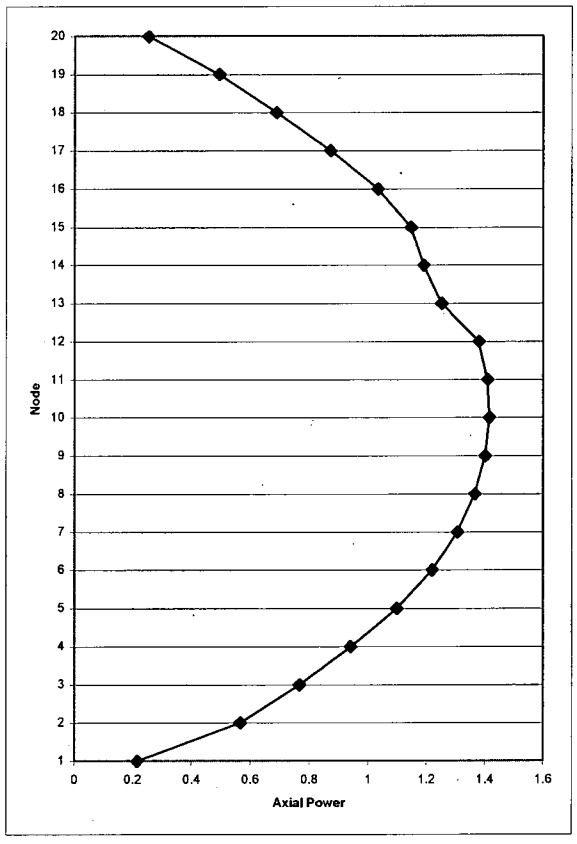

Figure RAI 4.3-19- 74 Relative Axial Power at EOC SP1M-30F / FWT 343 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.20	0.26	0.32	0.34	0.33
2													0.30	0.36	0.40	0.69	0.76	0.80	0.79
3											0.36	0.47	0.78	0.83	0.62	0.65	0.97	0.95	0.72
4									0.32	0.46	0.83	0.96	1.02	1.06	0.78	0.80	1.08	1.14	0.83
5								0.36	0.73	0.90	1.01	1.09	1.16	1.14	1.19	1.18	1.21	1.21	1.20
6							0.32	0.74	0.91	1.06	1.12	1.21	1.19	1.24	1.20	1.21	1.22	1.22	1.22
7						0.32	0.49	0.64	1.03	1.15	0.89	0.93	1.25	1.23	0.96	0.96	1.24	1.23	0.96
8					0.36	0.74	0.64	0.77	1.16	1.16	0.93	0.95	1.27	1.25	0.98	0.97	1.24	1.24	0.96
9				0.32	0.73	0.91	1.03	1.16	1.21	1.25	1.23	1.24	1.26	1.26	1.25	1.25	1.28	1.24	1.22
10				0.46	0.90	1.06	1.15	1.16	1.25	1.24	1.25	1.25	1.29	1.26	1.24	1.24	1.23	1.22	1.19
11			0.36	0.83	1.01	1.12	0.89	0.93	1.23	1.25	0.98	0.98	1.25	1.24	0.96	0.95	1.21	1.18	0.82
12			0.47	0.96	1.09	1.21	0.93	0.95	1.24	1.25	0.98	0.97	1.24	1.22	0.95	0.94	1.19	1.16	0.81
13		0.30	0.78	1.02	1.16	1.19	1.25	1.27	1.26	1.29	1.25	1.24	1.23	1.21	1.18	1.17	1.18	1.18	1.15
14		0.36	0.83	1.06	1.14	1.24	1.23	1.25	1.26	1.26	1.24	1.22	1.21	1.18	1.12	1.11	1.16	1.17	1.17
15	0.20	0.40	0.62	0.78	1.19	1.20	0.96	0.98	1.25	1.24	0.96	0.95	1.18	1.12	0.70	0.70	1.10	1.15	0.91
16	0.26	0.69	0.65	0.80	1.18	1.21	0.96	0.97	1.25	1.24	0.95	0.94	1.17	1.11	0.70	0.70	1.11	1.16	0.91
17	0.32	0.76	0.97	1.08	1.21	1.22	1.24	1.24	1.28	1.23	1.21	1.19	1.18	1.16	1.10	1.11	1.16	1.18	1.18
18	0.34	0.80	0.95	1.14	1.21	1.22	1.23	1.24	1.24	1.22	1.18	1.16	1.18	1.17	1.15	1.16	1.18	1.20	1.20
19	0.33	0.79	0.72	0.83	1.20	1.22	0.96	0.96	1.22	1.19	0.82	0.81	1.15	1.17	0.91	0.91	1.18	1.20	0.94

Figure RAI 4.3-19- 75 Relative Integrated Power at EOC SP1M-30F / FWT 343 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.51E+04	4.50E+04	4.48E+04	4.48E+04	4.48E+04
2													4.49E+04	4.47E+04	7.67E+04	7.27E+04	7.12E+04	7.05E+04	7.08E+04
3											4.47E+04	4.44E+04	7.07E+04	7.00E+04	7.37E+04	7.32E+04	6.73E+04	6.77E+04	7.24E+04
4									4.48E+04	4.44E+04	6.97E+04	6.73E+04	6.60E+04	6.56E+04	7.13E+04	7.09E+04	6.55E+04	6.43E+04	7.03E+04
5								4.47E+04	7.23E+04	6.84E+04	6.62E+04	6.47E+04	6.35E+04	6.41E+04	6.33E+04	6.36E+04	6.31E+04	6.31E+04	6.33E+04
6						4.48E+04	7.22E+04	6.81E+04	6.53E+04	6.43E+04	6.28E+04	6.33E+04	6.24E+04	6.32E+04	6.31E+04	6.30E+04	6.30E+04	6.32E+04	
7					4.48E+04	7.55E+04	7.34E+04	6.59E+04	6.38E+04	6.89E+04	6.84E+04	6.23E+04	6.28E+04	6.79E+04	6.80E+04	6.28E+04	6.30E+04	6.83E+04	
8				4.47E+04	7.22E+04	7.34E+04	7.12E+04	6.37E+04	6.37E+04	6.84E+04	6.81E+04	6.21E+04	6.26E+04	6.78E+04	6.79E+04	6.28E+04	6.30E+04	6.84E+04	
9			4.48E+04	7.23E+04	6.81E+04	6.59E+04	6.37E+04	6.27E+04	6.23E+04	6.28E+04	6.26E+04	6.24E+04	6.24E+04	6.27E+04	6.28E+04	6.22E+04	6.31E+04	6.35E+04	
10			4.44E+04	6.84E+04	6.53E+04	6.38E+04	6.37E+04	6.23E+04	6.25E+04	6.25E+04	6.25E+04	6.18E+04	6.25E+04	6.29E+04	6.31E+04	6.32E+04	6.36E+04	6.50E+04	
11		4.47E+04	6.97E+04	6.62E+04	6.43E+04	6.89E+04	6.84E+04	6.28E+04	6.25E+04	6.78E+04	6.78E+04	6.27E+04	6.30E+04	6.85E+04	6.87E+04	6.39E+04	6.52E+04	7.21E+04	
12		4.44E+04	6.73E+04	6.47E+04	6.28E+04	6.84E+04	6.81E+04	6.26E+04	6.25E+04	6.78E+04	6.80E+04	6.30E+04	6.34E+04	6.89E+04	6.89E+04	6.48E+04	6.55E+04	7.23E+04	
13	4.49E+04	7.07E+04	6.60E+04	6.35E+04	6.33E+04	6.23E+04	6.21E+04	6.24E+04	6.18E+04	6.27E+04	6.30E+04	6.32E+04	6.37E+04	6.44E+04	6.47E+04	6.45E+04	6.51E+04	6.58E+04	
14	4.47E+04	7.00E+04	6.56E+04	6.41E+04	6.24E+04	6.28E+04	6.26E+04	6.24E+04	6.25E+04	6.30E+04	6.34E+04	6.37E+04	6.44E+04	6.60E+04	6.62E+04	6.54E+04	6.51E+04	6.53E+04	
15	4.51E+04	7.67E+04	7.37E+04	7.13E+04	6.33E+04	6.32E+04	6.79E+04	6.78E+04	6.27E+04	6.29E+04	6.85E+04	6.89E+04	6.44E+04	6.60E+04	7.32E+04	7.32E+04	6.64E+04	6.55E+04	6.95E+04
16	4.50E+04	7.27E+04	7.32E+04	7.09E+04	6.36E+04	6.31E+04	6.80E+04	6.79E+04	6.28E+04	6.31E+04	6.87E+04	6.89E+04	6.47E+04	6.62E+04	7.32E+04	7.32E+04	6.64E+04	6.54E+04	6.94E+04
17	4.48E+04	7.12E+04	6.73E+04	6.55E+04	6.31E+04	6.30E+04	6.28E+04	6.28E+04	6.22E+04	6.32E+04	6.39E+04	6.48E+04	6.45E+04	6.54E+04	6.64E+04	6.64E+04	6.49E+04	6.44E+04	6.44E+04
18	4.48E+04	7.05E+04	6.77E+04	6.43E+04	6.31E+04	6.30E+04	6.30E+04	6.30E+04	6.31E+04	6.36E+04	6.52E+04	6.55E+04	6.51E+04	6.51E+04	6.55E+04	6.54E+04	6.44E+04	6.40E+04	6.40E+04
19	4.48E+04	7.08E+04	7.24E+04	7.03E+04	6.33E+04	6.32E+04	6.83E+04	6.84E+04	6.36E+04	6.50E+04	7.21E+04	7.23E+04	6.58E+04	6.53E+04	6.95E+04	6.94E+04	6.44E+04	6.40E+04	6.90E+04

Figure RAI 4.3-19- 76 Channel Flow (lbs/hr) at EOC SP1M-30F / FWT 343 F

Power: RP	(MWth)	4050.00	(90.0 %)
Pressure: PRV	(psia)	1041.09	
Core Flow: WCT	(Mlb/hr)	84.05	(105.9 %)
Bypass Flow: WBPRIN	(Mlb/hr)	10.37	(12.3 %)
Inlet Enthalpy: HCI	(BTU/lb)	508.46	
Inlet Temp.: TWI	(deg F)	517.29	
Core Press Drop: CPD	(psi)	9.24	
Pre-burn: DELBRN	(MWd/MT)	0.00	
Post-burn: DELTE	(MWd/MT)	0.00	
Initial Exposure	(MWd/MT):	11755.90	
Final Exposure: EXCORE	(MWd/MT):	11755.90	
Cycle Exposure: CYCEXP	(MWd/MT):	11755.81	
Cycle Energy: CYCENR	(GWd)	1960.40	

Neutron Multiplication: AMDA 1.00111473

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/MT):	21648.43	33	25	4
Max Bundle Exposure (MWd/MT):	15503.77	22	30	
Peak Axial Power	1.4202			10
Maximum Nodal Power	1.8547	13	7	10
Maximum Bundle Power	1.3060	17	9	
Maximum APLHGR	7.2872	13	10	13

THERMAL LIMITS SUMMARY:		LOCATION: I	J	
Maximum NEXRAT	0.3604	6	14	4
Minimum Critical Power Ratio(CPR)	1.6059	17	7	19
Maximum KW/ft	8.5302	13	11	14
Maximum MFLPD	0.7284	11	13	14

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71																		
5	67																		
7	63																		
9	59																		
11	55					32				22				32					
13	51																		
15	47							6				6							
17	43																		
19	39					22				26				22					
21	35																		
23	31							6				6							
25	27																		
27	23					32				22				32					
29	19																		
31	15																		
33	11																		
35	7																		

Figure RAI 4.3-19- 77 Control Rod Pattern Summary at EOC / 90% Power / FWT 369 F

K(node)	Axial Power
20	0.2615
19	0.5183
18	0.7197
17	0.9079
16	1.0712
15	1.1812
14	1.2156
13	1.2697
12	1.3893
11	1.4115
10	1.4202
9	1.4033
8	1.3601
7	1.2889
6	1.1869
5	1.0520
4	0.8922
3	0.7206
2	0.5290
1	0.2011

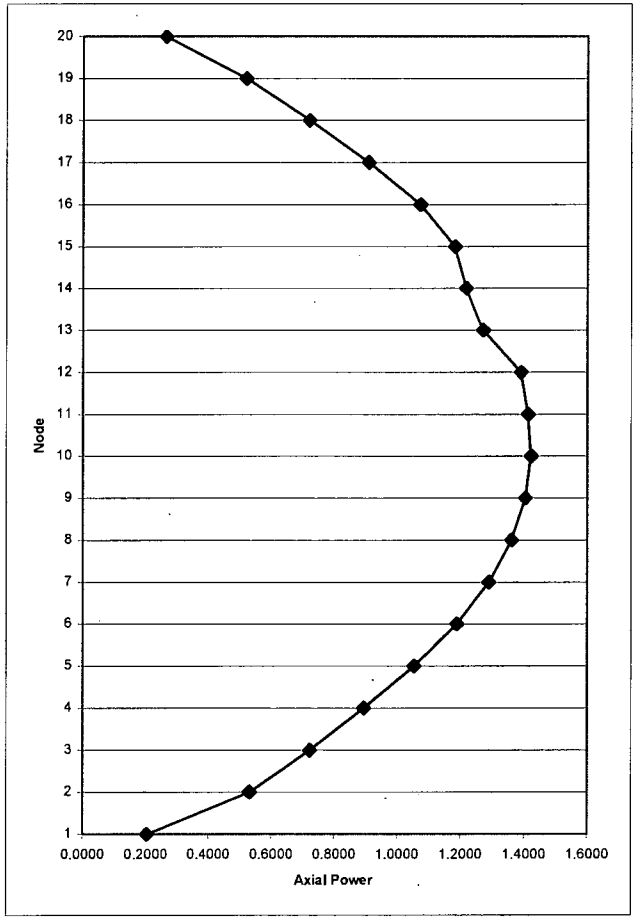

Figure RAI 4.3-19- 78 Relative Axial Power at EOC / 90% Power / FWT 369 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.21	0.27	0.33	0.35	0.35
2													0.32	0.38	0.41	0.73	0.80	0.83	0.83
3											0.37	0.49	0.82	0.87	0.64	0.68	1.02	1.00	0.75
4									0.33	0.48	0.86	1.00	1.08	1.11	0.82	0.84	1.13	1.20	0.87
5								0.37	0.75	0.93	1.05	1.15	1.22	1.20	1.26	1.24	1.27	1.28	1.27
6							0.33	0.76	0.94	1.11	1.17	1.27	1.25	1.30	1.26	1.27	1.28	1.29	1.27
7						0.33	0.50	0.66	1.07	1.19	0.92	0.96	1.30	1.28	1.00	1.00	1.29	1.28	0.99
8					0.37	0.76	0.66	0.79	1.19	1.20	0.95	0.97	1.30	1.29	1.00	1.00	1.28	1.27	0.98
9				0.33	0.75	0.94	1.07	1.19	1.24	1.26	1.23	1.24	1.27	1.28	1.28	1.27	1.31	1.26	1.23
10				0.48	0.93	1.11	1.19	1.20	1.26	1.23	1.19	1.20	1.27	1.26	1.25	1.25	1.24	1.21	1.16
11			0.37	0.86	1.05	1.17	0.92	0.95	1.23	1.19	0.79	0.78	1.18	1.22	0.95	0.94	1.19	1.13	0.70
12			0.49	1.00	1.15	1.27	0.96	0.97	1.24	1.20	0.78	0.78	1.16	1.18	0.92	0.91	1.15	1.10	0.68
13		0.32	0.82	1.08	1.22	1.25	1.30	1.30	1.27	1.27	1.18	1.16	1.18	1.17	1.14	1.13	1.14	1.12	1.07
14		0.38	0.87	1.11	1.20	1.30	1.28	1.29	1.28	1.26	1.22	1.18	1.17	1.13	1.05	1.04	1.10	1.11	1.10
15	0.21	0.41	0.64	0.82	1.26	1.26	1.00	1.00	1.28	1.25	0.95	0.92	1.14	1.05	0.58	0.57	1.02	1.08	0.85
16	0.27	0.73	0.68	0.84	1.24	1.27	1.00	1.00	1.27	1.25	0.94	0.91	1.13	1.04	0.57	0.57	1.01	1.08	0.84
17	0.33	0.80	1.02	1.13	1.27	1.28	1.29	1.28	1.31	1.24	1.19	1.15	1.14	1.10	1.02	1.01	1.07	1.09	1.08
18	0.35	0.83	1.00	1.20	1.28	1.29	1.28	1.27	1.26	1.21	1.13	1.10	1.12	1.11	1.08	1.08	1.09	1.09	1.05
19	0.35	0.83	0.75	0.87	1.27	1.27	0.99	0.98	1.23	1.16	0.70	0.68	1.07	1.10	0.85	0.84	1.08	1.05	0.67

Figure RAI 4.3-19- 79 Relative Integrated Power at EOC / 90% Power / FWT 369 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.48E+04	4.46E+04	4.45E+04	4.45E+04	4.45E+04
2													4.45E+04	4.44E+04	7.61E+04	7.24E+04	7.09E+04	7.04E+04	7.06E+04
3											4.44E+04	4.42E+04	7.06E+04	6.99E+04	7.34E+04	7.29E+04	6.74E+04	6.78E+04	7.21E+04
4									4.45E+04	4.42E+04	6.97E+04	6.75E+04	6.63E+04	6.59E+04	7.10E+04	7.07E+04	6.58E+04	6.46E+04	7.01E+04
5								4.44E+04	7.21E+04	6.86E+04	6.66E+04	6.52E+04	6.40E+04	6.46E+04	6.38E+04	6.41E+04	6.36E+04	6.36E+04	6.38E+04
6							4.45E+04	7.16E+04	6.85E+04	6.58E+04	6.49E+04	6.35E+04	6.39E+04	6.31E+04	6.38E+04	6.37E+04	6.35E+04	6.35E+04	6.38E+04
7					4.45E+04	7.51E+04	7.32E+04	6.65E+04	6.47E+04	6.93E+04	6.88E+04	6.32E+04	6.36E+04	6.82E+04	6.82E+04	6.36E+04	6.37E+04	6.85E+04	
8				4.44E+04	7.16E+04	7.32E+04	7.13E+04	6.47E+04	6.48E+04	6.90E+04	6.88E+04	6.33E+04	6.36E+04	6.83E+04	6.83E+04	6.38E+04	6.40E+04	6.88E+04	
9			4.45E+04	7.21E+04	6.85E+04	6.65E+04	6.47E+04	6.40E+04	6.38E+04	6.46E+04	6.45E+04	6.40E+04	6.38E+04	6.39E+04	6.40E+04	6.35E+04	6.43E+04	6.48E+04	
10			4.42E+04	6.86E+04	6.58E+04	6.47E+04	6.48E+04	6.38E+04	6.45E+04	6.54E+04	6.55E+04	6.41E+04	6.43E+04	6.44E+04	6.45E+04	6.46E+04	6.51E+04	6.65E+04	
11		4.44E+04	6.97E+04	6.66E+04	6.49E+04	6.93E+04	6.90E+04	6.46E+04	6.54E+04	7.25E+04	7.26E+04	6.62E+04	6.52E+04	6.96E+04	6.97E+04	6.56E+04	6.69E+04	7.31E+04	
12		4.42E+04	6.75E+04	6.52E+04	6.36E+04	6.88E+04	6.88E+04	6.45E+04	6.55E+04	7.26E+04	7.28E+04	6.66E+04	6.57E+04	6.99E+04	7.00E+04	6.62E+04	6.74E+04	7.33E+04	
13	4.45E+04	7.06E+04	6.63E+04	6.40E+04	6.39E+04	6.32E+04	6.33E+04	6.40E+04	6.41E+04	6.62E+04	6.66E+04	6.58E+04	6.59E+04	6.64E+04	6.66E+04	6.64E+04	6.67E+04	6.78E+04	
14	4.44E+04	6.99E+04	6.59E+04	6.46E+04	6.31E+04	6.36E+04	6.36E+04	6.38E+04	6.43E+04	6.52E+04	6.57E+04	6.59E+04	6.65E+04	6.79E+04	6.80E+04	6.71E+04	6.68E+04	6.73E+04	
15	4.48E+04	7.61E+04	7.34E+04	7.10E+04	6.38E+04	6.38E+04	6.82E+04	6.83E+04	6.39E+04	6.44E+04	6.96E+04	6.99E+04	6.64E+04	6.79E+04	7.43E+04	7.44E+04	6.84E+04	6.75E+04	7.09E+04
16	4.46E+04	7.24E+04	7.29E+04	7.07E+04	6.41E+04	6.37E+04	6.82E+04	6.83E+04	6.40E+04	6.45E+04	6.97E+04	7.00E+04	6.66E+04	6.80E+04	7.44E+04	7.45E+04	6.85E+04	6.76E+04	7.10E+04
17	4.45E+04	7.09E+04	6.74E+04	6.58E+04	6.36E+04	6.35E+04	6.36E+04	6.38E+04	6.35E+04	6.46E+04	6.56E+04	6.62E+04	6.64E+04	6.71E+04	6.84E+04	6.85E+04	6.75E+04	6.72E+04	6.76E+04
18	4.45E+04	7.04E+04	6.78E+04	6.46E+04	6.36E+04	6.35E+04	6.37E+04	6.40E+04	6.43E+04	6.51E+04	6.69E+04	6.74E+04	6.67E+04	6.68E+04	6.75E+04	6.76E+04	6.72E+04	6.75E+04	6.82E+04
19	4.45E+04	7.06E+04	7.21E+04	7.01E+04	6.38E+04	6.38E+04	6.85E+04	6.88E+04	6.48E+04	6.65E+04	7.31E+04	7.33E+04	6.78E+04	6.73E+04	7.09E+04	7.10E+04	6.76E+04	6.82E+04	7.34E+04

Figure RAI 4.3-19- 80 Channel Flow (lbs/hr) at EOC / 90% Power / FWT 369 F

```
Power: RP                (MWth)       4269.90  (  94.9 %)
Pressure: PRV            (psia)       1042.67
Core Flow: WCT           (Mlb/hr)       84.36  ( 106.3 %)
Bypass Flow: WBPRIN      (Mlb/hr)       10.47  (  12.4 %)
Inlet Enthalpy: HCI      (BTU/lb)      502.19
Inlet Temp.: TWI         (deg F)       512.10
Core Press Drop: CPD     (psi)           9.28
Pre-burn: DELBRN         (MWd/MT)        0.00
Post-burn: DELTE         (MWd/MT)        0.00
Initial Exposure         (MWd/MT):  11755.90
Final Exposure: EXCORE   (MWd/MT):  11755.90
Cycle Exposure: CYCEXP   (MWd/MT):  11755.81
Cycle Energy: CYCENR     (GWd)        1960.40

Neutron Multiplication: AMDA         1.00081456

Core Values:                                          Location:  I  J  K
     Max Nodal Exposure   (MWd/MT):     21648.43                 33 25  4
     Max Bundle Exposure  (MWd/MT):     15503.77                 22 30
     Peak Axial Power                     1.4159                       10

     Maximum Nodal Power                  1.8377                 13  7 10
     Maximum Bundle Power                 1.3010                 17  9
     Maximum APLHGR                       7.5446                 10 13 13

THERMAL LIMITS SUMMARY:                               LOCATION:  I  J  K
     Maximum NEXRAT                       0.3604                  6 14  4
     Minimum Critical Power Ratio(CPR)    1.5541                 17  7 19
     Maximum KW/ft                        8.8454                 13 11 14
     Maximum MFLPD                        0.7358                 11 13 14

                 Control Rod Configuration
                   In Notches Withdrawn
PANAC    1  3  5  7  9 11 13 15 17 19 21 23 25 27 29 31 33 35 37
   Site  2  6 10 14 18 22 26 30 34 38 42 46 50 54 58 62 66 70 74

  1 75
  3 71
  5 67
  7 63
  9 59
 11 55                 32          22          32
 13 51
 15 47                       6           6
 17 43
 19 39                 22          26          22
 21 35
 23 31                       6           6
 25 27
 27 23                 32          22          32
 29 19
 31 15
 33 11
 35  7
 37  3
```

Figure RAI 4.3-19- 81 Control Rod Pattern Summary at EOC / 90% Power –30 F / FWT 339 F

K(node)	Axial Power
20	0.2557
19	0.5062
18	0.7031
17	0.8875
16	1.0484
15	1.1583
14	1.1948
13	1.2513
12	1.3733
11	1.4006
10	1.4159
9	1.4067
8	1.3722
7	1.3098
6	1.2148
5	1.0823
4	0.9200
3	0.7442
2	0.5472
1	0.2075

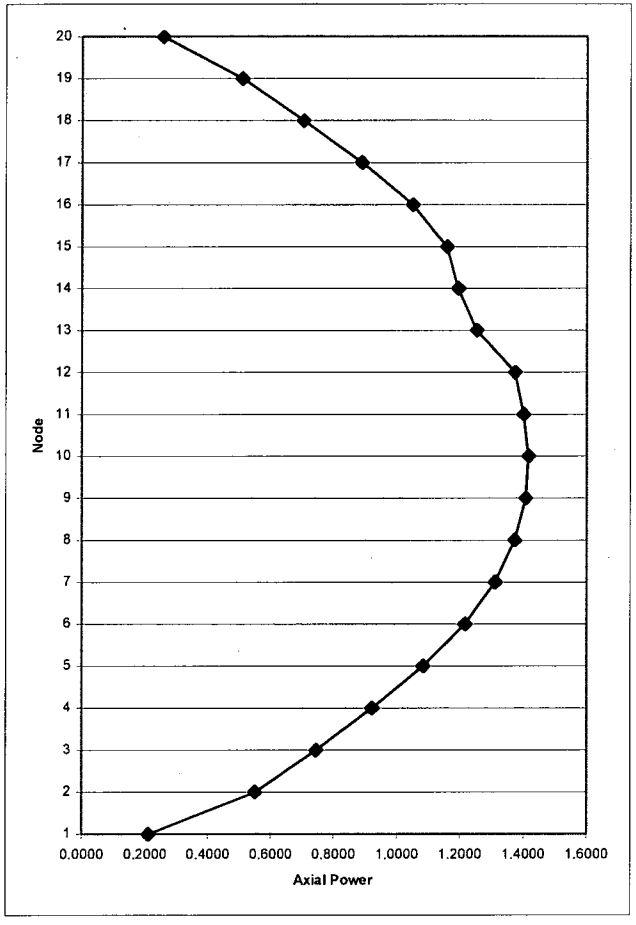

Figure RAI 4.3-19- 82 Relative Axial Power at EOC / 90% Power-30F / FWT 339 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.21	0.28	0.33	0.35	0.35
2													0.32	0.38	0.42	0.73	0.80	0.84	0.83
3											0.37	0.49	0.82	0.87	0.65	0.69	1.03	1.00	0.75
4									0.33	0.48	0.87	1.00	1.08	1.11	0.82	0.84	1.13	1.20	0.88
5								0.37	0.75	0.93	1.06	1.15	1.22	1.20	1.25	1.24	1.27	1.27	1.26
6							0.33	0.76	0.94	1.11	1.17	1.26	1.24	1.29	1.26	1.27	1.28	1.28	1.27
7						0.33	0.50	0.66	1.07	1.19	0.92	0.96	1.29	1.28	1.00	1.00	1.28	1.28	0.99
8					0.37	0.76	0.66	0.79	1.19	1.19	0.95	0.97	1.30	1.28	1.00	1.00	1.28	1.27	0.98
9				0.33	0.75	0.94	1.07	1.19	1.24	1.26	1.22	1.24	1.26	1.28	1.27	1.27	1.30	1.25	1.23
10				0.48	0.93	1.11	1.19	1.19	1.26	1.23	1.19	1.19	1.27	1.25	1.25	1.24	1.24	1.21	1.15
11			0.37	0.87	1.06	1.17	0.92	0.95	1.22	1.19	0.78	0.78	1.18	1.21	0.95	0.94	1.19	1.13	0.70
12			0.49	1.00	1.15	1.26	0.96	0.97	1.24	1.19	0.78	0.78	1.16	1.18	0.92	0.91	1.15	1.10	0.68
13		0.32	0.82	1.08	1.22	1.24	1.29	1.30	1.26	1.27	1.18	1.16	1.18	1.17	1.14	1.13	1.14	1.12	1.07
14		0.38	0.87	1.11	1.20	1.29	1.28	1.28	1.28	1.25	1.21	1.18	1.17	1.13	1.05	1.04	1.10	1.12	1.11
15	0.21	0.42	0.65	0.82	1.25	1.26	1.00	1.00	1.27	1.25	0.95	0.92	1.14	1.05	0.58	0.58	1.02	1.09	0.85
16	0.28	0.73	0.69	0.84	1.24	1.27	1.00	1.00	1.27	1.24	0.94	0.91	1.13	1.04	0.58	0.57	1.02	1.08	0.85
17	0.33	0.80	1.03	1.13	1.27	1.28	1.28	1.28	1.30	1.24	1.19	1.15	1.14	1.10	1.02	1.02	1.08	1.10	1.09
18	0.35	0.84	1.00	1.20	1.27	1.28	1.28	1.27	1.25	1.21	1.13	1.10	1.12	1.12	1.09	1.08	1.10	1.09	1.05
19	0.35	0.83	0.75	0.88	1.26	1.27	0.99	0.98	1.23	1.15	0.70	0.68	1.07	1.11	0.85	0.85	1.09	1.05	0.68

Figure RAI 4.3-19- 83 Relative Integrated Power at EOC / 90% Power-30F/ FWT 339 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.50E+04	4.49E+04	4.47E+04	4.47E+04	4.47E+04
2													4.48E+04	4.46E+04	7.66E+04	7.29E+04	7.13E+04	7.07E+04	7.09E+04
3											4.46E+04	4.44E+04	7.09E+04	7.02E+04	7.38E+04	7.34E+04	6.76E+04	6.80E+04	7.26E+04
4									4.47E+04	4.44E+04	7.00E+04	6.77E+04	6.65E+04	6.60E+04	7.14E+04	7.11E+04	6.59E+04	6.47E+04	7.05E+04
5								4.47E+04	7.20E+04	6.88E+04	6.67E+04	6.53E+04	6.41E+04	6.47E+04	6.38E+04	6.41E+04	6.37E+04	6.36E+04	6.38E+04
6							4.47E+04	7.20E+04	6.87E+04	6.59E+04	6.50E+04	6.35E+04	6.39E+04	6.31E+04	6.39E+04	6.38E+04	6.36E+04	6.36E+04	6.38E+04
7						4.47E+04	7.56E+04	7.36E+04	6.66E+04	6.47E+04	6.96E+04	6.91E+04	6.33E+04	6.36E+04	6.85E+04	6.85E+04	6.36E+04	6.38E+04	6.88E+04
8					4.47E+04	7.20E+04	7.36E+04	7.17E+04	6.48E+04	6.49E+04	6.94E+04	6.91E+04	6.34E+04	6.37E+04	6.86E+04	6.86E+04	6.38E+04	6.40E+04	6.91E+04
9				4.47E+04	7.20E+04	6.87E+04	6.66E+04	6.48E+04	6.40E+04	6.39E+04	6.47E+04	6.46E+04	6.41E+04	6.38E+04	6.40E+04	6.41E+04	6.36E+04	6.44E+04	6.49E+04
10				4.44E+04	6.88E+04	6.59E+04	6.47E+04	6.49E+04	6.39E+04	6.46E+04	6.56E+04	6.56E+04	6.42E+04	6.44E+04	6.45E+04	6.46E+04	6.47E+04	6.52E+04	6.63E+04
11			4.46E+04	7.00E+04	6.67E+04	6.50E+04	6.96E+04	6.94E+04	6.47E+04	6.56E+04	7.30E+04	7.31E+04	6.64E+04	6.53E+04	6.99E+04	7.00E+04	6.57E+04	6.71E+04	7.36E+04
12			4.44E+04	6.77E+04	6.53E+04	6.35E+04	6.91E+04	6.91E+04	6.46E+04	6.56E+04	7.31E+04	7.33E+04	6.68E+04	6.59E+04	7.02E+04	7.03E+04	6.63E+04	6.76E+04	7.38E+04
13		4.48E+04	7.09E+04	6.65E+04	6.41E+04	6.39E+04	6.33E+04	6.34E+04	6.41E+04	6.42E+04	6.64E+04	6.68E+04	6.60E+04	6.60E+04	6.66E+04	6.67E+04	6.65E+04	6.68E+04	6.80E+04
14		4.46E+04	7.02E+04	6.60E+04	6.47E+04	6.31E+04	6.36E+04	6.37E+04	6.38E+04	6.44E+04	6.53E+04	6.59E+04	6.60E+04	6.66E+04	6.80E+04	6.82E+04	6.72E+04	6.69E+04	6.74E+04
15	4.50E+04	7.66E+04	7.38E+04	7.14E+04	6.38E+04	6.39E+04	6.85E+04	6.86E+04	6.40E+04	6.45E+04	6.99E+04	7.02E+04	6.66E+04	6.80E+04	7.48E+04	7.49E+04	6.86E+04	6.75E+04	7.12E+04
16	4.49E+04	7.29E+04	7.34E+04	7.11E+04	6.41E+04	6.38E+04	6.85E+04	6.86E+04	6.41E+04	6.46E+04	7.00E+04	7.03E+04	6.67E+04	6.82E+04	7.49E+04	7.49E+04	6.87E+04	6.77E+04	7.13E+04
17	4.47E+04	7.13E+04	6.76E+04	6.59E+04	6.37E+04	6.36E+04	6.36E+04	6.38E+04	6.36E+04	6.47E+04	6.57E+04	6.63E+04	6.66E+04	6.72E+04	6.86E+04	6.87E+04	6.76E+04	6.73E+04	6.77E+04
18	4.47E+04	7.07E+04	6.80E+04	6.47E+04	6.36E+04	6.36E+04	6.38E+04	6.40E+04	6.44E+04	6.52E+04	6.71E+04	6.76E+04	6.68E+04	6.69E+04	6.75E+04	6.77E+04	6.73E+04	6.76E+04	6.84E+04
19	4.47E+04	7.09E+04	7.26E+04	7.05E+04	6.38E+04	6.38E+04	6.88E+04	6.91E+04	6.49E+04	6.63E+04	7.36E+04	7.38E+04	6.80E+04	6.74E+04	7.12E+04	7.13E+04	6.77E+04	6.84E+04	7.39E+04

Figure RAI 4.3-19- 84 Channel Flow (lbs/hr) at EOC / 90% Power –30F / FWT 339 F

```
Power: RP                (MWth)       3600.00  (  80.0 %)
Pressure: PRV            (psia)       1026.28
Core Flow: WCT           (Mlb/hr)       84.74  ( 106.7 %)
Bypass Flow: WBPRIN      (Mlb/hr)       10.01  (  11.8 %)
Inlet Enthalpy: HCI      (BTU/lb)      510.48
Inlet Temp.: TWI         (deg F)       518.94
Core Press Drop: CPD     (psi)           9.30
Pre-burn: DELBRN         (MWd/MT)        0.00
Post-burn: DELTE         (MWd/MT)        0.00
Initial Exposure         (MWd/MT):  11755.90
Final Exposure: EXCORE   (MWd/MT):  11755.90
Cycle Exposure: CYCEXP   (MWd/MT):  11755.81
Cycle Energy: CYCENR     (GWd)        1960.40

Neutron Multiplication: AMDA          1.00093389

Core Values:                                          Location:  I  J  K
     Max Nodal Exposure   (MWd/MT):     21648.43                 33 25  4
     Max Bundle Exposure  (MWd/MT):     15503.77                 22 30
     Peak Axial Power                     1.4273                        10

     Maximum Nodal Power                  1.8778                 10 13 12
     Maximum Bundle Power                 1.3332                 10  9
     Maximum APLHGR                       6.8633                 10 13 14

THERMAL LIMITS SUMMARY:                                LOCATION:  I  J  K
     Maximum NEXRAT                       0.3604                  6 14  4
     Minimum Critical Power Ratio(CPR)    1.7977                 10  9 19
     Maximum KW/ft                        8.0239                 12 10 14
     Maximum MFLPD                        0.7211                 13 10 14
```

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71																		
5	67																		
7	63							30				30							
9	59																		
11	55					32				0				32					
13	51																		
15	47			30				0				0				30			
17	43																		
19	39					0				0				0					
21	35																		
23	31			30				0				0				30			
25	27																		
27	23					32				0				32					
29	19																		
31	15							30				30							
33	11																		
35	7																		
37	3																		

Figure RAI 4.3-19- 85 Control Rod Pattern Summary at EOC / 80% Power / FWT 365 F

K(node)	Axial Power
20	0.2621
19	0.5260
18	0.7369
17	0.9350
16	1.1059
15	1.2224
14	1.2606
13	1.3133
12	1.4174
11	1.4270
10	1.4273
9	1.4034
8	1.3526
7	1.2713
6	1.1558
5	1.0070
4	0.8379
3	0.6678
2	0.4866
1	0.1836

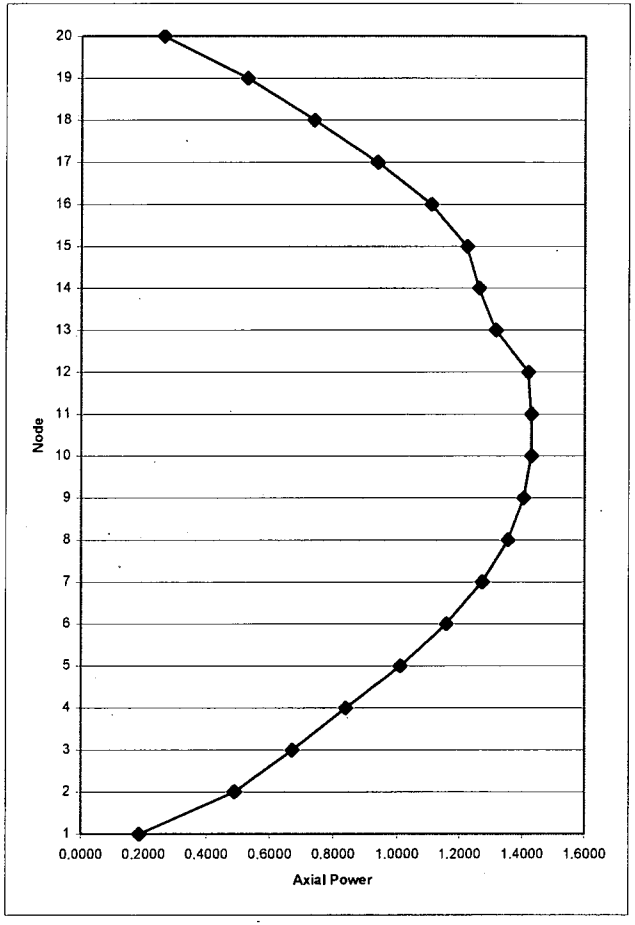

Figure RAI 4.3-19- 86 Relative Axial Power at EOC / 80% Power / FWT 365 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.21	0.28	0.34	0.36	0.36
2													0.32	0.38	0.42	0.74	0.82	0.86	0.85
3											0.39	0.50	0.85	0.89	0.65	0.69	1.05	1.03	0.77
4									0.35	0.50	0.90	1.04	1.11	1.14	0.82	0.85	1.15	1.23	0.89
5								0.39	0.79	0.98	1.10	1.19	1.26	1.21	1.25	1.24	1.28	1.29	1.29
6							0.35	0.80	0.99	1.17	1.23	1.31	1.27	1.29	1.21	1.21	1.26	1.29	1.28
7						0.35	0.52	0.70	1.13	1.26	0.96	0.98	1.31	1.23	0.79	0.79	1.22	1.26	0.98
8					0.39	0.80	0.70	0.83	1.26	1.26	0.99	0.99	1.31	1.23	0.80	0.79	1.21	1.24	0.96
9				0.35	0.79	0.99	1.13	1.26	1.31	1.33	1.29	1.28	1.29	1.27	1.21	1.20	1.26	1.23	1.21
10				0.50	0.98	1.17	1.26	1.26	1.33	1.30	1.25	1.24	1.31	1.27	1.24	1.22	1.22	1.19	1.11
11			0.39	0.90	1.10	1.23	0.96	0.99	1.29	1.25	0.82	0.81	1.22	1.24	0.95	0.93	1.17	1.09	0.58
12			0.50	1.04	1.19	1.31	0.98	0.99	1.28	1.24	0.81	0.80	1.20	1.21	0.93	0.91	1.15	1.06	0.57
13		0.32	0.85	1.11	1.26	1.27	1.31	1.31	1.29	1.31	1.22	1.20	1.21	1.20	1.16	1.14	1.14	1.11	1.03
14		0.38	0.89	1.14	1.21	1.29	1.23	1.23	1.27	1.27	1.24	1.21	1.20	1.16	1.07	1.05	1.10	1.11	1.09
15	0.21	0.42	0.65	0.82	1.25	1.21	0.79	0.80	1.21	1.24	0.95	0.93	1.16	1.07	0.57	0.56	1.02	1.08	0.84
16	0.28	0.74	0.69	0.85	1.24	1.21	0.79	0.79	1.20	1.22	0.93	0.91	1.14	1.05	0.56	0.55	1.01	1.07	0.84
17	0.34	0.82	1.05	1.15	1.28	1.26	1.22	1.21	1.26	1.22	1.17	1.15	1.14	1.10	1.02	1.01	1.07	1.08	1.07
18	0.36	0.86	1.03	1.23	1.29	1.29	1.26	1.24	1.23	1.19	1.09	1.06	1.11	1.11	1.08	1.07	1.08	1.06	0.99
19	0.36	0.85	0.77	0.89	1.29	1.28	0.98	0.96	1.21	1.11	0.58	0.57	1.03	1.09	0.84	0.84	1.07	0.99	0.53

Figure RAI 4.3-19- 87 Relative Integrated Power at EOC / 80% Power/ FWT 365 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.44E+04	4.43E+04	4.42E+04	4.42E+04	4.42E+04
2													4.42E+04	4.41E+04	7.57E+04	7.25E+04	7.12E+04	7.07E+04	7.09E+04
3											4.41E+04	4.39E+04	7.09E+04	7.03E+04	7.34E+04	7.30E+04	6.81E+04	6.84E+04	7.23E+04
4									4.42E+04	4.40E+04	6.99E+04	6.80E+04	6.70E+04	6.68E+04	7.16E+04	7.13E+04	6.68E+04	6.56E+04	7.06E+04
5								4.41E+04	7.15E+04	6.87E+04	6.70E+04	6.58E+04	6.50E+04	6.58E+04	6.55E+04	6.57E+04	6.51E+04	6.49E+04	6.50E+04
6							4.42E+04	7.15E+04	6.85E+04	6.62E+04	6.55E+04	6.44E+04	6.51E+04	6.49E+04	6.64E+04	6.64E+04	6.55E+04	6.51E+04	6.52E+04
7						4.42E+04	7.47E+04	7.30E+04	6.67E+04	6.51E+04	6.95E+04	6.93E+04	6.48E+04	6.61E+04	7.27E+04	7.28E+04	6.64E+04	6.56E+04	6.96E+04
8					4.41E+04	7.15E+04	7.30E+04	7.12E+04	6.50E+04	6.52E+04	6.93E+04	6.93E+04	6.49E+04	6.62E+04	7.27E+04	7.28E+04	6.70E+04	6.60E+04	7.00E+04
9				4.42E+04	7.15E+04	6.85E+04	6.67E+04	6.50E+04	6.44E+04	6.43E+04	6.51E+04	6.53E+04	6.52E+04	6.56E+04	6.69E+04	6.71E+04	6.57E+04	6.61E+04	6.65E+04
10				4.40E+04	6.87E+04	6.62E+04	6.51E+04	6.52E+04	6.43E+04	6.50E+04	6.59E+04	6.65E+04	6.51E+04	6.56E+04	6.61E+04	6.64E+04	6.63E+04	6.67E+04	6.79E+04
11			4.41E+04	6.99E+04	6.70E+04	6.55E+04	6.95E+04	6.93E+04	6.51E+04	6.59E+04	7.25E+04	7.26E+04	6.69E+04	6.65E+04	7.01E+04	7.03E+04	6.70E+04	6.82E+04	7.43E+04
12			4.39E+04	6.80E+04	6.58E+04	6.44E+04	6.93E+04	6.93E+04	6.53E+04	6.65E+04	7.26E+04	7.28E+04	6.72E+04	6.65E+04	7.03E+04	7.05E+04	6.73E+04	6.85E+04	7.44E+04
13		4.42E+04	7.09E+04	6.70E+04	6.50E+04	6.51E+04	6.48E+04	6.49E+04	6.52E+04	6.51E+04	6.69E+04	6.72E+04	6.65E+04	6.66E+04	6.71E+04	6.74E+04	6.73E+04	6.77E+04	6.89E+04
14		4.41E+04	7.03E+04	6.68E+04	6.58E+04	6.49E+04	6.61E+04	6.62E+04	6.56E+04	6.56E+04	6.65E+04	6.65E+04	6.66E+04	6.71E+04	6.84E+04	6.87E+04	6.78E+04	6.77E+04	6.80E+04
15	4.44E+04	7.57E+04	7.34E+04	7.16E+04	6.55E+04	6.64E+04	7.27E+04	7.27E+04	6.69E+04	6.61E+04	7.01E+04	7.03E+04	6.71E+04	6.84E+04	7.44E+04	7.45E+04	6.90E+04	6.81E+04	7.16E+04
16	4.43E+04	7.25E+04	7.30E+04	7.13E+04	6.57E+04	6.64E+04	7.28E+04	7.28E+04	6.71E+04	6.64E+04	7.03E+04	7.05E+04	6.74E+04	6.87E+04	7.45E+04	7.46E+04	6.92E+04	6.82E+04	7.17E+04
17	4.42E+04	7.12E+04	6.81E+04	6.68E+04	6.51E+04	6.55E+04	6.64E+04	6.70E+04	6.57E+04	6.63E+04	6.70E+04	6.73E+04	6.73E+04	6.78E+04	6.90E+04	6.92E+04	6.82E+04	6.80E+04	6.83E+04
18	4.42E+04	7.07E+04	6.84E+04	6.56E+04	6.49E+04	6.51E+04	6.56E+04	6.60E+04	6.61E+04	6.67E+04	6.82E+04	6.85E+04	6.77E+04	6.77E+04	6.81E+04	6.82E+04	6.80E+04	6.83E+04	6.94E+04
19	4.42E+04	7.09E+04	7.23E+04	7.06E+04	6.50E+04	6.52E+04	6.96E+04	7.00E+04	6.65E+04	6.79E+04	7.43E+04	7.44E+04	6.89E+04	6.80E+04	7.16E+04	7.17E+04	6.83E+04	6.94E+04	7.47E+04

Figure RAI 4.3-19- 88 Channel Flow (lbs/hr) at EOC / 80% Power / FWT 365 F

Power: RP	(MWth)	3799.80	(84.4 %)
Pressure: PRV	(psia)	1029.78	
Core Flow: WCT	(Mlb/hr)	85.09	(107.2 %)
Bypass Flow: WBPRIN	(Mlb/hr)	10.11	(11.9 %)
Inlet Enthalpy: HCI	(BTU/lb)	505.02	
Inlet Temp.: TWI	(deg F)	514.44	
Core Press Drop: CPD	(psi)	9.33	
Pre-burn: DELBRN	(MWd/MT)	0.00	
Post-burn: DELTE	(MWd/MT)	0.00	
Initial Exposure	(MWd/MT):	11755.90	
Final Exposure: EXCORE	(MWd/MT):	11755.90	
Cycle Exposure: CYCEXP	(MWd/MT):	11755.81	
Cycle Energy: CYCENR	(GWd)	1960.40	

Neutron Multiplication: AMDA 1.00069296

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/MT):	21648.43	33	25	4
Max Bundle Exposure (MWd/MT):	15503.77	22	30	
Peak Axial Power	1.4266			10
Maximum Nodal Power	1.8522	10	9	10
Maximum Bundle Power	1.3269	10	9	
Maximum APLHGR	7.0940	10	13	14

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.3604	6	14	4
Minimum Critical Power Ratio(CPR)	1.7360	9	10	19
Maximum KW/ft	8.3213	12	10	14
Maximum MFLPD	0.7290	10	12	14

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71																		
5	67																		
7	63							30				30							
9	59																		
11	55					32				0				32					
13	51																		
15	47			30				0				0				30			
17	43																		
19	39					0				0				0					
21	35																		
23	31			30				0				0				30			
25	27																		
27	23					32				0				32					
29	19																		
31	15							30				30							
33	11																		
35	7																		
37	3																		

Figure RAI 4.3-19- 89 Control Rod Pattern Summary at EOC / 80.0% Power –30F/ FWT 335 F

K(node)	Axial Power
20	0.2561
19	0.5135
18	0.7197
17	0.9141
16	1.0825
15	1.1986
14	1.2390
13	1.2946
12	1.4022
11	1.4183
10	1.4266
9	1.4116
8	1.3700
7	1.2967
6	1.1857
5	1.0353
4	0.8610
3	0.6862
2	0.5000
1	0.1880

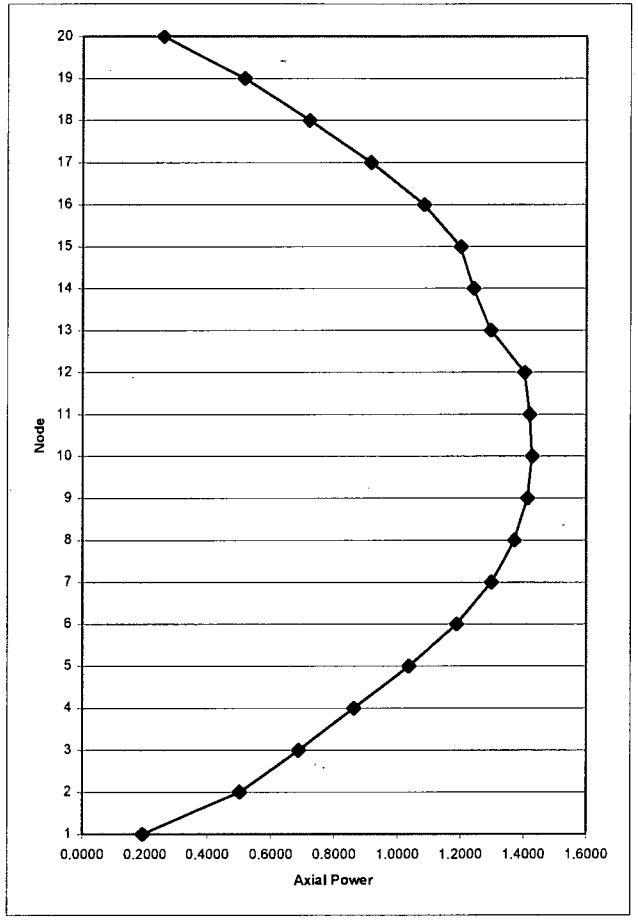

Figure RAI 4.3-19- 90 Relative Axial Power at EOC / 80.0% Power – 30 F/ FWT 335 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.21	0.28	0.34	0.36	0.36
2													0.32	0.38	0.42	0.74	0.83	0.86	0.86
3											0.39	0.50	0.85	0.90	0.65	0.70	1.05	1.03	0.77
4									0.35	0.50	0.90	1.04	1.11	1.14	0.82	0.85	1.15	1.23	0.89
5								0.39	0.79	0.98	1.10	1.19	1.25	1.21	1.25	1.23	1.28	1.29	1.29
6							0.35	0.80	0.99	1.16	1.22	1.31	1.26	1.29	1.20	1.21	1.26	1.28	1.28
7						0.35	0.52	0.70	1.13	1.25	0.96	0.98	1.30	1.22	0.79	0.79	1.21	1.26	0.98
8					0.39	0.80	0.70	0.83	1.26	1.26	0.98	0.99	1.31	1.23	0.79	0.79	1.20	1.24	0.96
9				0.35	0.79	0.99	1.13	1.26	1.30	1.33	1.28	1.28	1.28	1.27	1.21	1.20	1.26	1.23	1.20
10				0.50	0.98	1.16	1.25	1.26	1.33	1.29	1.24	1.24	1.30	1.27	1.24	1.22	1.22	1.18	1.11
11			0.39	0.90	1.10	1.22	0.96	0.98	1.28	1.24	0.82	0.81	1.21	1.24	0.95	0.93	1.17	1.09	0.59
12			0.50	1.04	1.19	1.31	0.98	0.99	1.28	1.24	0.81	0.80	1.19	1.21	0.93	0.91	1.15	1.06	0.57
13		0.32	0.85	1.11	1.25	1.26	1.30	1.31	1.28	1.30	1.21	1.19	1.21	1.20	1.16	1.14	1.14	1.11	1.04
14		0.38	0.90	1.14	1.21	1.29	1.22	1.23	1.27	1.27	1.24	1.21	1.20	1.16	1.07	1.05	1.11	1.12	1.09
15	0.21	0.42	0.65	0.82	1.25	1.20	0.79	0.79	1.21	1.24	0.95	0.93	1.16	1.07	0.57	0.56	1.02	1.09	0.85
16	0.28	0.74	0.70	0.85	1.23	1.21	0.79	0.79	1.20	1.22	0.93	0.91	1.14	1.05	0.56	0.55	1.01	1.08	0.84
17	0.34	0.83	1.05	1.15	1.28	1.26	1.21	1.20	1.26	1.22	1.17	1.15	1.14	1.11	1.02	1.01	1.07	1.09	1.07
18	0.36	0.86	1.03	1.23	1.29	1.28	1.26	1.24	1.23	1.18	1.09	1.06	1.11	1.12	1.09	1.08	1.09	1.07	1.00
19	0.36	0.86	0.77	0.89	1.29	1.28	0.98	0.96	1.20	1.11	0.59	0.57	1.04	1.09	0.85	0.84	1.07	1.00	0.54

Figure RAI 4.3-19- 91 Relative Integrated Power at EOC / 80.0% Power – 30F / FWT 335 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.46E+04	4.45E+04	4.44E+04	4.44E+04	4.44E+04
2													4.44E+04	4.43E+04	7.62E+04	7.30E+04	7.16E+04	7.10E+04	7.12E+04
3											4.43E+04	4.41E+04	7.12E+04	7.06E+04	7.39E+04	7.36E+04	6.83E+04	6.86E+04	7.27E+04
4									4.44E+04	4.42E+04	7.02E+04	6.82E+04	6.72E+04	6.70E+04	7.20E+04	7.17E+04	6.69E+04	6.58E+04	7.09E+04
5								4.43E+04	7.19E+04	6.90E+04	6.72E+04	6.60E+04	6.51E+04	6.60E+04	6.56E+04	6.59E+04	6.52E+04	6.49E+04	6.51E+04
6							4.44E+04	7.19E+04	6.88E+04	6.63E+04	6.56E+04	6.45E+04	6.52E+04	6.51E+04	6.66E+04	6.66E+04	6.57E+04	6.52E+04	6.53E+04
7					4.44E+04	7.52E+04	7.34E+04	6.69E+04	6.52E+04	6.98E+04	6.97E+04	6.49E+04	6.63E+04	7.32E+04	7.32E+04	6.66E+04	6.58E+04	7.00E+04	
8				4.43E+04	7.19E+04	7.34E+04	7.16E+04	6.51E+04	6.53E+04	6.96E+04	6.97E+04	6.50E+04	6.64E+04	7.32E+04	7.33E+04	6.72E+04	6.61E+04	7.03E+04	
9			4.44E+04	7.19E+04	6.88E+04	6.69E+04	6.51E+04	6.45E+04	6.44E+04	6.53E+04	6.55E+04	6.54E+04	6.57E+04	6.72E+04	6.73E+04	6.58E+04	6.62E+04	6.66E+04	
10			4.42E+04	6.90E+04	6.63E+04	6.52E+04	6.53E+04	6.44E+04	6.51E+04	6.61E+04	6.67E+04	6.52E+04	6.58E+04	6.63E+04	6.65E+04	6.66E+04	6.69E+04	6.81E+04	
11		4.43E+04	7.02E+04	6.72E+04	6.56E+04	6.98E+04	6.96E+04	6.53E+04	6.61E+04	7.29E+04	7.31E+04	6.72E+04	6.63E+04	7.05E+04	7.06E+04	6.71E+04	6.84E+04	7.47E+04	
12		4.41E+04	6.82E+04	6.60E+04	6.45E+04	6.97E+04	6.97E+04	6.55E+04	6.67E+04	7.31E+04	7.33E+04	6.74E+04	6.67E+04	7.07E+04	7.12E+04	6.75E+04	6.87E+04	7.48E+04	
13	4.44E+04	7.12E+04	6.72E+04	6.51E+04	6.52E+04	6.49E+04	6.50E+04	6.54E+04	6.52E+04	6.72E+04	6.74E+04	6.66E+04	6.67E+04	6.73E+04	6.76E+04	6.75E+04	6.79E+04	6.91E+04	
14	4.43E+04	7.06E+04	6.70E+04	6.60E+04	6.51E+04	6.63E+04	6.64E+04	6.57E+04	6.58E+04	6.63E+04	6.67E+04	6.67E+04	6.73E+04	6.86E+04	6.89E+04	6.80E+04	6.78E+04	6.82E+04	
15	4.46E+04	7.62E+04	7.39E+04	7.20E+04	6.56E+04	6.66E+04	7.32E+04	7.32E+04	6.72E+04	6.63E+04	7.05E+04	7.07E+04	6.73E+04	6.86E+04	7.48E+04	7.49E+04	6.92E+04	6.83E+04	7.20E+04
16	4.45E+04	7.30E+04	7.36E+04	7.17E+04	6.59E+04	6.66E+04	7.32E+04	7.33E+04	6.73E+04	6.65E+04	7.06E+04	7.12E+04	6.76E+04	6.89E+04	7.49E+04	7.50E+04	6.94E+04	6.84E+04	7.21E+04
17	4.44E+04	7.16E+04	6.83E+04	6.69E+04	6.52E+04	6.57E+04	6.66E+04	6.72E+04	6.58E+04	6.65E+04	6.71E+04	6.75E+04	6.75E+04	6.80E+04	6.92E+04	6.94E+04	6.84E+04	6.82E+04	6.85E+04
18	4.44E+04	7.10E+04	6.86E+04	6.58E+04	6.49E+04	6.52E+04	6.58E+04	6.61E+04	6.62E+04	6.69E+04	6.84E+04	6.87E+04	6.79E+04	6.78E+04	6.83E+04	6.84E+04	6.82E+04	6.85E+04	6.96E+04
19	4.44E+04	7.12E+04	7.27E+04	7.09E+04	6.51E+04	6.53E+04	7.00E+04	7.03E+04	6.66E+04	6.81E+04	7.47E+04	7.48E+04	6.91E+04	6.82E+04	7.20E+04	7.21E+04	6.86E+04	6.96E+04	7.51E+04

Figure RAI 4.3-19- 92 Channel Flow (lbs/hr) at EOC / 80.0% Power –30 F / FWT 335 F

Power: RP	(MWth)	2250.00	(50.0 %)
Pressure: PRV	(psia)	1005.55	
Core Flow: WCT	(Mlb/hr)	83.86	(105.6 %)
Bypass Flow: WBPRIN	(Mlb/hr)	8.66	(10.3 %)
Inlet Enthalpy: HCI	(BTU/lb)	519.64	
Inlet Temp.: TWI	(deg F)	526.40	
Core Press Drop: CPD	(psi)	8.99	
Pre-burn: DELBRN	(MWd/MT)	0.00	
Post-burn: DELTE	(MWd/MT)	0.00	
Initial Exposure	(MWd/MT):	11755.90	
Final Exposure: EXCORE	(MWd/MT):	11755.90	
Cycle Exposure: CYCEXP	(MWd/MT):	11755.81	
Cycle Energy: CYCENR	(GWd)	1960.40	

Neutron Multiplication: AMDA 1.00092828

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/MT):	21648.43	33	25	4
Max Bundle Exposure (MWd/MT):	15503.77	22	30	
Peak Axial Power	1.5283			10
Maximum Nodal Power	2.3325	12	6	9
Maximum Bundle Power	1.5551	6	12	
Maximum APLHGR	4.8822	12	6	9

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.3604	6	14	4
Minimum Critical Power Ratio(CPR)	2.4640	9	10	19
Maximum KW/ft	5.7546	12	6	9
Maximum MFLPD	0.6056	12	6	8

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71																		
5	67																		
7	63							0		16		0							
9	59																		
11	55					0		0		0		0		0					
13	51																		
15	47			0		0		0		0		0		0		0			
17	43																		
19	39			16		0		0		0		0		0		16			
21	35																		
23	31			0		0		0		0		0		0		0			
25	27																		
27	23					0		0		0		0		0					
29	19																		
31	15							0		16		0							
33	11																		
35	7																		
37	3																		

Figure RAI 4.3-19- 93 Control Rod Pattern Summary at EOC / 50% Power / FWT 358 F

K(node)	Axial Power
20	0.2185
19	0.4601
18	0.6556
17	0.8429
16	1.0076
15	1.1237
14	1.1728
13	1.2594
12	1.4269
11	1.4937
10	1.5283
9	1.5183
8	1.4619
7	1.3590
6	1.2140
5	1.0402
4	0.8585
3	0.6810
2	0.4927
1	0.1847

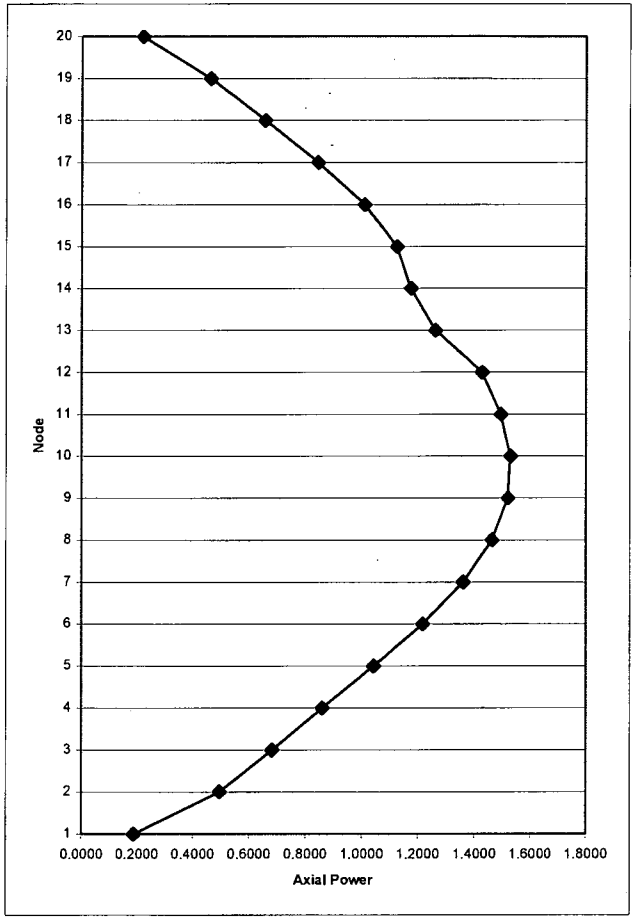

Figure RAI 4.3-19- 94 Relative Axial Power at EOC / 50% Power / FWT 358 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.24	0.32	0.39	0.41	0.40
2													0.38	0.44	0.48	0.85	0.95	0.99	0.98
3											0.46	0.60	1.01	1.05	0.75	0.79	1.21	1.18	0.86
4									0.42	0.60	1.09	1.26	1.33	1.34	0.94	0.95	1.31	1.39	0.98
5								0.47	0.95	1.19	1.34	1.44	1.49	1.41	1.42	1.38	1.42	1.42	1.39
6							0.42	0.96	1.21	1.42	1.48	1.56	1.48	1.46	1.29	1.26	1.33	1.33	1.26
7						0.42	0.62	0.83	1.37	1.51	1.12	1.12	1.47	1.31	0.66	0.64	1.17	1.18	0.68
8					0.47	0.96	0.83	0.99	1.51	1.49	1.12	1.10	1.43	1.26	0.63	0.60	1.11	1.11	0.64
9				0.42	0.95	1.21	1.37	1.51	1.55	1.54	1.44	1.39	1.36	1.27	1.12	1.07	1.17	1.14	1.06
10				0.60	1.19	1.42	1.51	1.49	1.54	1.45	1.31	1.25	1.30	1.21	1.07	1.04	1.10	1.09	1.01
11			0.46	1.09	1.34	1.48	1.12	1.12	1.44	1.31	0.66	0.62	1.10	1.06	0.54	0.52	0.98	0.97	0.51
12			0.60	1.26	1.44	1.56	1.12	1.10	1.39	1.25	0.62	0.57	1.04	1.01	0.51	0.50	0.94	0.94	0.49
13		0.38	1.01	1.33	1.49	1.48	1.47	1.43	1.36	1.30	1.10	1.04	1.08	1.05	0.95	0.93	1.00	0.99	0.91
14		0.44	1.05	1.34	1.41	1.46	1.31	1.26	1.27	1.21	1.06	1.01	1.05	1.03	0.93	0.91	0.98	0.97	0.89
15	0.24	0.48	0.75	0.94	1.42	1.29	0.66	0.63	1.12	1.07	0.54	0.51	0.95	0.93	0.48	0.47	0.89	0.88	0.46
16	0.32	0.85	0.79	0.95	1.38	1.26	0.64	0.60	1.07	1.04	0.52	0.50	0.93	0.91	0.47	0.46	0.88	0.87	0.45
17	0.39	0.95	1.21	1.31	1.42	1.33	1.17	1.11	1.17	1.10	0.98	0.94	1.00	0.98	0.89	0.88	0.95	0.94	0.86
18	0.41	0.99	1.18	1.39	1.42	1.33	1.18	1.11	1.14	1.09	0.97	0.94	0.99	0.97	0.88	0.87	0.94	0.94	0.86
19	0.40	0.98	0.86	0.98	1.39	1.26	0.68	0.64	1.06	1.01	0.51	0.49	0.91	0.89	0.46	0.45	0.86	0.86	0.45

Figure RAI 4.3-19- 95 Relative Integrated Power at EOC /50% Power / FWT 358 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.23E+04	4.24E+04	4.24E+04	4.24E+04	4.24E+04
2													4.24E+04	4.23E+04	7.26E+04	7.06E+04	6.98E+04	6.94E+04	6.96E+04
3											4.24E+04	4.23E+04	6.92E+04	6.89E+04	7.12E+04	7.09E+04	6.76E+04	6.79E+04	7.05E+04
4									4.24E+04	4.23E+04	6.84E+04	6.70E+04	6.64E+04	6.65E+04	7.00E+04	7.00E+04	6.69E+04	6.62E+04	6.97E+04
5								4.24E+04	6.95E+04	6.75E+04	6.63E+04	6.55E+04	6.51E+04	6.59E+04	6.59E+04	6.64E+04	6.61E+04	6.61E+04	6.64E+04
6							4.24E+04	6.96E+04	6.74E+04	6.57E+04	6.53E+04	6.47E+04	6.54E+04	6.56E+04	6.71E+04	6.74E+04	6.69E+04	6.69E+04	6.76E+04
7						4.24E+04	7.18E+04	7.07E+04	6.61E+04	6.50E+04	6.84E+04	6.84E+04	6.55E+04	6.70E+04	7.16E+04	7.18E+04	6.83E+04	6.83E+04	7.16E+04
8					4.24E+04	6.96E+04	7.07E+04	6.94E+04	6.50E+04	6.53E+04	6.84E+04	6.87E+04	6.60E+04	6.75E+04	7.19E+04	7.20E+04	6.88E+04	6.88E+04	7.18E+04
9				4.24E+04	6.95E+04	6.74E+04	6.61E+04	6.50E+04	6.46E+04	6.48E+04	6.58E+04	6.63E+04	6.66E+04	6.74E+04	6.88E+04	6.91E+04	6.83E+04	6.86E+04	6.93E+04
10				4.23E+04	6.75E+04	6.57E+04	6.50E+04	6.53E+04	6.48E+04	6.57E+04	6.69E+04	6.75E+04	6.71E+04	6.79E+04	6.90E+04	6.93E+04	6.89E+04	6.90E+04	6.96E+04
11			4.24E+04	6.84E+04	6.63E+04	6.53E+04	6.84E+04	6.84E+04	6.58E+04	6.69E+04	7.16E+04	7.19E+04	6.89E+04	6.91E+04	7.23E+04	7.23E+04	6.99E+04	6.99E+04	7.24E+04
12			4.23E+04	6.70E+04	6.55E+04	6.47E+04	6.84E+04	6.87E+04	6.63E+04	6.75E+04	7.19E+04	7.21E+04	6.93E+04	6.96E+04	7.24E+04	7.25E+04	7.02E+04	7.02E+04	7.25E+04
13		4.24E+04	6.92E+04	6.64E+04	6.51E+04	6.54E+04	6.55E+04	6.60E+04	6.66E+04	6.71E+04	6.89E+04	6.93E+04	6.90E+04	6.92E+04	7.01E+04	7.02E+04	6.97E+04	6.97E+04	7.04E+04
14		4.23E+04	6.89E+04	6.65E+04	6.59E+04	6.56E+04	6.70E+04	6.75E+04	6.74E+04	6.79E+04	6.91E+04	6.96E+04	6.92E+04	6.94E+04	7.02E+04	7.03E+04	6.98E+04	6.99E+04	7.06E+04
15	4.23E+04	7.26E+04	7.12E+04	7.00E+04	6.59E+04	6.71E+04	7.16E+04	7.19E+04	6.88E+04	6.90E+04	7.23E+04	7.24E+04	7.01E+04	7.02E+04	7.26E+04	7.26E+04	7.06E+04	7.07E+04	7.27E+04
16	4.24E+04	7.06E+04	7.09E+04	7.00E+04	6.64E+04	6.74E+04	7.18E+04	7.20E+04	6.91E+04	6.93E+04	7.23E+04	7.25E+04	7.02E+04	7.03E+04	7.26E+04	7.26E+04	7.07E+04	7.07E+04	7.27E+04
17	4.24E+04	6.98E+04	6.76E+04	6.69E+04	6.61E+04	6.69E+04	6.83E+04	6.88E+04	6.83E+04	6.89E+04	6.99E+04	7.02E+04	6.97E+04	6.98E+04	7.06E+04	7.07E+04	7.01E+04	7.01E+04	7.08E+04
18	4.24E+04	6.94E+04	6.79E+04	6.62E+04	6.61E+04	6.69E+04	6.83E+04	6.88E+04	6.86E+04	6.90E+04	6.99E+04	7.02E+04	6.97E+04	6.99E+04	7.07E+04	7.07E+04	7.01E+04	7.01E+04	7.08E+04
19	4.24E+04	6.96E+04	7.05E+04	6.97E+04	6.64E+04	6.76E+04	7.16E+04	7.18E+04	6.93E+04	6.96E+04	7.24E+04	7.25E+04	7.04E+04	7.06E+04	7.27E+04	7.27E+04	7.08E+04	7.08E+04	7.27E+04

Figure RAI 4.3-19- 96 Channel Flow (lbs/hr) at EOC / 50% Power / FWT 358 F

Power: RP	(MWth)	2369.20	(52.6 %)
Pressure: PRV	(psia)	1006.49	
Core Flow: WCT	(Mlb/hr)	84.20	(106.1 %)
Bypass Flow: WBPRIN	(Mlb/hr)	8.72	(10.4 %)
Inlet Enthalpy: HCI	(BTU/lb)	516.27	
Inlet Temp.: TWI	(deg F)	523.66	
Core Press Drop: CPD	(psi)	9.05	
Pre-burn: DELBRN	(MWd/MT)	0.00	
Post-burn: DELTE	(MWd/MT)	0.00	
Initial Exposure	(MWd/MT):	11755.90	
Final Exposure: EXCORE	(MWd/MT):	11755.90	
Cycle Exposure: CYCEXP	(MWd/MT):	11755.81	
Cycle Energy: CYCENR	(GWd)	1960.40	

Neutron Multiplication: AMDA 1.00064468

Core Values:		Location: I	J	K
Max Nodal Exposure (MWd/MT):	21648.43	33	25	4
Max Bundle Exposure (MWd/MT):	15503.77	22	30	
Peak Axial Power	1.5292			10
Maximum Nodal Power	2.3173	12	6	9
Maximum Bundle Power	1.5452	12	33	
Maximum APLHGR	5.1062	12	6	9

THERMAL LIMITS SUMMARY:		LOCATION: I	J	K
Maximum NEXRAT	0.3604	6	14	4
Minimum Critical Power Ratio(CPR)	2.3800	10	30	19
Maximum KW/ft	6.0264	6	12	9
Maximum MFLPD	0.6262	12	33	8

Control Rod Configuration
In Notches Withdrawn

PANAC	1	3	5	7	9	11	13	15	17	19	21	23	25	27	29	31	33	35	37
Site	2	6	10	14	18	22	26	30	34	38	42	46	50	54	58	62	66	70	74
1	75																		
3	71																		
5	67																		
7	63							0		16		0							
9	59																		
11	55					0		0		0		0		0					
13	51																		
15	47			0		0		0		0		0		0		0			
17	43																		
19	39			16		0		0		0		0		0		16			
21	35																		
23	31			0		0		0		0		0		0		0			
25	27																		
27	23					0		0		0		0		0					
29	19																		
31	15							0		16		0							
33	11																		
35	7																		
37	3																		

Figure RAI 4.3-19- 97 Control Rod Pattern Summary at EOC / 50% Power –30F / FWT 327 F

K(node)	Axial Power
20	0.2135
19	0.4488
18	0.6397
17	0.8232
16	0.9854
15	1.1014
14	1.1530
13	1.2425
12	1.4136
11	1.4868
10	1.5292
9	1.5277
8	1.4792
7	1.3820
6	1.2391
5	1.0643
4	0.8792
3	0.6977
2	0.5049
1	0.1889

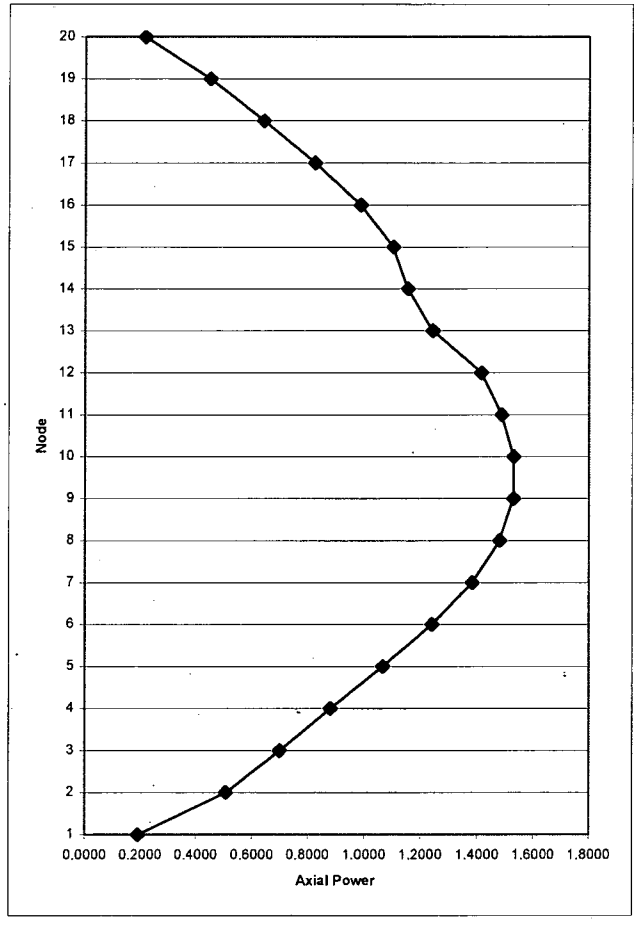

Figure RAI 4.3-19- 98 Relative Axial Power at EOC / 50% Power –30 F / FWT 327 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															0.24	0.32	0.39	0.41	0.40
2													0.38	0.44	0.48	0.85	0.95	0.99	0.98
3											0.46	0.60	1.00	1.05	0.74	0.79	1.21	1.18	0.86
4									0.42	0.60	1.09	1.25	1.33	1.34	0.94	0.95	1.30	1.38	0.98
5								0.47	0.95	1.19	1.33	1.43	1.49	1.41	1.41	1.37	1.41	1.41	1.38
6							0.41	0.96	1.20	1.41	1.47	1.55	1.47	1.45	1.29	1.26	1.32	1.32	1.26
7						0.41	0.62	0.83	1.36	1.50	1.12	1.12	1.47	1.30	0.66	0.64	1.17	1.18	0.68
8					0.47	0.96	0.83	0.99	1.50	1.48	1.12	1.10	1.42	1.25	0.63	0.60	1.10	1.11	0.64
9				0.42	0.95	1.20	1.36	1.50	1.54	1.53	1.43	1.38	1.35	1.27	1.12	1.07	1.17	1.14	1.06
10				0.60	1.19	1.41	1.50	1.48	1.53	1.44	1.31	1.25	1.30	1.21	1.07	1.04	1.10	1.10	1.01
11			0.46	1.09	1.33	1.47	1.12	1.12	1.43	1.31	0.66	0.62	1.10	1.06	0.55	0.53	0.98	0.98	0.51
12			0.60	1.25	1.43	1.55	1.12	1.10	1.38	1.25	0.62	0.58	1.04	1.01	0.52	0.50	0.95	0.94	0.49
13		0.38	1.00	1.33	1.49	1.47	1.47	1.42	1.35	1.30	1.10	1.04	1.08	1.06	0.95	0.94	1.00	1.00	0.92
14		0.44	1.05	1.34	1.41	1.45	1.30	1.25	1.27	1.21	1.06	1.01	1.06	1.04	0.94	0.92	0.99	0.99	0.90
15	0.24	0.48	0.74	0.94	1.41	1.29	0.66	0.63	1.12	1.07	0.55	0.52	0.95	0.94	0.49	0.48	0.90	0.90	0.47
16	0.32	0.85	0.79	0.95	1.37	1.26	0.64	0.60	1.07	1.04	0.53	0.50	0.94	0.92	0.48	0.47	0.89	0.89	0.46
17	0.39	0.95	1.21	1.30	1.41	1.32	1.17	1.10	1.17	1.10	0.98	0.95	1.00	0.99	0.90	0.89	0.96	0.96	0.88
18	0.41	0.99	1.18	1.38	1.41	1.32	1.18	1.11	1.14	1.10	0.98	0.94	1.00	0.99	0.90	0.89	0.96	0.96	0.88
19	0.40	0.98	0.86	0.98	1.38	1.26	0.68	0.64	1.06	1.01	0.51	0.49	0.92	0.90	0.47	0.46	0.88	0.88	0.46

Figure RAI 4.3-19- 99 Relative Integrated Power at EOC /50% Power – 30 F/ FWT 327 F

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1															4.25E+04	4.26E+04	4.26E+04	4.26E+04	4.26E+04
2													4.26E+04	4.25E+04	7.31E+04	7.10E+04	7.01E+04	6.97E+04	6.99E+04
3											4.26E+04	4.25E+04	6.95E+04	6.92E+04	7.16E+04	7.13E+04	6.79E+04	6.81E+04	7.09E+04
4									4.26E+04	4.25E+04	6.87E+04	6.72E+04	6.66E+04	6.66E+04	7.04E+04	7.03E+04	6.71E+04	6.64E+04	7.01E+04
5								4.26E+04	6.99E+04	6.78E+04	6.64E+04	6.57E+04	6.52E+04	6.60E+04	6.61E+04	6.65E+04	6.62E+04	6.62E+04	6.65E+04
6							4.26E+04	6.99E+04	6.76E+04	6.58E+04	6.54E+04	6.48E+04	6.55E+04	6.57E+04	6.73E+04	6.76E+04	6.71E+04	6.71E+04	6.78E+04
7					4.26E+04	7.23E+04	7.11E+04	6.63E+04	6.51E+04	6.87E+04	6.87E+04	6.57E+04	6.72E+04	7.20E+04	7.22E+04	6.86E+04	6.85E+04	7.20E+04	
8				4.26E+04	6.99E+04	7.11E+04	6.97E+04	6.51E+04	6.54E+04	6.87E+04	6.90E+04	6.61E+04	6.77E+04	7.23E+04	7.24E+04	6.91E+04	6.91E+04	7.22E+04	
9			4.26E+04	6.99E+04	6.76E+04	6.63E+04	6.51E+04	6.47E+04	6.49E+04	6.60E+04	6.65E+04	6.68E+04	6.76E+04	6.90E+04	6.93E+04	6.85E+04	6.89E+04	6.96E+04	
10			4.25E+04	6.78E+04	6.58E+04	6.51E+04	6.54E+04	6.49E+04	6.58E+04	6.71E+04	6.78E+04	6.73E+04	6.82E+04	6.93E+04	6.96E+04	6.91E+04	6.92E+04	6.99E+04	
11		4.26E+04	6.87E+04	6.64E+04	6.54E+04	6.87E+04	6.87E+04	6.60E+04	6.71E+04	7.20E+04	7.23E+04	6.92E+04	6.94E+04	7.27E+04	7.28E+04	7.01E+04	7.02E+04	7.28E+04	
12		4.25E+04	6.72E+04	6.57E+04	6.48E+04	6.87E+04	6.90E+04	6.65E+04	6.78E+04	7.23E+04	7.25E+04	6.96E+04	6.98E+04	7.28E+04	7.29E+04	7.04E+04	7.05E+04	7.29E+04	
13	4.26E+04	6.95E+04	6.66E+04	6.52E+04	6.55E+04	6.57E+04	6.61E+04	6.68E+04	6.73E+04	6.92E+04	6.96E+04	6.92E+04	6.94E+04	7.04E+04	7.05E+04	6.99E+04	7.00E+04	7.07E+04	
14	4.25E+04	6.92E+04	6.66E+04	6.60E+04	6.57E+04	6.72E+04	6.77E+04	6.76E+04	6.82E+04	6.94E+04	6.98E+04	6.94E+04	6.96E+04	7.05E+04	7.06E+04	7.00E+04	7.01E+04	7.08E+04	
15	4.25E+04	7.31E+04	7.16E+04	7.04E+04	6.61E+04	6.73E+04	7.20E+04	7.23E+04	6.90E+04	6.93E+04	7.27E+04	7.28E+04	7.04E+04	7.05E+04	7.30E+04	7.30E+04	7.08E+04	7.08E+04	7.30E+04
16	4.26E+04	7.10E+04	7.13E+04	7.03E+04	6.65E+04	6.76E+04	7.22E+04	7.24E+04	6.93E+04	6.96E+04	7.28E+04	7.29E+04	7.05E+04	7.06E+04	7.30E+04	7.30E+04	7.09E+04	7.10E+04	7.31E+04
17	4.26E+04	7.01E+04	6.79E+04	6.71E+04	6.62E+04	6.71E+04	6.86E+04	6.91E+04	6.85E+04	6.91E+04	7.01E+04	7.04E+04	6.99E+04	7.00E+04	7.08E+04	7.09E+04	7.03E+04	7.03E+04	7.11E+04
18	4.26E+04	6.97E+04	6.81E+04	6.64E+04	6.62E+04	6.71E+04	6.85E+04	6.91E+04	6.89E+04	6.92E+04	7.02E+04	7.05E+04	7.00E+04	7.01E+04	7.08E+04	7.10E+04	7.03E+04	7.03E+04	7.11E+04
19	4.26E+04	6.99E+04	7.09E+04	7.01E+04	6.65E+04	6.78E+04	7.20E+04	7.22E+04	6.96E+04	6.99E+04	7.28E+04	7.29E+04	7.07E+04	7.08E+04	7.30E+04	7.31E+04	7.11E+04	7.11E+04	7.31E+04

Figure RAI 4.3-19- 100 Channel Flow (lbs/hr) at EOC / 50% Power – 30F / FWT 327 F