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Project 130-4
Final Report
February 1984

Core Design and Operating Data for Cycles 2 and 3 of Hatch 1

Prepared by
General Electric Company
San Jose, California

Core Design and Operating Data for Cycles 2 and 3 of Hatch 1

NP-2106
Research Project 130-4

Final Report, February 1984

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EPRI PERSPECTIVE

PROJECT DESCRIPTION

This project is part of an extensive EPRI effort to compile benchmark-quality data on the design and operating characteristics of BWRs and PWRs. With the cooperation of Georgia Power Company and Southern Company Services, the contractor has prepared a series of reports on the Hatch 1 BWR Nuclear Plant during the first three cycles of its operation. These data are needed for testing and qualifying reactor core analytic method.

The research team extracted fuel and core design data from appropriate reports, drawings, and other sources. The operating data were obtained from logs of the Hatch 1 process computer from June 1977 through April 1979. Instrumentation in the Hatch 1 reactor core consisted of a system of transversing in-core probes (TIPs) and fixed local power-range monitors (LPRMs) designed to provide an accurate representation of the spatial distribution of the neutron flux. The LPRMs were distributed in the core at 31 radial positions and 4 axial elevations, providing uniform monitoring of the entire core except for low-powered peripheral fuel bundles. Beginning with data set 41 in July 1978, TIP readings were obtained from probe detectors sensitive to gamma radiation.

PROJECT OBJECTIVE

The objective of this project is to provide reference-quality data on design and operation during cycles 2 and 3 of the Hatch 1 BWR Nuclear Plant operated by the Georgia Power Company.

PROJECT RESULTS

Project results included the following:

- Design data compiled during this study include fuel assembly descriptions, core component arrangements, control rod descriptions, and core-loading patterns.
- Researchers collected 36 data sets (beginning with data set 24) on selected operating states during cycles 2 and 3. Most data were taken during steady-state operation in which the reactor had been

operating with constant power, flow, and rod pattern before the data were collected.

- The data sets include information on core average burnup, thermal power, pressure, core flow, inlet subcooling, control configuration, and axial in-core detector readings.

- Core thermal power, inlet subcooling, and recirculation flow rate are important to the reactor data evaluation, but the detailed data used to calculate their output values are normally unavailable from plant data. Therefore, the values for these items were taken directly from the process computer output, and the method used by the computer to derive those values is included in the report.

Odelli Ozer, Project Manager
Nuclear Power Division

ABSTRACT

This report contains the design and operating data needed to define the fuel characteristics and reactor operation characteristics for Cycles 2 and 3 of the Hatch Nuclear Power Plant 1. The purpose is to provide reference quality data for use in the qualification of reactor core analysis methods and to provide the basis for the assessment of the irradiation environment up to and including the end of Cycle 3 gamma scan. The gamma scan measurement is reported in EPRI Report NP-2105.

The design data includes fuel assembly description, core component arrangements, control rod descriptions, and core loading patterns. Operating data is compiled for selected steady-state operating points during Cycles 2 and 3. Data listed for each state point include core average burnup, thermal power, pressure, inlet subcooling, control configuration, and axial in-core detector readings where available.

This report should be used with EPRI Report NP-562 for a complete description of the first three cycles of operation.

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Section 1

SUMMARY

Information regarding the core design and operation of the Hatch 1 reactor during Cycles 2 and 3 is presented in this final report. The fuel and core design data has been extracted from appropriate reports, drawings, and other data sources. The operating data was obtained from the operating logs of the Hatch 1 process computer. An earlier topical report "Core Design and Operating Data for Cycle 1 of Hatch 1," January 1979 (EPRI NP-562), contains additional generic design information regarding the reactor vessel internals, component arrangement, piping systems, etc., and should be useful in understanding the irradiation environment during Cycles 2 and 3.

Compilation of the data in this report was a joint effort of the General Electric Company, the Georgia Power Company, and the Electric Power Research Institute.

Section 2

DATA

2.1 REACTOR DESIGN DATA FOR CYCLES 2 AND 3 OF HATCH 1

2.1.1 Fuel Assembly Descriptions

1. Assembly design data for Type 1 initial fuel, Type 2 initial fuel, and Type 3 initial fuel are contained in the Cycle 1 report NP-562.

2. Assembly design data for Type 4 reload-1 and Type 5 reload-2 are shown in Figures 2-1 and 2-2, respectively. Figure 2-3 shows Type 5 U-235 enrichment axial profile.

3. Fuel assembly lattice drawings, including detailed dimensions, for the reload fuel types are contained in Figures 2-4 and 2-5.

4. Table 2-1 summarizes the fuel rod array, fuel rod pitch, rod-to-channel spacing, gap thicknesses, control augmentation characteristics, uranium weights, channel characteristics, and water/UO_2 volume ratios for the reload assemblies.

5. Table 2-2 provides core loading, assembly pitch, fuel pin pitch, spacer data, average fuel comparisons, and fuel weights for all fuel assemblies during Cycles 2 and 3.

6. Tables 2-3 and 2-4 include pellet and stack densities, Gd_2O_3 and UO_2 weights, pellet lengths, pellet outer diameter (o.d.), cladding (o.d.), cladding thickness, and gas plenum lengths for all reload assembly types.

7. Table 2-5 contains spacer weights, end plug weights, upper and lower tie plate weights, fission gas plenum material weights, the alloy compositions recommended for nuclear analyses, and spacer placement identification for reload assemblies.

2.1.2 Control Rod Descriptions

1. Table 2-6 contains physical data for the control rods including shape, pitch, stroke, control material, etc.

2. Figure 2-6 is a schematic drawing of a cross section of a control blade.

2.1.3 Core Descriptions

1. Table 2-7 identifies the total number of fuel assemblies, number of fuel assembly types, heat transfer surface area, total weight of uranium in the core, reference rated conditions, etc., for Cycles 2 and 3.

2. Tables 2-8 and 2-9 present the bundle type and identification core loading array for Cycles 2 and 3, respectively.

3. Figure 2-7 is a core plan view showing the core orificing and traversing in-core probe (TIP) system arrangement.

2.1.4 Nuclear Instrumentation Data

The Hatch Unit 1 core is equipped with a system of traversing in-core probes (TIPs) and fixed local power range monitors (LPRMs) designed to provide an accurate representation of the spatial distribution of the neutron flux. The LPRMs are distributed in the core at 31 radial positions (see Figure 2-7) and 4 axial elevations. Since the core is normally design-loaded and operated in an octant or quadrant symmetric pattern, this density and location of LPRMs is sufficient to provide uniform monitoring of the entire core except for the low-powered peripheral fuel bundles which are not monitored. The LPRMs are fission chambers sensitive to thermal neutrons and must be calibrated occasionally to account for burnout of the fissionable material. The calibration is carried out by the TIP system together with the OD-1 procedure. OD-1 is the name of the process computer program that calculates current LPRM calibration constants from the axial traces of the TIPs.

The TIP system consists of 4 drive systems, each of which accesses some of the 31 radial LPRM locations. All 4 systems also access the location at (28, 29), the common hole. Prior to July 20, 1978, the TIP detectors were thermal neutron sensitive ionization chambers attached to the drive systems through electrical co-axial transmission cables. Subsequent to that date and after extensive field testing by the General Electric Company, TIP detectors mounted on tri-axial cables and sensitive to gamma radiation (gamma TIPs) have been used. An earlier report, "Special TIP Detector Measurements at Edwin I. Hatch Nuclear Power Plant Unit 1 Prior to End of Cycle 1," December, 1977 (NP-540), describes the two TIP detector types and the process computer TIP-to-power correlations in greater detail.

TIP data reported in the data set are obtained from the process computer. The values represent average readings over six-inch axial intervals of fuel beginning at the bottom of the core. The 4 TIP detectors are "normalized" to the common hole, with a value of 100 being assigned to the axial average of the common hole.

2.1.5 Thermal Hydraulics

1. The hydraulic characteristics of the reload fuel assemblies are presented in Figures 2-8 and 2-9 as functions of active coolant flow, active coolant power and subcooling. These data may be applied over a pressure range of 1035 ± 100 psia. Bundle pressure drop is somewhat insensitive to axial power distribution. The data are based on a distribution peaked at the middle with a peak-to-average value of 1.5. With a bundle flow of 130 x 10^3 lb/h, bottom-peaked axial (3/8 point of active fuel length) will yield a pressure drop about 0.66 psi larger. A top-peaked axial yields essentially the same pressure drop as the middle peaked axial.
2. The core bypass flow for Cycles 2 and 3 are presented in Figure 2-10.

2.2 OPERATING DATA FOR CYCLES 2 AND 3 OF HATCH 1

2.2.1 Rod Withdrawal Group Designations

Same as Cycle 1. See EPRI NP-562.

2.2.2 Benchmark Operating Data for Cycles 2 and 3

Data Sets 24-59 contain the reactor data for selected operating states during Cycles 2 and 3. Beginning with data set 41, the TIP readings are obtained from gamma TIPs. Most data sets contain the following information: date, core average exposure, core thermal power, dome pressure, core flow, inlet subcooling, control configuration, and complete axial TIP distribution data for all 31 LPRM string locations. The TIP data are the normalized TIP readings at 6-in. intervals up the height of the core. The TIP data read from the bottom to the top of core; i.e., the first entry is for the bottom 6-in. node. The correspondence between data set number, control rod sequence, and exposure interval is shown in Tables 10 and 11. It should be noted that additional data sets are available near EOC-3 to permit comparisons with the EOC-3 gamma scan results.

All of these data were taken during steady-state operation except Data Sets 35, 37, 38, and 45. For steady-state operation the reactor had been operating for at least 48 hours with essentially constant power, flow, and rod pattern before the data were taken.

Core thermal power, inlet subcooling, and recirculation flow rate are important to the reactor data evaluation. The values for these items were taken directly from process computer P1 output. The P1 output does not contain the detailed data used to calculate the output values and the detailed data are normally not available from the plant data (i.e., special edits must be requested or special readings taken). Therefore, the detailed data cannot be provided. However, the method used by the process computer to compute the values is given here.

2.2.2.1 Core Thermal Power. The core thermal power is obtained from the process computer which performs an energy balance on a system composed of the reactor vessel, recirculation loop piping, and cleanup demineralizer piping. Flows entering the system are the reactor feedwater flow and the control rod drive system flow. The only flow assumed to be leaving the system is the primary steam flow. Nonflow power inputs are the fission power (core thermal power) and recirculation pumping power; nonflow power losses are the radiative power loss and the net power transferred across the boundary of the clean-up demineralizer loop. Analytically, the energy balance is:

$$\text{Core Power, MWt} = \frac{W_{fw}\,(h_s - h_{fw}) + W_{cr}\,(h_s - h_{cr})}{C_1} + Q_{cu} + Q_r - Q_p$$

where:

W_{fw} = feedwater flow rate entering reactor at top of downcomer, Mlb/h
h_s = enthalpy of steam leaving the reactor vessel, Btu/lb
h_{fw} = feedwater enthalpy, Btu/lb
W_{cr} = control rod drive system flow, Mlb/h
h_{cr} = enthalpy of control rod drive system flow, Btu/lb
Q_p = power added to downcomer fluid by recirculation pumps, MW
Q_r = radiative power loss, MW
Q_{cu} = power removed from downcomer fluid by clean-up demineralizer system, MW
C_1 = conversion constant = 3.413 MBtu/MWh

2.2.2.2 Core Inlet Subcooling. The core inlet subcooling is obtained from the process computer by performing an energy balance on the core downcomer (the volume between the core shroud and the vessel wall) and including the external recirculation and clean-up loops yielding.

$$W_T\, h_o = W_{r\ell}\, h_f + W_{rs}\, h_g + W_{fw}\, h_{fw} + W_{cr}\, h_{cr} + (Q_p - Q_{cu})\, C_1$$

where:

W_T = flow rate entering core inlet plenum, Mlb/h
h_o = core inlet enthalpy (enthalpy of W_T), Btu/lb
$W_{r\ell}$ = flow rate of saturated liquid entering downcomer, Mlb/h
h_f = saturated liquid enthalpy, Btu/lb
W_{rs} = flow rate of saturated steam entering downcomer (i.e., "carryunder"), Mlb/h
h_g = saturated steam enthalpy, Btu/lb
and other terms are defined as above.

The total flow entering the inlet plenum is:

$$W_T = W_{r\ell} + W_{rs} + W_{fw} + W_{cr}$$

2.2.2.3 Recirculation Flow. The reactor core flow rate is monitored by the process computer by direct measurement of differential pressure across the jet pump diffusers. For illustrative purposes, the 20 jet pumps can be divided into 4 groups of 5 each. In each group, one jet pump contains a diffuser with two static pressure taps. The remaining four units contain only one pressure tap. The "double tapped units" are calibrated by test prior to installation to determine the relationship between flow and differential pressure over the range of expected operating flow rates. This information is used to perform in-reactor calibration of the "top tap-to-lower plenum" pressure difference of all 20 jet pumps. After this calibration procedure has been completed, the total core flow is measured by electrically analyzing the signals from the single tap-to-lower plenum pressure transducers on all 20 jet pumps. The resulting total core flow rate output signal is displayed on the reactor control board. In addition, the 20 single tap and 4 double tap ΔP signals described above are available in the control room.

2.3 OPERATING DATA SUMMARY

Figures 2-17 - 2-34 present operating data summaries for each month during Cycles 2 and 3. The data presented include daily average values of core power plus instantaneous values of flow, subcooling, and rod notch inventory (rod notches inserted) taken from the process computer P-1 output for that day.

Table 2-1

RELOAD FUEL DESCRIPTION

Fuel Assembly	Reload-1 Type 4	Reload-2 Type 5
Number of Fuel Assemblies per Batch	92	168
Fuel Rod Array	8x8	8x8
Fuel Rod Pitch, in.	0.640	0.640
Peripheral-Rod-to-Channel Spacing, in.		
1/2 Width of Wide Water Gap, in.	0.375	0.375
1/2 Width of Narrow Water Gap, in.	0.187	0.187
Cladding Length, in.	160	159.5
Bundle Average Enrichment (wt % U-235 in Total U)	2.5	2.65
Control Augmentation		
Type	Fuel rods w/ Gd_2O_3	Fuel rods w/ Gd_2O_3
Control Length, in.	144	138
Locations	Fuel lattice	Fuel lattice
Weight of U per Fuel Assembly		
lb	404.4	401.8
kg	183.5	182.3
Channel		
Outside Dimensions, in.	5.438 x 5.438	5.438 x 5.438
Thickness, in.	0.080	0.080
Inside Corner Radius, in.	0.38	0.38
Material	Zr-4	Zr-4
Water-UO_2 Volume Ratio (cold)	2.59	2.78

Table 2-2

FUEL ASSEMBLY DATA

	7x7 Initial Core			8x8 Reload-1	8x8 Reload-2
Assembly Type	1	2	3	4	5
Number of Assemblies, Cycle 1	222	222	116	0	0
Cycle 2	180	172	116	92	0
Cycle 3	108	100	92	92	168
Geometry	7x7	7x7	7x7	8x8	8x8
Assembly Pitch, in.	6.0	6.0	6.0	6.0	6.0
Fuel Rod Pitch	0.738	0.738	0.738	0.640	0.640
Fuel Rods per Assembly	49	49	49	63	62
Instrument Rods per Assembly	0	0	0	0	0
Water Rods per Assembly	0	0	0	1	2
Number of Spacer Grids	7	7	7	7	7
Inconel per Grid, lb	0.102	0.102	0.102	0.102	0.112
Zr-4 per Grid, lb	0.537	0.537	0.537	0.614	0.614
Spacer Width, in.	1.625	1.625	1.625	1.625	1.625
Assembly Average Fuel Composition					
UO_2, kg	211.96	212.10	212.53	208.19	206.85

Table 2-3

ASSEMBLY TYPE 4 DENSITY, LENGTH, ETC., DATA

Rod Type	No. of Rods	Pellet Density UO_2 (gm/cc)	Pellet Density $UO_2 + GD_2O_3$ (gm/cc)	Stack Density (gm/cc)	UO_2 (gm)	Stack Length (in.)
1	40	10.42	-	10.32	3309	144
2	14	10.42	-	10.32	3309	144
3	4	10.42	-	10.32	3309	144
4	1	10.42	-	10.32	3309	144
5	4	-	10.35	10.25	3239	144
WS	1		-	-	-	

Pellet o.d. = 0.416 in. all rods
Cladding = Zircaloy-2, .493-in. o.d. x .034-in. wall, all rods

Water rod has holes drilled top and bottom to provide water flow. Water rod is also spacer positioning rod.

Table 2-4

ASSEMBLY TYPE 5 DENSITY, LENGTH, ETC., DATA

Rod Type	No. of Rods	Pellet Density UO_2 (gm/cc)	Pellet Density $UO_2 + GD_2O_3$ (gm/cc)	Stack Density (gm/cc)	UO_2 (gm)	Stack Length (in.)
1	27	10.42	-	10.32	3348	138
2	14	10.42	-	10.32	3348	138
3	14	10.42	-	10.32	3348	138
4	4	10.42	-	10.32	3348	138
5	2	10.42	-	10.32	3348	138
6	1	10.42	-	10.32	3348	138
WR, WS	2	-	-	-	-	-

Pellet o.d. = 0.410 in. all rods
Cladding = Zircaloy-2, 0.483-in. o.d. x 0.032-in. wall, all fueled rods
= Zircaloy-2, 0.591-in. o.d. x 0.030-in. wall water rods

Water rod have holes drilled top and bottom to provide water flow. WS rod is also spacer positioning rod.

Table 2-5

RELOAD FUEL ASSEMBLY HARDWARE WEIGHTS

	RELOAD-1 Assemblies		RELOAD-2 Assemblies	
Spacers -	Quantity	KGS	Quantity	KGS
Zircaloy-4	7	1.95	7	1.95
Inconel Springs	112	0.325	112	0.355
End Plugs -				
Zircaloy-2	128	1.859	128	2.227
Lower Tie Plate -				
Type-304 Stainless Steel	1	4.783	1	4.622
Inconel Finger Springs	4	0.048	4	0.048
Upper Tie Plate Assembly with Hardware -				
Type-304 Stainless Steel	1	2.000	1	2.098

Wt % Alloy Compositions for Nuclear Analyses

Metal	Zircaloy-2	Zircaloy-4	Type-304 Stainless Steel	Inconel-X
Zr	98.30	98.24		
Fe	0.14	0.21	67.34	9.0
Sn	1.40	1.45		
Ni	0.06		9.50	70.0
Cr	0.10	0.10	19.50	16.77
Ti				2.50
Mn			1.50	0.50
C			0.08	0.03
Si			2.00	0.30
S			0.04	
P			0.04	
Al				0.90

Spacer Placement

There are seven spacers in the initial and reload fuel assemblies. Their center positions above the bottom of the active fuel in inches are 18.8, 38.9, 59.1, 79.2, 99.4, 119.5, and 139.6. Each spacer is 1.625 inches long.

Table 2-6

CONTROL ROD DATA*

Movable Control Rods

Shape	Cruciform
Pitch, in.	12.0
Stroke, in.	144
Control Length, in.	143.0
Control Material	B_4C granules in Type-304 stainless steel tubes and sheath
Material Density	70% of Theoretical
Number of Control Material Tubes per Rod	84
Tube Dimensions	0.188 in. o.d. by 0.025 in. wall
Control Blade Span, in.	4.875
Control Blade Full Thickness, in.	0.3120
Control Blade Tip Radius, in.	0.156
Sheath Thickness, in.	0.056
Central Structure Wing Length, in.	0.7815
Blank Tubes per Wing (Adjacent to Central Structure)	None

*Some partial dimensions do not add to overall dimensions due to designed clearances between tube and sheath.

Control Blade Position

Control blade insertion is calibrated in notches, where one notch equals 3 inches. Position of the control blade is described by the number of notches withdrawn. Thus, 0 notch implies full insertion and 48 notches implies full withdrawal. Total travel of the control blade is 144 inches, the same as the length of the active fuel. At full blade insertion (0 notch), the top of the control material is 1 inch below the top of the active fuel. At full blade withdrawal, the top of the control material is 1 inch below the bottom of the active fuel. Since the physical notches in the control rod drive are 6 inches apart, the control blade notch position is always even. For the control patterns shown, the numbers shown indicate notches withdrawn. A blank notch number implies a fully withdrawn blade or a notch position of 48 for power operating patterns and a fully inserted blade or a notch position of 00 for cold critical patterns.

Table 2-7

CORE DESCRIPTION

	Cycle 1	Cycle 2	Cycle 3
Total Number of Fuel Assemblies	560	560	560
Number of Fuel Assembly Types	3	4	5
Number of Fuel Assemblies of Each Type	See Table 2-2	See Table 2-2	See Table 2-2
Total Number of Control Elements	137	137	137
Number of Control Element Types	1	1	1
Number of Control Elements of Each Type	137	137	137
Total Number of In-core Flux Monitors	31	31	31
Heat Transfer Surface Area, ft^2	48,534	49,538	51,440
Total Weight of U in Core, short tons	115.4	115.4	114.6
Core			
Core Lattice Pitch, in.	12.0	12.0	12.0
Water/UO_2 Volume Ratio (cold)	2.53	2.54	2.61
Rated Core Thermal Power, MW	2436	2436	2436
Rated Total Core Flow Rate, Mlb/h	78.5	78.5	78.5
Approximate Bypass Coolant Total Power Fraction	0.02	0.019	0.021
Rated Reactor Dome Pressure, psia	1020	1020	1020
Rated Core Pressure, psia	1035	1035	1035
Rated Core Inlet Enthalpy, Btu/lb	523.7	523.7	523.7

Table 2-8

CYCLE 2 ASSEMBLY TYPES AND IDENTIFICATION

BUNDLE TYPE

I / J	1	2	3	4	5	6	7	8	9	10	11	12	13
1									1	2	1	2	1
2								1	2	3	1	3	2
3					2	1	2	1	3	1	3	2	4
4				1	2	4	3	4	1	4	2	4	1
5			2	2	3	1	4	2	4	2	4	2	3
6			1	4	1	4	1	3	2	3	1	3	2
7			2	3	4	1	4	3	4	2	1	2	1
8		1	1	4	2	3	3	1	1	3	1	1	3
9	1	2	3	1	4	2	4	1	2	2	1	4	2
10	2	3	1	4	2	3	2	3	2	1	1	2	2
11	1	1	3	2	4	1	1	1	1	1	3	1	3
12	2	3	2	4	2	3	2	1	4	2	1	4	2
13	1	2	4	1	3	2	1	3	2	2	3	2	3
14	1	2	4	1	3	2	1	3	2	2	3	2	3
15	2	3	2	4	2	3	2	1	4	2	1	4	2
16	1	1	3	2	4	1	1	1	1	1	3	1	3
17	2	3	1	4	2	3	2	3	2	1	1	2	2
18	1	2	3	1	4	2	4	1	2	2	1	4	2
19		1	1	4	2	3	3	1	1	3	1	1	3
20			2	3	4	1	4	3	4	2	1	2	1
21			1	4	1	4	1	3	2	3	1	3	2
22			2	2	3	1	4	2	4	2	4	2	3
23				1	2	4	3	4	1	4	2	4	1
24					2	1	2	1	3	1	3	2	4
25								1	2	3	1	3	2
26									1	2	1	2	1

I / J	14	15	16	17	18	19	20	21	22	23	24	25	26
1	1	2	1	2	1								
2	2	3	1	3	2	1							
3	4	2	3	1	3	1	2	1	2				
4	1	4	2	4	1	4	3	4	2	1			
5	3	2	4	2	4	2	4	1	3	2	2		
6	2	3	1	3	2	3	1	4	1	4	1		
7	1	2	1	2	4	3	4	1	4	3	2		
8	3	1	1	3	1	1	3	3	2	4	1	1	
9	2	4	1	2	2	1	4	2	4	1	3	2	1
10	2	2	1	1	2	3	2	3	2	4	1	3	2
11	3	1	3	1	1	1	1	1	4	2	3	1	1
12	2	4	1	2	4	1	2	3	2	4	2	3	2
13	3	2	3	2	2	3	1	2	3	1	4	2	1
14	3	2	3	2	2	3	1	2	3	1	4	2	1
15	2	4	1	2	4	1	2	3	2	4	2	3	2
16	3	1	3	1	1	1	1	1	4	2	3	1	1
17	2	2	1	1	2	3	2	3	2	4	1	3	2
18	2	4	1	2	2	1	4	2	4	1	3	2	1
19	3	1	1	3	1	1	3	3	2	4	1	1	
20	1	2	1	2	4	3	4	1	4	3	2		
21	2	3	1	3	2	3	1	4	1	4	1		
22	3	2	4	2	4	2	4	1	3	2	2		
23	1	4	2	4	1	4	3	4	2	1			
24	4	2	3	1	3	1	2	1	2				
25	2	3	1	3	2	1							
26	1	2	1	2	1								

CHANNEL TYPE	#	CHANNEL TYPE	#	CHANNEL TYPE	#	CHANNEL TYPE	#
1	180	2	172	3	116	4	92

TOTAL NUMBER OF BUNDLES: 560

Table 2-8 (Cont'd)

CYCLE 2 ASSEMBLY TYPES AND IDENTIFICATION

BUNDLE IDENTIFICATION

I / J	1	2	3	4	5	6	7	8	9	10	11	12	13
1									HX0072	HX0351	HX0220	HX0390	HX0167
2								HX0183	HX0410	HX0454	HX0032	HX0504	HX0313
3					HX0366	HX0221	HX0350	HX0138	HX0419	HX0135	HX0553	HX0440	LJ5184
4				HX0139	HX0241	LJ5169	HX0458	LJ5167	HX0163	LJ5177	HX0267	LJ2124	HX0118
5			HX0273	HX0298	HX0528	HX0020	LJ2095	HX0426	LJ2126	HX0394	LJ2095	HX0368	HX0463
6			HX0017	LJ5153	HX0097	LJ2097	HX0095	HX0479	HX0294	HX0535	HX0050	HX0555	HX0341
7			HX0343	HX0538	LJ5162	HX0151	LJ5136	HX0546	LJ5148	HX0272	HX0123	HX0337	HX0193
8		HX0031	HX0107	LJ2119	HX0304	HX0505	HX0543	HX0047	HX0004	HX0447	HX0154	HX0002	HX0516
9	HX0116	HX0268	HX0554	HX0023	LJ2105	HX0263	LJ5176	HX0148	HX0249	HX0239	HX0156	LJ2121	HX0228
10	HX0328	HX0457	HX0122	LJ5137	HX0442	HX0550	HX0432	HX0496	HX0296	HX0064	HX0188	HX0435	HX0338
11	HX0074	HX0157	HX0476	HX0437	LJ5174	HX0192	HX0026	HX0075	HX0177	HX0117	HX0545	HX0104	HX0451
12	HX0301	HX0547	HX0389	LJ5139	HX0245	HX0511	HX0417	HX0165	LJ2113	HX0237	HX0128	LJ5154	HX0290
13	HX0162	HX0326	LJ5182	HX0076	HX0469	HX0285	HX0087	HX0493	HX0420	HX0405	HX0465	HX0223	HX0533
14	HX0001	HX0367	LJ5181	HX0114	HX0497	HX0303	HX0119	HX0472	HX0289	HX0399	HX0471	HX0224	HX0515
15	HX0443	HX0499	HX0231	LJ2110	HX0388	HX0500	HX0372	HX0120	LJ5160	HX0251	HX0147	LJ2091	HX0280
16	HX0108	HX0077	HX0509	HX0236	LJ2112	HX0176	HX0008	HX0134	HX0013	HX0161	HX0470	HX0211	HX0453
17	HX0318	HX0536	HX0099	LJ5170	HX0271	HX0513	HX0391	HX0486	HX0406	HX0103	HX0196	HX0438	HX0275
18	HX0146	HX0428	HX0532	HX0065	LJ2098	HX0369	LJ5173	HX0133	HX0238	HX0357	HX0202	LJ5155	HX0408
19		HX0021	HX0018	LJ5172	HX0297	HX0540	HX0521	HX0213	HX0222	HX0474	HX0102	HX0124	HX0478
20			HX0311	HX0495	LJ2120	HX0084	LJ5145	HX0455	LJ2089	HX0265	HX0081	HX0281	HX0046
21			HX0182	LJ5163	HX0126	LJ2117	HX0056	HX0489	HX0348	HX0452	HX0189	HX0466	HX0291
22			HX0287	HX0288	HX0514	HX0121	LJ2118	HX0429	LJ2099	HX0250	LJ2090	HX0258	HX0463
23				HX0105	HX0253	LJ5144	HX0481	LJ5140	HX0070	LJ5152	HX0431	LJ5138	HX0098
24					HX0270	HX0003	HX0329	HX0111	HX0448	HX0019	HX0526	HX0269	LJ5151
25								HX0112	HX0234	HX0473	HX0153	HX0494	HX0252
26									HX0196	HX0356	HX0217	HX0363	HX0115

I / J	14	15	16	17	18	19	20	21	22	23	24	25	26
1	HX0093	HX0444	HX0015	HX0427	HX0022								
2	HX0276	HX0520	HX0190	HX0507	HX0425	HX0195							
3	LJ2115	HX0395	HX0462	HX0080	HX0558	HX0025	HX0235	HX0071	HX0332				
4	HX0055	LJ3947	HX0365	LJ5161	HX0137	LJ2104	HX0548	LJ5146	HX0243	HX0205			
5	HX0512	HX0262	LJ2103	HX0384	LJ5150	HX0248	LJ2116	HX0185	HX0492	HX0242	HX0286		
6	HX0282	HX0502	HX0040	HX0460	HX0333	HX0464	HX0094	LJ3946	HX0090	LJ5171	HX0028		
7	HX0214	HX0381	HX0178	HX0330	LJ5180	HX0518	LJ2092	HX0170	LJ2101	HX0467	HX0411		
8	HX0527	HX0127	HX0006	HX0551	HX0035	HX0014	HX0508	HX0450	HX0255	LJ5156	HX0060	HX0184	
9	HX0309	LJ5185	HX0130	HX0319	HX0397	HX0145	LJ2088	HX0334	LJ2111	HX0218	HX0524	HX0244	HX0096
10	HX0433	HX0422	HX0009	HX0092	HX0364	HX0488	HX0371	HX0461	HX0411	LJ5166	HX0166	HX0549	HX0340
11	HX0475	HX0005	HX0534	HX0067	HX0088	HX0132	HX0042	HX0034	LJ2108	HX0370	HX0445	HX0059	HX0066
12	HX0312	LJ2106	HX0083	HX0403	LJ5141	HX0208	HX0264	HX0557	HX0331	LJ5178	HX0265	HX0505	HX0387
13	HX0559	HX0302	HX0544	HX0247	HX0374	HX0459	HX0174	HX0306	HX0525	HX0063	LJ2123	HX0320	HX0143
14	HX0456	HX0307	HX0522	HX0305	HX0380	HX0519	HX0215	HX0284	HX0537	HX0129	LJ5157	HX0327	HX0171
15	HX0240	LJ5159	HX0204	HX0336	LJ5142	HX0200	HX0401	HX0490	HX0321	LJ5164	HX0259	HX0552	HX0421
16	HX0530	HX0039	HX0523	HX0158	HX0206	HX0180	HX0186	HX0069	LJ2100	HX0292	HX0480	HX0160	HX0044
17	HX0400	HX0423	HX0150	HX0209	HX0375	HX0517	HX0419	HX0487	HX0402	LJ5143	HX0061	HX0501	HX0344
18	HX0430	LJ5179	HX0053	HX0436	HX0385	HX0136	LJ2122	HX0383	LJ2102	HX0210	HX0446	HX0232	HX0197
19	HX0458	HX0113	HX0140	HX0482	HX0051	HX0091	HX0485	HX0542	HX0434	LJ5149	HX0173	HX0057	
20	HX0164	HX0229	HX0187	HX0404	LJ2093	HX0560	LJ2094	HX0159	LJ2125	HX0498	HX0342		
21	HX0293	HX0531	HX0203	HX0503	HX0322	HX0556	HX0085	LJ5165	HX0142	LJ5186	HX0207		
22	HX0434	HX0398	LJ2114	HX0379	LJ2107	HX0439	LJ2109	HX0029	HX0539	HX0392	HX0310		
23	HX0045	LJ5168	HX0354	LJ5158	HX0212	LJ5175	HX0541	LJ5147	HX0359	HX0201			
24	LJ5183	HX0254	HX0529	HX0086	HX0510	HX0191	HX0227	HX0131	HX0277				
25	HX0377	HX0477	HX0109	HX0491	HX0257	HX0032							
26	HX0049	HX0325	HX0058	HX0323	HX0011								

Table 2-9

CYCLE 3 ASSEMBLY TYPES AND IDENTIFICATION

BUNDLE TYPE

I / J	1	2	3	4	5	6	7	8	9	10	11	12	13
1									1	2	3	2	2
2								2	1	5	1	5	3
3					1	2	1	3	5	3	5	4	5
4				1	1	5	4	5	4	5	2	5	3
5			1	1	3	3	5	4	5	3	5	3	5
6			2	5	3	4	2	5	2	5	2	5	3
7			1	4	5	2	5	3	4	1	4	2	4
8		2	3	5	4	5	3	5	2	5	3	5	1
9	1	1	5	4	5	2	4	2	4	2	4	1	4
10	2	5	3	5	3	5	1	5	2	5	1	5	1
11	3	1	5	2	5	2	4	3	4	1	4	1	4
12	2	5	4	5	3	5	2	5	1	5	1	5	1
13	2	3	5	3	5	3	4	1	4	1	4	1	2
14	2	3	5	3	5	3	4	1	4	1	4	1	2
15	2	5	4	5	3	5	2	5	1	5	1	5	1
16	3	1	5	2	5	2	4	3	4	1	4	1	4
17	2	5	3	5	3	5	1	5	2	5	1	5	1
18	1	1	5	4	5	2	4	2	4	2	4	1	4
19		2	3	5	4	5	3	5	2	5	3	5	1
20			1	4	5	2	5	3	4	1	4	2	4
21			2	5	3	4	2	5	2	5	2	5	3
22			1	1	3	3	5	4	5	3	5	3	5
23				1	1	5	4	5	4	5	2	5	3
24					1	2	1	3	5	3	5	4	5
25								2	1	5	1	5	3
26									1	2	3	2	2

I / J	14	15	16	17	18	19	20	21	22	23	24	25	26
1	2	2	3	2	1								
2	3	5	1	5	1	2							
3	5	4	5	3	5	3	1	2	1				
4	3	5	2	5	4	5	4	5	1	1			
5	5	3	5	3	5	4	5	3	3	1	1		
6	3	5	2	5	2	5	2	4	3	5	2		
7	4	2	4	1	4	3	5	2	5	4	1		
8	1	5	3	5	2	5	3	5	4	5	3	2	
9	4	1	4	2	4	2	4	2	5	4	5	1	1
10	1	5	1	5	2	5	1	5	3	5	3	5	2
11	4	1	4	1	4	3	4	2	5	2	5	1	3
12	1	5	1	5	1	5	2	5	3	5	4	5	2
13	2	1	4	1	4	1	4	3	5	3	5	3	2
14	2	1	4	1	4	1	4	3	5	3	5	3	2
15	1	5	1	5	1	5	2	5	3	5	4	5	2
16	4	1	4	1	4	3	4	2	5	2	5	1	3
17	1	5	1	5	2	5	1	5	3	5	3	5	2
18	4	1	4	2	4	2	4	2	5	4	5	1	1
19	1	5	3	5	2	5	3	5	4	5	3	2	
20	4	2	4	1	4	3	5	2	5	4	1		
21	3	5	2	5	2	5	2	4	3	5	2		
22	5	3	5	3	5	4	5	3	3	1	1		
23	3	5	2	5	4	5	4	5	1	1			
24	5	4	5	3	5	3	1	2	1				
25	3	5	1	5	1	2							
26	2	2	3	2	1								

CHANNEL TYPE	#	CHANNEL TYPE	#	CHANNEL TYPE	#	CHANNEL TYPE	#
1	108	2	100	3	92	4	92
5	168						

TOTAL NUMBER OF BUNDLES: 560

Table 2-9 (Cont'd)

CYCLE 3 ASSEMBLY TYPES AND IDENTIFICATION

BUNDLE IDENTIFICATION

I / J	1	2	3	4	5	6	7	8	9	10	11	12	13
1									HX0059	HX0428	HX0522	HX0241	HX0443
2								HX0340	HX0062	LJ9354	HX0110	LJ9414	HX0532
3					HX0003	HX0342	HX0173	HX0481	LJ9365	HX0474	LJ9384	LJ2123	LJ9307
4				HX0187	HX0079	LJ9303	LJ2125	LJ9277	LJ5149	LJ9284	HX0317	LJ9363	HX0445
5			HX0008	HX0108	HX0484	HX0529	LJ9295	LJ2099	LJ9356	HX0473	LJ9413	HX0494	LJ9344
6			HX0257	LJ9396	HX0448	LJ5151	HX0382	LJ9321	HX0263	LJ9357	HX0386	LJ9355	HX0487
7			HX0111	LJ5141	LJ9353	HX0226	LJ9437	HX0536	LJ2090	HX0184	LJ2100	HX0246	LJ2118
8		HX0444	HX0469	LJ9394	LJ5179	LJ9366	HX0478	LJ9315	HX0416	LJ9392	HX0552	LJ9291	HX0058
9	HX0077	HX0144	LJ9288	LJ5140	LJ9322	HX0414	LJ5150	HX0287	LJ2089	HX0277	LJ5154	HX0115	LJ5164
10	HX0242	LJ9403	HX0557	LJ9381	HX0489	LJ9286	HX0207	LJ9328	HX0344	LJ9311	HX0101	LJ9370	HX0198
11	HX0519	HX0024	LJ9376	HX0352	LJ9325	HX0358	LJ5170	HX0504	LJ5173	HX0016	LJ5145	HX0032	LJ5163
12	HX0278	LJ9372	LJ2117	LJ9330	HX0506	LJ9435	HX0345	LJ9367	HX0057	LJ9290	HX0105	LJ9426	HX0052
13	HX0360	HX0514	LJ9320	HX0498	LJ9349	HX0452	LJ5138	HX0220	LJ5152	HX0022	LJ5144	HX0175	HX0412
14	HX0255	HX0528	LJ9412	HX0495	LJ9289	HX0460	LJ3947	HX0167	LJ5139	HX0197	LJ5146	HX0179	HX0393
15	HX0377	LJ9314	LJ9346	LJ9336	HX0555	LJ9401	HX0378	LJ9318	HX0171	LJ9298	HX0112	LJ9346	HX0037
16	HX0472	HX0043	LJ9319	HX0315	LJ9417	HX0349	LJ5137	HX0488	LJ5176	HX0007	LJ5136	HX0074	LJ5171
17	HX0288	LJ9429	HX0500	LJ9348	HX0479	LJ9371	HX0162	LJ9395	HX0351	LJ9281	HX0149	LJ9313	HX0096
18	HX0109	HX0125	LJ9436	LJ2104	LJ9361	HX0274	LJ2105	HX0286	LJ5148	HX0270	LJ5159	HX0217	LJ5177
19		HX0325	HX0537	LJ9421	LJ5155	LJ9362	HX0507	LJ9434	HX0407	LJ9415	HX0517	LJ9276	HX0139
20			HX0191	LJ5142	LJ9433	HX0279	LJ9296	HX0501	LJ2103	HX0001	LJ5174	HX0230	LJ2116
21			HX0425	LJ9292	HX0558	LJ5164	HX0278	LJ9402	HX0418	LJ9312	HX0316	LJ9423	HX0550
22			HX0042	HX0089	HX0512	HX0553	LJ9302	LJ2126	LJ9283	HX0450	LJ9386	HX0477	LJ9352
23				HX0192	HX0169	LJ9294	LJ2101	LJ9425	LJ2119	LJ9390	HX0256	LJ9405	HX0480
24					HX0131	HX0343	HX0060	HX0548	LJ9439	HX0551	LJ9341	LJ5162	LJ9309
25								HX0356	HX0172	LJ9304	HX0141	LJ9377	HX0446
26									HX0160	HX0232	HX0516	HX0359	HX0301

I / J	14	15	16	17	18	19	20	21	22	23	24	25	26
1	HX0387	HX0243	HX0458	HX0268	HX0082								
2	HX0526	LJ9398	HX0068	LJ9416	HX0030	HX0318							
3	LJ9308	LJ5157	LJ9379	HX0482	LJ9282	HX0541	HX0018	HX0329	HX0071				
4	HX0509	LJ9406	HX0314	LJ9375	LJ5156	LJ9310	LJ2120	LJ9279	HX0168	HX0123			
5	LJ9419	HX0499	LJ9404	HX0540	LJ9274	LJ2107	LJ9373	HX0524	HX0483	HX0181	HX0186		
6	HX0513	LJ9273	HX0361	LJ9389	HX0413	LJ9391	HX0300	LJ5183	HX0449	LJ9306	HX0244		
7	LJ2109	HX0299	LJ2108	HX0021	LJ2114	HX0457	LJ9345	HX0233	LJ9324	LJ5160	HX0025		
8	HX0201	LJ9400	HX0496	LJ9301	HX0376	LJ9399	HX0491	LJ9327	LJ2121	LJ9387	HX0497	HX0390	
9	LJ5158	HX0093	LJ2091	HX0366	LJ2093	HX0273	LJ2098	HX0335	LJ9338	LJ5175	LJ9299	HX0078	HX0157
10	HX0011	LJ9326	HX0194	LJ9278	HX0323	LJ9427	HX0017	LJ9329	HX0464	LJ9285	HX0511	LJ9359	HX0253
11	LJ5153	HX0195	LJ2094	HX0010	LJ2122	HX0520	LJ5143	HX0350	LJ9378	HX0353	LJ9280	HX0036	HX0459
12	HX0054	LJ9420	HX0108	LJ9340	HX0143	LJ9430	HX0339	LJ9418	HX0531	LJ9275	LJ5165	LJ9422	HX0313
13	HX0260	HX0038	LJ5169	HX0146	LJ5178	HX0049	LJ5168	HX0503	LJ9409	HX0538	LJ9297	HX0539	HX0227
14	HX0373	HX0155	LJ5147	HX0116	LJ2110	HX0015	LJ2124	HX0535	LJ9305	HX0467	LJ9333	HX0492	HX0441
15	HX0012	LJ9335	HX0183	LJ9339	HX0162	LJ9374	HX0355	LJ9350	HX0502	LJ9343	LJ2097	LJ9272	HX025[illegible]
16	LJ5166	HX0044	LJ2092	HX0041	LJ2088	HX0505	LJ5166	HX0362	LJ9337	HX0347	LJ9383	HX0033	HX0[illegible]
17	HX0072	LJ9331	HX0152	LJ9431	HX0427	LJ9438	HX0028	LJ9351	HX0556	LJ9267	HX0454	LJ9380	HX03[illegible]
18	LJ5181	HX0066	LJ2106	HX0332	LJ5180	HX0310	LJ2111	HX0308	LJ9347	LJ5167	LJ9407	HX0027	HX0153
19	HX0205	LJ9368	HX0486	LJ9369	HX0261	LJ9334	HX0527	LJ9364	LJ5185	LJ9365	HX0525	HX0363	
20	LJ2096	HX0396	LJ2112	HX0031	LJ2095	HX0549	LJ9408	HX0324	LJ9263	LJ2113	HX0138		
21	HX0461	LJ9342	HX0424	LJ9300	HX0415	LJ9410	HX0295	LJ2115	HX0510	LJ9382	HX0410		
22	LJ9428	HX0547	LJ9317	HX0468	LJ9432	LJ2102	LJ9388	HX0462	HX0490	HX0100	HX0026		
23	HX0476	LJ9358	HX0409	LJ9323	LJ5172	LJ9316	LJ5182	LJ9393	HX0216	HX0081			
24	LJ9360	LJ5181	LJ9424	HX0447	LJ9332	HX0468	HX0107	HX0311	HX0221				
25	HX0554	LJ9411	HX0219	LJ9397	HX0199	HX0328							
26	HX0421	HX0298	HX0544	HX0234	HX0190								

Table 2-10

BURN STEP INFORMATION - CYCLE 2

Data Set	Date		Core Exposure (MWD/T)		Rod Pattern Sequence
	From	Thru	From	To	
24	May 12, 1977	June 3, 1977	7697	7852	B-1
25	June 4, 1977	June 30, 1977	7852	8314	A-1
26	July 1, 1977	July 29, 1977	8314	8849	A-1
27	July 30, 1977	August 28, 1077	8849	9341	B-1
28	August 29, 1977	Sept. 30, 1977	9341	9922	B-1
29	Oct. 1, 1977	Oct. 31, 1977	9922	10201	A-2
30	Nov. 1, 1977	Nov. 13, 1977	10201	10466	A-2
31	Nov. 14, 1977	Dec. 12, 1977	10466	10953	A-2
32	Dec. 13, 1977	Dec. 28, 1977	10953	11185	B-2
33	Dec. 29, 1977	Jan. 14, 1978	11185	11512	B-2
34	Jan. 15, 1978	Jan. 28, 1978	11512	11782	B-2
35	Jan. 29, 1978	Feb. 11, 1978	11782	12018	A-2
36	Feb. 12, 1978	Mar. 3, 1978	12018	12380	A-2

Table 2-11

BURN STEP INFORMATION - CYCLE 3[a]

Data Set	Date		Core Exposure (MWD/T)		Rod Pattern Sequence
	From	Thru	From	To	
37	April 16, 1978	April 26, 1978	7382	7524	B-1
38	April 27, 1978	May 7, 1978	7254	7694	A-1
39	June 18, 1978	June 30, 1978	7694	7882	A-1
40	July 1, 1978	July 14, 1978	7882	8102	A-1
41	July 15, 1978	August 4, 1978	8102	8534	A-1
42	August 5, 1978	August 27, 1978	8534	8922	B-1
43	August 28, 1978	Sept. 25, 1978	8922	9460	B-1
44	Sept. 26, 1978	October 5, 1978	9460	9656	B-1
45	October 7, 1978	October 21, 1978	9656	9908	A-2
46	October 22, 1978	Nov. 11, 1978	9908	10277	A-2
47	Nov. 12, 1978	Nov. 25, 1978	10277	10549	A-2
48	Nov. 26, 1978	Dec. 20, 1978	10549	10973	B-2
49	Dec. 21, 1978	Jan. 13, 1979	10973	11462	B-2
50	Jan. 14, 1979	Feb. 17, 1979	11462	11931	A-1
51	Feb. 18, 1979	March 10, 1979	11931	12361	A-1
54	March 11, 1979	March 31, 1979	12361	12771	A-1
58	April 1, 1979	April 22, 1979	12771	13199	A-1

[a]Not all the data sets tabulated near EOC-3 are required to define exposure updating through the cycle.

2.50 wt% U-235 BUNDLE AVERAGE, CENTRAL ZONE

WIDE-WIDE CORNER

4	3	T 2	2	2	T 2	2	3
3	2	1	1	1	1	1	2
T 2	1	1	1	1	1	1	T 1
2	1	1	1	1	1	1	1
2	1	1	1	WS	1	1	1
T 2	1	1	1	1	1	1	T 1
2	1	1	1	1	1	1	1
3	2	T 1	1	1	T 1	1	2

ROD TYPE	ENRICHMENT wt% U-235	NUMBER OF RODS
1	2.73	44
2	2.06	14
3	1.80	4
4	1.40	1
WS	–	1

WS – SPACER POSITIONING WATER ROD
T – TIE RODS

Figure 2-1. Bundle Design for Type 4 8x8 UO_2 Reload-1

2.82 wt% U-235 BUNDLE AVERAGE, CENTRAL ZONE*

WIDE-WIDE CORNER

6	4	3 T	3	3	3 T	3	4
4	3	1	1	1	1	1	3
3 T	1	1	1	2	2	1	1 T
3	1	1	1	WR	2	2	1
3	1	2	WS	2	2	1	1
3 T	1	2	2	2	2	2	1 T
3	1	1	2	1	2	1	5
4	3	1 T	1	1	1 T	5	3

*NATURAL UO_2 LOCATED IN END ZONES, 62 RODS. SEE FIGURE 2-3

ROD TYPE	ENRICHMENT wt% U-235	NUMBER OF RODS
1	3.00	27
2	3.80	14
3	2.00	14
4	1.70	4
5	2.40	2
6	1.30	1
WS	–	1
WR	–	1

WS – SPACER POSITIONING WATER ROD
WR – WATER ROD
T – TIE RODS

Figure 2-2. Bundle Design for Type 5 8x8 UO_2 Reload-2

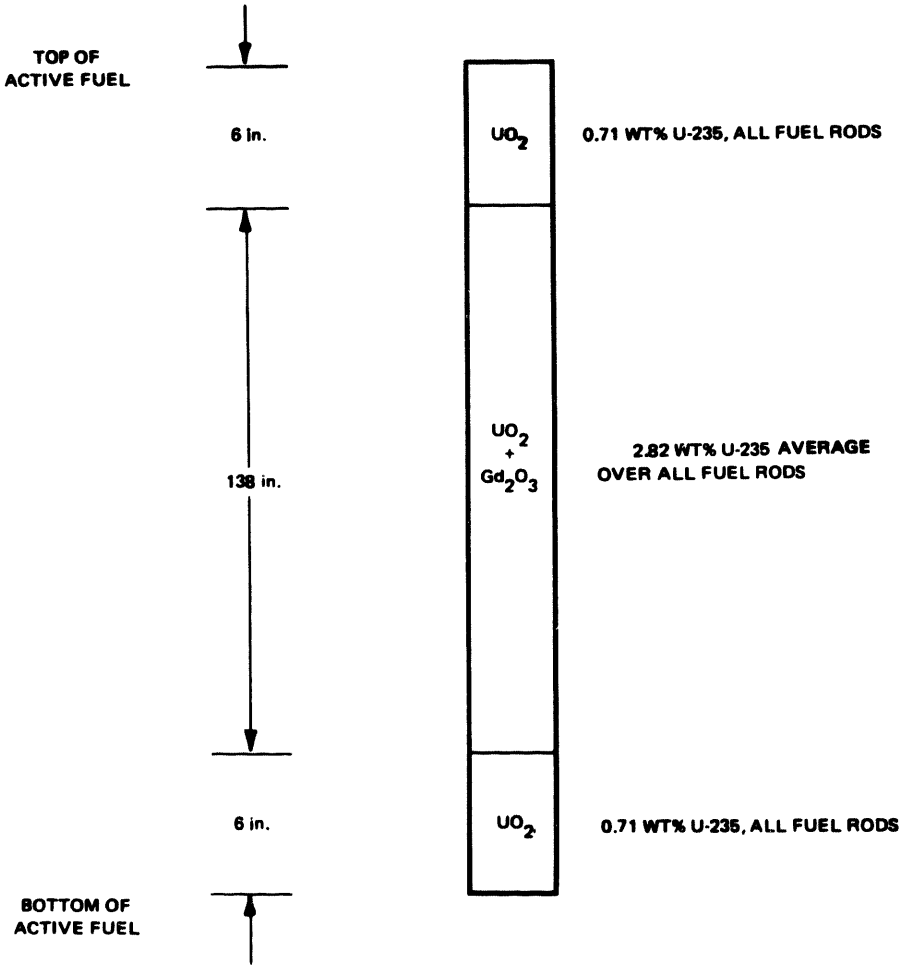
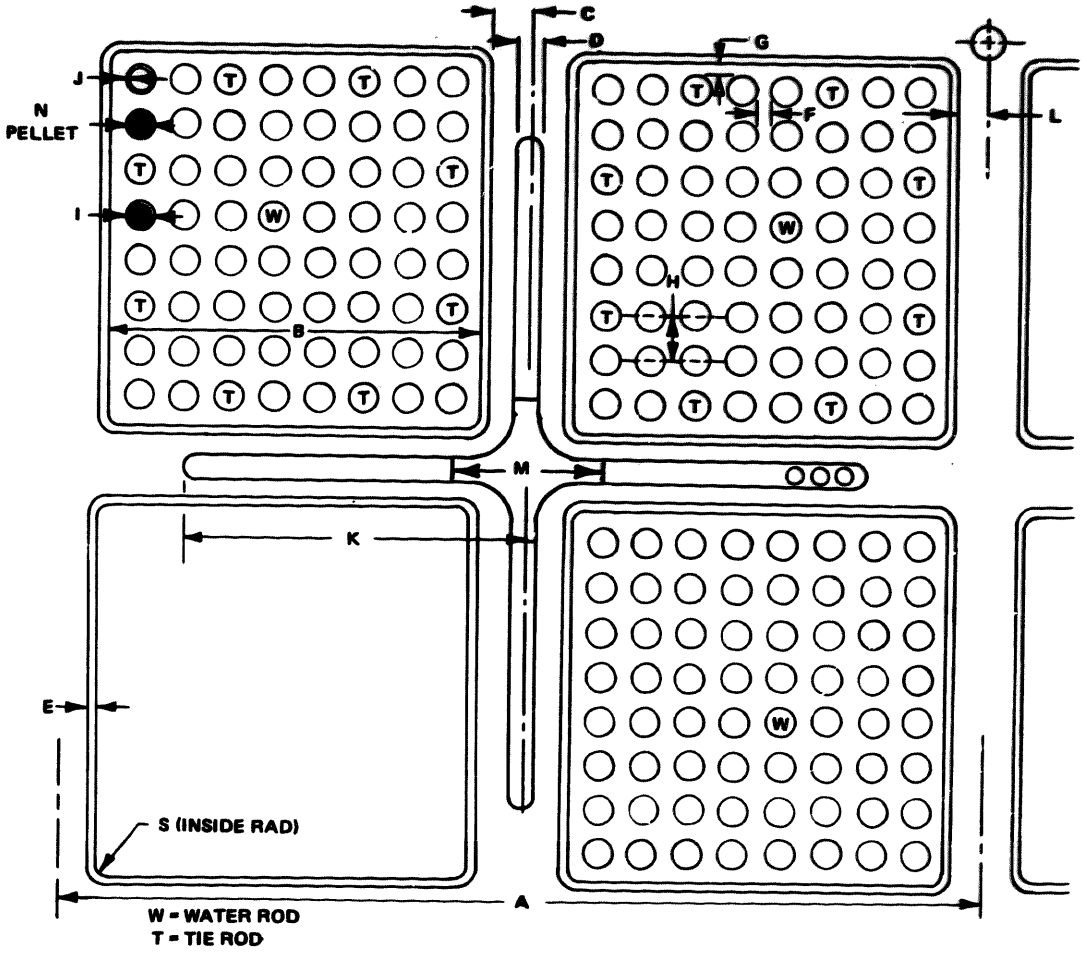


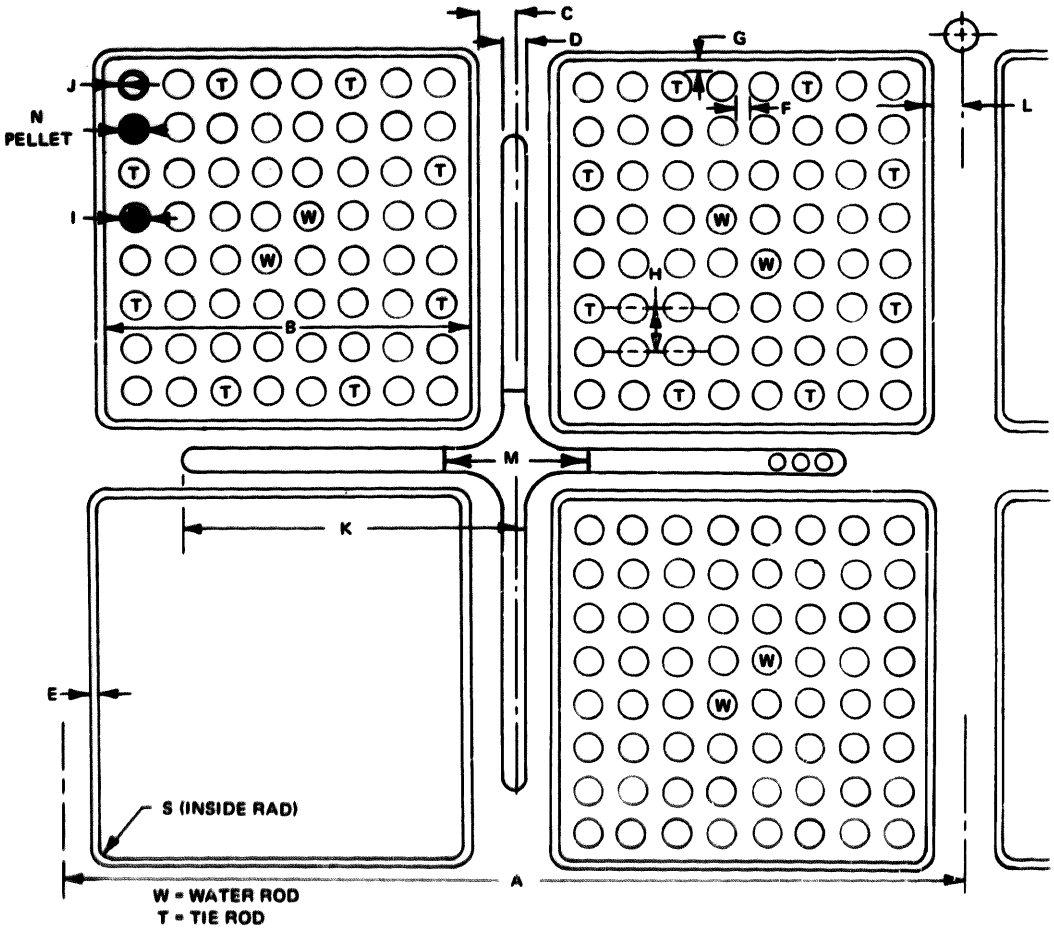
Figure 2-3. Type 5 U-235 Enrichment Axial Profile



DIM. IDENTIFICATION	A	B	C	D	E	F	G	H	I	J
DIM. INCHES	12.0	5.278	0.375	0.312	0.080	0.147	0.153	0.640	0.425	0.034

DIM. IDENTIFICATION	K	L	M	N	O	P	Q	R	S	T
DIM. INCHES	4.875	0.187	1.563	0.416					0.380	

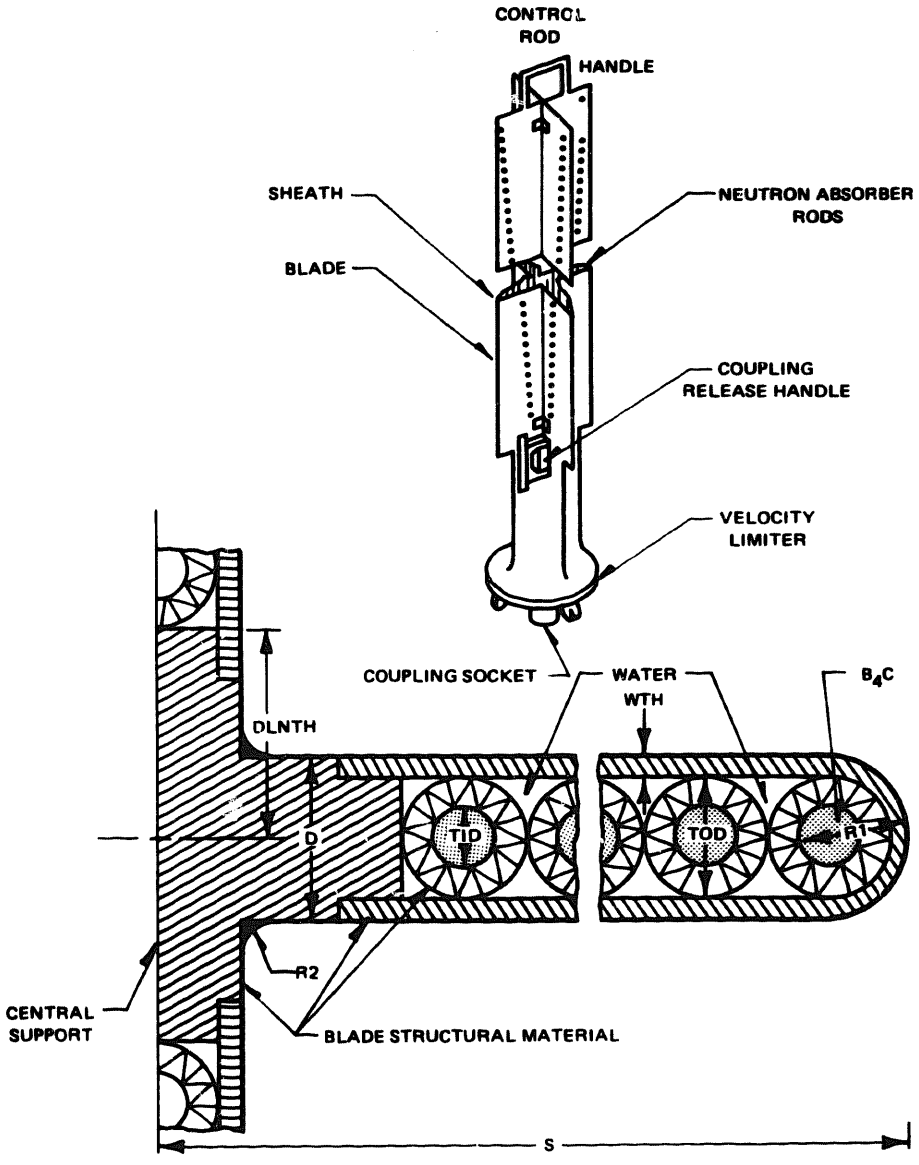
Figure 2-4. Type 4 Fuel Assembly Lattice



DIM. IDENTIFICATION	A	B	C	D	E	F	G	H	I	J
DIM. INCHES	12.0	5.278	0.375	0.312	0.080	0.157	0.158	0.840	0.419	0.032

DIM. IDENTIFICATION	K	L	M	N	O	P	Q	R	S	T
DIM. INCHES	4.875	0.187	1.583	0.410					0.380	

Figure 2-5. Type 5 Fuel Assembly Lattice



S – CONTROL BLADE SPAN
D – CONTROL BLADE FULL THICKNESS
DLNTH – DEAD LENGTH, i.e., CENTRAL STRUCTURE LENGTH
TID – TUBE i.d.
TOD – TUBE o.d.
WTH – SHEATH THICKNESS
NBKT – NUMBER OF BLANK TUBES ADJACENT TO CENTRAL STRUCTURE PER WING
R1 – BLADE TIP RADIUS
R2 – BLADE FILLET RADIUS

Figure 2-6. B_4C Control Blade Model (Schematic)

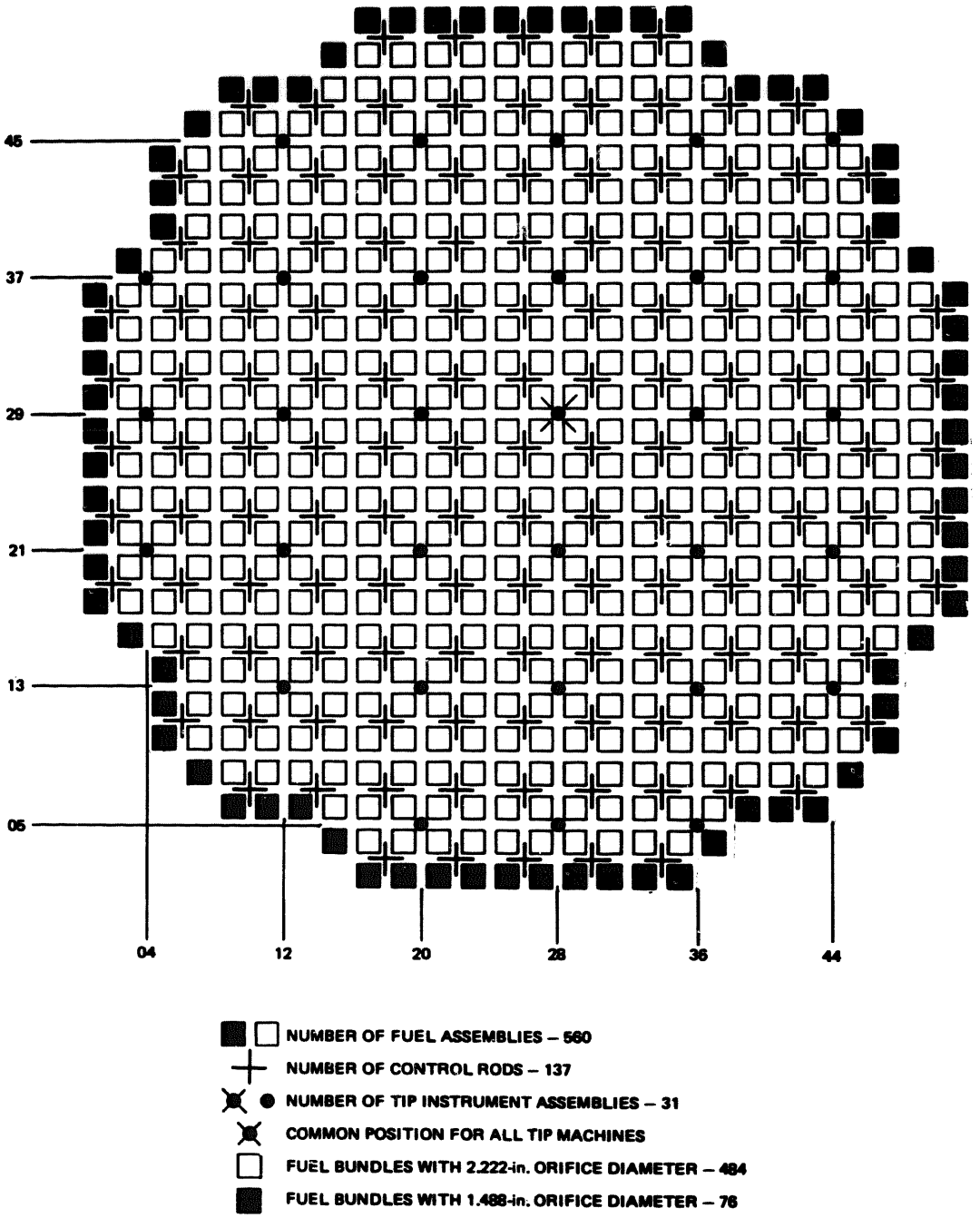


Figure 2-7. Core Orificing and TIP System Arrangement

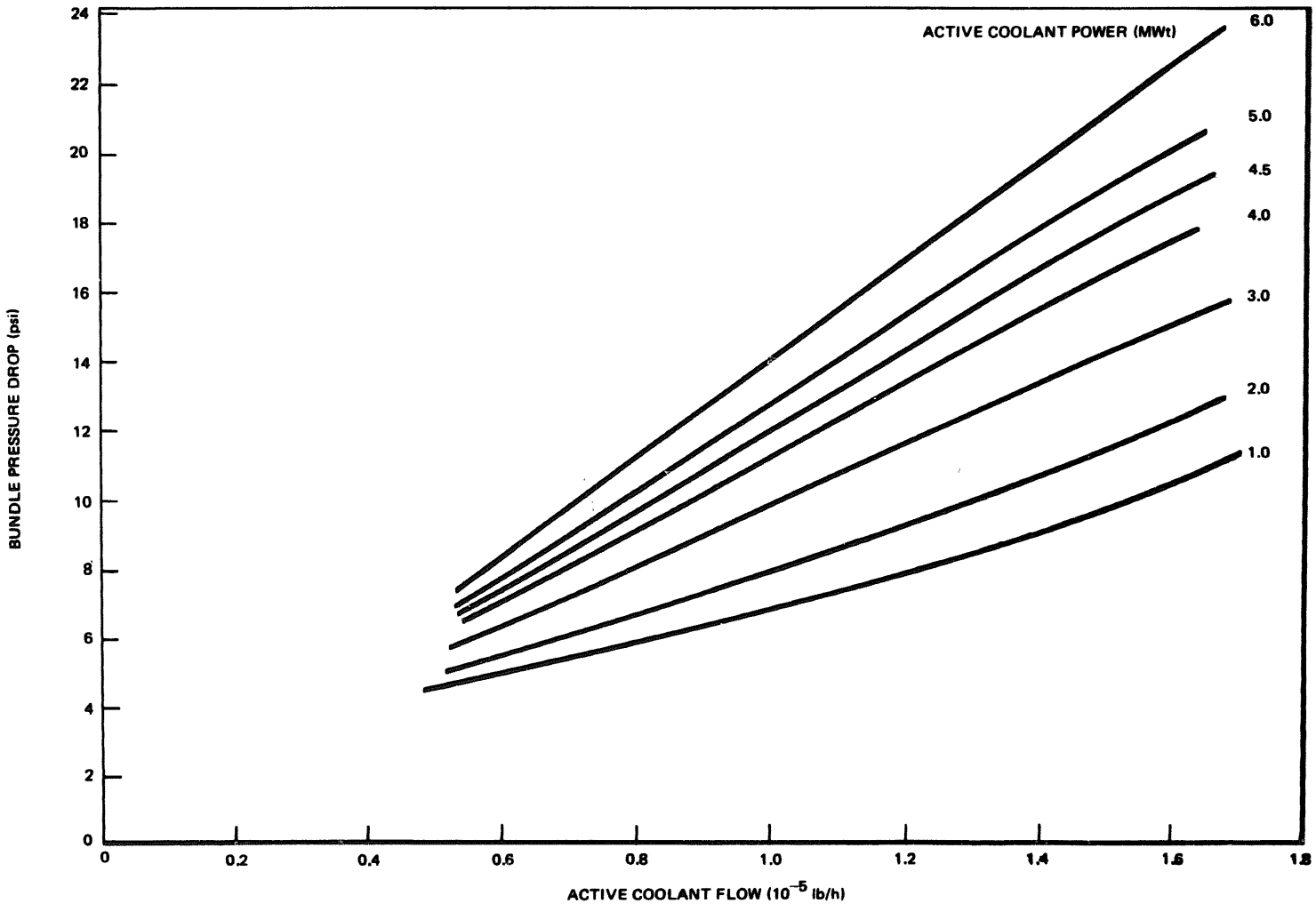


Figure 2-8. Flow Characteristics 8x8 Fuel Assemblies, 20 Btu/lb Subcooling

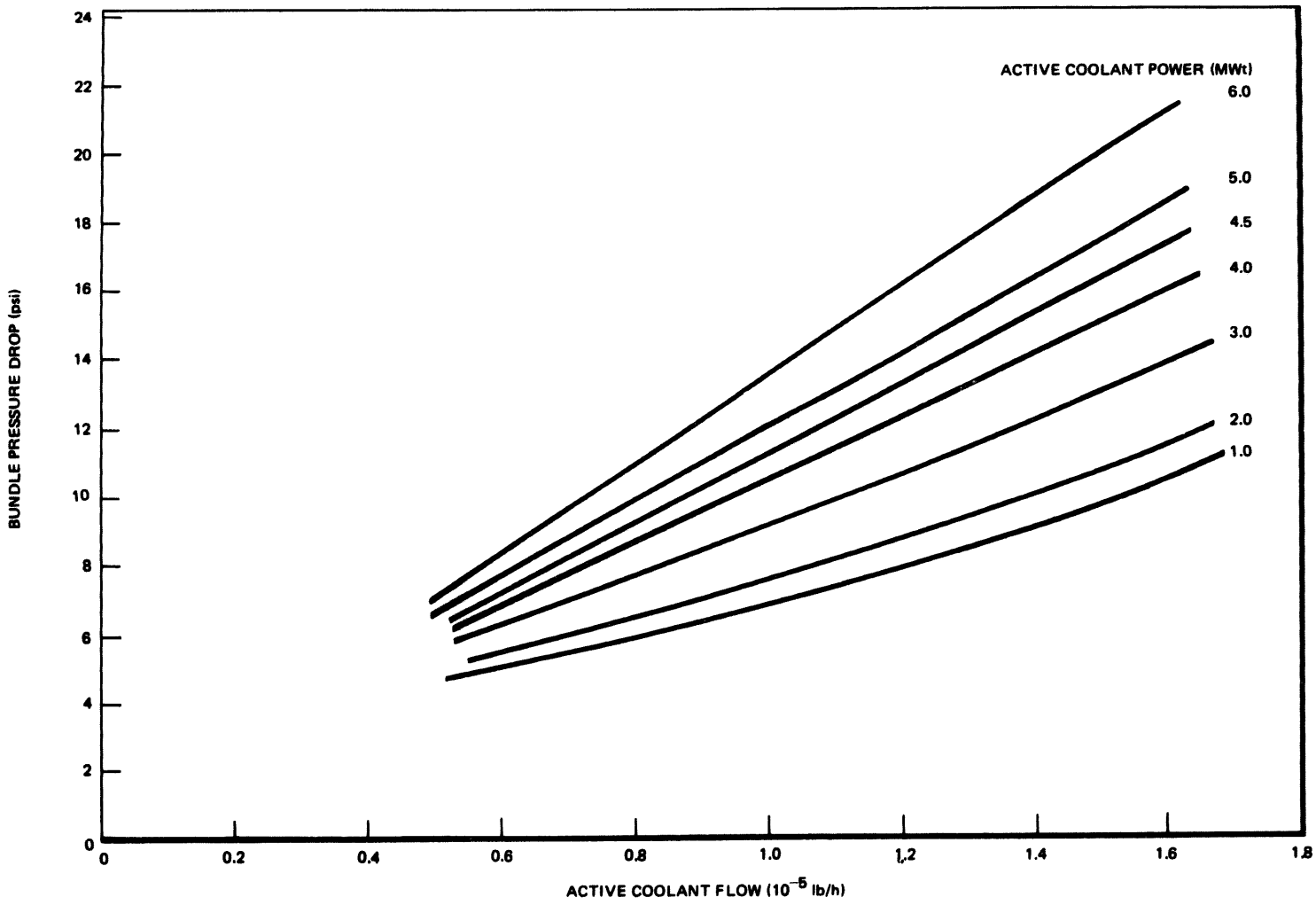


Figure 2-9. Flow Characteristics 8x8 Fuel Assemblies, 30 Btu/lb Subcooling

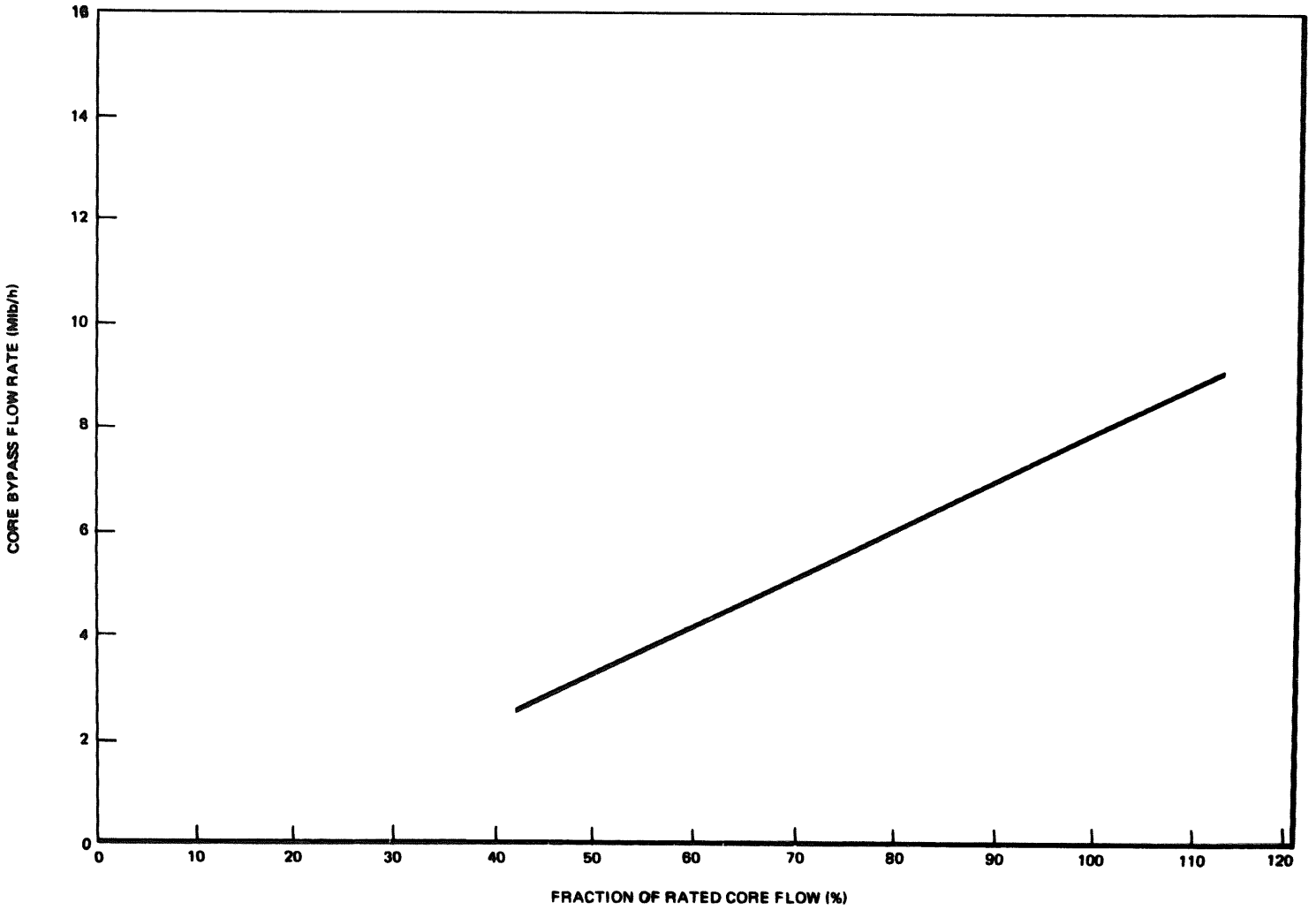


Figure 2-10. Core Bypass Flow for Cycles 2 and 3

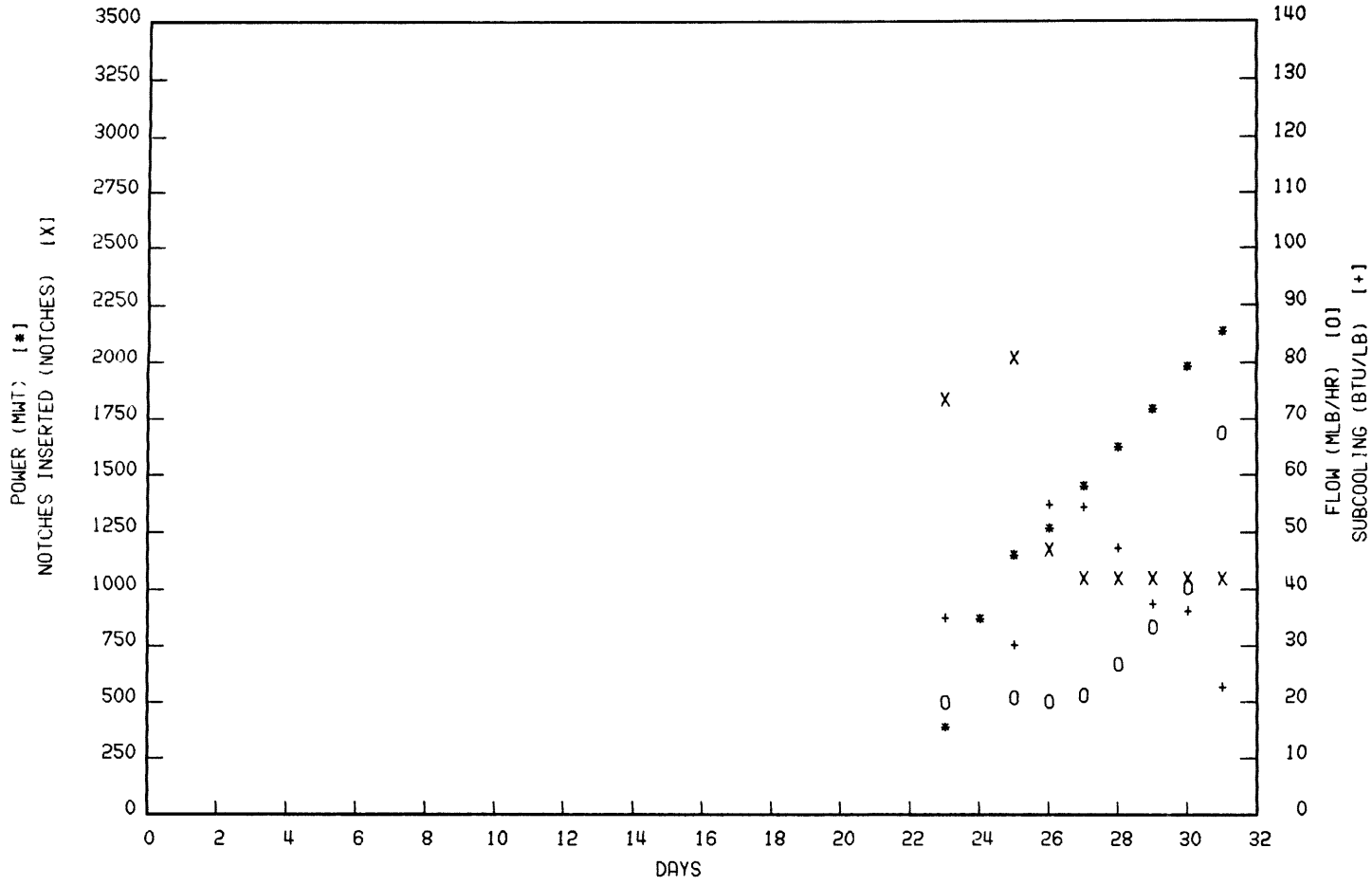


Figure 2-11. Data Summaries, May 1977

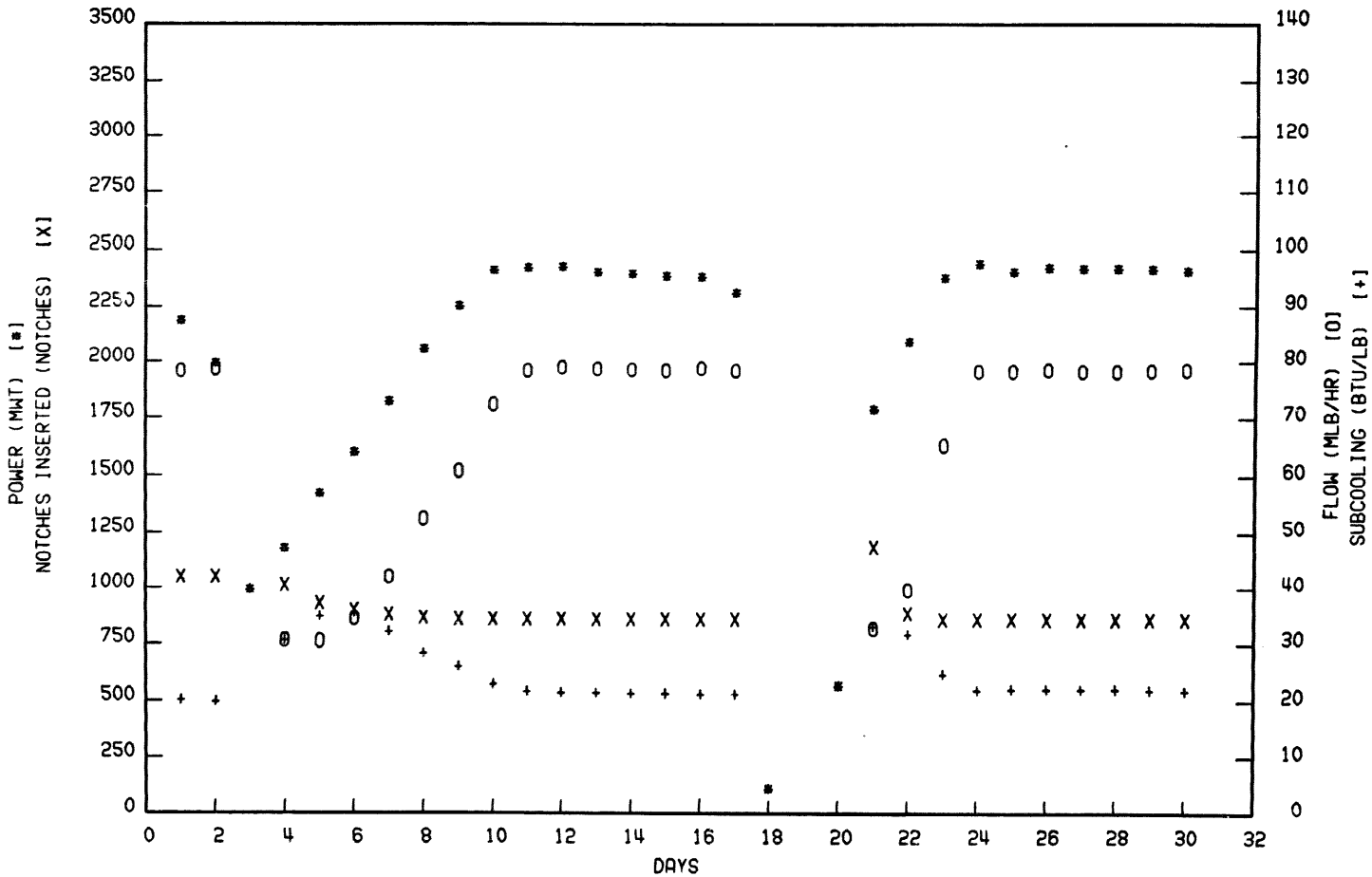


Figure 2-12. Data Summaries, June 1977

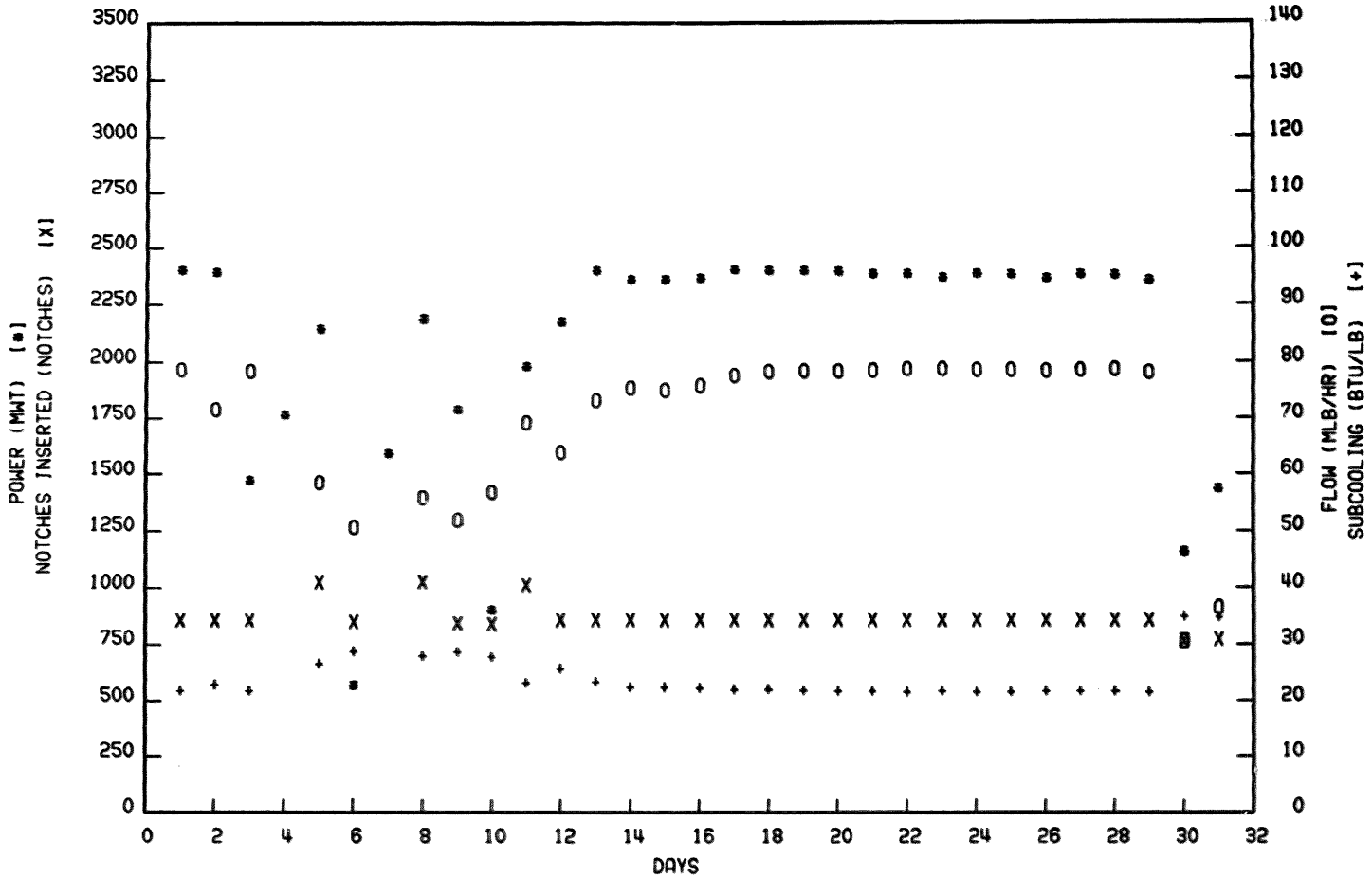


Figure 2-13. Data Summaries, July 1977

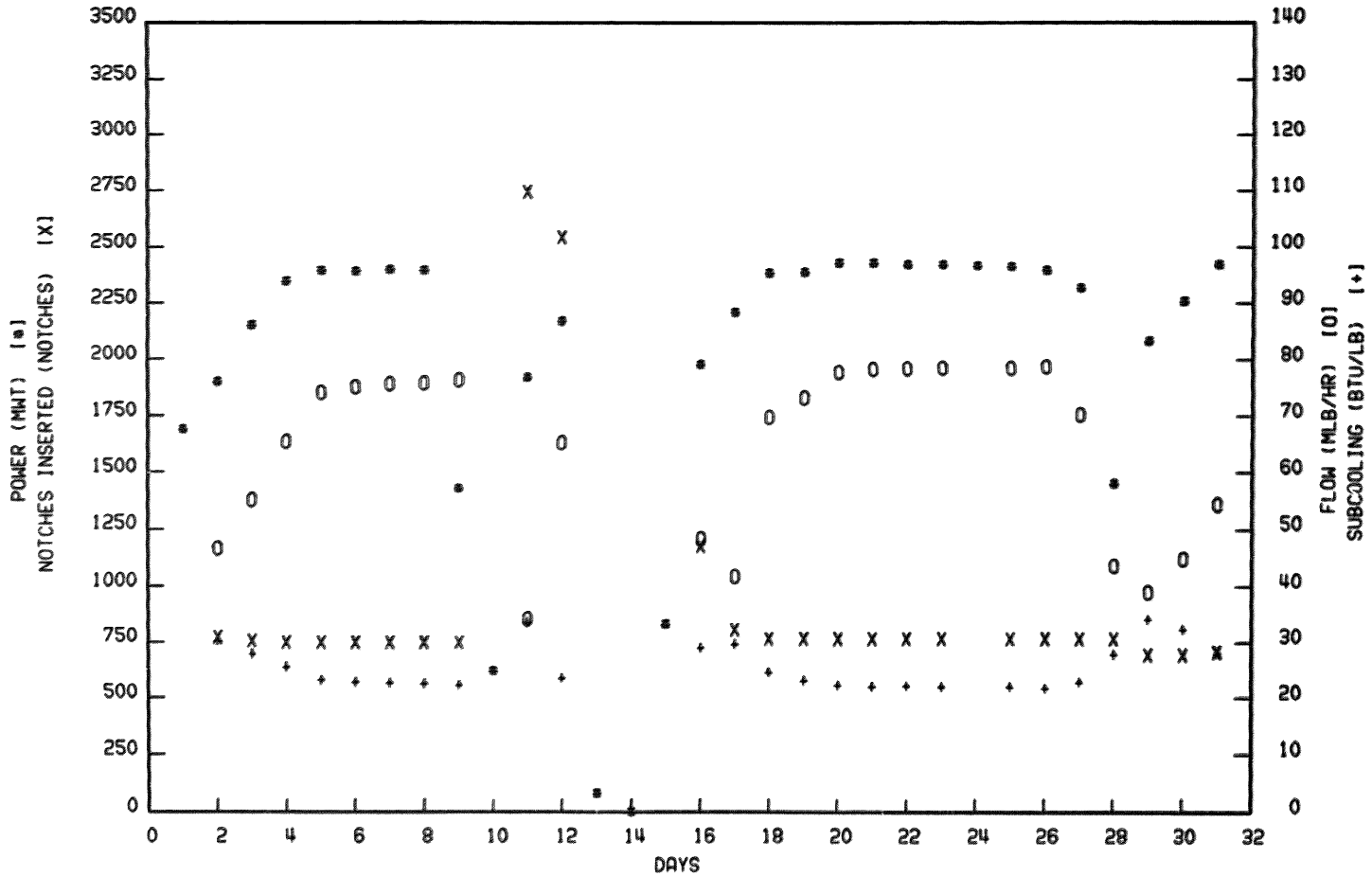


Figure 2-14. Data Summaries, August 1977

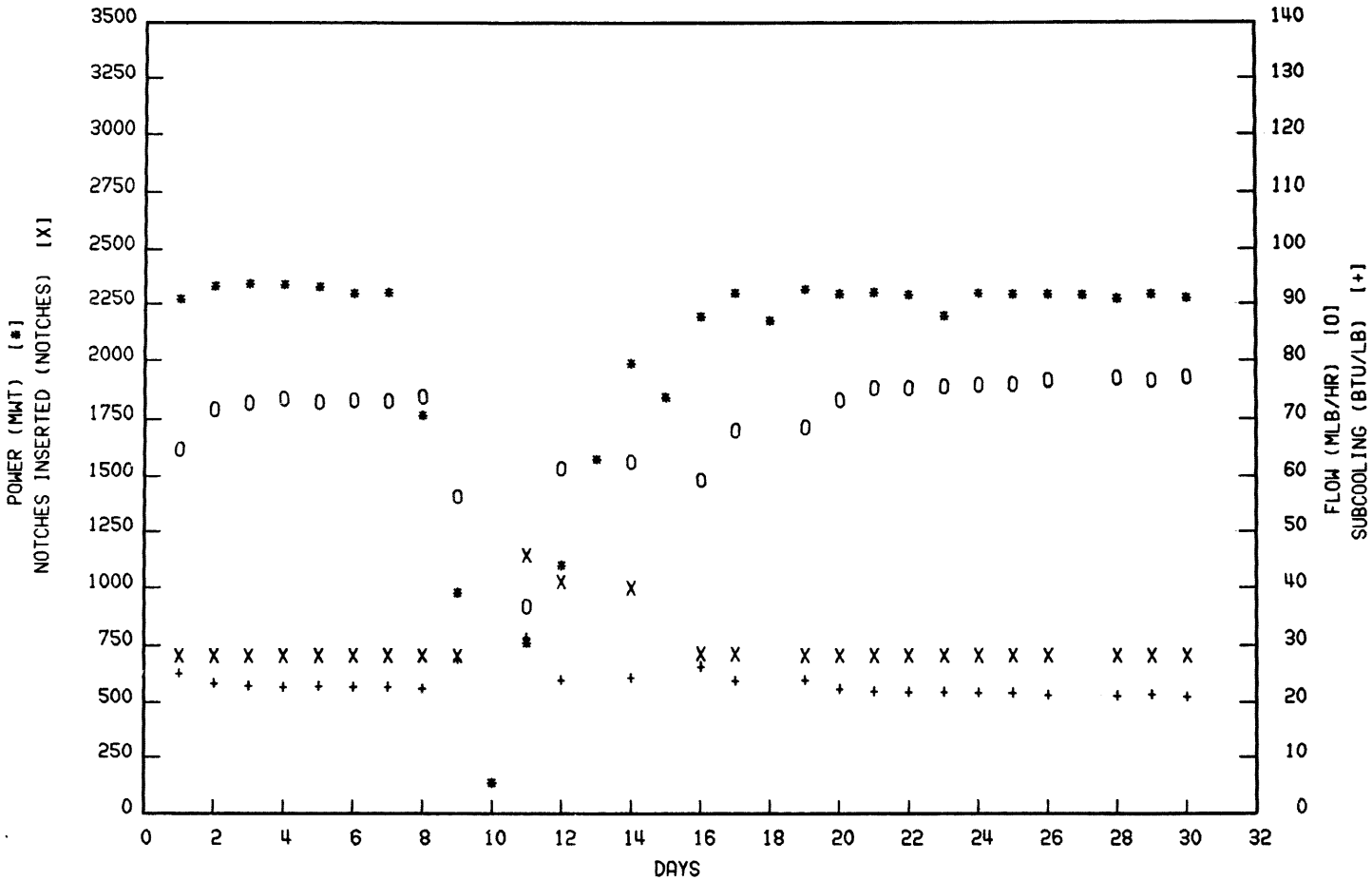


Figure 2-15. Data Summaries, September 1977

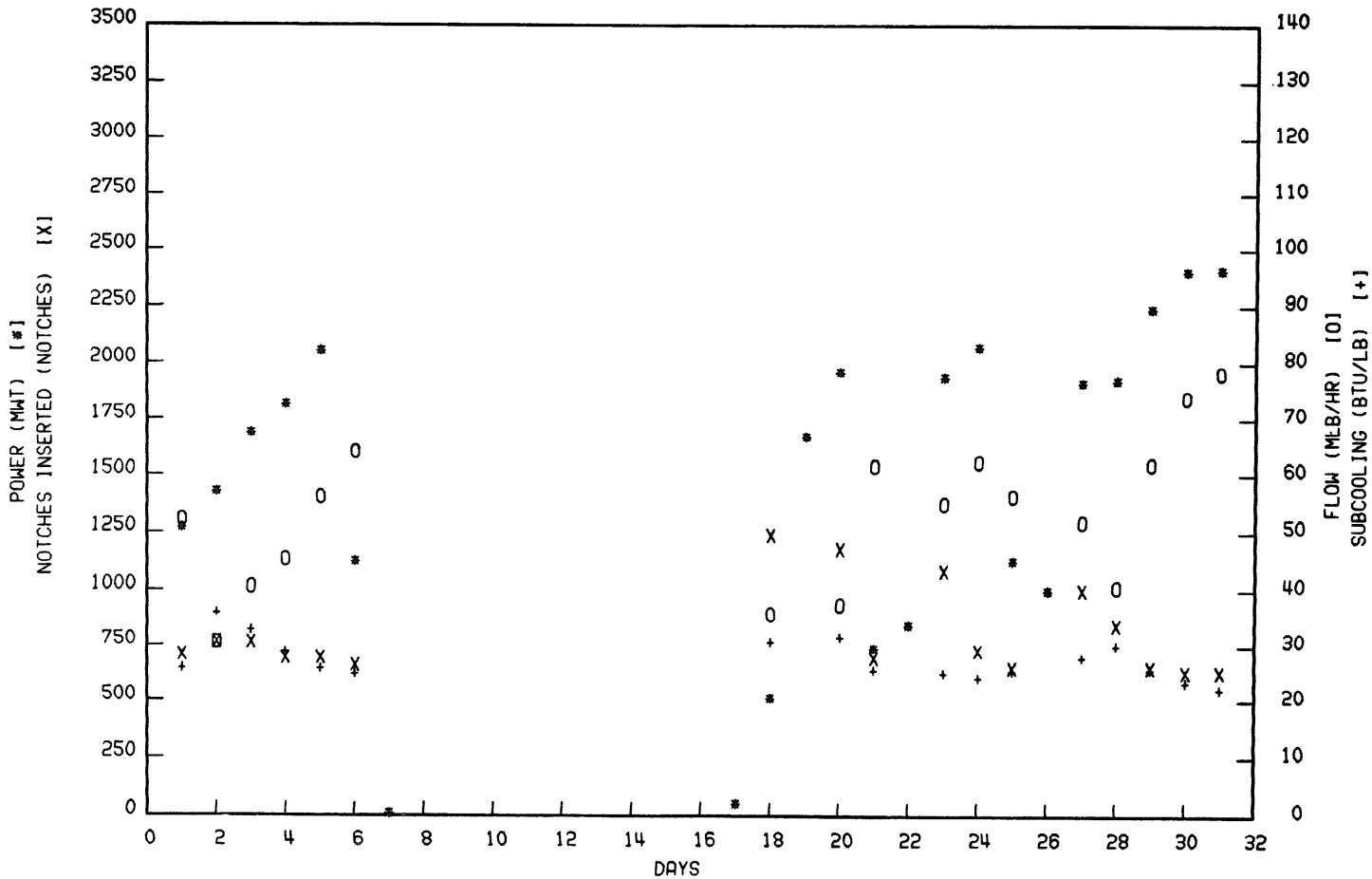


Figure 2-16. Data Summaries, October 1977

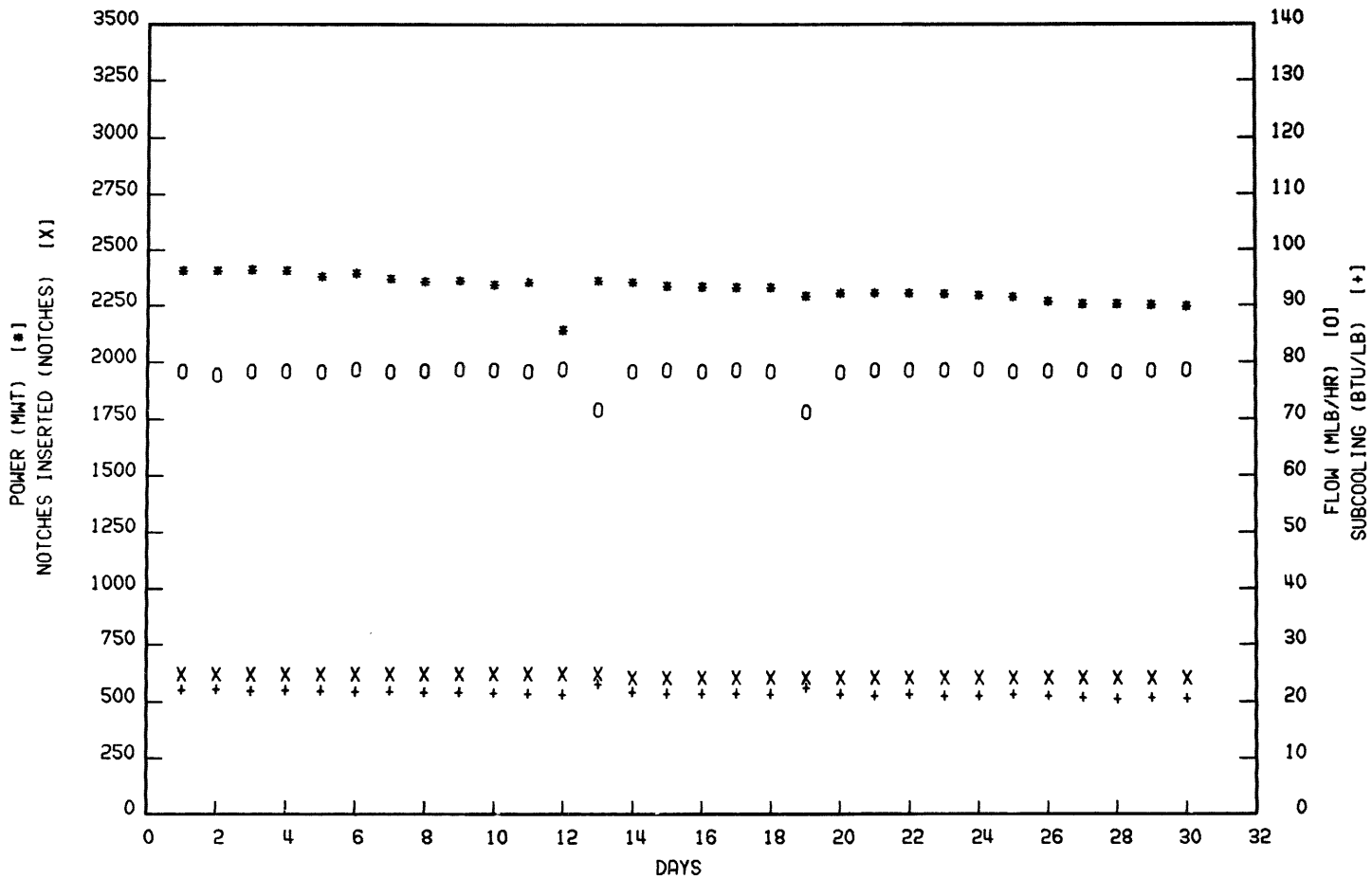


Figure 2-17. Data Summaries, November 1977

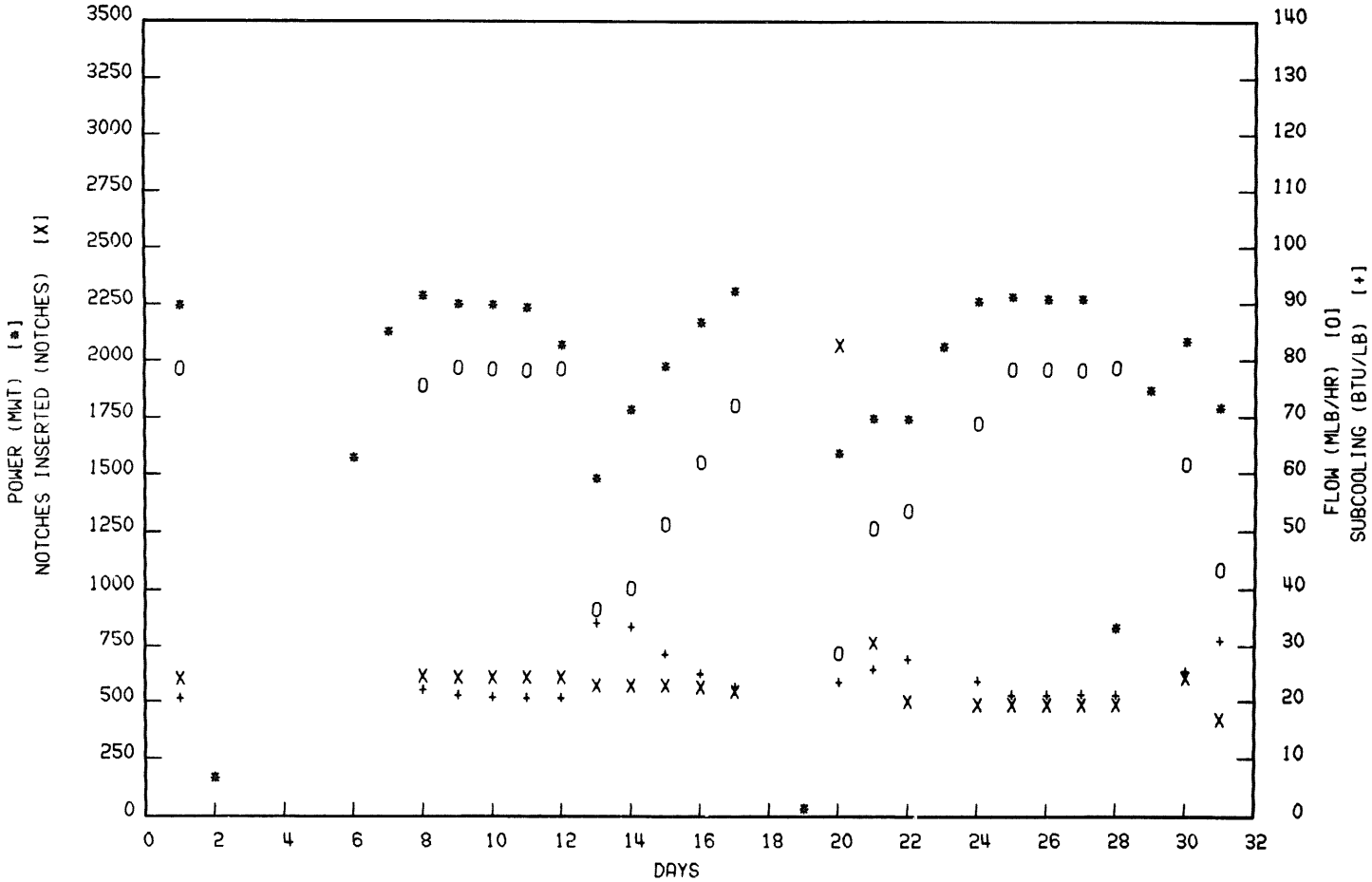


Figure 2-18. Data Summaries, December 1977

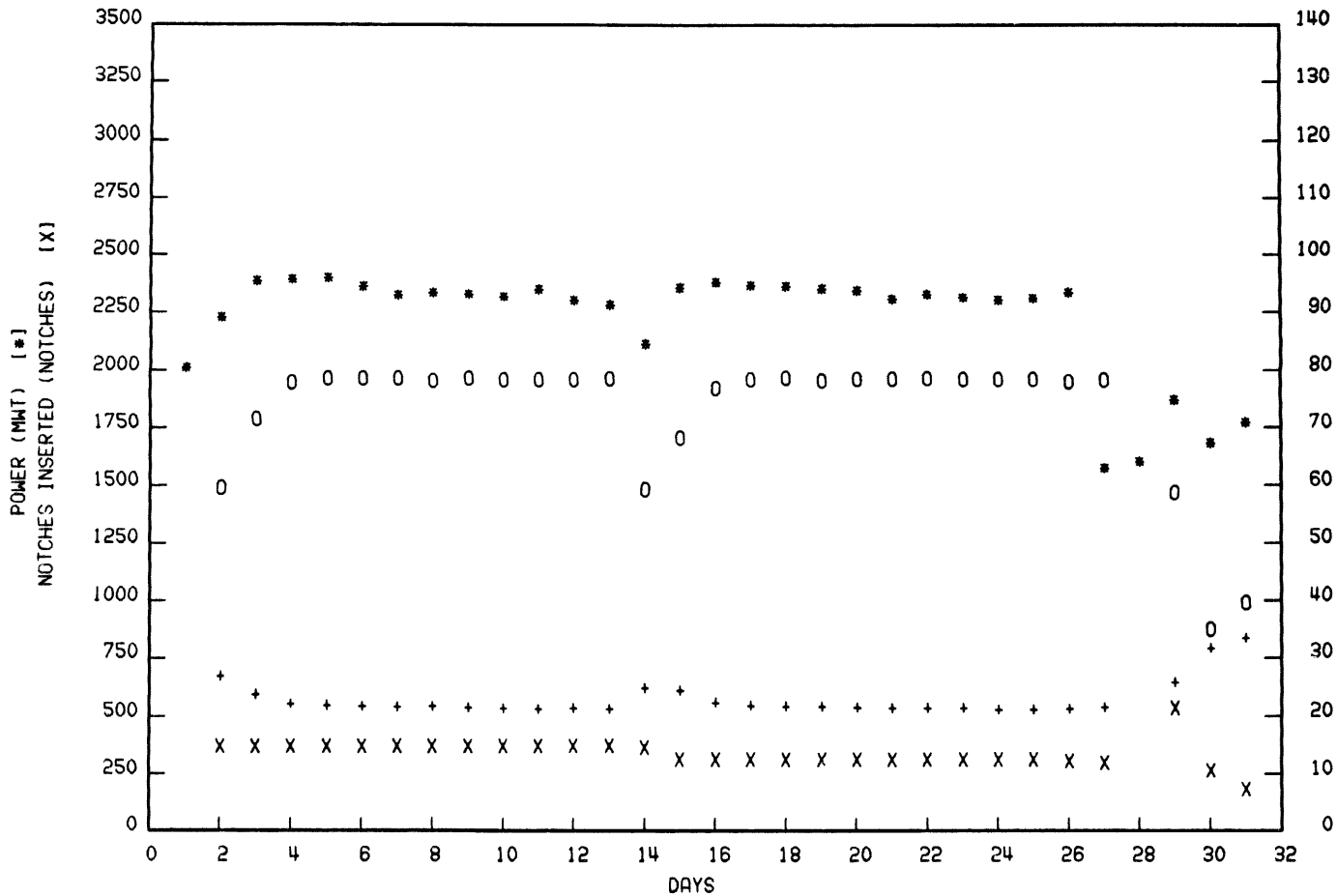


Figure 2-19. Data Summaries, January 1978

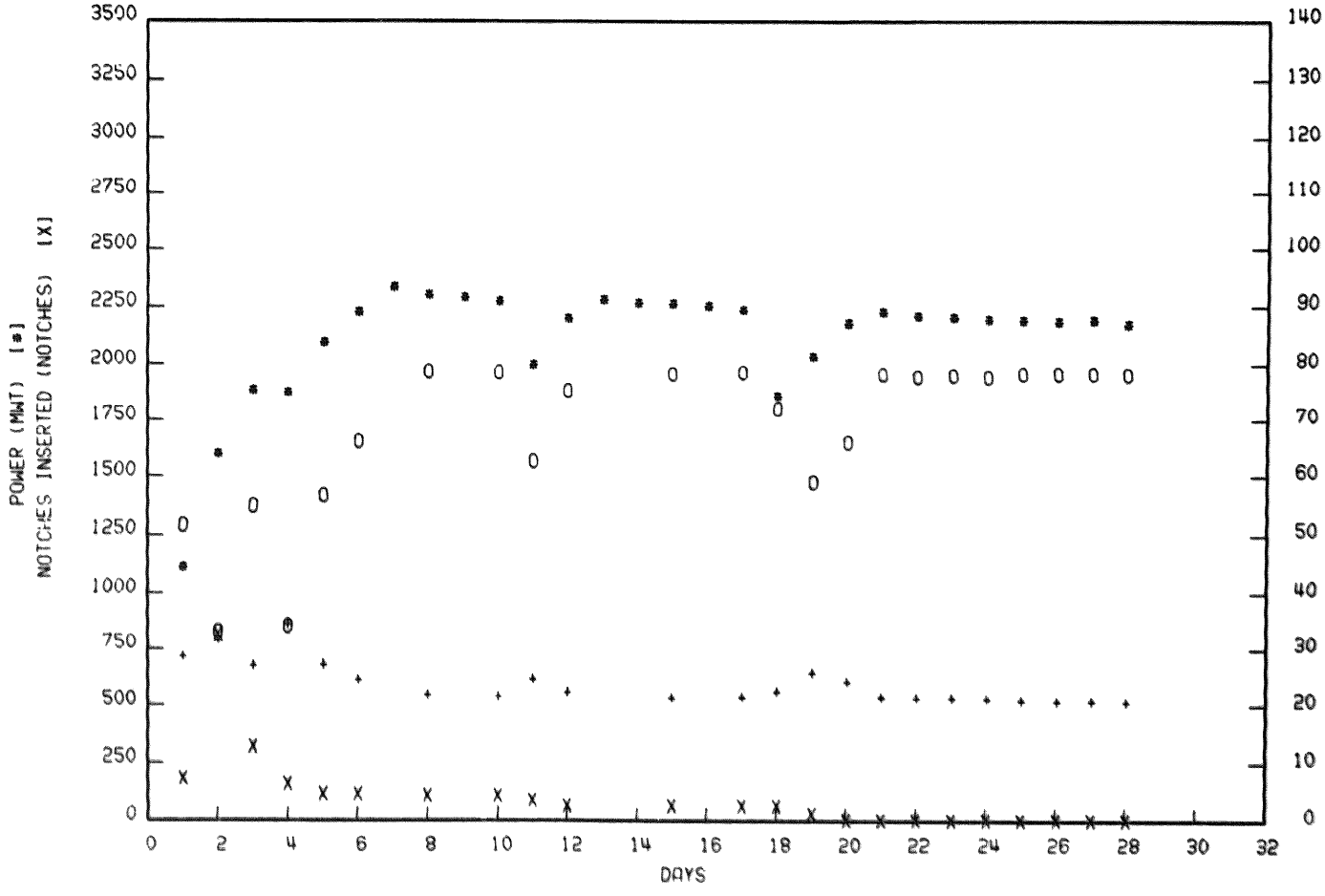


Figure 2-20. Data Summaries, February 1978

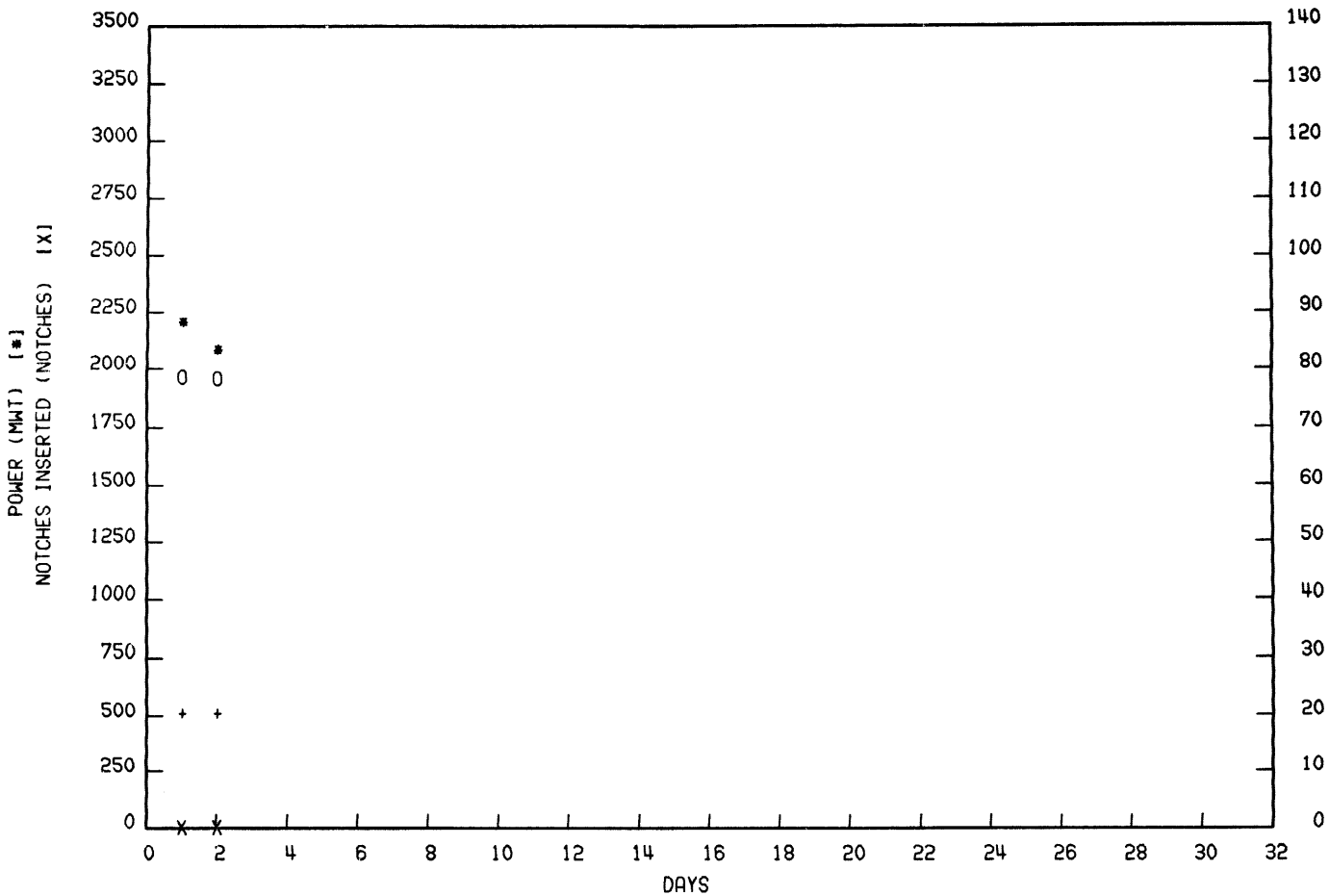


Figure 2-21. Data Summaries, March 1978

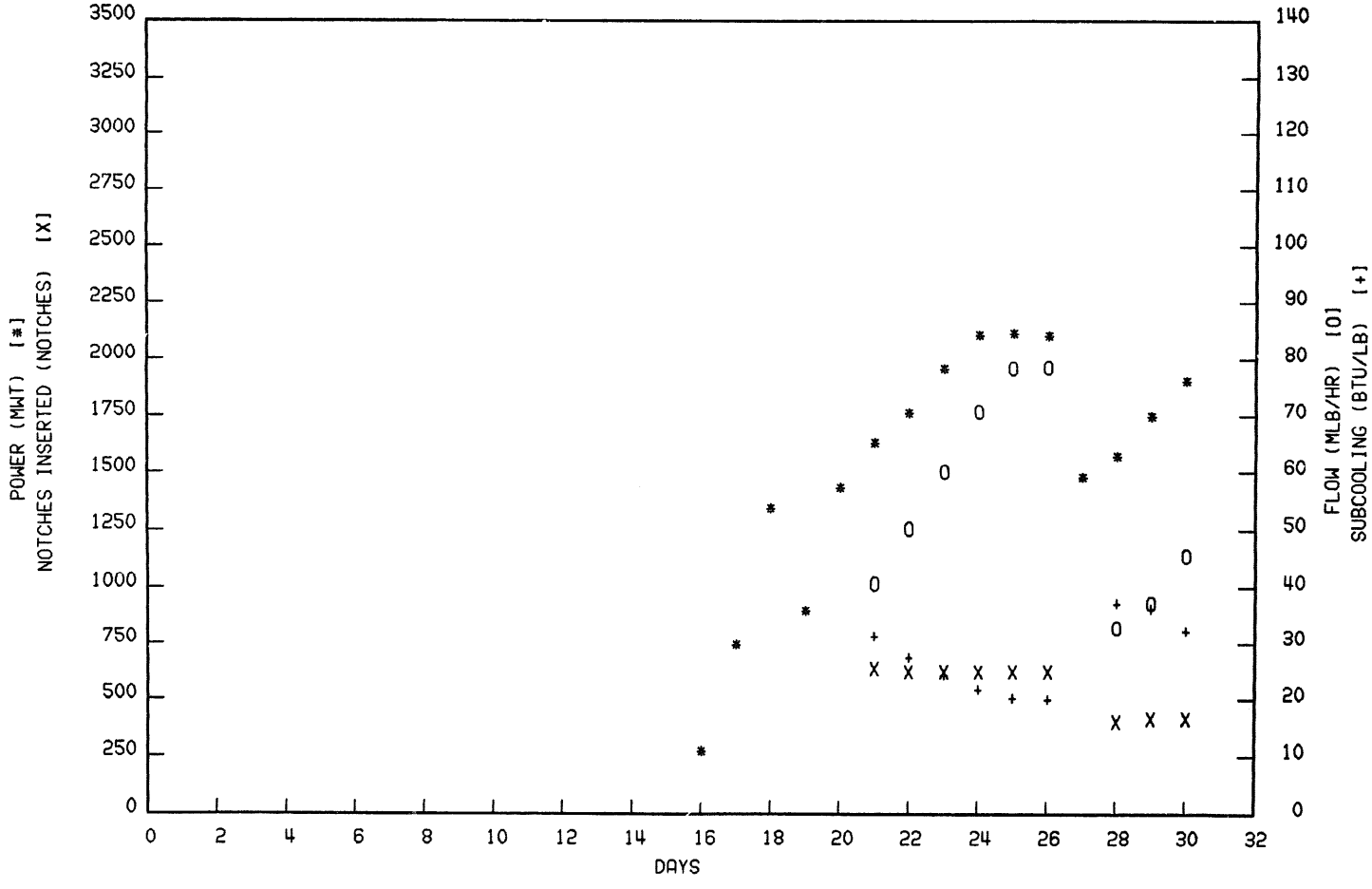


Figure 2-22. Data Summaries, April 1978

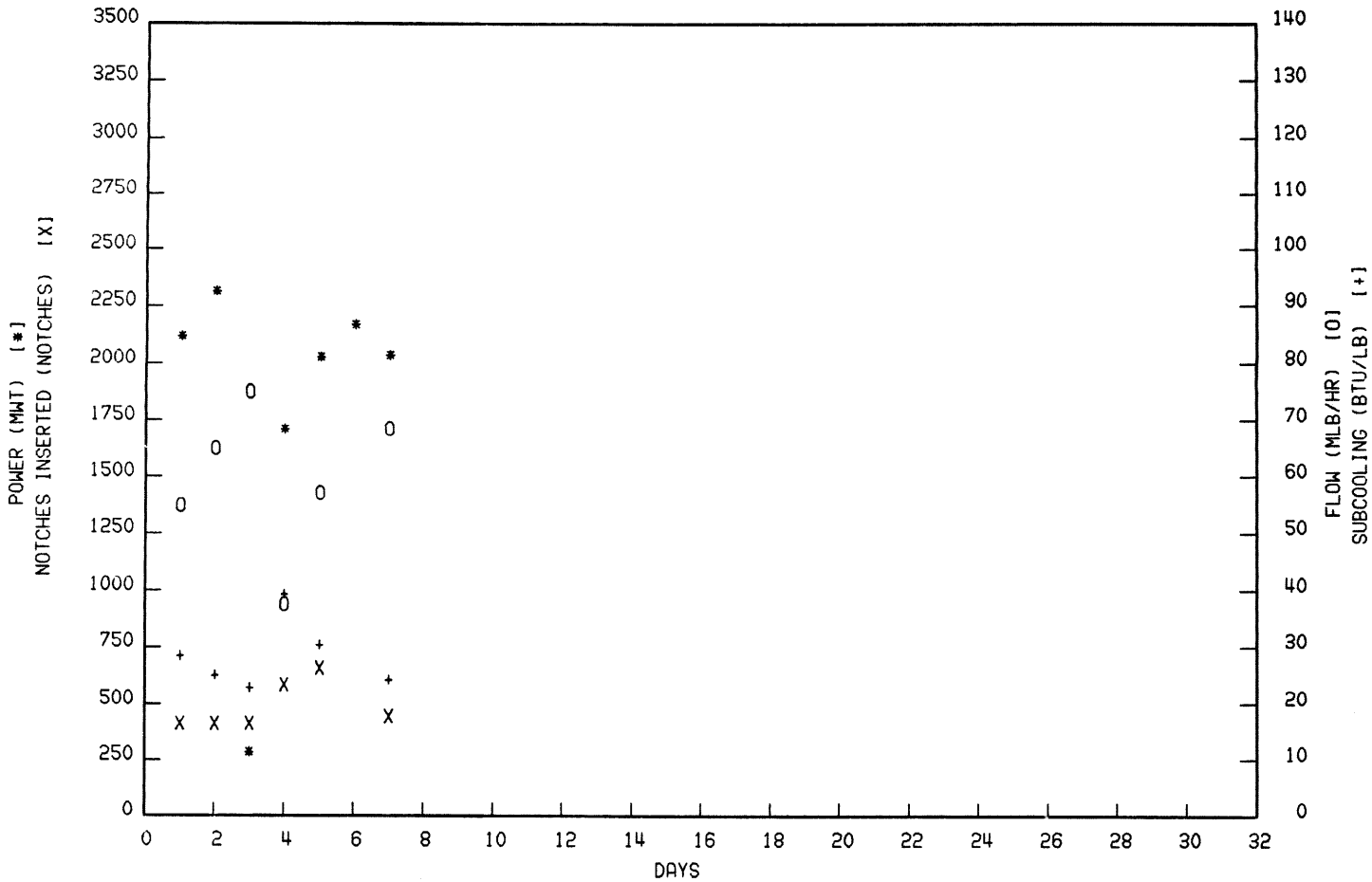


Figure 2-23. Data Summaries, May 1978

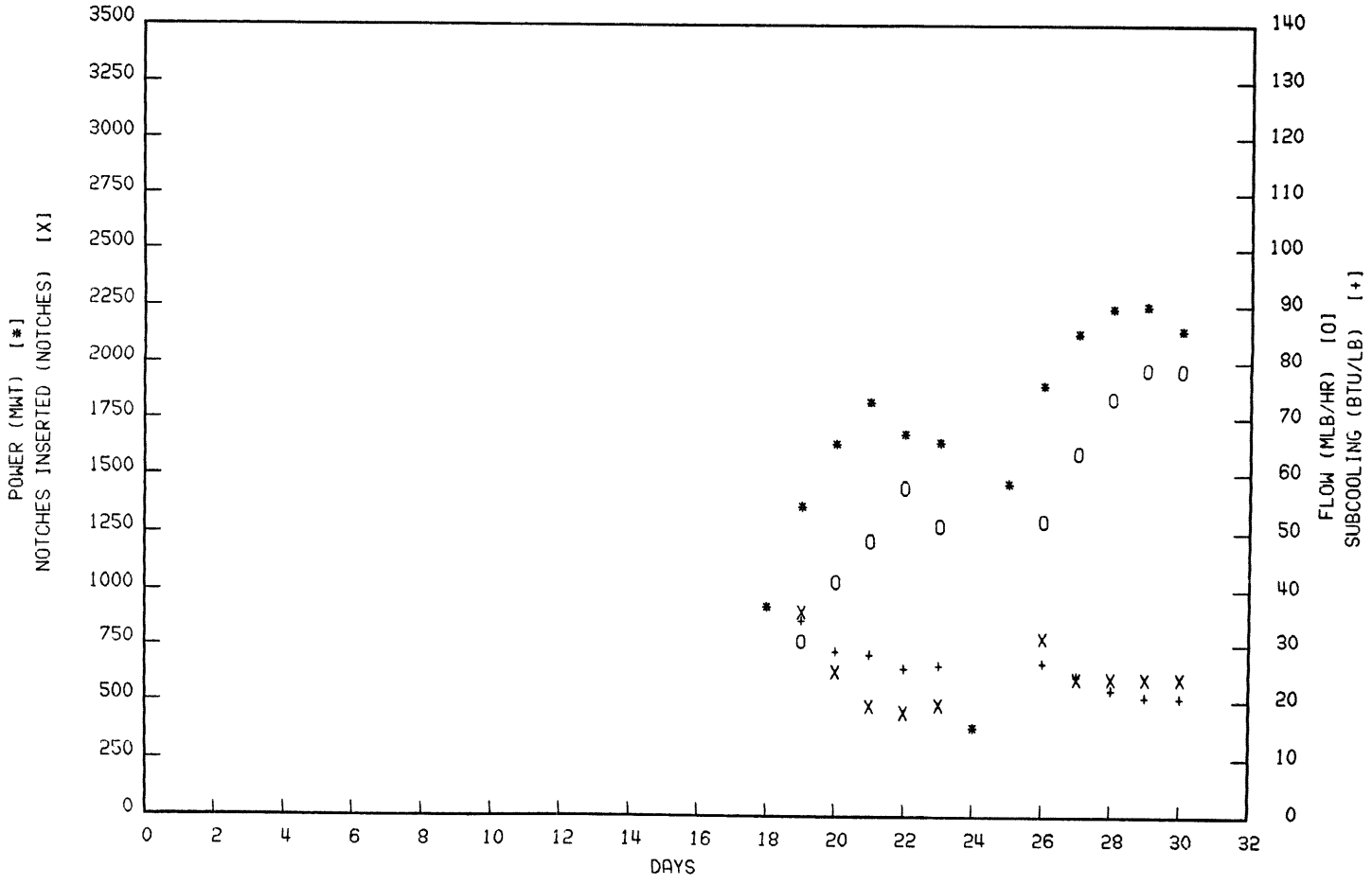


Figure 2-24. Data Summaries, June 1978

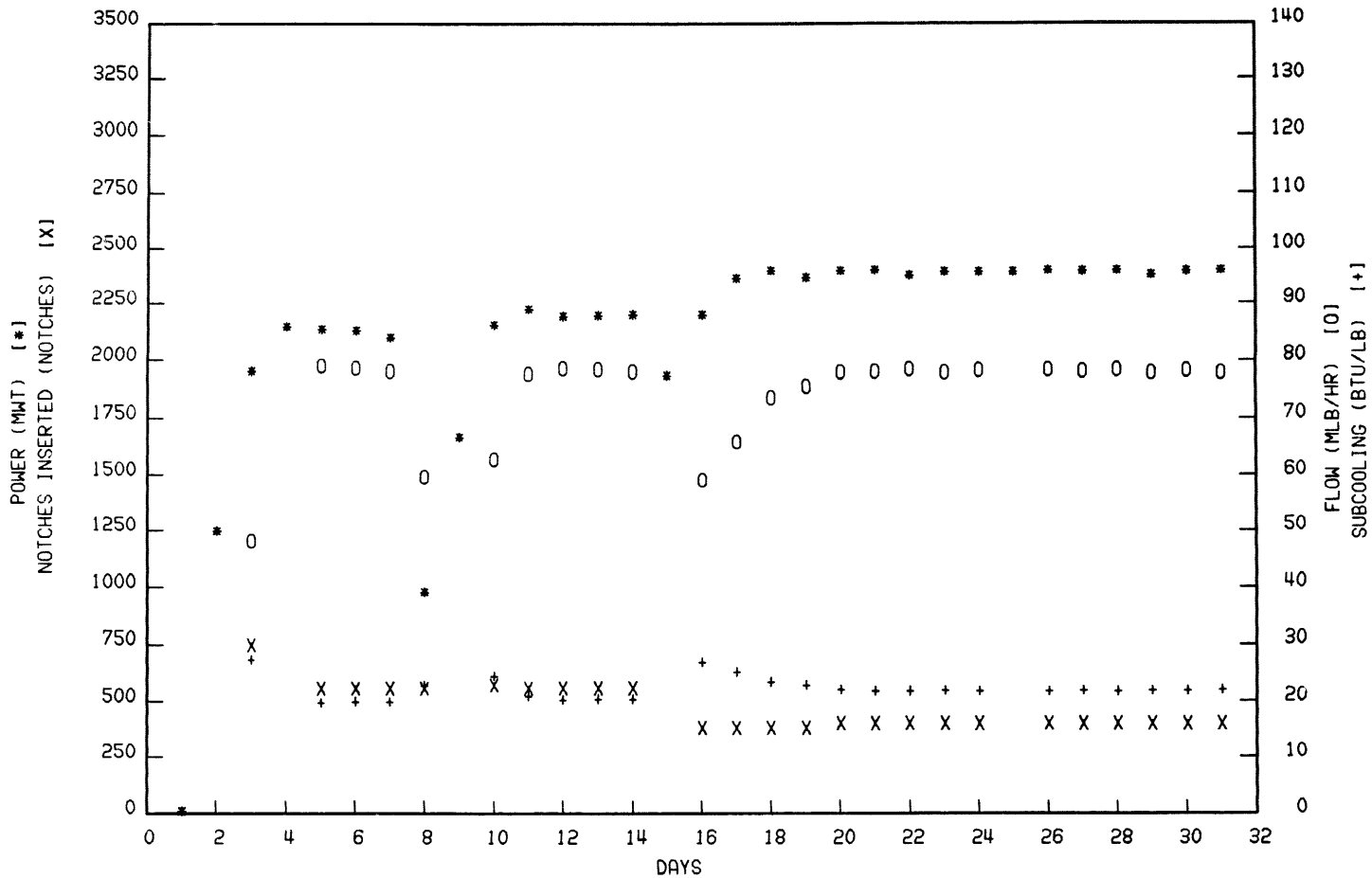


Figure 2-25. Data Summaries, July 1978

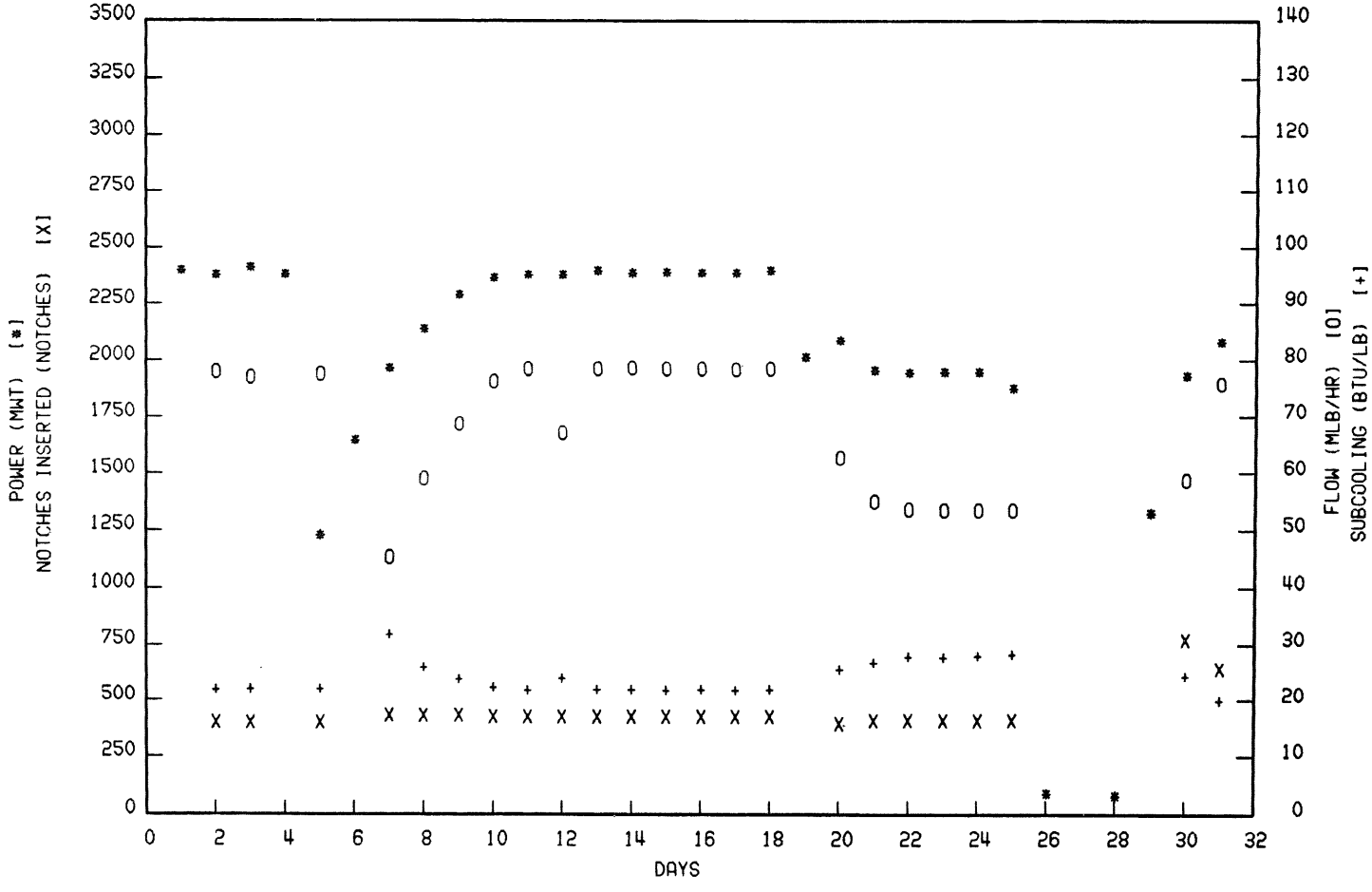


Figure 2-26. Data Summaries, August 1978

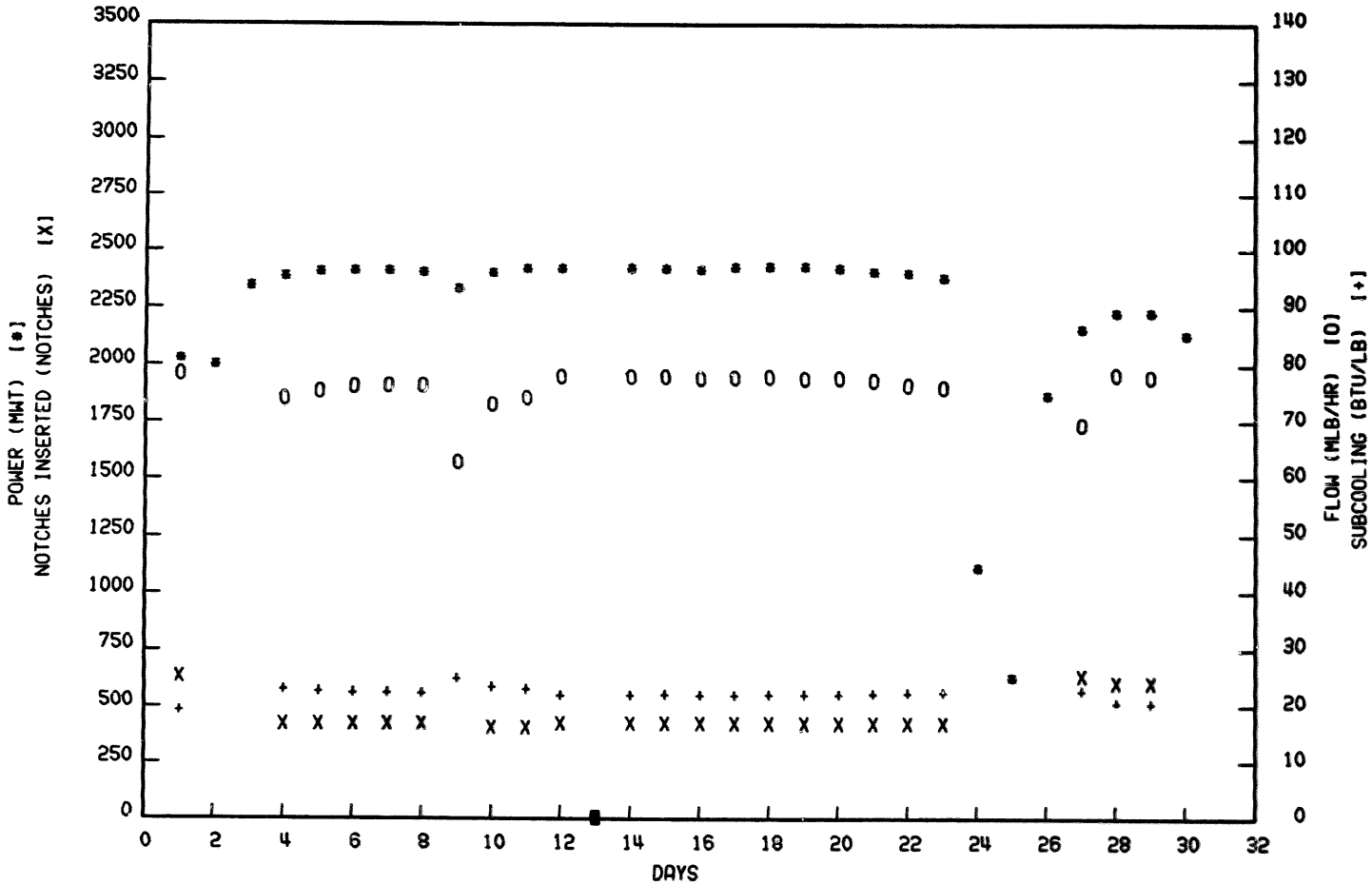


Figure 2-27. Data Summaries, September 1978

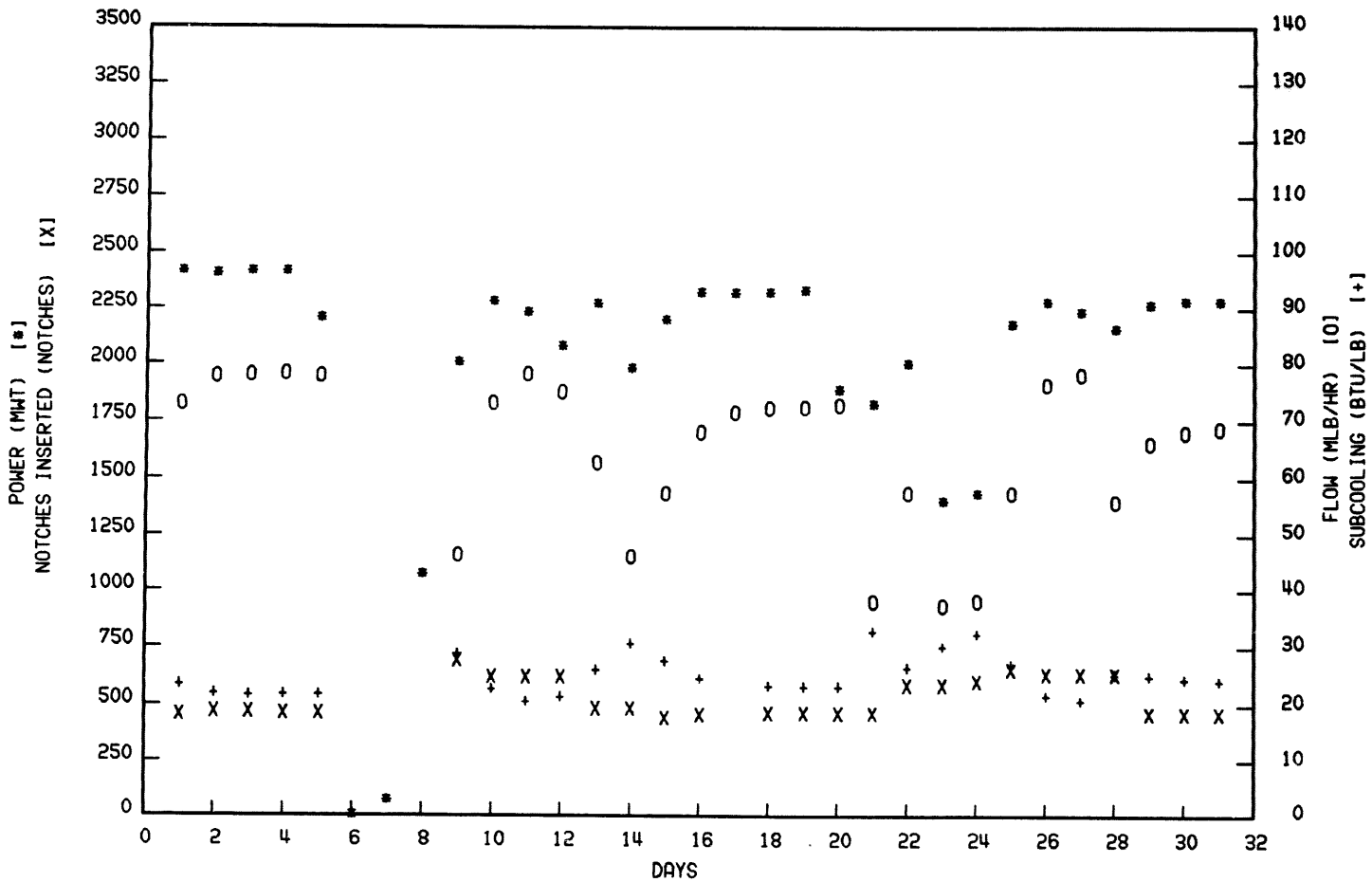


Figure 2-28. Data Summaries, October 1978

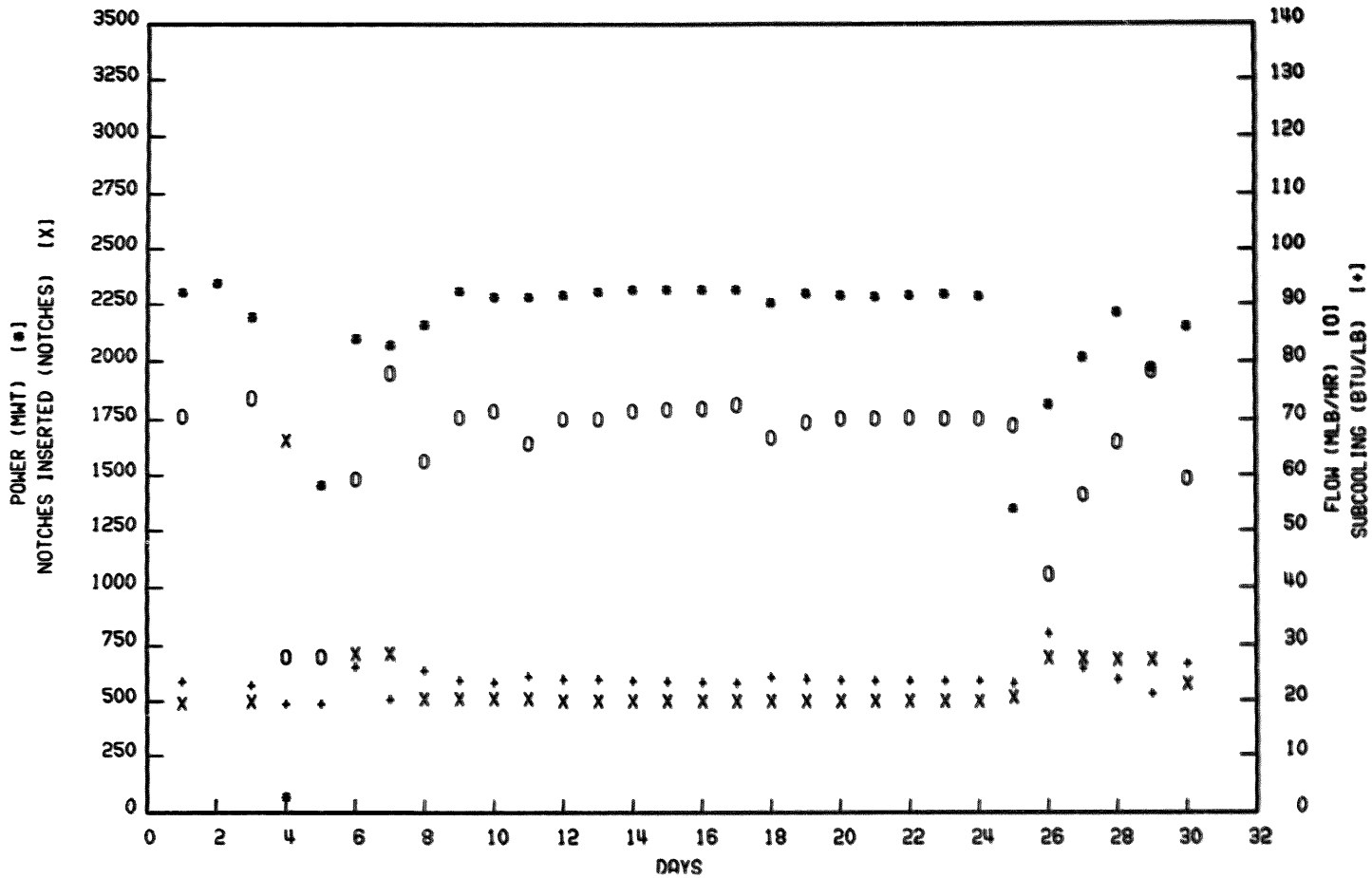


Figure 2-29. Data Summaries, November 1978

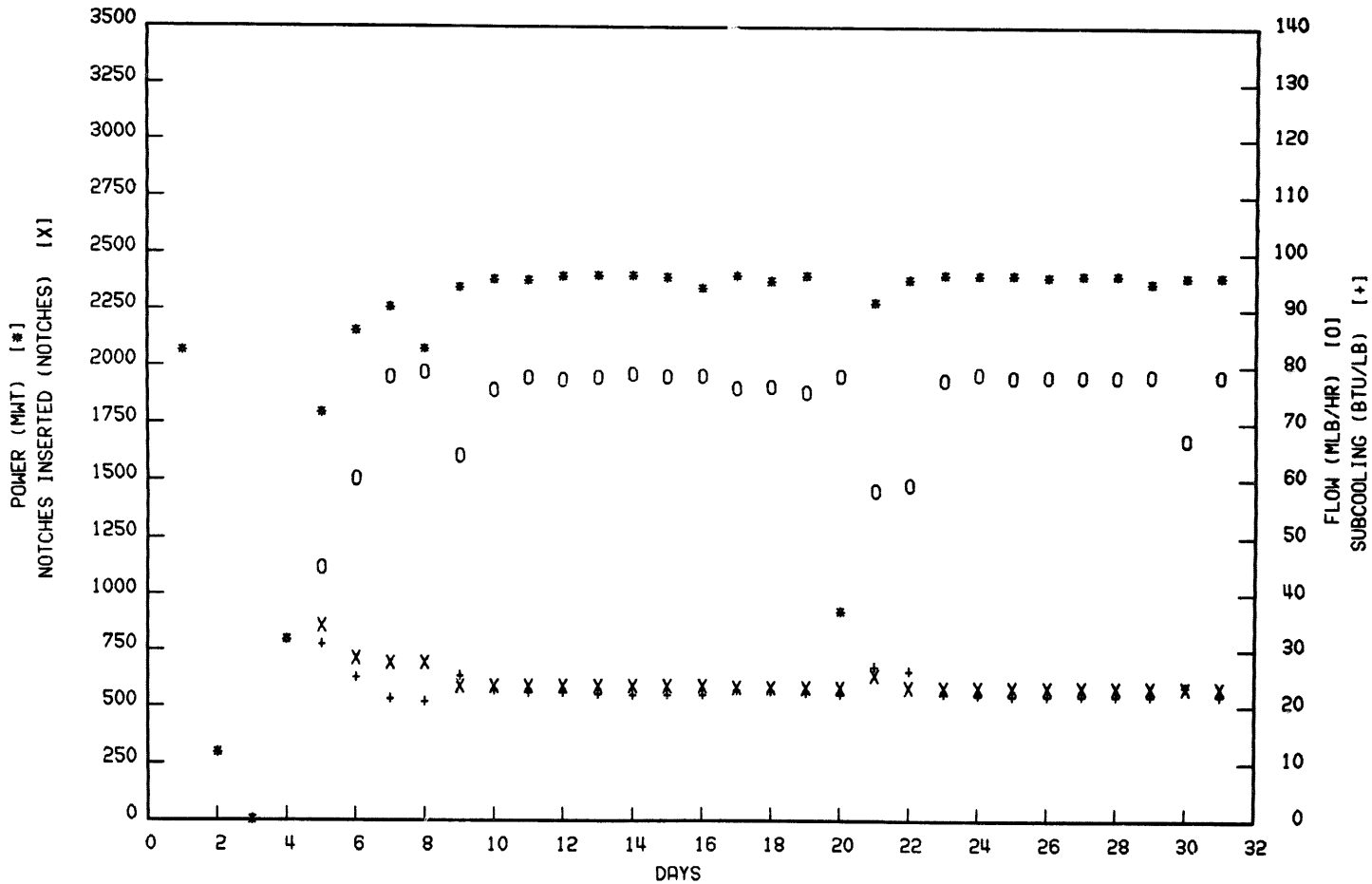


Figure 2-30. Data Summaries, December 1978

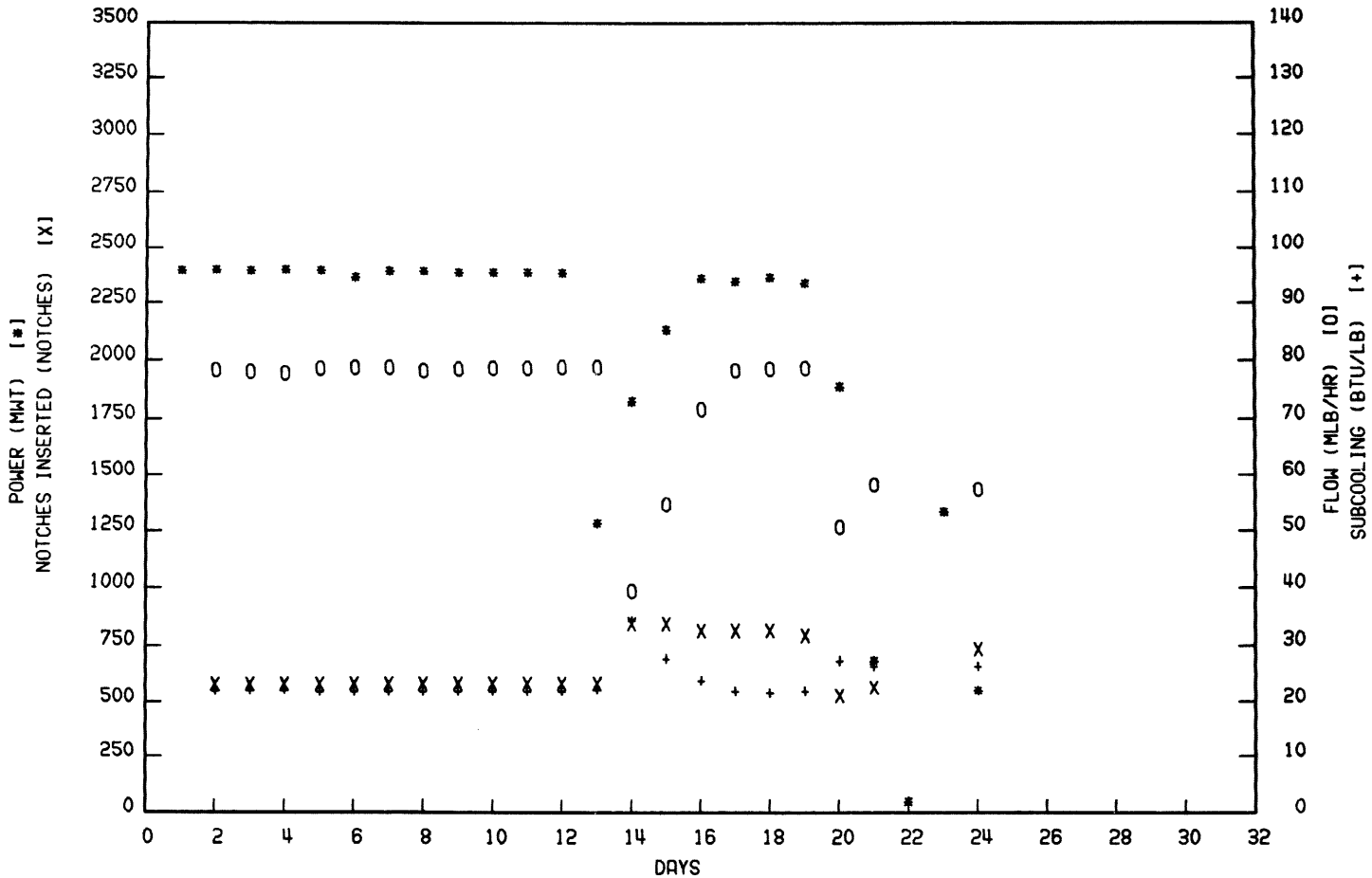


Figure 2-31. Data Summaries, January 1979

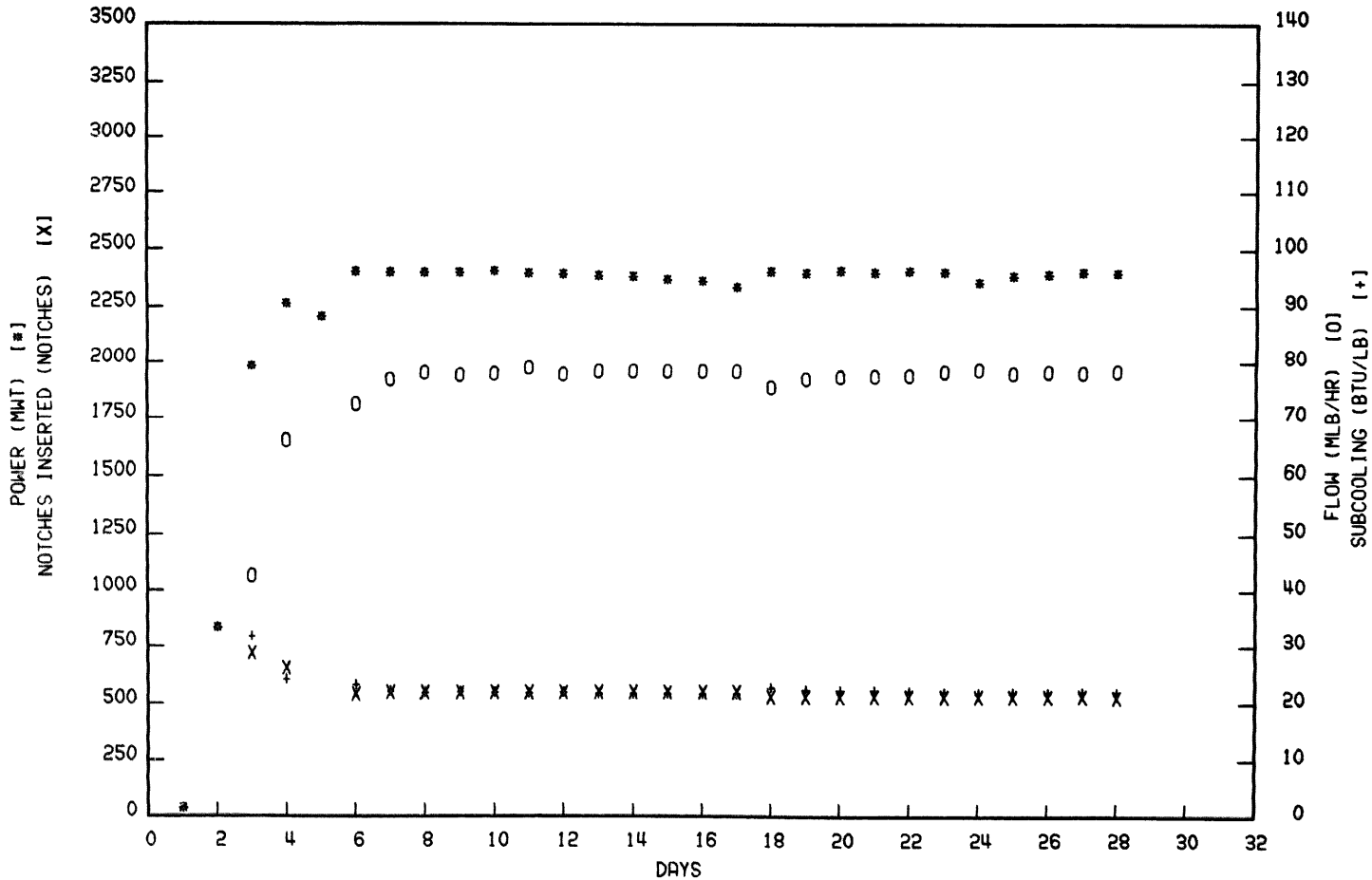


Figure 2-32. Data Summaries, February 1979

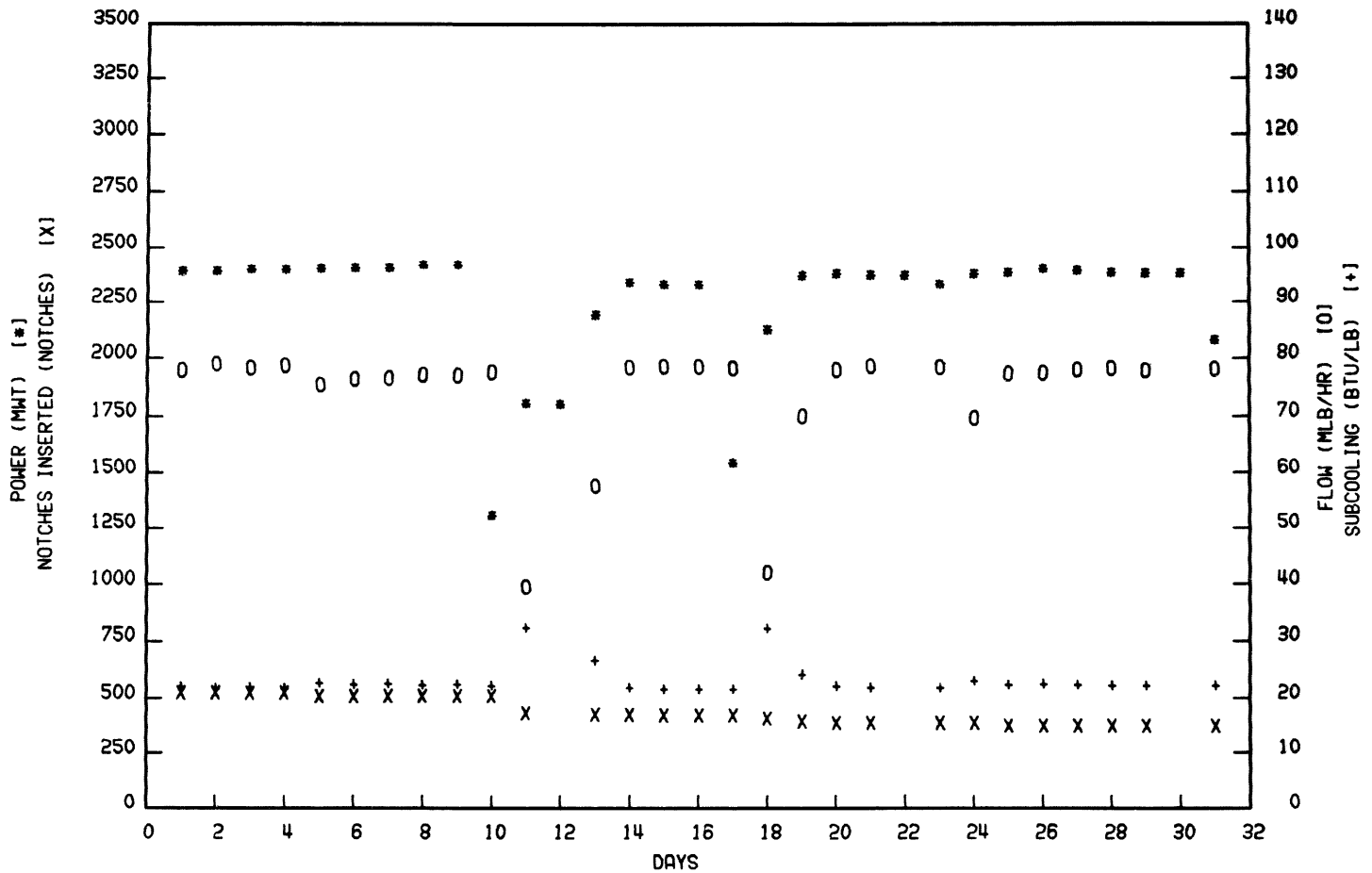


Figure 2-33. Data Summaries, March 1979

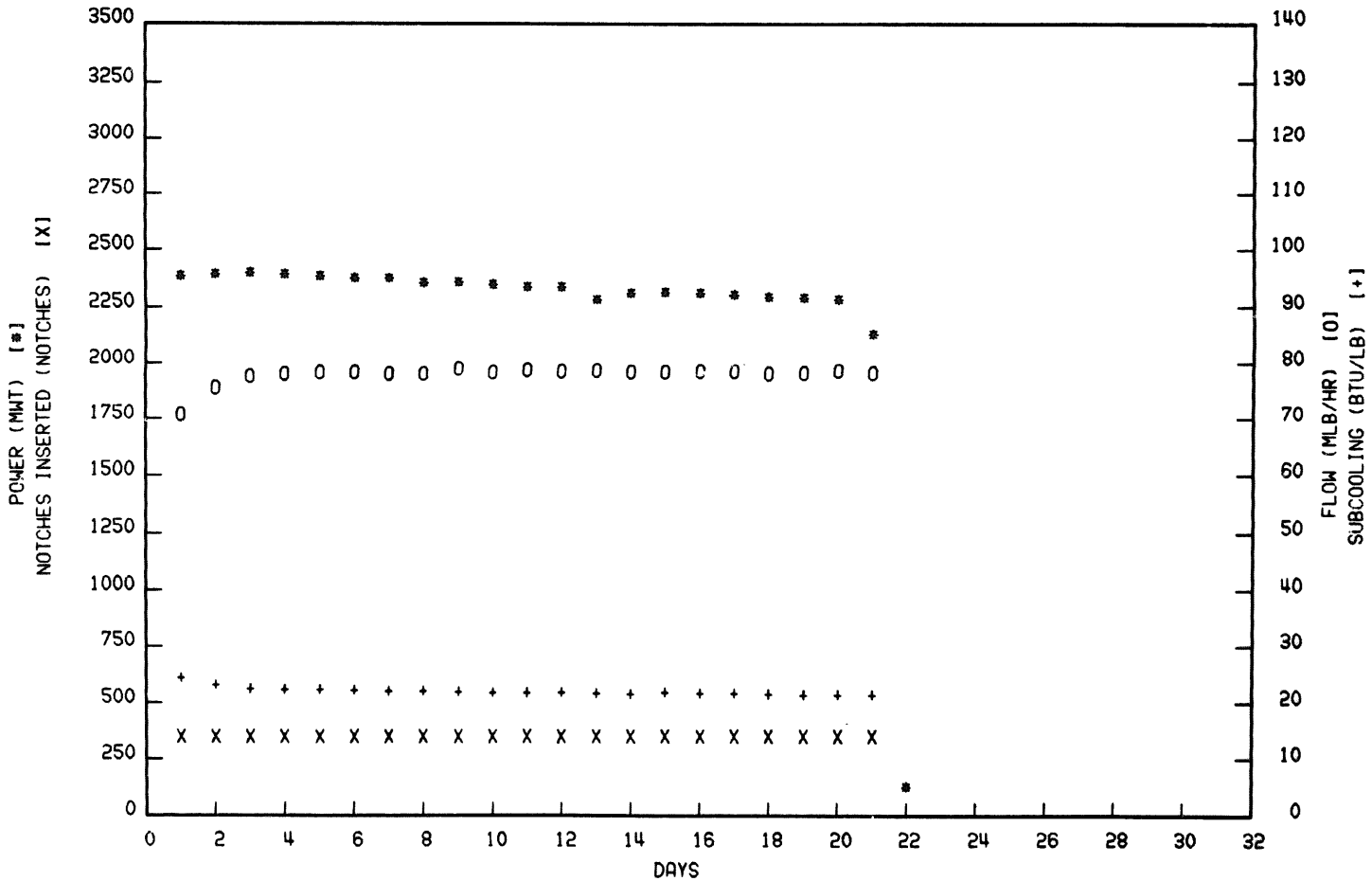


Figure 2-34. Data Summaries, April 1979

DATA SET 24 - JUNE 1, 1977

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 7808 MWD/T
CORE THERMAL POWER, 2172 MWT
DOME PRESSURE,P, 969 PSIA
CORE FLOW, 78.2 MLB/HR
INLET SUBCOOLING AT P, 20.1 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51													
47					28		12		28				
43						40		40					
39			28		8		6		8		28		
35				32		40		40		32			
31	36		12		6		12		6		12		36
27				42						42			
23	36		12		6		12		6		12		36
19				32		40		40		32			
15			28		8		6		8		28		
11						40		40					
7					28		12		28				
3													
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

NO TIP DATA AVAILABLE

DATA SET 25 - JUNE 28, 1977

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 8251 MWD/T
CORE THERMAL POWER, 2387 MWT
DOME PRESSURE,P, 1003 PSIA
CORE FLOW, 78.2 MLB/HR
INLET SUBCOOLING AT P, 21.9 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51						
47		34	28	28	34	
43						
39	34	14	8	8	14	34
35						
31	28	8	16	16	8	28
27						
23	28	8	16	16	8	28
19						
15	34	14	8	8	14	34
11						
7		34	28	28	34	
3						

2 6 10 14 18 22 26 30 34 38 42 46 50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	49.7	63.4	70.7	77.9	81.6	85.1	91.9	96.8	103.3	111.2	118.5	119.0
	112.3	111.4	107.6	99.7	93.1	89.8	81.0	68.5	56.8	42.5	29.3	22.4
2805	49.5	63.4	75.6	82.6	84.6	85.9	88.1	92.5	98.4	109.1	119.3	121.8
	116.5	116.1	114.1	109.0	100.0	96.3	88.3	75.1	62.6	47.4	33.2	24.9
3605	36.3	50.3	57.5	63.4	66.1	71.5	81.2	87.9	89.1	90.7	91.8	90.5
	86.7	85.3	82.6	80.4	74.8	73.2	67.2	57.8	48.0	35.3	24.9	19.1
1213	76.9	97.8	108.5	114.3	111.0	106.8	106.2	103.6	100.2	96.9	96.7	93.7
	87.3	89.0	89.9	91.0	93.4	95.0	90.1	77.6	64.5	49.3	34.5	27.9
2013	86.4	109.7	117.6	122.5	118.0	111.1	108.6	108.1	107.2	105.7	108.1	109.3
	104.3	104.7	105.7	104.7	101.1	102.5	99.1	91.0	79.9	62.6	45.5	37.2
2813	86.6	115.1	125.1	129.7	128.6	124.3	119.5	118.9	117.3	117.6	122.7	122.7
	119.9	117.9	118.3	119.0	113.8	114.8	111.5	102.1	90.1	69.7	51.5	39.0
3613	82.3	108.6	117.0	120.9	114.5	107.5	103.5	103.0	99.6	96.5	96.8	95.5
	92.1	91.1	94.0	96.3	96.6	101.8	98.3	86.5	75.4	60.0	43.8	34.1
4413	47.7	73.1	87.2	98.3	102.7	105.4	107.7	111.7	109.5	108.0	108.4	107.8
	103.5	98.4	98.9	98.2	93.0	92.5	88.2	78.2	65.1	51.0	36.2	24.2
421	39.2	62.8	77.4	85.1	90.4	92.4	93.8	99.9	104.7	112.5	121.6	123.8
	122.6	115.8	113.0	108.9	100.2	94.4	87.9	77.5	64.9	52.0	38.9	28.4
1221	67.6	100.1	113.7	120.0	117.0	109.6	100.7	98.8	94.4	93.5	93.5	95.8
	93.5	89.1	90.4	92.2	90.1	91.3	92.1	87.3	78.8	67.2	53.1	39.5
2021	66.4	97.4	111.0	114.1	111.9	103.9	96.6	93.6	88.8	85.2	84.9	86.8
	87.4	87.1	93.9	102.0	104.9	110.4	112.2	104.4	92.3	77.4	60.0	46.3
2821	89.5	109.1	113.6	115.1	106.6	99.7	95.1	90.4	88.2	84.7	86.9	89.1
	88.6	94.8	105.5	114.2	118.6	122.8	118.5	105.5	91.1	71.9	53.6	47.4
3621	73.5	106.7	120.2	125.5	122.1	115.4	108.3	106.5	101.0	96.8	97.9	99.1
	96.6	96.3	102.3	107.0	105.8	109.4	111.5	105.3	95.6	80.0	60.1	43.4
4421	63.5	95.3	110.9	119.0	118.0	112.4	106.9	108.6	107.2	110.4	119.1	121.7
	117.7	112.4	112.0	111.2	102.6	100.6	96.7	85.3	73.4	58.6	43.8	30.6
429	43.7	66.4	79.1	88.1	93.6	96.6	99.9	104.2	109.5	118.2	129.3	133.1
	128.2	122.2	120.3	116.3	105.3	100.8	93.2	79.9	67.0	52.5	38.2	26.9
1229	76.6	112.7	129.6	137.3	135.9	127.4	118.6	118.1	114.5	114.4	115.5	115.6
	114.1	110.7	111.8	111.6	106.9	105.3	104.9	99.3	90.9	80.0	57.9	42.1
2029	70.6	103.4	115.5	119.1	115.9	110.1	102.5	99.6	95.1	91.5	91.4	94.2
	95.0	98.4	107.4	118.5	123.7	129.8	130.1	119.5	105.0	85.5	65.6	48.5
2829	72.0	99.0	108.0	111.7	108.9	101.3	94.8	93.3	90.3	88.2	90.7	92.6
	93.5	99.3	109.8	121.6	127.8	137.3	135.8	122.4	106.8	84.5	63.8	47.0
3629	77.9	110.0	120.3	126.2	121.5	115.2	106.4	103.6	98.1	93.3	543.7	94.5
	92.3	91.4	96.2	99.6	99.5	103.5	104.1	98.1	90.9	75.0	56.3	41.1
4429	71.8	104.2	117.9	126.2	123.8	119.0	113.4	115.2	114.2	120.3	131.1	134.6
	130.6	126.4	125.3	121.1	111.7	107.7	101.0	89.0	75.4	59.8	44.3	32.2
437	32.2	49.5	58.3	63.8	69.5	74.3	80.9	89.4	92.2	93.5	97.2	96.1
	93.0	88.3	87.3	83.6	77.2	74.7	69.5	61.4	54.0	45.2	30.5	21.2
1237	68.0	101.4	116.5	121.8	119.8	115.1	108.5	106.8	101.0	95.8	94.1	95.0
	92.3	87.9	90.5	94.2	94.7	99.6	100.3	92.5	80.7	66.2	51.0	37.4
2037	80.4	108.6	118.6	125.3	121.9	113.0	107.7	107.1	103.6	100.4	100.3	101.5
	99.9	99.4	103.2	109.2	108.0	112.2	111.8	105.3	94.0	76.9	58.9	41.6
2837	72.0	104.8	118.4	123.9	121.4	113.2	105.0	102.7	99.1	94.8	94.2	96.9
	95.9	95.1	100.2	103.6	102.9	105.6	107.2	103.7	95.1	80.3	63.1	48.1
3637	77.9	110.3	121.5	124.1	120.6	111.5	102.3	101.4	95.8	90.2	89.8	90.0
	87.1	84.4	88.4	93.5	94.6	101.0	101.5	93.2	82.1	67.2	51.0	38.0
4437	27.0	60.7	92.4	109.8	119.6	120.2	118.1	117.7	123.2	122.5	120.3	120.4
	121.7	117.7	111.8	111.9	111.6	105.0	102.9	99.0	87.7	75.8	63.9	50.8
1245	49.6	73.1	86.6	97.4	102.3	103.2	106.4	111.6	110.3	106.5	105.5	103.1
	97.8	93.4	93.4	92.7	87.0	86.2	82.4	72.4	61.4	47.2	34.3	24.0
2045	65.0	94.9	106.8	114.0	111.9	105.5	101.9	102.8	102.9	106.9	112.9	115.8
	113.3	109.9	110.4	110.0	102.6	100.2	95.9	85.1	72.9	57.8	43.6	32.8
2845	63.6	93.0	107.1	114.2	111.6	105.4	99.6	101.1	102.3	107.0	114.7	121.7
	120.7	115.1	115.2	113.7	106.3	103.2	99.3	88.7	75.7	62.1	48.0	35.4
3645	61.0	88.8	102.6	111.6	112.4	110.6	112.0	115.1	112.5	110.5	111.1	109.1
	103.7	99.0	98.8	98.3	91.4	89.8	86.1	75.6	64.8	52.3	39.3	27.9
4445	34.7	51.8	60.8	67.5	71.7	73.6	76.3	79.5	77.5	76.0	75.6	75.3
	73.8	70.0	69.6	69.0	65.8	65.0	61.9	55.7	47.5	37.2	27.7	20.0

DATA SET 26 - JULY 20, 1977

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 8643 MWD/T
CORE THERMAL POWER, 2357 MWT
DOME PRESSURE,P, 997 PSIA
CORE FLOW, 78.2 MLB/HR
INLET SUBCOOLING AT P, 21.6 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51						
47		34	28	28	34	
43						
39	34	14	8	8	14	34
35						
31	28	8	16	16	8	28
27						
23	28	8	16	16	8	28
19						
15	34	14	8	8	14	34
11						
7		34	28	28	34	
3						

2 6 10 14 18 22 26 30 34 38 42 46 50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	50.2	64.1	71.9	79.3	82.5	85.8	92.8	98.7	104.6	114.8	121.9	120.5
	113.8	113.1	109.1	102.2	95.1	92.1	83.4	70.6	58.3	43.9	29.8	23.6
2805	49.9	67.3	76.4	84.7	86.9	87.2	90.7	95.2	101.0	111.8	123.8	125.6
	121.0	119.2	117.0	111.8	102.8	100.0	91.6	77.4	65.2	50.1	35.4	25.9
3605	37.5	51.8	58.4	64.5	68.3	73.2	82.2	89.2	91.6	91.8	94.3	92.8
	88.9	87.1	84.8	82.6	77.3	75.4	69.5	59.9	50.4	37.7	26.8	19.5
1213	80.5	103.4	113.6	119.7	116.6	114.4	110.2	108.0	103.9	98.1	98.3	95.5
	89.6	91.1	92.3	93.4	94.4	96.8	92.3	80.5	66.4	50.8	35.6	29.3
2013	86.0	108.4	116.6	123.2	120.1	113.9	110.6	111.8	109.8	108.5	111.8	111.9
	108.1	108.5	108.2	106.6	103.1	105.0	102.1	92.4	82.7	65.2	47.5	38.5
2813	82.9	110.6	120.8	127.5	125.3	122.3	119.9	119.9	118.4	118.8	124.0	124.9
	121.8	120.8	121.8	120.3	115.7	116.8	113.9	104.7	92.7	72.8	53.6	40.4
3613	85.0	110.2	117.7	121.8	118.1	109.3	105.0	104.5	101.1	98.5	99.3	97.8
	93.9	94.1	96.2	97.3	98.8	104.2	100.4	89.0	77.2	61.5	45.4	35.3
4413	52.3	78.8	92.6	103.3	107.4	108.6	111.9	116.6	112.8	110.9	109.8	109.7
	103.7	99.8	101.0	100.5	94.5	93.9	90.6	79.7	67.4	51.8	36.8	24.6
421	38.9	62.9	77.7	86.5	92.4	93.9	95.8	101.2	107.2	113.1	123.6	126.4
	123.9	118.1	114.7	110.2	101.2	96.2	89.2	78.5	66.3	54.0	41.4	29.7
1221	66.3	98.7	112.7	117.7	117.3	110.1	103.7	102.0	98.2	95.3	95.4	97.3
	95.2	91.1	93.6	94.3	90.6	92.0	93.9	89.7	82.0	69.8	55.8	41.7
2021	62.5	92.8	105.7	109.8	108.7	102.6	96.7	93.5	89.8	86.8	87.4	89.8
	90.1	89.3	96.2	104.0	107.3	113.2	115.1	108.4	96.3	81.5	64.2	49.3
2821	83.2	102.4	107.0	110.1	104.6	97.9	95.6	92.9	88.7	86.6	88.9	89.7
	90.1	96.5	107.4	115.4	120.4	124.9	120.7	107.5	94.2	71.9	55.6	49.2
3621	73.3	104.4	115.0	120.5	119.5	113.2	107.1	107.3	102.7	99.4	98.3	98.7
	98.9	98.2	102.8	107.5	106.4	110.9	112.8	107.3	97.4	80.9	61.7	43.0
4421	66.4	98.9	115.1	122.4	121.9	114.8	109.8	109.9	110.1	113.5	120.6	124.7
	118.7	114.0	113.3	111.9	104.9	101.8	97.3	87.0	74.8	59.7	44.2	32.4
429	44.1	66.4	80.1	90.2	95.7	98.6	102.4	108.3	112.7	122.7	132.8	137.8
	134.1	127.5	123.5	120.3	110.2	105.0	96.7	83.7	70.2	55.1	40.4	27.8
1229	75.2	109.8	125.1	135.4	135.4	128.9	121.6	120.1	117.9	117.8	119.0	120.1
	116.9	112.7	115.1	114.0	108.5	107.9	107.6	101.9	93.0	84.1	61.9	45.0
2029	66.8	97.9	109.5	113.7	112.7	107.8	101.6	100.4	96.6	94.3	94.1	96.1
	97.6	100.0	108.9	121.1	126.8	132.5	132.3	122.4	107.4	87.1	67.9	54.2
2829	68.2	93.6	102.1	106.3	105.1	100.7	94.6	93.6	91.8	89.1	91.6	94.2
	93.4	100.0	111.6	123.8	129.5	138.9	137.4	124.7	108.9	87.1	65.8	48.5
3629	77.3	106.8	117.9	123.5	120.8	113.3	105.4	103.2	98.8	95.7	96.4	96.4
	94.0	94.6	97.9	102.7	101.6	106.2	107.6	101.9	93.2	76.4	57.5	41.8
4429	73.3	105.0	116.9	124.4	122.5	117.2	114.9	117.0	116.6	123.9	134.2	138.6
	134.6	129.1	127.0	123.2	113.2	110.3	103.3	90.1	77.1	61.3	45.6	33.0
437	33.0	50.3	59.4	65.6	71.4	76.5	82.7	92.1	94.2	96.4	98.9	97.7
	94.5	90.4	89.4	86.1	79.9	77.1	71.8	63.5	55.2	46.9	32.2	22.0
1237	68.9	102.8	118.4	124.2	125.2	119.2	109.9	108.7	104.1	99.2	96.9	97.0
	94.5	89.7	92.2	96.3	97.1	101.6	102.3	94.8	83.0	68.8	53.6	39.9
2037	77.7	106.3	116.3	123.2	122.0	115.7	110.3	108.3	105.0	102.2	102.2	102.3
	101.7	102.0	106.7	111.9	110.4	115.1	115.8	108.1	97.7	80.6	61.1	44.2
2837	70.1	101.1	113.6	121.2	119.6	112.5	105.2	104.2	100.5	97.2	97.5	99.4
	98.4	97.5	102.6	106.4	104.9	108.6	110.6	106.1	98.1	83.8	65.9	50.5
3637	78.5	109.3	120.1	124.2	119.3	111.5	103.6	101.3	96.3	92.3	92.5	91.9
	88.9	86.7	91.2	96.2	96.8	102.9	103.2	94.9	84.1	68.7	52.2	39.1
4437	29.9	65.0	98.2	114.4	122.9	124.1	122.1	122.4	129.0	127.3	124.0	124.1
	125.9	120.9	114.2	113.8	112.7	106.6	104.6	100.9	88.9	76.5	65.3	50.6
1245	52.8	79.3	93.1	103.3	107.7	108.2	111.6	115.2	114.0	111.3	108.6	107.1
	101.1	96.1	96.1	95.4	89.0	88.4	85.1	74.7	63.1	48.9	35.8	24.8
2045	67.5	97.4	109.5	116.6	115.7	109.2	104.3	105.4	106.9	108.6	115.6	119.7
	114.8	111.6	111.7	112.1	105.6	102.3	97.5	87.1	75.4	59.7	45.3	33.3
2845	63.4	93.2	107.3	113.6	112.2	107.7	101.3	102.4	105.2	110.1	119.8	125.9
	124.2	118.2	119.0	116.5	108.9	107.0	102.2	90.9	78.4	64.2	49.3	36.3
3645	63.7	92.6	107.1	114.9	115.9	115.6	114.8	119.6	119.1	115.3	114.6	113.8
	107.2	101.5	101.9	101.2	94.9	92.9	88.4	78.9	67.3	54.2	41.6	29.9
4445	37.2	54.4	63.7	70.8	74.0	76.6	77.7	81.0	79.5	77.2	77.7	76.5
	74.3	71.9	71.6	71.0	67.5	66.4	63.3	57.8	49.2	39.0	29.0	21.0

DATA SET 27 - AUGUST 5, 1977

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 8941 MWD/T
CORE THERMAL POWER, 2372 MWT
DOME PRESSURE,P, 997 PSIA
CORE FLOW, 73.9 MLB/HR
INLET SUBCOOLING AT P, 23.1 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47				34		18		34				
43												
39			30		12		6		12		30	
35												
31			20		8		20		8		20	
27												
23			20		8		20		8		20	
19												
15			30		12		6		12		30	
11												
7				34		18		34				
3												
	2	6	10	14	18	22	26	30	34	38	42	46 50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	55.0	70.0	77.3	85.8	91.0	97.3	108.3	113.2	112.1	111.1	110.8	105.4
	100.0	100.9	100.7	98.2	93.8	91.9	84.5	71.4	59.4	44.7	30.7	24.1
2805	54.4	72.8	82.6	90.1	91.8	92.4	93.4	93.4	90.6	89.7	90.1	88.7
	88.4	93.4	100.9	106.0	103.2	103.2	95.0	81.0	68.9	51.7	36.5	26.6
3605	42.3	57.1	64.8	70.8	74.9	80.1	89.7	95.0	93.2	91.8	90.1	87.5
	83.3	81.4	81.1	79.4	75.2	73.4	68.1	58.9	49.3	36.7	25.9	20.0
1213	95.4	118.8	127.3	130.1	122.5	113.6	112.2	112.9	113.5	114.4	117.7	114.9
	107.4	107.8	107.1	103.3	99.0	97.6	90.7	77.9	64.4	49.1	34.6	33.9
2013	88.7	111.4	120.1	126.4	121.6	116.0	114.5	114.1	110.2	106.5	108.5	107.1
	101.4	102.8	105.3	106.8	106.9	112.7	108.9	96.5	83.5	64.4	47.0	38.9
2813	85.9	114.4	125.1	132.5	130.9	125.8	121.4	119.3	115.1	111.2	113.2	112.4
	110.3	111.2	113.2	115.7	112.3	114.4	110.2	98.5	87.6	70.2	52.1	39.5
3613	93.7	120.6	127.8	131.0	123.7	115.0	110.4	110.9	107.1	104.2	104.9	104.0
	99.5	98.7	99.6	99.2	97.1	100.7	98.5	87.4	75.9	59.6	43.9	35.3
4413	60.8	90.0	103.7	112.7	111.4	107.2	101.6	105.3	108.2	110.4	115.1	117.0
	113.7	108.8	109.1	107.9	99.7	96.7	91.0	79.6	66.2	51.1	36.1	24.3
421	76.1	121.6	143.1	150.8	145.3	134.6	122.8	117.6	111.3	105.4	103.5	104.8
	102.7	101.3	103.3	101.9	96.2	92.5	88.2	76.6	65.8	53.4	40.6	29.9
1221	72.8	106.1	119.8	122.8	118.6	110.5	101.4	99.1	96.0	94.0	95.0	98.3
	100.7	102.9	110.8	114.3	110.6	110.3	108.2	98.5	84.9	69.5	53.9	39.9
2021	63.8	93.0	105.5	109.5	108.7	103.2	96.7	95.7	91.0	89.6	90.5	92.5
	93.5	93.5	98.1	100.2	97.6	100.3	102.3	99.1	89.6	77.7	62.1	46.3
2821	86.7	107.6	111.3	113.7	107.5	100.7	96.3	93.5	89.7	85.9	89.4	92.0
	94.9	104.7	113.4	114.9	112.7	114.4	110.3	98.8	86.6	69.5	52.2	46.5
3621	74.7	106.2	117.8	122.1	119.4	113.6	106.8	106.9	101.1	99.6	102.7	104.1
	103.6	103.9	109.0	112.7	109.7	111.7	112.4	106.4	96.0	79.6	60.6	42.4
4421	84.7	121.9	135.5	140.4	133.6	121.7	110.0	104.8	98.8	98.1	99.6	102.5
	102.8	106.6	114.3	117.9	111.3	109.8	104.0	90.8	77.2	61.1	45.1	31.3
429	88.7	129.8	148.5	156.0	150.3	136.8	125.4	121.4	111.2	105.5	104.0	105.4
	105.0	103.1	106.5	108.2	102.6	100.1	93.6	81.7	68.0	53.4	39.3	27.3
1229	80.6	116.7	131.7	137.0	135.1	126.1	116.9	112.8	108.5	107.5	108.7	112.1
	115.4	122.5	134.6	140.0	133.8	132.4	127.4	115.3	98.7	86.2	60.5	43.8
2029	66.4	96.7	108.6	113.0	112.0	107.1	102.7	101.7	97.2	94.5	96.1	99.2
	100.9	102.3	107.1	112.4	111.0	113.5	114.6	109.8	101.0	84.9	66.2	48.6
2829	74.7	99.4	107.6	112.0	108.7	103.0	98.2	96.1	92.5	90.3	94.1	98.7
	101.8	110.4	120.3	125.1	122.8	126.1	123.3	111.8	99.0	79.1	60.6	44.6
3629	77.8	106.7	118.2	124.3	119.5	112.3	107.3	104.7	98.3	94.5	98.1	100.0
	99.9	100.0	105.2	108.0	105.0	109.5	108.4	102.0	93.4	76.1	57.6	42.1
4429	96.3	133.4	144.9	150.6	141.6	127.6	116.0	109.7	104.0	100.8	102.4	106.6
	108.6	114.4	124.2	127.5	120.5	117.0	111.2	96.6	81.5	64.0	47.6	34.5
437	59.0	88.0	100.8	105.8	105.4	98.1	91.5	89.6	87.3	85.8	85.2	86.6
	86.0	83.0	84.7	82.7	76.9	74.2	70.8	62.7	54.5	46.3	31.3	21.8
1237	77.4	114.4	128.3	131.5	127.8	117.4	110.6	111.3	111.4	110.8	113.5	114.6
	112.8	107.9	110.3	112.3	106.4	105.2	103.3	93.8	81.2	66.7	51.8	38.3
2037	79.8	108.3	117.3	124.3	121.4	113.4	108.5	105.4	102.2	99.4	99.6	100.0
	98.1	99.1	103.9	107.0	105.2	113.2	115.9	107.8	96.6	77.8	58.4	41.5
2837	72.4	106.0	119.9	126.0	123.0	115.1	107.1	103.8	98.2	94.3	94.0	96.6
	96.4	96.7	101.9	105.1	102.1	104.5	104.4	99.1	90.9	78.5	62.0	47.4
3637	80.7	111.0	121.7	126.1	122.2	114.4	107.2	105.7	102.0	98.0	98.0	97.8
	95.1	93.1	94.9	97.8	96.9	100.8	102.5	94.6	83.5	68.0	52.4	39.0
4437	35.6	77.3	115.0	130.9	136.7	132.4	124.6	115.9	118.0	118.3	119.5	122.7
	124.6	122.6	119.7	122.3	122.4	113.7	110.3	105.5	92.0	78.5	66.2	49.9
1245	76.3	111.1	126.8	135.8	132.0	125.2	118.9	117.2	113.7	108.8	107.4	105.8
	100.7	95.1	95.4	93.5	87.2	84.4	80.6	71.0	59.7	46.1	33.6	23.5
2045	74.4	106.6	119.0	125.5	123.3	117.5	114.0	117.8	115.7	111.0	108.4	108.4
	104.8	100.1	102.8	105.1	99.6	99.1	97.0	87.0	74.2	58.8	44.3	33.3
2845	68.9	99.6	113.5	120.8	119.1	111.5	105.3	105.8	100.8	98.1	95.9	96.7
	95.9	94.9	101.4	107.9	105.8	106.5	103.7	92.8	79.2	64.9	49.9	37.1
3645	73.0	55.0	121.9	129.5	125.4	122.6	120.8	125.8	122.1	115.6	112.8	110.5
	103.9	98.9	98.2	97.9	91.9	90.5	86.0	76.2	65.5	52.9	40.1	29.0
4445	47.0	68.1	78.3	84.9	85.6	82.4	80.5	81.6	80.2	78.4	79.0	79.0
	76.9	74.0	74.3	72.7	68.3	66.5	63.1	56.4	48.2	37.7	27.8	20.2

DATA SET 28 - SEPTEMBER 29, 1977

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 9882 MWD/T
CORE THERMAL POWER, 2268 MWT
DOME PRESSURE,P, 989 PSIA
CORE FLOW, 76.6 MLB/HR
INLET SUBCOOLING AT P, 21.2 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47				42		18		42				
43												
39			36	12		6		12		36		
35												
31			20	4		20		4		20		
27												
23			20	4		20		4		20		
19												
15			36	12		6		12		36		
11												
7				42		18		42				
3												
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	74.4	99.7	119.0	133.5	134.2	125.9	120.6	113.9	106.2	99.6	98.1	96.9
	92.2	94.1	94.3	92.4	88.9	88.8	83.3	71.8	60.4	45.8	31.7	24.9
2805	69.7	94.3	106.0	113.9	112.3	105.5	101.3	97.4	89.8	84.9	84.7	84.5
	83.0	88.9	97.7	102.1	102.1	102.2	92.9	82.3	70.1	54.1	37.7	27.8
3605	60.8	87.3	104.8	118.3	117.4	112.1	107.0	100.0	91.1	84.5	83.3	79.7
	77.3	76.8	74.7	74.1	71.0	70.2	65.7	58.1	49.3	37.1	26.6	20.3
1213	119.0	145.3	150.7	154.4	150.1	144.2	140.5	135.3	125.3	116.1	114.8	109.0
	100.8	100.1	100.2	96.7	93.6	92.5	88.8	74.3	62.4	48.3	34.2	29.4
2013	100.0	124.6	134.0	142.1	137.6	127.1	120.6	117.6	111.4	106.7	106.7	104.6
	99.8	100.7	102.8	104.1	104.3	111.3	108.3	96.8	85.2	65.9	48.1	39.6
2813	92.1	120.5	130.5	137.3	135.3	129.3	127.1	123.2	116.1	110.9	111.6	110.4
	106.9	107.8	111.2	112.2	109.7	111.6	107.9	97.2	87.7	72.8	52.6	40.3
3613	111.3	139.8	148.7	152.8	143.8	132.2	123.2	119.4	112.3	104.2	102.2	99.3
	93.9	92.1	94.2	93.9	90.9	95.8	94.3	84.3	73.8	58.8	43.7	34.9
4413	78.0	114.5	131.7	143.5	146.6	146.4	143.2	141.6	131.7	123.0	119.7	117.5
	110.9	106.7	107.3	105.1	98.3	96.2	91.7	79.0	67.1	50.9	37.1	24.8
421	78.7	123.7	144.8	150.9	149.1	141.5	131.6	125.5	116.8	110.1	107.5	107.1
	104.9	101.7	102.5	103.5	97.2	92.6	87.7	78.6	67.0	54.8	41.5	30.5
1221	72.1	106.1	119.4	123.6	123.2	116.8	110.1	108.3	103.9	98.7	96.9	99.2
	100.9	102.1	108.9	112.0	108.9	108.1	105.6	96.7	83.9	70.0	54.5	41.6
2021	59.5	86.8	98.6	102.5	103.3	101.3	98.7	98.6	94.9	93.0	93.0	95.3
	95.6	94.2	98.2	100.6	97.2	97.9	97.0	90.9	80.9	70.4	57.0	44.1
2821	82.6	101.5	106.4	110.2	106.6	102.4	100.3	98.4	94.8	92.6	94.7	96.4
	98.4	106.1	112.1	114.2	111.5	111.5	106.6	95.1	83.9	67.5	50.5	45.0
3621	73.7	103.7	115.9	122.7	123.5	119.9	116.4	115.7	109.3	106.4	108.4	109.2
	108.2	107.7	110.7	114.3	109.4	110.4	107.5	99.6	88.5	74.1	57.6	40.2
4421	96.1	137.7	154.5	144.1	149.0	139.7	126.3	122.8	115.1	108.3	107.7	108.7
	107.8	109.1	116.6	119.0	113.0	112.5	107.3	94.4	80.6	64.1	47.5	32.5
429	94.3	137.3	156.5	163.3	159.2	149.1	136.6	130.4	119.6	111.7	109.2	109.4
	106.6	105.0	108.3	110.4	104.1	102.5	96.3	83.6	70.2	52.5	40.5	28.4
1229	76.0	110.9	123.7	131.1	132.4	127.4	121.3	119.5	116.2	113.7	114.2	115.4
	119.0	124.9	134.9	138.9	134.3	126.7	125.8	112.8	98.4	85.6	62.5	44.9
2029	60.9	88.2	99.2	103.6	106.1	104.6	103.6	104.6	100.3	98.0	100.7	102.7
	103.8	104.6	108.7	111.2	108.4	108.0	104.9	96.7	86.7	75.5	60.5	45.9
2829	71.1	94.9	103.3	110.0	109.3	105.0	101.9	101.1	98.0	97.1	100.2	103.8
	106.4	113.5	122.4	124.2	119.6	122.4	118.7	106.8	94.3	75.7	58.1	42.4
3629	74.4	102.5	113.0	119.8	120.1	117.3	113.1	109.2	105.5	102.7	102.9	104.5
	102.5	102.0	104.9	107.5	104.1	105.4	101.1	90.7	81.9	67.9	52.7	38.6
4429	105.5	142.1	154.7	159.6	152.5	141.4	129.0	123.4	114.3	109.1	110.8	112.5
	113.8	119.6	128.2	131.3	123.9	122.1	114.4	99.8	85.1	66.2	49.5	35.9
437	64.0	94.2	108.1	115.1	116.3	111.2	105.0	102.2	98.6	93.3	90.6	89.8
	85.8	83.1	83.6	86.7	77.4	76.2	72.3	64.7	56.4	48.2	32.6	23.0
1237	85.6	125.9	142.3	148.6	149.2	146.0	140.5	140.3	130.7	120.3	115.2	114.0
	110.0	105.3	106.2	105.7	102.4	102.8	100.0	91.3	80.0	65.4	51.1	38.2
2037	81.2	108.6	117.9	125.6	124.2	118.9	115.8	112.6	107.0	102.9	102.9	103.0
	100.6	101.0	104.2	107.4	105.1	113.1	115.2	106.0	94.5	77.6	58.9	41.9
2837	74.4	107.9	121.5	128.3	125.9	119.4	111.8	110.1	105.1	99.8	99.1	99.8
	99.3	98.6	103.6	106.7	103.7	106.2	106.3	99.3	91.6	79.9	63.1	48.2
3637	86.5	119.9	130.2	136.6	132.0	125.7	119.8	118.0	111.2	104.3	103.4	101.2
	96.4	93.8	95.3	97.5	95.7	99.8	100.5	92.9	82.1	67.8	51.7	38.8
4437	43.6	94.1	138.1	156.3	163.3	166.5	162.1	155.6	156.3	146.0	136.3	131.5
	129.6	125.1	119.6	122.0	122.6	115.3	111.4	106.1	91.5	80.0	68.0	52.6
1245	103.6	147.7	162.6	171.3	164.5	151.9	137.8	131.7	121.5	110.5	107.3	103.7
	97.3	91.7	91.1	90.5	84.5	83.4	79.5	70.0	59.6	46.2	33.6	23.8
2045	98.2	141.2	159.5	172.9	166.2	153.7	135.0	128.5	118.2	108.7	104.2	102.3
	98.2	95.4	98.7	101.3	97.4	98.6	95.9	86.3	74.4	58.9	46.1	33.7
2845	86.1	123.7	139.8	146.4	140.2	130.5	117.6	112.2	105.3	98.1	95.6	95.7
	94.0	93.1	100.9	107.1	105.5	107.4	104.0	94.8	82.8	67.9	52.7	38.6
3645	103.0	149.2	171.5	183.1	180.1	164.4	147.8	137.9	125.4	114.6	108.8	105.9
	100.3	94.7	95.0	94.5	88.8	88.7	84.7	76.1	65.7	53.6	40.9	29.6
4445	61.4	87.0	98.9	106.5	106.2	102.5	97.6	96.6	90.8	85.4	82.7	81.2
	78.0	74.3	74.2	72.9	68.7	67.7	64.3	57.9	50.3	39.3	29.3	21.2

DATA SET 29 - OCTOBER 31, 1977

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 10180 MWD/T
CORE THERMAL POWER, 2415 MWT
DOME PRESSURE,P, 998 PSIA
CORE FLOW, 78.2 MLB/HR
INLET SUBCOOLING AT P, 21.9 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51					
47					
43	16	34	12	34	16
39					
35	34	6	40	6	34
31					
27	12	40	8	40	12
23					
19	34	6	40	6	34
15					
11	16	34	12	34	16
7					
3					

2 6 10 14 18 22 26 30 34 38 42 46 50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	99.1	121.3	126.4	129.9	125.5	117.3	114.9	110.9	105.5	101.3	100.1	95.5
	88.9	88.5	87.9	83.8	80.1	79.8	74.3	63.9	54.1	41.1	28.8	22.8
2805	106.9	137.5	146.2	149.7	139.9	126.0	116.3	112.0	106.1	99.8	97.7	94.6
	89.0	87.4	87.6	86.1	82.0	82.8	78.1	68.3	58.7	45.6	33.1	24.3
3605	67.6	89.5	96.8	99.6	96.9	94.1	92.5	90.6	85.4	80.7	79.8	77.5
	73.2	72.6	72.2	71.2	67.7	67.0	62.8	54.8	46.4	35.1	25.3	19.2
1213	100.8	122.8	129.0	131.1	125.2	117.9	114.9	112.2	107.5	100.6	100.1	96.7
	90.8	92.4	96.5	97.3	96.1	95.9	88.6	76.5	64.3	49.1	35.3	29.2
2013	93.4	116.2	124.6	131.7	130.5	128.5	133.0	136.5	135.0	129.9	128.7	124.8
	116.5	113.0	112.9	110.3	104.3	103.5	97.7	86.0	74.5	58.3	43.3	36.0
2813	91.0	119.3	130.0	140.1	139.4	136.5	135.5	134.3	128.9	124.0	124.5	122.7
	117.1	112.9	113.3	113.5	110.4	114.4	111.1	99.9	86.1	66.8	49.7	37.3
3613	94.6	119.2	125.2	128.9	125.3	121.8	124.5	127.7	123.8	117.3	114.9	112.7
	105.6	102.5	102.6	100.1	93.9	93.1	87.0	76.3	67.1	53.5	40.6	32.2
4413	65.1	96.2	110.1	118.2	119.0	111.6	105.9	105.1	100.1	94.8	93.2	91.9
	88.1	86.5	90.4	94.7	92.8	94.4	90.6	79.8	67.9	52.4	36.9	24.4
421	73.9	115.2	135.4	141.1	141.9	135.0	128.5	126.3	119.8	114.1	109.0	105.6
	98.7	91.9	92.1	90.5	84.3	82.2	78.5	70.9	60.9	49.8	38.7	27.9
1221	70.6	103.6	118.7	123.3	125.1	121.2	119.5	123.5	120.3	115.6	112.9	111.5
	106.2	98.5	98.6	98.6	94.0	92.7	92.7	85.7	74.8	62.8	49.4	37.4
2021	64.5	95.4	110.8	118.9	123.5	121.4	116.4	114.4	109.9	104.8	103.6	102.7
	98.1	93.0	93.2	92.1	86.8	85.2	85.5	81.2	73.7	65.8	53.9	42.5
2821	94.0	117.1	128.5	140.8	141.3	134.9	131.4	126.3	120.6	114.9	114.4	110.5
	103.6	102.2	101.5	98.4	93.9	94.5	91.6	82.1	72.2	58.4	45.2	41.3
3621	75.7	107.4	120.1	129.0	130.4	129.0	126.2	124.6	120.6	116.5	115.0	113.6
	107.9	102.6	103.9	103.3	98.1	98.0	96.7	88.8	79.7	68.7	52.5	37.7
4421	91.8	132.6	145.5	149.7	143.4	135.6	130.4	132.7	127.8	121.1	116.4	113.1
	106.4	99.1	98.6	98.6	92.9	92.7	89.9	80.6	70.0	55.8	41.4	29.7
429	89.9	131.3	147.2	156.7	155.1	145.4	136.6	133.5	123.1	113.1	107.3	103.6
	97.1	91.8	91.0	91.5	85.8	85.2	82.2	72.8	62.6	49.6	37.0	26.2
1229	79.9	114.9	131.6	142.8	146.4	143.7	138.4	135.4	130.5	126.4	123.1	120.0
	114.5	107.5	107.2	107.6	103.6	108.4	109.9	102.0	90.2	80.0	57.4	41.0
2029	71.6	105.4	123.1	135.9	144.6	141.6	138.4	137.3	131.5	125.8	123.1	121.9
	116.2	110.7	109.6	108.5	103.4	102.9	100.8	93.6	83.2	70.0	55.1	41.7
2829	87.8	114.5	123.5	132.0	132.2	126.5	119.1	118.5	113.0	107.0	107.7	105.7
	98.6	96.2	96.7	94.6	92.7	98.7	99.2	92.6	84.1	67.9	52.6	38.7
3629	83.7	117.2	133.2	147.9	152.1	150.5	143.4	141.5	132.3	123.0	120.2	118.3
	110.8	103.4	104.4	103.5	99.0	99.4	96.8	87.4	78.3	63.7	47.7	36.4
4429	101.5	137.2	149.4	155.9	148.6	138.8	130.0	125.9	119.0	111.1	109.5	106.6
	100.1	94.5	94.5	94.6	91.2	94.9	94.7	85.8	74.6	59.4	44.4	33.3
437	57.3	85.6	97.5	102.8	103.8	100.4	96.2	97.1	93.7	90.1	86.8	85.3
	81.6	77.2	77.5	75.8	70.3	69.4	66.2	60.1	53.0	45.5	31.0	21.3
1237	78.1	115.5	131.1	135.9	135.0	130.1	125.9	129.3	126.6	119.0	114.3	111.1
	106.8	98.8	98.7	98.1	94.3	92.6	90.4	83.5	72.6	60.8	48.4	36.5
2037	84.5	113.7	124.5	134.1	137.0	133.5	130.6	130.5	125.4	121.1	118.6	115.3
	110.1	105.6	106.7	105.2	99.3	98.4	94.5	86.0	77.7	65.2	51.0	36.8
2837	78.9	113.3	131.1	145.2	153.1	148.9	141.3	141.2	133.0	125.4	120.8	119.8
	115.1	108.7	108.6	108.3	102.2	101.3	99.1	91.1	81.0	67.6	53.3	40.9
3637	82.5	112.1	122.2	129.3	127.6	123.6	121.9	122.4	115.8	109.8	108.5	105.2
	97.2	92.4	91.8	91.4	84.9	85.0	82.8	76.6	70.0	59.0	46.4	35.2
4437	37.5	81.5	118.5	133.1	140.2	138.5	133.2	131.3	137.5	134.3	127.6	125.1
	122.8	115.3	109.3	110.0	109.2	102.7	100.9	96.8	86.0	74.6	62.6	49.1
1245	67.1	96.6	108.9	116.3	115.7	112.0	107.2	104.7	99.0	93.1	90.9	88.2
	84.0	81.5	83.9	87.7	86.8	88.8	85.3	75.2	64.0	49.2	35.8	24.0
2045	95.6	131.7	140.6	143.5	137.0	129.6	124.3	126.5	122.2	114.7	110.8	110.3
	103.5	97.8	98.3	97.8	92.1	91.3	88.2	79.9	68.7	54.9	41.7	30.6
2845	93.9	132.8	145.5	147.3	140.3	129.4	117.3	113.4	108.0	102.7	99.3	98.4
	93.5	88.4	88.5	89.1	86.2	88.7	90.3	84.3	74.3	61.0	47.0	34.4
3645	82.9	116.9	128.7	134.0	129.7	126.5	124.5	126.5	124.3	116.7	112.3	108.3
	101.9	95.9	95.9	95.1	89.1	88.1	83.2	74.2	63.5	51.1	38.8	27.3
4445	30.6	43.6	49.8	54.8	57.2	57.3	57.4	58.8	57.9	57.5	57.7	57.3
	56.5	57.0	60.2	65.9	69.2	72.8	71.3	64.8	56.0	44.0	32.2	22.5

DATA SET 30 - NOVEMBER 9, 1977

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 10366 MWD/T
CORE THERMAL POWER, 2382 MWT
DOME PRESSURE,P, 996 PSIA
CORE FLOW, 78.6 MLB/HR
INLET SUBCOOLING AT P, 21.5 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47												
43		16		34		12		34		16		
39												
35		34		6		40		6		34		
31												
27		12		40		16		40		12		
23												
19		34		6		40		6		34		
15												
11		16		34		12		34		16		
7												
3												
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

NO TIP DATA AVAILABLE

DATA SET 31 - NOVEMBER 29, 1977

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 10765 MWD/T
CORE THERMAL POWER, 2280 MWT
DOME PRESSURE,P, 988 PSIA
CORE FLOW, 78.5 MLB/HR
INLET SUBCOOLING AT P, 20.6 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51					
47					
43	18	34	12	34	18
39					
35	34	8	40	8	34
31					
27	12	40	16	40	12
23					
19	34	8	40	8	34
15					
11	18	34	12	34	18
7					
3					

2 6 10 14 18 22 26 30 34 38 42 46 50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	84.0	102.6	108.8	113.8	113.2	110.2	112.4	109.8	105.4	102.0	101.2	98.3
	92.8	92.9	92.5	88.8	85.9	85.5	79.3	69.4	58.7	45.5	32.0	25.1
2805	92.3	120.3	128.2	132.9	128.5	119.0	113.9	111.9	105.9	99.9	99.2	97.2
	92.3	91.1	91.3	89.7	85.8	87.3	82.7	72.9	63.0	49.2	35.0	26.3
3605	58.1	77.1	84.3	89.4	89.4	89.1	91.3	90.9	86.8	83.7	82.7	80.8
	77.9	77.8	77.2	76.4	72.9	72.8	68.5	59.9	51.2	38.5	28.0	21.3
1213	86.6	105.9	113.8	119.4	116.3	111.9	113.0	112.6	107.1	104.1	104.8	102.6
	98.2	103.5	107.8	106.7	104.0	103.2	96.5	83.1	69.5	53.6	38.6	32.8
2013	76.7	96.0	105.1	113.3	118.0	120.4	128.3	134.9	133.5	130.7	131.5	127.7
	119.3	118.5	117.9	115.7	109.9	111.1	105.6	94.1	82.3	64.6	48.0	39.1
2813	75.2	98.9	109.8	119.5	123.9	126.4	129.2	130.4	127.9	124.7	125.7	124.9
	119.6	117.6	117.5	117.8	115.6	120.5	118.5	105.9	92.4	73.1	54.0	40.6
3613	80.6	102.0	109.0	115.9	115.6	115.6	121.3	127.1	125.3	120.1	120.0	117.8
	110.6	109.5	110.0	108.3	101.6	100.4	95.0	84.0	73.8	59.7	44.9	36.4
4413	56.5	83.2	96.7	106.5	108.9	106.4	104.4	103.9	101.0	97.1	98.0	97.3
	94.7	97.4	103.3	106.8	102.9	103.5	99.4	87.3	74.2	58.0	41.1	27.0
421	60.4	94.8	111.4	119.5	124.1	124.3	123.0	123.3	119.6	115.2	112.3	109.5
	105.1	97.9	97.4	97.5	91.2	88.5	86.0	77.5	67.2	56.2	43.4	31.8
1221	57.2	84.4	96.5	103.8	109.4	111.3	111.6	120.9	119.8	117.1	115.1	114.4
	109.3	101.7	101.9	102.6	98.6	98.2	98.3	91.5	81.5	68.6	54.1	40.9
2021	53.8	79.6	93.1	101.8	108.8	110.6	110.0	113.0	111.3	107.7	105.7	107.0
	104.9	99.1	100.0	99.6	95.0	95.5	96.3	92.2	85.8	75.4	60.5	46.5
2821	75.9	95.5	107.9	121.2	126.9	126.1	126.3	123.6	119.5	114.7	114.9	112.6
	107.5	107.7	107.3	104.9	101.0	103.0	99.1	88.8	79.0	63.7	49.6	44.9
3621	60.9	86.5	98.3	108.6	113.9	115.5	118.2	121.8	118.0	116.4	115.7	114.4
	109.9	106.6	107.7	108.9	103.4	104.5	104.5	98.9	90.6	76.6	58.5	41.3
4421	75.9	107.8	121.5	129.7	129.8	127.2	124.9	131.2	126.9	120.3	117.0	114.7
	109.2	103.1	102.3	102.7	96.5	97.1	95.4	86.6	75.7	61.1	46.1	32.1
429	75.3	109.2	125.4	135.0	137.9	135.7	132.4	131.7	124.7	116.4	112.3	109.3
	102.9	97.5	98.4	97.7	92.5	92.9	89.1	80.0	69.1	55.2	41.3	28.6
1229	63.9	92.9	108.2	117.4	124.9	127.6	127.8	130.6	129.4	126.6	124.6	121.7
	116.9	111.3	112.2	111.4	109.3	111.8	116.0	109.8	97.7	87.8	63.6	45.9
2029	58.3	86.5	102.9	117.4	129.2	133.9	133.2	135.0	130.7	127.2	126.0	126.4
	121.8	116.5	118.7	118.2	112.6	112.1	111.1	103.3	92.2	77.1	60.4	45.7
2829	67.2	92.4	103.1	112.5	116.2	117.1	115.3	116.2	113.3	108.5	110.0	109.0
	104.7	102.0	104.9	109.0	108.3	111.8	110.6	101.8	91.2	74.4	58.0	43.0
3629	67.1	94.3	109.2	125.5	134.3	138.0	136.3	135.3	130.1	122.9	122.8	119.2
	112.1	108.6	108.6	108.3	103.8	106.1	104.0	95.3	84.4	69.4	53.3	39.3
4429	82.6	113.6	126.6	136.1	134.6	130.5	125.4	125.3	119.7	113.7	113.9	111.3
	105.2	100.1	99.9	99.7	97.2	101.4	101.5	92.5	80.8	65.1	48.8	35.4
437	47.6	70.5	80.3	85.8	90.6	91.1	91.6	92.9	91.7	90.8	90.9	83.7
	84.8	81.7	82.2	80.9	76.8	75.9	72.7	65.8	58.5	50.9	35.7	24.5
1237	64.8	95.8	109.6	116.6	120.2	120.5	121.3	127.6	126.4	119.5	116.6	116.7
	111.7	104.9	104.9	105.0	100.8	100.6	99.5	92.0	80.7	67.4	53.0	39.1
2037	68.4	92.5	103.5	114.7	118.7	121.6	123.5	126.3	125.6	121.2	119.2	117.1
	112.8	109.7	110.0	110.9	104.8	105.0	103.2	95.5	87.7	73.9	57.9	40.8
2837	64.2	93.9	110.1	125.4	135.6	138.5	134.6	135.1	130.9	126.1	125.3	124.3
	119.4	113.7	115.2	114.9	108.4	108.4	107.7	99.9	89.1	75.1	59.4	44.6
3637	67.4	92.7	101.0	108.8	111.9	112.8	114.0	117.8	114.3	110.5	108.7	106.6
	101.0	95.8	95.5	95.5	90.2	91.3	90.4	86.0	79.0	66.0	51.8	39.1
4437	32.1	68.6	100.9	115.8	123.3	125.4	125.5	127.3	133.7	132.8	129.0	126.6
	125.1	119.9	114.4	115.9	115.5	109.2	107.6	103.5	93.0	80.5	68.6	52.3
1245	57.6	82.8	95.1	104.0	106.1	104.1	102.0	102.8	99.1	95.4	94.6	93.1
	90.7	90.7	97.1	101.5	97.7	98.4	93.1	82.1	69.7	53.9	39.5	26.7
2045	81.5	113.1	122.5	128.1	124.7	121.5	120.6	124.6	120.8	115.6	112.9	111.3
	106.2	101.2	101.1	102.4	96.6	96.5	93.3	85.1	74.5	60.0	46.3	33.4
2845	79.9	113.1	125.3	130.1	126.1	120.1	113.1	111.5	106.7	101.9	100.7	99.6
	95.9	90.2	91.3	92.8	89.9	93.1	95.2	89.5	79.0	65.7	50.8	37.2
3645	70.2	98.5	110.0	118.1	118.9	117.2	119.9	125.8	122.8	116.6	113.9	112.1
	106.8	101.2	102.1	101.9	94.9	93.8	89.8	79.7	69.5	56.2	42.8	30.3
4445	26.1	37.5	43.6	48.0	50.5	51.7	53.0	55.2	55.8	56.9	59.0	60.2
	61.3	64.5	71.2	78.3	79.5	79.8	76.7	69.1	57.1	46.8	34.6	24.1

DATA SET 32 - DECEMBER 27, 1977

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 11158 MWD/T
CORE THERMAL POWER, 2286 MWT
DOME PRESSURE,P, 988 PSIA
CORE FLOW, 78.2 MLB/HR
INLET SUBCOOLING AT P, 21.2 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47												
43	40		42		16		16		42		40	
39												
35			10		42		42		10			
31												
27	18				18		18				18	
23												
19			10		42		42		10			
15												
11	40		42		16		16		42		40	
7												
3												
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

NO TIP DATA AVAILABLE

DATA SET 33 - JANUARY 13, 1978

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 11474 MWD/T
CORE THERMAL POWER, 2322 MWT
DOME PRESSURE,P, 986 PSIA
CORE FLOW, 78.4 MLB/HR
INLET SUBCOOLING AT P, 21.2 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47												
43			42		30		30		42			
39												
35			12		40		40		12			
31												
27	32				16		16				32	
23												
19			12		40		40		12			
15												
11			42		30		30		42			
7												
3												
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

NO TIP DATA AVAILABLE

DATA SET 34 - JANUARY 19, 1978

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 11594 MWD/T
CORE THERMAL POWER, 2365 MWT
DOME PRESSURE,P, 988 PSIA
CORE FLOW, 78.0 MLB/HR
INLET SUBCOOLING AT P, 21.6 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51													
47													
43					42		30		30		42		
39													
35					16		42		42		16		
31													
27		34					30		30				34
23													
19					16		42		42		16		
15													
11					42		30		30		42		
7													
3													
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

NO TIP DATA AVAILABLE

DATA SET 35 - FEBRUARY 6, 1978

REACTOR CONDITIONS: NON-STEADY STATE

CORE AVERAGE EXPOSURE, 11902 MWD/T
CORE THERMAL POWER, 2201 MWT
DOME PRESSURE,P, 986 PSIA
CORE FLOW, 66.0 MLB/HR
INLET SUBCOOLING AT P, 24.3 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47												
43			44				26				44	
39												
68												
31												
27			26				40				26	
23												
19												
15												
11			44				26				44	
7												
3												
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

NO TIP DATA AVAILABLE

DATA SET 36 - FEBRUARY 22, 1978

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 12210 MWD/T
CORE THERMAL POWER, 2275 MWT
DOME PRESSURE,P, 986 PSIA
CORE FLOW, 77.9 MLB/HR
INLET SUBCOOLING AT P, 21.1 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

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51
47
43
39
35
31
27
23
19
15
11
 7
 3

    2  6 10 14 18 22 26 30 34 38 42 46 50
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AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	0.	117.4	117.4	120.4	115.3	106.4	104.4	98.9	92.7	89.0	87.9	85.3
	80.8	80.4	79.6	76.0	72.6	72.3	67.9	59.4	51.3	40.0	27.6	21.9
2805	107.8	132.7	135.9	136.4	128.2	117.7	110.9	106.0	97.9	91.8	90.8	87.7
	82.9	81.7	81.2	78.4	74.4	73.8	69.7	61.4	53.5	42.0	30.3	23.1
3605	76.1	94.9	98.6	99.5	93.6	88.4	85.2	82.0	76.2	72.3	71.3	68.6
	65.7	65.1	64.6	62.4	59.6	59.4	55.5	49.3	42.8	33.0	24.0	18.2
1213	147.2	163.5	158.8	150.9	136.4	121.5	114.2	108.0	100.7	94.9	94.7	91.1
	85.2	84.3	84.6	80.9	77.0	76.6	71.6	63.2	54.5	42.9	31.0	27.1
2013	134.7	156.9	158.1	157.7	145.8	131.9	124.3	119.5	113.8	109.3	109.5	106.9
	99.8	98.6	98.2	95.5	90.1	89.7	84.5	74.7	65.3	51.1	38.4	32.7
2813	129.8	159.7	162.7	163.8	155.8	147.5	138.5	134.6	127.2	122.6	122.4	120.8
	115.8	111.6	110.9	108.1	101.2	98.7	93.0	81.5	70.9	55.9	41.9	32.0
3613	135.5	151.6	154.3	153.6	140.2	127.6	116.8	114.4	107.7	100.5	99.8	97.6
	91.2	89.3	89.4	86.7	80.9	79.7	75.1	63.7	58.5	47.3	36.2	29.9
4413	102.7	140.0	149.9	149.3	140.7	127.6	113.6	109.1	101.1	96.0	542.9	91.1
	88.5	83.8	84.4	83.5	77.3	77.0	74.2	66.2	58.2	45.9	32.6	23.1
421	70.6	107.1	121.9	127.1	126.7	121.0	113.3	111.2	105.3	98.5	96.4	95.3
	91.0	85.3	74.7	82.5	76.5	73.8	71.2	64.2	56.6	47.9	37.6	28.1
1221	101.3	139.4	150.0	146.5	141.3	128.5	116.2	111.4	106.5	100.3	97.1	97.7
	93.6	86.9	86.6	86.7	81.7	80.6	78.9	73.5	64.8	55.0	43.5	32.9
2021	93.3	130.1	139.9	137.7	134.0	123.7	113.9	111.8	108.1	103.9	103.4	103.4
	100.0	94.5	94.8	92.6	86.6	84.4	82.6	76.2	64.9	58.0	45.9	35.4
2821	127.0	145.2	142.3	138.9	129.2	119.3	115.0	112.2	106.3	102.4	103.6	102.1
	97.0	94.9	93.4	90.7	85.1	84.6	80.6	71.6	63.1	51.6	40.1	35.6
3621	107.4	144.2	150.7	153.5	146.8	137.0	127.1	124.8	119.4	114.4	113.0	113.5
	108.3	103.1	103.3	103.0	96.5	95.4	92.6	85.5	73.9	60.7	45.7	34.1
4421	115.3	156.5	162.8	161.5	151.6	136.1	120.6	114.9	108.3	103.0	99.1	98.1
	9[illegible].6	87.4	87.2	87.2	81.9	81.3	79.0	72.4	63.4	51.9	38.8	27.9
429	84.5	119.9	133.4	140.3	138.5	132.3	126.3	121.6	113.3	107.0	102.1	99.4
	94.2	88.5	88.0	86.9	82.1	79.7	76.5	68.8	59.8	48.8	36.9	25.6
1229	107.6	148.9	160.9	166.2	161.4	150.7	139.3	133.9	127.7	124.0	120.5	119.7
	113.5	107.6	106.6	105.0	97.9	95.3	92.3	83.9	74.0	66.8	48.8	35.3
2029	101.5	141.1	148.5	146.7	140.1	130.8	122.4	121.3	117.1	114.0	111.2	111.1
	108.3	103.5	103.3	101.3	95.3	92.7	89.9	82.0	72.4	61.3	48.0	35.9
2829	116.0	145.5	145.4	144.2	133.6	124.9	117.7	116.0	111.5	107.7	108.1	106.9
	101.3	96.8	95.7	93.4	86.7	86.8	84.2	76.9	68.6	56.0	43.7	32.8
3629	115.9	151.4	156.3	156.5	148.9	138.8	129.9	126.0	119.1	114.1	112.4	111.1
	104.2	99.5	99.4	97.6	90.9	90.7	87.9	79.6	69.7	57.3	43.4	32.9
4429	121.9	158.5	165.9	168.6	159.1	147.3	133.9	130.5	122.4	115.6	114.2	111.5
	104.7	100.0	98.7	96.7	90.3	88.9	84.8	75.2	65.9	53.0	39.6	29.0
437	61.1	87.1	95.6	98.1	97.1	92.9	86.4	84.6	79.5	76.7	75.4	74.6
	71.3	68.3	68.2	67.2	63.4	62.4	59.7	54.7	49.7	43.0	29.9	20.2
1237	113.7	155.9	164.2	162.0	153.2	136.8	123.6	118.7	110.3	103.2	99.1	97.7
	94.0	87.5	87.1	87.4	81.9	81.1	79.5	73.4	64.7	54.6	43.3	32.3
2037	117.6	149.6	154.0	156.4	149.6	138.7	128.6	127.4	120.9	115.9	115.2	112.9
	107.6	103.3	103.9	103.5	96.5	94.5	90.5	81.0	70.6	59.3	45.5	32.7
2837	112.4	150.7	157.1	154.6	146.0	133.6	123.7	121.7	116.7	109.5	107.6	108.0
	104.8	100.2	100.2	99.0	92.2	90.5	88.1	80.4	70.7	59.5	47.3	35.9
3637	120.2	156.3	160.2	155.9	147.7	134.7	123.3	120.5	112.9	106.9	105.0	102.5
	96.3	91.0	90.2	89.1	83.1	82.4	79.3	71.8	63.6	51.9	40.2	31.6
4437	55.0	115.8	159.3	167.7	167.2	157.2	143.8	130.1	124.9	116.8	110.6	107.7
	107.6	102.4	96.3	96.9	95.5	88.6	87.1	84.2	75.9	66.4	57.5	46.0
1245	105.4	141.7	146.3	143.4	136.1	122.9	112.4	107.4	98.7	92.9	90.9	89.1
	84.2	79.4	79.6	78.6	72.6	71.7	69.0	62.4	53.8	43.1	32.0	22.7
2045	125.1	164.1	165.0	158.3	147.3	132.7	122.8	111.7	103.4	97.4	94.3	92.9
	88.3	85.0	85.7	85.7	80.2	79.4	77.4	71.1	61.1	50.2	39.7	29.0
2845	121.3	158.5	164.8	161.1	148.2	134.3	119.8	114.3	107.5	100.7	97.9	97.2
	93.0	86.5	87.3	86.9	81.9	80.3	78.2	71.4	62.4	51.7	40.8	30.0
3645	122.7	158.6	161.8	158.0	145.9	132.8	120.1	112.4	104.0	97.2	94.9	93.3
	88.7	83.8	83.9	82.1	76.4	75.6	72.0	64.9	56.9	47.2	36.3	26.1
4445	0.	0.	44.2	90.1	87.3	82.4	38.5	76.4	72.3	69.4	68.5	67.5
	0.	62.4	62.2	60.9	57.7	57.1	25.6	50.5	44.1	35.4	26.5	18.6

DATA SET 37 - APRIL 24, 1978

REACTOR CONDITIONS: NON-STEADY STATE

CORE AVERAGE EXPOSURE, 7506 MWD/T
CORE THERMAL POWER, 2045 MWT
DOME PRESSURE,P, 978 PSIA
CORE FLOW, 70.6 MLB/HR
INLET SUBCOOLING AT P, 21.6 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51													
47			40				20				40		
43													
39			38		30		8		30		38		
35													
31			20		8		16		8		20		
27													
23			20		8		16		8		20		
19													
15			38		30		8		30		38		
11													
7			40				20				40		
3													
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	50.4	66.1	76.7	85.4	88.1	87.7	89.1	87.7	84.2	80.9	81.9	80.4
	74.9	75.2	75.2	72.1	69.7	68.3	62.6	54.4	46.2	35.5	25.3	19.3
2805	40.0	55.2	66.0	75.4	79.9	81.4	83.0	82.8	80.8	79.5	80.7	80.3
	79.7	85.1	89.1	90.5	86.7	84.4	78.1	67.7	58.7	45.5	32.1	23.2
3605	42.1	58.2	69.2	78.9	83.3	84.6	85.8	84.8	82.2	80.2	78.9	76.8
	73.3	71.8	70.2	68.2	64.2	62.2	57.1	49.5	42.4	32.1	23.1	17.8
1213	70.9	94.4	111.2	127.5	137.3	138.7	141.6	136.4	130.7	123.8	122.3	115.4
	106.7	105.2	103.1	98.8	93.2	92.3	83.4	71.6	59.9	46.5	34.0	28.6
2013	79.3	104.3	117.3	126.7	125.3	121.5	123.7	127.9	128.1	128.4	128.7	124.9
	119.1	117.8	117.0	112.9	107.1	106.1	98.8	87.1	76.1	59.3	43.5	35.3
2813	66.2	90.3	104.2	114.8	115.5	112.9	111.4	110.8	107.2	102.5	104.8	104.5
	100.9	99.7	101.5	99.2	94.6	95.8	94.3	87.1	80.2	65.2	48.9	36.4
3613	72.6	97.4	113.8	126.7	127.2	124.2	123.2	125.2	127.4	127.7	128.8	124.9
	116.9	113.6	111.8	111.3	104.5	102.1	95.9	82.7	70.7	54.8	41.0	32.8
4413	37.5	56.0	72.5	90.6	107.9	120.0	124.6	126.9	121.8	114.6	112.6	109.2
	102.6	96.6	95.7	92.9	86.3	84.5	80.0	70.2	60.1	45.7	33.4	22.7
0421	34.5	54.7	70.4	82.7	92.1	97.1	98.7	101.2	98.7	95.0	93.8	91.4
	88.6	86.1	85.6	83.9	79.1	77.5	74.2	66.0	57.2	46.5	35.6	26.9
1221	57.2	89.6	110.6	125.3	130.7	128.8	123.9	123.2	116.8	110.8	107.4	107.1
	106.4	105.1	110.5	115.0	110.5	108.7	105.7	97.9	84.8	70.2	54.6	40.9
2021	69.3	104.9	125.3	131.5	132.8	125.2	117.2	114.2	108.6	104.6	102.2	102.0
	98.7	94.4	96.7	97.4	93.8	94.9	96.1	92.2	84.8	74.5	61.0	46.9
2821	93.7	118.9	128.5	131.6	125.0	116.5	112.1	108.8	103.8	100.3	101.1	98.9
	94.2	99.3	106.7	111.0	114.3	117.9	113.5	101.5	87.8	69.2	49.7	40.6
3621	67.8	97.9	116.3	129.4	133.4	131.9	127.3	125.5	123.3	119.8	118.5	118.7
	115.7	112.4	115.2	116.8	111.7	113.9	114.2	107.1	98.5	86.7	59.0	41.6
4421	46.0	68.3	86.1	100.4	108.2	111.4	113.5	113.6	108.7	103.4	102.2	100.8
	99.4	101.9	108.5	110.6	103.7	103.5	98.5	87.0	74.4	59.1	44.6	31.5
0429	42.9	63.2	78.9	91.5	97.8	99.3	97.2	97.5	92.1	88.1	86.6	85.2
	83.2	81.1	82.8	82.8	78.7	78.1	74.2	66.1	57.0	46.3	34.9	24.6
1229	67.2	100.9	121.1	134.4	139.7	133.3	125.9	120.8	114.9	111.2	109.8	108.4
	108.8	112.1	120.1	124.1	119.6	118.8	116.1	107.3	94.3	84.1	61.7	45.0
2029	77.6	115.1	132.1	139.3	135.7	127.2	117.7	112.3	106.0	101.0	97.9	98.4
	95.7	93.8	97.2	99.6	98.9	102.7	104.1	100.9	93.9	79.0	61.0	46.3
2829	88.4	118.5	131.0	137.5	129.0	119.7	110.4	104.8	98.0	93.0	91.8	89.7
	87.8	89.2	95.5	103.8	107.9	115.5	114.4	106.1	93.9	75.3	56.0	42.9
3629	77.7	108.1	122.5	133.0	133.1	126.3	118.5	115.7	109.8	105.2	106.1	106.0
	104.0	104.0	106.8	109.6	104.7	107.0	107.4	101.4	92.7	75.8	57.8	40.8
4429	52.0	74.8	91.8	106.1	113.7	115.2	115.0	113.4	108.5	105.4	105.8	106.3
	107.0	113.0	120.1	122.7	117.6	116.3	109.7	96.3	83.7	66.6	49.8	34.5
0437	30.4	47.4	60.3	72.0	81.7	85.9	88.0	89.6	87.6	85.6	84.6	81.9
	77.4	73.8	72.6	71.3	66.3	64.9	61.2	53.7	47.3	40.2	28.0	19.9
1237	53.5	82.7	105.7	124.5	137.7	142.9	138.2	137.4	134.5	127.0	125.0	125.0
	120.1	115.1	115.1	114.0	107.8	104.5	100.6	90.9	77.2	62.9	49.6	37.4
2037	8.4	33.1	73.6	104.3	121.0	131.2	131.3	128.1	122.8	122.6	124.2	126.6
	127.6	126.4	121.1	115.6	116.8	117.2	111.9	112.9	110.8	102.5	91.8	87.4
2837	74.4	106.7	123.1	132.5	131.8	125.3	117.4	116.5	112.7	108.1	106.9	106.5
	102.1	98.6	101.0	103.1	100.6	103.2	104.5	100.5	93.0	78.6	61.9	46.5
3637	75.0	104.0	120.5	132.2	136.3	133.7	129.7	133.6	136.6	136.4	140.8	139.4
	133.0	126.7	127.9	124.6	115.6	115.2	110.9	98.1	88.8	74.7	50.6	39.3
4437	19.6	48.1	72.6	94.1	116.2	129.8	135.1	132.9	131.1	124.3	116.6	112.5
	111.3	105.9	100.6	100.7	98.9	91.3	88.5	83.6	74.4	63.8	51.0	44.5
1245	52.5	78.0	98.3	117.6	129.8	133.9	131.4	129.5	124.8	118.6	116.3	111.3
	103.6	97.7	96.3	92.8	85.2	82.7	77.9	68.5	58.6	45.7	33.9	23.8
2045	65.3	92.8	110.8	126.2	130.8	127.4	124.5	125.3	120.2	115.1	114.3	112.7
	108.5	104.9	102.9	102.3	95.1	93.3	88.7	79.2	67.6	54.3	41.9	30.4
2845	50.2	72.9	90.9	104.2	110.8	111.6	110.5	110.7	106.5	103.4	102.9	102.5
	101.2	101.7	108.2	110.5	105.7	105.5	101.4	91.3	79.6	65.4	51.2	37.5
3645	69.9	98.4	119.8	136.1	139.1	134.2	127.9	125.5	120.3	114.1	112.6	111.1
	104.0	100.2	99.7	97.4	90.0	87.8	83.3	72.3	62.5	48.8	36.7	25.5
4445	22.6	34.5	44.2	56.5	67.4	73.9	77.7	80.3	79.5	77.2	78.0	75.9
	72.2	68.6	66.7	64.8	59.9	58.2	54.6	49.2	42.4	33.8	25.4	18.5

DATA SET 38 - MAY 1,1978

REACTOR CONDITIONS: NON-STEADY STATE

CORE AVERAGE EXPOSURE, 7584 MWD/T
CORE THERMAL POWER, 2056 MWT
DOME PRESSURE,P, 977 PSIA
CORE FLOW, 54.8 MLB/HR
INLET SUBCOOLING AT P, 28.4 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51						
47						
43						
39		42	20	20	42	
35						
31	42	20	14	14	20	42
27						
23	42	20	14	14	20	42
19						
15		42	20	20	42	
11						
7						
3						

2 6 10 14 18 22 26 30 34 38 42 46 50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	68.8	88.8	99.4	105.5	103.3	97.6	95.1	89.2	81.6	76.8	76.5	72.8
	67.4	68.2	67.4	64.9	62.3	61.7	56.8	49.3	42.4	32.7	23.4	17.8
2805	73.0	98.5	112.5	121.2	119.0	110.5	104.5	100.3	93.5	88.5	86.6	83.8
	79.6	78.8	78.4	76.7	72.6	71.2	66.5	57.8	49.8	38.8	27.6	20.4
3605	54.2	73.2	84.0	92.2	92.5	89.3	85.9	81.8	76.2	73.1	71.7	69.4
	65.9	65.1	63.1	61.4	58.4	56.9	52.9	45.9	39.2	29.7	21.5	16.4
1213	102.5	133.7	150.9	158.9	152.0	139.3	129.3	121.3	111.0	102.5	101.1	97.7
	91.3	90.7	91.4	89.0	85.3	84.1	77.5	66.6	56.0	43.7	32.1	27.4
2013	95.3	123.9	136.3	143.0	135.1	124.4	116.6	111.6	104.3	98.5	98.9	98.5
	98.1	105.6	111.7	113.2	109.0	108.4	101.8	88.7	75.8	58.7	42.9	35.3
2813	86.6	114.8	126.3	133.6	128.2	120.4	112.7	107.7	101.3	95.9	97.5	99.4
	102.7	109.9	117.3	121.0	116.9	117.3	110.2	96.1	81.7	63.5	46.9	36.2
3613	95.3	127.1	147.6	159.8	154.3	142.1	130.9	124.8	115.1	107.5	107.3	104.2
	98.7	98.4	102.6	103.8	99.0	98.1	91.9	80.1	68.6	53.0	39.6	31.7
4413	71.5	101.8	119.9	133.3	132.8	125.6	116.8	112.9	103.0	95.5	92.2	89.6
	85.6	81.5	81.7	79.8	74.8	74.2	70.9	62.4	53.1	40.8	29.5	20.8
0421	34.4	56.6	77.8	97.5	110.4	113.4	111.7	110.2	103.3	97.3	92.0	89.0
	85.3	79.6	78.1	75.6	70.7	68.8	65.6	58.8	50.7	41.9	32.4	24.7
1221	64.9	102.3	126.0	140.2	143.5	137.3	125.7	119.4	109.6	101.1	98.1	98.0
	97.4	98.8	106.7	112.0	108.8	107.6	106.0	95.2	82.2	67.7	52.7	44.1
2021	74.5	111.8	131.5	137.8	135.2	124.6	112.0	106.4	97.9	90.8	89.1	90.6
	90.3	90.9	97.1	103.2	105.3	111.0	113.2	105.7	93.1	78.0	61.6	48.7
2821	103.1	127.5	135.9	136.7	124.8	113.5	106.6	101.3	94.6	91.3	93.3	93.9
	94.2	101.0	109.3	116.7	122.3	128.8	123.9	110.2	94.0	73.0	52.8	42.1
3621	80.2	113.9	131.4	141.2	140.0	134.0	125.7	120.0	112.4	105.4	104.8	106.6
	108.7	113.8	125.1	133.2	132.2	133.3	130.4	117.9	103.2	86.1	56.6	41.3
4421	63.7	94.6	120.4	141.5	145.2	139.4	130.5	126.4	116.6	108.4	104.5	102.1
	98.0	96.2	98.2	98.7	93.4	93.0	88.4	78.2	67.1	52.1	39.2	28.0
0429	38.6	60.4	83.1	103.8	115.4	116.5	112.4	109.6	100.6	93.8	89.2	85.3
	81.1	76.9	76.4	75.0	70.3	69.8	66.2	58.4	50.6	41.1	31.4	22.1
1229	71.4	107.6	131.0	145.3	148.8	141.0	129.4	121.9	114.3	109.1	106.5	107.6
	107.0	110.3	120.7	126.6	121.8	119.5	117.4	105.3	92.1	81.2	59.7	44.3
2029	79.3	116.7	132.9	138.7	136.3	125.0	112.3	106.6	99.5	93.5	93.3	95.5
	96.3	97.2	104.4	113.2	117.4	124.9	125.6	116.7	102.5	84.0	64.2	47.6
2829	93.5	124.6	134.5	138.0	128.3	114.7	103.2	97.8	90.6	85.6	85.8	85.6
	85.4	87.9	94.6	103.5	110.0	120.4	123.1	113.0	99.4	78.2	57.7	45.2
3629	87.3	119.3	132.6	141.4	137.0	127.8	116.2	112.6	106.1	100.6	102.2	104.7
	107.2	115.5	126.4	133.9	130.4	132.4	126.6	112.8	96.8	76.4	57.1	40.8
4429	62.9	94.7	122.3	145.8	154.6	150.9	142.9	137.7	128.8	120.7	119.3	117.0
	112.2	110.0	112.1	111.1	104.7	104.5	99.1	86.6	74.6	59.1	43.9	32.1
0437	41.6	64.3	80.2	93.3	99.1	97.6	94.3	90.9	84.8	80.1	77.8	74.5
	69.8	66.8	65.2	63.0	58.8	57.2	54.7	49.0	42.9	37.3	26.9	20.7
1237	73.1	113.8	142.9	160.5	163.7	154.0	139.5	131.0	121.8	112.0	107.1	108.8
	106.4	102.3	103.7	105.3	100.0	97.7	94.1	84.5	72.3	58.8	45.4	34.7
2037	9.1	36.3	80.3	114.7	131.6	140.9	139.1	130.3	120.2	114.5	105.2	99.4
	97.2	99.2	101.1	104.3	114.3	121.7	120.1	121.5	118.2	108.2	95.7	91.1
2837	83.6	116.7	131.1	137.6	133.1	123.2	112.2	108.3	102.1	96.4	95.2	97.5
	100.1	105.4	116.3	124.5	123.1	124.5	122.2	111.5	97.2	80.3	61.9	47.1
3637	87.7	121.3	141.4	152.4	148.8	138.2	126.3	119.8	110.8	104.8	104.5	104.3
	101.3	100.9	104.4	107.4	102.0	101.9	97.5	87.5	77.1	65.1	43.7	33.1
4437	33.4	80.7	118.6	144.0	156.5	152.5	141.5	128.0	121.6	111.3	102.4	98.7
	97.8	92.7	88.1	88.4	87.8	80.8	78.7	74.7	66.5	57.0	45.9	40.3
1245	79.6	112.3	132.3	145.5	144.2	137.1	126.6	120.9	110.8	101.5	97.7	94.8
	88.7	84.2	83.5	82.4	76.6	74.8	70.4	62.2	53.1	41.3	31.0	21.8
2045	84.4	117.4	135.6	147.9	146.6	136.4	126.0	121.3	112.4	105.6	101.8	99.6
	96.5	93.8	95.4	94.8	89.8	87.3	83.9	74.1	63.8	50.9	39.1	28.7
2845	79.9	113.1	134.7	146.5	145.0	136.6	124.9	122.1	113.8	105.6	102.8	103.4
	101.3	98.9	101.5	102.5	98.0	97.4	93.2	84.0	72.1	59.0	46.0	34.5
3645	91.4	125.7	144.5	155.9	150.1	137.9	124.2	118.4	107.7	99.5	97.0	94.3
	89.9	87.8	88.6	87.5	81.7	80.7	77.0	68.2	58.8	46.2	34.7	25.8
4445	41.2	60.1	70.8	78.7	80.6	79.2	76.7	74.2	70.5	66.9	65.5	63.8
	60.8	58.1	57.8	56.4	52.8	51.4	48.9	43.8	38.3	30.6	23.2	16.8

DATA SET 39 - JUNE 29, 1978

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 7844 MWD/T
CORE THERMAL POWER, 2265 MWT
DOME PRESSURE,P, 986 MWT
CORE FLOW, 78.7 MLB/HR
INLET SUBCOOLING AT P, 20.6 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51						
47		34	44	44	34	
43						
39	34	36	16	16	36	34
35						
31	44	16	12	12	16	44
27						
23	44	16	12	12	16	44
19						
15	34	36	16	16	36	34
11						
7		34	44	44	34	
3						

2 6 10 14 18 22 26 30 34 38 42 46 50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	37.6	57.2	74.4	88.8	96.5	99.5	102.0	103.2	98.2	93.8	92.1	87.9
	81.8	79.3	78.7	76.5	71.6	71.6	68.0	59.3	51.7	40.4	30.3	21.9
2805	46.8	71.2	93.6	112.3	119.4	119.3	119.8	116.2	109.6	104.1	102.4	98.2
	91.9	88.9	88.2	86.5	82.1	81.6	76.7	67.2	57.9	45.8	33.2	24.0
3605	25.3	37.4	46.8	56.8	64.7	71.7	81.0	88.5	89.8	89.6	89.4	85.0
	80.1	78.1	76.0	74.1	69.5	67.9	63.0	55.1	47.2	36.2	26.4	19.0
1213	56.1	79.2	96.3	113.1	124.3	132.8	142.0	146.0	139.5	131.3	129.4	124.8
	115.0	109.8	108.4	106.5	99.7	98.2	92.6	82.3	69.6	54.8	40.2	30.8
2013	71.3	98.1	114.3	128.0	131.0	128.9	129.8	128.3	122.4	115.1	113.2	110.9
	105.8	106.1	110.6	116.1	116.8	119.6	114.6	101.7	88.2	68.1	49.9	38.7
2813	74.7	100.9	116.6	128.8	130.9	126.8	122.2	118.4	111.3	106.7	106.9	105.4
	101.8	104.8	112.1	119.8	120.8	124.6	119.2	105.8	91.5	71.4	52.5	40.0
3613	62.6	87.4	103.8	119.4	126.7	132.5	139.5	141.8	136.6	129.7	126.8	121.9
	113.3	109.3	112.5	113.9	109.4	108.5	103.8	91.1	78.3	61.5	45.8	35.6
4413	35.3	53.4	69.0	83.2	96.2	106.3	115.3	124.3	122.8	119.2	117.3	114.9
	106.3	99.4	98.8	96.1	89.7	88.0	83.7	75.2	63.8	49.9	36.8	26.5
0421	35.7	57.7	78.4	95.8	106.0	111.4	113.8	115.7	111.2	105.2	103.6	99.7
	92.9	87.3	86.0	83.8	77.8	75.8	72.1	64.0	55.4	44.7	34.4	25.5
1221	62.6	94.7	116.2	131.3	135.8	133.9	130.7	130.4	121.6	113.8	110.3	107.9
	103.1	100.1	104.8	111.8	112.8	115.8	114.8	103.9	90.8	73.1	55.8	41.5
2021	59.2	95.4	117.7	127.2	131.0	125.7	117.4	113.2	108.5	100.7	95.9	95.4
	93.7	90.4	95.5	100.0	101.3	107.2	114.4	111.6	100.4	86.1	68.2	56.2
2821	88.8	116.6	128.5	134.4	128.7	119.7	113.2	109.1	102.7	96.3	97.5	97.2
	93.9	96.4	103.3	110.5	115.6	126.8	129.2	118.5	105.7	83.4	61.7	46.8
3621	71.1	100.4	116.4	129.6	133.6	133.3	129.9	130.1	122.7	115.9	113.8	113.4
	110.5	111.1	117.4	128.9	131.6	138.4	137.8	125.1	111.5	93.5	61.1	44.6
4421	50.9	81.1	107.3	127.9	137.8	137.4	134.5	135.5	128.0	119.6	115.5	112.4
	106.8	101.8	104.8	105.2	99.9	100.0	96.6	87.1	74.8	60.0	46.2	33.5
0429	42.9	68.4	90.9	109.8	118.1	118.8	116.7	114.5	107.5	100.2	95.8	92.4
	88.3	82.4	82.8	81.2	75.3	75.3	72.3	65.0	55.9	46.2	36.1	26.3
1229	74.9	107.2	127.8	145.1	148.5	142.9	135.1	130.0	124.8	117.9	114.2	111.6
	107.2	106.9	113.4	121.5	122.7	127.4	124.8	113.7	99.9	87.2	60.4	44.5
2029	80.7	113.5	127.8	135.3	133.5	125.1	115.1	113.2	106.3	100.3	98.3	98.8
	96.7	96.6	102.4	109.0	113.9	123.1	127.8	120.5	107.9	86.5	65.8	47.2
2829	74.2	109.6	126.2	132.4	129.4	120.0	109.3	103.4	96.7	91.4	89.1	88.1
	85.8	84.7	90.0	95.9	100.6	112.3	121.7	119.3	107.6	89.8	68.9	53.7
3629	76.0	107.8	123.7	134.6	136.1	130.0	121.4	119.4	112.9	107.0	105.9	104.5
	102.9	104.0	112.6	122.9	126.9	133.9	133.1	122.1	106.4	86.0	65.8	45.5
4429	61.6	95.3	123.3	145.4	154.5	154.5	147.0	145.7	136.1	129.2	127.6	124.1
	117.5	113.5	113.5	114.2	108.8	108.7	105.4	94.5	81.4	66.4	51.8	35.0
0437	24.7	39.2	50.9	60.9	70.0	78.1	87.6	95.4	94.9	94.2	94.1	89.5
	83.3	78.4	76.5	74.1	69.0	66.7	63.3	56.7	50.1	43.0	30.7	22.5
1237	58.9	87.6	107.9	125.3	135.3	140.8	144.3	145.8	141.3	134.3	131.0	127.2
	121.0	116.4	116.9	117.4	109.7	108.5	104.4	92.8	80.0	63.5	48.1	35.1
2037	74.0	101.2	117.0	128.6	131.5	129.4	123.2	122.3	117.2	110.0	108.8	106.8
	102.5	103.4	109.4	119.3	122.3	127.2	125.5	114.7	101.0	82.4	63.8	47.7
2837	81.3	109.8	124.1	133.3	132.6	125.7	118.2	116.9	110.4	103.8	102.4	100.7
	98.3	99.8	108.3	118.8	122.9	130.0	129.3	119.0	105.1	85.3	65.4	46.9
3637	63.1	90.4	106.7	120.2	127.6	130.1	129.9	131.0	126.5	119.6	117.5	115.4
	109.8	105.9	109.8	111.2	106.4	107.7	105.3	95.5	84.9	73.0	49.7	37.1
4437	52.6	78.7	100.1	119.1	126.5	131.3	133.8	136.0	131.1	124.8	123.2	118.2
	109.8	103.3	102.3	99.9	91.6	89.8	84.9	75.2	65.3	51.3	38.4	26.3
1245	40.8	60.1	76.0	91.9	104.3	114.9	126.1	135.0	134.4	127.6	125.3	119.8
	112.2	104.9	101.7	99.2	91.2	89.0	83.9	74.5	63.1	49.7	36.6	27.3
2045	60.2	89.1	111.9	130.8	137.5	136.4	135.6	135.9	128.7	121.3	118.8	116.0
	108.8	105.1	106.6	106.0	99.5	98.2	94.0	82.9	72.2	57.2	43.7	32.9
2845	63.2	93.4	118.3	138.4	145.7	142.4	138.3	135.5	128.2	121.2	118.2	115.7
	110.1	107.0	108.0	109.7	106.3	106.8	101.7	90.4	78.3	63.3	48.0	33.5
3645	53.5	78.3	98.4	115.3	124.1	128.7	132.6	135.1	129.9	123.0	121.2	116.9
	109.3	104.7	104.6	102.7	95.1	94.2	89.3	79.1	67.6	53.3	40.2	28.7
4445	23.1	34.6	42.8	51.1	58.7	64.7	71.7	77.7	80.0	80.6	80.9	79.6
	76.4	72.2	70.2	67.9	62.9	61.4	58.3	52.2	45.5	36.3	27.1	19.4

DATA SET 40 - JULY 12,1978

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 8045 MWD/T
CORE THERMAL POWER, 2193 MWT
DOME PRESSURE,P, 985 PSIA
CORE FLOW, 78.3 MLB/HR
INLET SUBCOOLING AT P, 20.0 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47					38		38					
43												
39			32		16		16		32			
35												
31		38		16		10		10		16		38
27												
23		38		16		10		10		16		38
19												
15			32		16		16		32			
11												
7					38		38					
3												
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	32.5	46.5	59.1	74.3	88.8	100.2	108.9	111.3	107.1	101.9	100.3	95.7
	88.5	85.6	83.9	82.1	76.4	75.7	71.7	63.4	55.3	43.6	32.5	23.9
2805	32.1	47.4	62.6	81.4	101.0	116.3	127.3	131.6	125.6	118.3	116.8	110.8
	103.3	98.5	97.7	95.8	89.0	87.8	82.9	72.7	62.7	49.5	36.2	26.5
3605	37.6	54.0	66.7	79.0	86.3	91.2	94.5	95.9	93.1	91.0	89.3	84.6
	81.0	79.3	78.3	76.2	70.7	69.4	65.3	56.7	48.5	37.0	27.0	19.8
1213	71.3	98.8	115.7	127.6	129.0	128.2	129.5	133.6	133.0	127.7	126.8	123.7
	114.8	110.2	109.8	108.1	101.0	100.0	94.7	83.5	71.6	56.5	42.0	31.9
2013	69.6	95.9	113.0	128.1	132.5	130.9	131.0	130.3	126.4	120.1	119.7	117.3
	112.4	111.5	116.6	121.7	121.6	124.3	119.1	105.7	91.7	71.8	52.1	40.5
2813	68.1	92.4	108.2	122.7	127.8	128.4	127.5	125.6	118.8	114.6	114.6	112.6
	108.7	110.8	118.4	124.4	125.2	128.2	122.9	108.8	94.1	73.9	54.3	41.8
3613	69.4	96.6	113.8	126.5	129.5	128.5	127.7	133.4	133.7	129.4	130.0	126.1
	117.4	114.4	117.5	119.8	113.2	112.6	107.4	94.1	81.5	64.2	48.3	36.8
4413	62.8	89.2	107.6	123.3	129.0	127.4	122.5	121.7	119.3	115.0	112.9	110.1
	102.9	98.7	97.3	95.9	89.2	88.1	84.2	74.4	63.8	48.7	35.5	25.3
0421	30.6	47.1	61.7	77.0	94.8	109.6	117.8	124.8	122.0	114.5	112.8	108.2
	101.5	94.0	90.5	88.4	81.9	80.1	76.3	67.2	57.8	47.1	36.8	27.8
1221	61.6	91.6	111.6	127.2	134.7	134.3	130.9	131.3	125.8	118.4	115.4	111.6
	107.6	103.9	109.7	115.5	117.0	122.1	118.9	107.8	93.5	75.1	57.7	41.6
2021	59.2	95.1	117.0	127.9	132.9	128.4	119.9	117.6	111.9	106.1	101.6	102.1
	100.3	96.3	100.0	102.9	102.9	106.4	112.2	111.1	102.1	90.6	73.2	59.2
2821	87.9	114.9	126.9	133.7	128.2	122.1	116.7	114.1	106.3	101.1	101.8	101.2
	97.2	99.3	104.5	108.8	110.6	119.6	124.2	115.8	105.0	83.7	61.5	47.8
3621	76.5	104.2	119.1	131.0	134.3	133.7	131.5	130.1	126.2	120.8	119.9	119.1
	115.8	117.0	123.7	132.3	136.6	142.7	140.0	126.2	113.5	91.8	61.6	48.4
4421	53.3	78.7	98.9	118.9	134.2	143.1	146.4	146.2	138.2	130.6	126.4	122.1
	115.6	110.7	112.3	111.9	106.6	106.5	102.0	90.8	77.8	61.7	46.7	32.9
0429	29.2	44.6	59.8	77.0	96.7	113.8	123.9	128.3	121.9	115.0	111.2	106.1
	98.7	92.3	91.0	89.5	84.2	82.9	78.9	70.9	61.1	50.5	39.3	30.3
1229	67.6	99.4	119.6	136.0	145.7	146.9	141.8	137.4	131.0	126.1	123.8	119.7
	113.9	113.0	118.9	127.5	128.1	132.0	129.4	117.5	103.8	90.1	64.2	46.4
2029	78.0	109.4	124.2	132.8	133.6	127.0	121.3	117.4	109.9	104.1	103.9	102.6
	100.0	98.4	103.2	108.9	108.8	117.1	121.8	117.4	107.7	88.5	68.3	48.9
2829	89.8	116.9	127.5	133.5	127.9	120.6	111.5	106.0	99.8	94.7	94.7	92.8
	89.0	89.9	91.9	96.2	98.8	109.6	114.5	111.9	104.1	85.1	65.8	47.1
3629	79.3	108.4	123.0	135.0	136.7	131.3	125.5	124.3	118.2	112.7	113.1	111.8
	108.7	110.9	118.8	128.5	130.1	136.4	135.0	123.2	107.5	85.8	65.6	46.9
4429	53.5	77.8	98.9	123.0	143.1	156.8	161.8	160.7	152.8	146.1	143.4	137.9
	129.8	126.1	126.0	126.0	120.3	119.4	113.4	100.3	87.2	69.3	52.2	39.1
0437	35.9	55.1	69.8	82.8	91.9	98.1	101.0	101.5	98.9	94.6	93.7	90.0
	83.8	78.3	77.5	75.4	70.3	68.7	64.7	58.1	51.1	43.8	30.8	21.4
1237	65.6	96.4	115.7	130.8	135.7	136.4	137.3	142.3	140.8	136.7	134.1	132.3
	127.7	120.4	121.7	122.4	114.7	113.7	108.9	97.7	83.3	66.6	50.1	36.7
2037	73.9	101.5	117.0	129.4	132.7	129.6	127.0	125.2	119.5	115.5	114.2	112.3
	109.2	107.4	115.1	122.7	124.9	131.1	129.6	118.4	103.8	86.1	66.5	50.0
2837	77.7	106.0	120.5	130.3	131.7	127.8	121.8	119.7	114.6	108.6	106.9	105.6
	102.9	103.5	111.7	122.0	125.2	132.7	131.0	120.0	107.3	87.6	66.8	48.8
3637	72.3	98.6	112.5	124.2	125.6	123.7	124.2	130.1	128.8	125.9	126.1	123.9
	118.6	114.0	116.9	119.1	113.6	114.4	110.9	99.5	88.6	74.3	51.1	40.3
4437	77.2	110.6	132.4	149.0	152.4	146.2	140.6	138.6	130.3	123.2	120.7	117.3
	109.2	104.4	103.5	100.9	93.1	91.0	85.9	75.1	64.7	50.7	37.5	26.9
1245	65.2	93.6	113.1	129.9	136.6	136.1	132.8	133.2	125.8	120.8	118.6	115.7
	108.4	101.2	100.3	98.6	90.8	88.6	83.9	74.1	63.2	49.9	36.9	26.9
2045	57.6	81.7	100.8	120.3	134.7	142.2	144.2	144.2	138.5	130.6	128.4	123.7
	116.8	112.3	112.1	112.0	105.3	104.2	99.2	87.2	75.4	59.2	44.6	31.5
2845	50.1	72.6	92.5	113.9	131.6	143.3	149.2	150.7	143.8	136.6	131.9	128.3
	122.2	117.6	118.8	119.5	114.2	114.6	109.3	96.3	83.5	68.1	51.5	39.1
3645	72.1	103.9	125.2	142.8	147.2	144.4	139.7	138.2	129.5	120.9	119.7	116.2
	110.5	105.3	105.1	104.5	97.3	95.6	91.3	81.0	69.5	55.2	41.8	32.7
4445	35.0	52.0	61.6	69.7	74.5	77.0	77.9	80.4	79.8	78.5	78.6	77.4
	73.7	70.6	69.6	68.3	63.0	61.7	58.8	53.0	46.3	37.1	27.8	21.0

DATA SET 41 - JULY 31, 1978

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 8430 MWD/T
CORE THERMAL POWER, 2415 MWT
DOME PRESSURE,P, 993 PSIA
CORE FLOW, 77.8 MLB/HR
INLET SUBCOOLING AT P, 21.9 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47												
43												
39					40		20		20		40	
35												
31					20		14		14		20	
27												
23					20		14		14		20	
19												
15					40		20		20		40	
11												
7												
3												
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	40.6	68.1	86.0	96.9	102.5	102.1	98.7	97.4	93.2	87.9	85.5	84.1
	80.3	78.0	79.2	76.9	72.2	71.1	67.3	60.1	53.7	45.4	34.4	25.4
2805	45.6	77.5	97.9	109.7	115.5	113.6	109.1	107.1	101.6	95.2	92.2	91.5
	87.9	85.3	86.0	84.4	80.4	78.9	75.9	68.3	60.2	51.2	38.2	28.8
3605	36.3	56.8	70.2	78.4	83.0	82.7	81.0	80.5	77.1	72.9	71.5	69.8
	66.7	65.4	65.3	63.8	60.9	59.5	56.3	50.4	44.1	36.6	26.7	19.7
1213	54.9	90.1	113.9	131.6	144.6	145.1	138.3	134.5	129.9	120.5	116.0	113.3
	109.3	104.8	106.2	103.4	98.1	95.6	91.4	82.7	73.2	62.2	47.7	36.2
2013	56.8	90.1	110.7	123.2	128.8	126.6	121.3	120.2	115.8	109.7	108.0	108.0
	109.1	114.3	123.5	125.9	123.6	122.7	117.5	106.2	94.1	79.4	59.4	45.2
2813	56.0	86.9	105.3	115.3	119.2	116.4	113.2	111.8	107.5	102.5	102.7	105.9
	108.9	116.1	126.8	130.5	127.4	126.6	122.1	111.1	98.7	83.7	62.9	48.8
3613	53.0	88.1	112.5	130.6	143.5	144.6	139.6	137.0	131.2	123.0	119.3	118.3
	115.8	114.1	116.8	116.9	111.9	110.0	105.9	96.1	85.2	72.4	55.1	42.4
4413	47.9	80.3	101.9	115.6	122.2	119.6	114.6	113.0	107.6	100.5	96.1	94.6
	90.4	86.3	86.4	84.3	79.9	78.0	74.6	67.4	59.6	50.8	38.2	27.5
0421	44.7	72.6	90.8	102.2	106.7	106.1	103.3	100.7	96.4	91.0	89.2	87.1
	83.9	81.3	81.3	79.7	75.9	74.5	71.2	64.7	58.5	50.9	40.2	32.2
1221	53.7	87.0	108.0	120.4	126.5	125.0	120.3	118.5	113.8	107.9	105.1	105.8
	107.0	112.2	122.1	125.8	123.4	123.5	119.9	110.6	100.1	86.8	68.9	55.6
2021	57.3	87.2	104.2	112.6	114.6	112.1	107.8	106.2	102.6	98.5	99.4	101.8
	102.6	107.0	115.1	121.4	127.0	135.0	134.9	126.0	115.1	99.5	76.9	60.1
2821	51.3	83.2	100.9	108.5	110.6	107.5	103.0	101.9	99.0	94.5	93.7	96.9
	99.0	102.4	111.5	120.1	126.7	136.0	139.5	131.3	118.3	102.6	79.9	61.6
3621	62.3	89.8	105.6	115.3	118.6	116.5	113.2	112.1	108.6	104.0	104.8	107.3
	110.4	119.2	130.5	134.5	134.6	135.5	130.2	118.5	105.9	87.9	63.8	46.2
4421	56.4	95.9	122.5	136.1	140.6	138.5	130.4	126.6	121.6	112.5	109.7	109.1
	106.5	104.5	106.6	106.7	101.9	100.1	96.4	87.4	77.3	66.1	50.4	37.7
0429	49.4	79.5	98.3	109.8	113.9	111.5	107.5	105.6	100.3	94.0	91.6	90.1
	86.9	85.1	85.3	83.6	80.1	79.4	76.0	68.9	62.9	54.7	43.5	34.9
1229	56.3	88.9	109.1	119.5	124.3	122.6	118.1	116.4	112.3	106.3	106.4	108.2
	110.8	116.9	128.0	131.6	130.2	130.2	125.8	115.9	104.4	91.0	72.6	57.9
2029	55.9	85.9	101.8	109.9	113.0	110.4	106.2	105.1	101.5	98.1	97.7	100.2
	101.6	105.8	114.7	123.2	130.4	139.8	141.7	133.7	121.7	106.2	83.5	65.2
2829	52.5	83.4	100.4	106.3	107.6	104.1	99.1	96.4	93.2	89.1	88.2	90.0
	90.9	94.0	103.0	112.3	120.5	132.6	138.1	131.8	119.7	105.2	81.2	60.5
3629	52.2	84.1	103.1	111.3	115.4	113.0	108.7	107.8	104.9	99.6	98.6	102.9
	106.3	112.7	126.2	135.5	136.1	137.9	136.0	126.5	112.9	98.4	76.6	57.2
4429	55.9	96.2	122.7	137.2	142.9	139.1	132.5	128.7	122.2	115.4	112.1	111.5
	109.5	108.3	112.1	112.2	108.2	107.0	102.4	93.0	82.6	72.1	55.5	42.0
0437	35.4	56.4	70.9	80.2	85.5	84.6	82.9	82.3	79.0	75.1	73.5	71.7
	68.6	67.1	66.9	64.7	62.1	60.8	57.9	52.7	47.8	41.5	32.8	26.3
1237	55.3	90.8	116.1	134.4	145.3	145.7	140.8	139.0	132.9	125.6	121.6	121.2
	118.9	117.3	119.9	119.7	115.2	113.5	110.1	100.7	91.0	79.4	63.6	52.1
2037	56.0	87.4	105.4	114.9	119.8	118.7	114.2	112.8	109.7	104.6	104.2	106.7
	109.3	116.0	126.9	131.9	130.8	130.8	128.3	116.5	105.1	90.5	69.2	52.3
2837	57.0	86.3	102.8	110.7	113.2	110.3	105.8	104.7	101.9	97.6	98.1	100.2
	105.1	113.8	127.2	134.0	135.3	137.0	134.3	124.4	111.6	96.5	74.1	55.8
3637	57.2	89.2	110.7	127.4	136.2	135.6	131.2	129.5	123.9	115.9	114.3	115.4
	114.5	115.8	120.0	122.2	118.1	116.6	112.7	102.4	92.0	78.4	59.3	43.8
4437	59.3	101.8	129.8	145.0	150.5	144.9	134.4	129.6	123.3	114.4	109.0	107.8
	102.6	98.5	99.5	97.2	93.0	90.5	86.6	77.8	69.0	58.9	44.9	33.1
1245	50.9	83.9	106.5	119.6	127.0	125.3	119.8	116.5	110.6	103.6	99.0	96.9
	92.2	88.1	87.8	85.9	80.5	78.5	75.1	67.5	59.0	50.4	38.2	27.9
2045	56.9	95.1	120.5	134.7	139.7	136.2	130.1	127.5	121.5	113.6	111.2	111.0
	107.9	106.0	107.8	107.5	102.5	100.2	95.7	86.6	76.2	65.4	50.1	38.0
2845	57.0	95.3	119.3	132.1	136.7	133.4	127.7	125.2	118.9	112.9	110.0	109.5
	106.8	105.8	109.2	109.0	104.6	103.8	99.7	91.2	81.1	69.5	53.9	41.0
3645	60.2	100.6	128.0	142.5	146.7	142.4	133.8	129.7	122.7	112.9	108.8	107.4
	103.6	99.4	100.1	98.2	93.6	91.4	87.3	78.8	69.3	59.4	45.8	34.8
4445	31.3	47.9	57.7	64.1	67.9	69.3	69.1	69.1	66.9	64.6	63.4	62.1
	60.2	59.0	58.9	56.6	54.2	52.8	50.8	46.1	40.9	34.7	26.3	19.3

DATA SET 42 - AUGUST 14, 1978

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 8696 MWD/T
CORE THERMAL POWER, 2404 MWT
DOME PRESSURE,P, 993 PSIA
CORE FLOW, 78.5 MLB/HR
INLET SUBCOOLING AT P, 21.6 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51													
47													
43													
39				42		30		16		30		42	
35													
31				38		14		6		14		38	
27													
23				38		14		6		14		38	
19													
15				42		30		16		30		42	
11													
7													
3													
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	44.5	78.2	100.4	113.7	120.7	120.3	116.2	115.0	109.8	103.2	99.8	97.2
	92.4	87.7	86.8	84.2	78.6	76.6	72.7	65.2	57.4	48.9	37.3	28.1
2805	55.2	92.1	115.9	129.2	135.0	131.9	126.3	123.7	117.9	109.9	107.3	103.8
	98.3	94.5	93.8	90.8	84.7	82.5	78.8	70.4	62.7	53.0	39.7	30.2
3605	39.2	63.1	79.5	89.5	94.8	95.4	93.6	92.9	89.7	85.1	83.5	80.9
	77.0	73.6	72.5	69.8	66.2	64.2	60.6	54.0	47.7	40.0	29.5	21.9
1213	61.8	101.5	132.4	154.7	166.6	166.8	160.9	158.5	152.3	142.6	138.6	134.8
	127.2	121.2	119.1	113.4	106.1	103.3	97.5	86.7	76.4	64.3	48.0	36.2
2013	67.9	103.8	125.8	138.2	142.7	141.4	138.9	143.2	145.6	144.4	145.6	144.2
	138.6	133.6	133.9	130.7	125.2	124.2	117.8	105.9	94.3	79.3	59.3	44.8
2813	65.3	99.7	120.6	132.5	137.1	134.8	130.3	130.2	127.0	122.2	122.0	120.6
	116.9	115.2	119.6	123.5	124.7	127.7	123.9	112.5	99.8	85.2	64.6	49.3
3613	67.5	104.6	127.7	141.8	148.0	145.7	141.4	144.4	145.4	144.2	145.6	143.5
	136.5	131.5	130.1	126.0	119.3	116.4	109.1	98.0	86.5	72.1	52.9	41.0
4413	50.8	81.8	108.3	131.5	141.8	140.9	137.3	135.9	128.9	119.6	116.4	112.4
	105.0	100.1	98.1	92.9	86.3	83.9	78.6	69.5	61.1	50.6	36.3	25.6
0421	43.9	74.3	98.0	115.1	127.2	132.0	131.8	131.5	127.2	119.2	113.6	108.5
	101.1	95.2	93.3	88.6	82.8	79.6	75.1	67.4	60.0	51.4	39.9	30.7
1221	64.8	100.7	127.1	148.9	166.7	172.8	172.4	171.8	165.5	154.5	149.9	145.5
	137.7	131.7	131.4	128.0	122.6	120.7	116.6	106.8	96.3	82.2	64.7	50.8
2021	62.3	95.0	113.8	124.8	128.3	128.0	125.7	126.1	123.9	119.0	118.1	117.2
	114.5	113.4	116.5	118.2	120.1	125.7	125.8	118.2	108.3	94.9	74.6	57.3
2821	56.0	89.1	108.4	117.9	122.4	121.9	118.5	119.4	116.8	111.6	110.8	110.4
	108.0	106.7	110.3	112.1	110.6	113.6	113.4	107.1	101.2	93.0	73.2	56.3
3621	67.8	99.7	119.8	133.7	141.5	142.1	142.5	143.2	141.3	135.0	133.7	131.4
	125.5	122.3	124.9	125.3	127.0	131.7	128.9	117.2	106.2	89.5	65.7	46.8
4421	53.6	90.5	118.6	142.8	161.9	171.3	169.8	171.6	163.6	151.1	144.8	140.2
	131.3	124.6	122.4	118.1	109.5	105.9	100.0	90.2	79.4	67.5	50.2	37.4
0429	54.7	86.7	108.5	125.5	135.8	138.6	139.3	137.2	130.1	120.4	116.0	112.2
	104.5	99.9	97.0	92.0	86.6	83.8	78.4	70.4	62.7	53.3	40.1	31.2
1229	68.2	103.4	128.1	150.0	166.9	175.7	176.4	176.4	169.5	157.9	152.6	148.6
	140.9	135.6	135.8	132.4	127.4	125.9	121.4	110.5	99.3	85.0	65.7	51.7
2029	66.0	96.8	113.6	123.0	127.1	125.0	121.1	120.6	117.9	111.7	110.4	109.3
	106.5	106.6	111.2	115.4	120.5	128.4	129.6	121.8	112.8	97.9	75.4	58.0
2829	53.6	86.7	106.4	115.8	120.8	119.1	115.0	113.7	110.6	105.1	102.0	101.8
	100.4	98.2	101.1	103.3	103.3	105.6	107.1	104.0	99.8	93.0	74.4	59.3
3629	62.3	96.8	117.7	131.4	140.1	142.5	139.9	140.2	137.1	129.2	125.4	123.9
	119.1	115.7	118.6	121.0	123.1	129.2	128.1	120.4	109.8	95.3	73.1	53.9
4429	52.9	89.4	117.4	141.2	162.5	174.3	178.0	178.0	171.1	158.5	152.8	146.8
	137.6	130.5	127.8	123.4	115.2	111.8	105.7	95.6	84.4	72.5	55.0	40.3
0437	34.6	57.7	74.5	88.7	99.0	102.5	102.4	103.1	99.7	93.2	89.4	86.8
	81.7	77.9	75.3	72.3	67.3	65.0	61.0	55.1	49.4	42.3	32.8	25.4
1237	73.7	112.4	142.3	165.2	175.2	174.5	169.5	166.9	159.5	152.5	149.3	144.8
	137.1	132.4	131.8	126.4	119.3	116.4	109.6	98.2	87.6	73.6	56.2	44.1
2037	60.4	93.5	113.4	124.6	130.0	129.2	127.9	131.7	135.6	138.3	140.3	140.2
	137.2	133.5	133.7	131.9	129.0	128.7	125.2	115.5	103.7	90.2	70.8	54.3
2837	65.9	96.8	113.3	123.4	126.3	124.5	122.5	123.3	121.1	117.1	116.4	115.9
	113.4	113.7	119.6	124.6	126.0	129.7	127.1	116.8	106.4	92.1	70.2	52.2
3637	66.7	99.4	119.6	133.2	139.4	139.4	138.8	141.2	145.3	144.6	146.8	145.1
	139.7	134.2	134.1	130.3	124.2	122.2	116.9	106.2	95.0	80.2	59.9	44.1
4437	57.4	100.1	136.8	164.6	177.0	176.3	168.5	165.8	156.4	145.0	137.9	133.3
	124.4	116.9	115.5	110.2	101.8	96.9	92.1	82.5	72.6	61.6	45.9	33.2
1245	69.1	103.3	125.6	140.4	143.6	140.7	135.2	132.1	126.1	118.4	114.8	110.5
	103.8	99.8	98.5	92.5	87.0	83.5	78.1	68.5	60.1	49.8	35.5	25.8
2045	73.9	116.3	142.4	157.9	161.9	157.6	151.7	148.7	143.9	136.3	133.4	131.1
	124.4	120.0	119.6	115.9	109.3	106.1	99.6	89.8	79.0	67.0	50.6	37.7
2845	73.9	116.4	142.2	157.7	160.9	155.8	148.4	145.0	141.0	131.6	128.6	125.3
	119.5	115.9	116.7	113.8	108.6	107.4	103.1	92.3	82.1	69.8	52.9	39.6
3645	75.9	122.0	149.2	163.9	166.3	159.7	151.4	149.2	142.0	133.1	130.3	127.6
	120.3	114.8	113.6	108.5	101.3	97.9	92.1	82.2	71.8	60.1	44.7	32.8
4445	32.2	50.1	61.8	70.6	77.0	79.9	80.9	81.2	79.6	77.1	75.3	73.0
	70.0	67.2	66.2	63.9	60.2	57.9	54.7	49.4	43.8	37.4	28.3	20.9

DATA SET 43 - SEPTEMBER 14, 1978

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 9232 MWD/T
CORE THERMAL POWER, 2416 MWT
DOME PRESSURE,P, 987 PSIA
CORE FLOW, 77.9 MLB/HR
INLET SUBCOOLING AT P, 21.8 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47												
43												
39					26		14		26			
35												
31			36		14		6		14		36	
27												
23			36		14		6		14		36	
19												
15					26		14		26			
11												
7												
3												
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	47.8	85.7	111.8	126.8	133.4	130.9	123.9	119.6	113.9	105.6	100.0	97.5
	92.7	88.3	87.8	85.7	80.5	78.2	74.9	67.3	59.6	51.5	40.3	30.9
2805	59.3	101.1	129.0	144.0	149.6	143.2	134.4	129.8	122.0	112.6	107.8	104.5
	99.3	95.0	94.8	91.5	86.3	84.4	80.6	72.5	64.3	55.2	41.8	31.7
3605	42.6	70.5	88.4	99.1	104.0	102.4	98.1	95.6	91.4	85.5	82.5	80.7
	76.8	73.9	73.6	71.0	67.6	65.8	62.2	55.9	49.3	41.7	31.3	23.5
1213	86.4	137.2	163.9	176.4	178.4	169.8	159.5	155.6	148.7	138.5	134.1	131.3
	125.4	120.4	119.3	115.3	107.7	104.6	99.3	88.4	78.5	66.6	50.7	38.6
2013	70.6	111.3	136.3	149.1	153.0	147.5	140.0	136.7	133.5	130.2	134.5	138.8
	138.5	135.1	136.5	133.3	127.9	126.0	122.3	110.8	99.0	83.7	63.2	48.1
2813	67.5	106.0	129.5	140.7	145.1	141.4	133.4	131.8	126.5	119.8	118.6	118.7
	116.1	113.4	116.6	117.9	119.0	124.6	124.6	115.3	103.4	89.0	67.7	51.6
3613	76.3	118.4	143.0	155.7	158.3	153.1	143.5	139.8	134.1	128.4	132.2	136.3
	135.1	133.3	132.9	129.1	122.4	119.7	113.5	101.7	90.5	76.2	57.1	43.6
4413	78.6	117.7	139.0	150.0	150.0	144.7	137.2	132.5	125.1	115.1	111.4	108.8
	102.2	98.6	96.1	92.6	86.3	83.7	78.8	69.0	61.2	50.6	36.2	25.4
0421	50.8	85.1	109.9	125.9	136.2	138.9	136.9	136.2	130.5	121.4	116.7	112.8
	104.9	97.9	95.5	91.0	84.8	81.6	76.8	68.6	60.9	52.3	40.8	31.1
1221	72.3	110.6	135.0	152.1	162.1	168.2	170.6	172.0	166.3	157.0	151.9	147.8
	140.1	134.9	134.1	130.4	125.7	123.6	118.3	108.7	97.6	83.5	64.7	51.2
2021	63.1	96.7	115.0	125.0	129.0	127.2	123.6	123.6	121.0	116.7	115.7	116.1
	113.7	113.3	117.2	119.6	122.2	128.4	128.9	121.2	111.2	96.8	75.2	58.6
2821	52.6	86.0	105.7	116.7	121.7	121.3	117.7	117.6	114.5	110.7	108.5	109.6
	107.2	106.3	110.9	112.2	111.8	114.4	115.0	110.5	104.7	96.7	78.6	61.5
3621	71.2	104.0	122.6	134.6	140.8	140.5	139.4	139.9	136.1	130.0	129.7	128.6
	124.3	124.0	127.3	127.0	128.2	133.2	130.7	119.9	107.7	90.4	66.2	47.6
4421	63.7	104.7	131.7	150.1	162.2	168.4	170.3	173.1	165.1	153.5	147.0	142.8
	133.6	126.1	124.1	119.4	111.4	107.5	101.9	90.9	79.8	67.1	50.3	36.6
0429	60.3	95.7	119.4	137.1	146.0	146.9	146.4	144.3	137.4	126.7	123.5	118.2
	109.3	104.1	101.7	96.4	89.5	87.4	82.1	72.6	65.0	55.3	42.5	32.2
1229	68.6	102.8	124.9	142.3	158.6	170.4	177.2	181.5	174.9	163.3	159.0	153.6
	146.1	141.3	139.9	136.9	130.7	129.5	123.9	113.0	101.9	87.6	67.3	53.0
2029	64.0	93.0	108.6	118.8	123.0	121.8	120.6	119.9	116.2	111.1	110.5	109.0
	106.9	108.3	112.4	117.1	122.5	131.2	132.4	124.6	115.2	99.6	76.7	59.1
2829	52.5	84.3	103.8	112.6	117.0	116.6	113.0	112.8	109.8	104.5	102.2	101.6
	99.7	98.6	102.6	105.1	104.8	108.1	110.3	106.9	102.7	95.5	77.5	58.0
3629	60.3	94.4	113.2	126.5	134.2	136.6	137.4	137.7	135.4	128.1	125.3	124.5
	119.9	117.3	119.3	122.3	123.8	129.8	130.4	122.6	111.0	97.3	75.3	54.6
4429	56.5	94.3	122.1	142.6	158.8	170.9	176.6	180.2	174.8	164.1	157.1	150.3
	142.3	133.8	131.9	126.3	118.6	114.0	107.5	95.9	85.1	72.7	55.5	40.2
0437	44.0	71.6	90.4	102.6	109.9	110.4	107.9	106.5	101.8	94.9	91.4	88.6
	83.1	79.1	77.3	74.0	69.0	66.7	62.8	56.5	50.4	42.3	32.9	27.0
1237	100.3	144.1	167.3	180.8	181.5	174.6	167.1	163.9	157.4	147.7	144.8	142.9
	136.4	132.9	131.6	127.0	120.8	117.2	110.5	99.7	89.0	74.8	57.3	44.9
2037	63.7	98.4	118.0	129.1	133.2	131.1	127.4	126.0	122.9	121.0	126.1	134.4
	135.0	133.6	136.8	136.3	131.0	131.9	129.1	119.5	107.9	93.9	73.3	54.9
2837	67.5	99.1	115.8	124.5	128.4	125.6	121.6	121.3	118.0	112.6	113.6	113.9
	111.9	112.3	115.9	119.4	122.8	128.5	128.1	120.2	109.4	94.8	72.9	53.5
3637	75.3	109.6	128.6	139.7	142.3	138.3	133.9	133.5	130.4	127.1	132.4	137.2
	135.0	134.9	135.9	132.9	126.6	125.1	119.5	108.5	96.5	80.9	60.1	43.8
4437	84.2	136.9	167.2	183.3	185.5	178.2	167.1	160.0	153.4	140.9	135.3	130.9
	121.8	116.3	113.9	108.7	101.2	97.3	91.9	81.7	72.2	60.8	45.3	32.4
1245	84.8	124.1	144.7	155.6	154.6	146.6	137.8	133.2	125.6	116.6	113.4	109.7
	102.9	100.7	98.4	93.7	88.3	85.4	79.5	70.4	61.8	50.8	36.5	26.1
2045	83.8	132.2	161.8	174.9	176.1	167.2	156.6	150.2	141.8	132.5	130.4	128.2
	124.2	119.5	119.7	116.3	109.2	106.9	100.8	91.0	80.8	68.1	51.1	37.6
2845	84.1	132.2	159.2	174.1	175.1	166.5	156.2	151.9	142.0	131.9	128.1	124.9
	119.2	115.7	116.8	113.9	109.3	108.3	103.1	93.4	83.3	70.0	52.7	38.9
3645	89.6	141.2	168.2	181.6	179.1	168.9	155.5	150.1	140.6	131.2	127.7	124.7
	119.4	115.1	114.2	110.5	103.6	100.7	95.1	85.0	74.2	62.1	46.3	33.8
4445	40.6	61.3	73.3	79.2	82.5	82.6	81.8	81.1	78.3	74.7	73.2	72.0
	69.4	66.7	65.9	63.2	60.0	58.3	55.7	50.5	44.8	38.1	29.0	21.6

DATA SET 44 - OCTOBER 5, 1978

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 9636 MWD/T
CORE THERMAL POWER, 2411 MWT
DOME PRESSURE,P, 990 PSIA
CORE FLOW, 77.9 MLB/HR
INLET SUBCOOLING AT P, 21.7 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47												
43												
39					26		14		26			
35												
31			28		12		6		12		28	
27												
23			28		12		6		12		28	
19												
15					26		14		26			
11												
7												
3												
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	52.5	95.6	126.2	141.6	147.8	142.3	131.9	125.8	119.0	110.5	103.6	100.5
	95.3	89.6	88.8	85.9	80.6	78.0	75.0	67.6	59.6	52.1	40.7	31.7
2805	65.7	113.3	145.8	160.7	165.5	156.7	145.2	137.7	127.8	117.3	110.8	107.5
	101.4	95.6	94.8	91.9	86.4	83.9	80.4	72.7	64.3	55.3	42.2	32.8
3605	45.6	76.2	98.4	109.9	114.0	111.8	105.6	102.1	96.7	89.6	85.6	83.7
	79.7	75.9	74.7	72.3	68.4	66.4	63.3	57.4	50.7	43.4	32.9	25.8
1213	89.3	143.0	171.9	183.9	185.5	176.3	163.4	157.9	149.7	140.3	135.9	134.8
	129.5	124.0	122.6	118.0	111.1	107.1	101.7	92.1	81.6	69.5	53.0	41.0
2013	75.5	120.4	148.0	160.1	162.5	155.8	147.1	143.3	137.4	132.8	136.6	141.4
	139.4	135.8	136.1	132.7	126.6	123.0	120.1	110.2	98.7	84.8	64.9	49.9
2813	70.5	113.0	139.2	152.0	155.7	149.3	140.0	136.4	130.7	123.6	120.9	120.2
	117.6	115.0	117.2	118.3	118.6	123.3	124.2	116.2	104.9	91.2	70.4	56.3
3613	80.6	126.3	152.7	164.5	167.1	159.0	147.9	143.4	136.8	131.1	134.2	139.0
	137.1	134.7	135.1	130.8	122.9	119.8	113.8	102.8	91.3	77.4	58.0	45.1
4413	98.0	132.9	151.5	158.4	154.9	145.2	137.7	131.7	123.5	116.8	113.8	109.8
	104.1	102.6	100.1	94.0	89.2	86.1	79.2	69.2	60.5	48.5	33.6	25.0
0421	52.9	88.0	112.3	126.2	134.2	133.6	128.4	127.8	125.0	118.8	117.6	115.9
	110.7	105.4	103.5	98.2	91.5	88.0	82.4	74.4	65.6	56.1	43.4	33.1
1221	73.6	111.2	134.8	148.3	152.7	149.4	143.5	145.2	143.9	144.9	149.5	151.6
	147.3	143.3	143.0	138.7	132.2	129.5	125.2	114.2	103.1	88.1	68.6	52.9
2021	63.9	98.0	116.4	126.4	130.1	127.9	124.5	123.6	121.0	117.5	117.6	117.8
	115.2	114.0	116.2	116.0	115.7	122.0	124.9	120.3	112.7	100.0	79.6	62.8
2821	51.9	86.9	107.7	118.7	124.5	123.8	120.3	119.6	116.7	112.4	110.5	111.3
	108.7	106.6	109.2	109.8	107.8	110.9	112.6	108.8	104.9	98.1	80.9	64.3
3621	83.4	111.3	126.4	136.6	138.0	135.4	133.6	133.0	130.1	128.5	131.9	132.0
	127.6	129.0	128.7	126.6	126.7	131.4	129.7	119.2	107.3	88.0	61.9	46.6
4421	82.7	122.9	146.9	162.1	163.5	156.7	152.1	150.7	149.7	150.1	155.3	155.0
	148.6	144.7	142.7	135.3	126.5	123.0	113.6	100.6	88.2	72.8	51.9	40.5
0429	61.3	96.2	119.0	134.3	139.5	137.7	133.7	133.0	129.1	123.2	122.6	121.1
	116.0	111.7	110.1	104.6	97.6	93.8	88.3	78.6	69.6	59.3	45.5	34.6
1229	66.4	99.6	119.9	132.7	137.9	138.3	137.8	140.0	143.3	147.2	155.8	158.3
	154.9	151.4	150.6	145.9	139.0	137.1	131.7	120.3	108.4	93.1	72.8	55.1
2029	62.7	90.9	106.0	115.8	120.6	119.8	118.6	118.2	115.6	111.4	111.1	110.8
	107.8	107.3	110.2	111.9	115.1	124.1	129.4	124.3	116.6	102.3	78.2	59.9
2829	60.8	89.1	104.1	113.2	116.4	115.7	113.1	112.2	109.2	104.0	103.5	102.4
	99.8	99.1	101.9	102.7	102.6	106.3	107.9	105.4	102.1	94.4	74.9	59.3
3629	70.5	98.6	115.0	124.3	128.0	127.6	126.8	128.1	126.1	123.5	126.2	126.8
	124.0	123.5	124.2	123.7	123.9	128.8	130.7	121.9	112.3	95.7	70.5	51.3
4429	70.4	105.9	128.1	143.8	147.9	145.1	143.5	144.1	144.9	148.4	156.9	157.2
	149.8	147.3	144.6	137.3	128.3	123.8	115.3	101.9	89.7	74.8	54.0	38.1
0437	45.8	74.3	93.0	104.9	110.4	107.8	104.3	102.5	98.5	94.0	91.3	89.3
	85.7	82.0	80.7	77.3	72.5	70.1	66.2	58.8	52.9	45.2	35.2	26.9
1237	105.2	150.7	174.5	185.4	182.9	171.6	161.7	158.5	152.5	146.5	147.2	145.9
	140.5	137.1	137.2	131.7	124.0	121.0	114.2	102.8	92.2	77.6	59.0	46.1
2037	66.3	102.5	121.5	133.0	136.7	133.4	128.3	128.2	124.9	122.2	128.1	136.0
	135.1	133.0	135.4	134.3	129.3	129.7	127.5	118.7	107.7	94.4	73.8	55.7
2837	69.7	102.3	119.4	128.7	131.1	128.9	123.9	123.1	118.9	113.7	114.7	115.6
	113.3	112.8	116.9	119.4	122.0	127.8	127.6	119.4	109.6	95.5	73.2	53.6
3637	91.1	122.7	138.0	146.0	144.6	138.4	132.3	131.7	129.7	128.2	136.1	140.4
	137.5	137.5	137.3	131.0	126.4	124.1	117.2	106.5	95.4	77.6	55.8	42.5
4437	108.8	156.8	181.4	191.1	184.3	170.2	161.8	156.7	146.9	137.7	136.3	133.3
	124.2	120.8	119.4	112.5	105.4	101.5	94.3	82.8	72.2	59.2	42.4	30.0
1245	90.0	132.5	152.8	163.8	161.7	151.7	141.0	134.8	126.2	117.2	114.5	111.4
	104.8	101.1	100.3	95.2	89.0	86.1	80.6	71.0	62.6	51.6	37.1	26.6
2045	93.5	147.7	177.0	191.4	190.9	179.9	165.3	158.4	147.8	136.7	133.5	131.4
	125.1	119.9	120.3	117.0	110.1	106.4	101.5	90.9	80.7	68.7	52.4	41.6
2845	94.8	149.6	179.3	193.2	191.6	180.7	166.8	159.7	148.3	136.0	131.2	128.4
	121.5	116.8	116.2	113.5	108.2	106.6	102.7	93.7	83.5	70.3	53.1	39.4
3645	101.1	158.7	188.6	202.3	197.7	183.7	167.8	160.2	148.2	136.8	134.7	131.8
	125.7	121.1	121.0	116.6	108.7	106.0	99.1	88.1	77.6	65.3	48.8	35.4
4445	43.4	65.4	77.5	84.1	87.4	86.7	84.3	83.7	79.8	75.8	74.3	73.1
	70.5	68.3	67.8	65.3	61.9	60.2	56.8	51.9	46.0	39.6	30.0	22.6

DATA SET 45 - OCTOBER 16, 1978

REACTOR CONDITIONS: NON-STEADY STATE

CORE AVERAGE EXPOSURE, 9795 MWD/T
CORE THERMAL POWER, 2292 MWT
DOME PRESSURE,P, 984 PSIA
CORE FLOW, 67.9 MLB/HR
INLET SUBCOOLING AT P, 24.5 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47												
43							28					
39				36						36		
35					14		4		14			
31												
27			28		4		26		4		28	
23												
19					14		4		14			
15				36						36		
11							28					
7												
3												
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	48.6	88.9	117.1	131.6	137.3	133.0	124.1	119.6	113.9	105.2	99.1	95.1
	89.5	83.3	81.1	78.6	72.1	68.5	65.2	58.6	51.3	44.2	34.4	27.2
2805	57.5	100.8	129.6	143.8	147.3	142.1	133.1	128.1	122.1	113.9	109.0	105.3
	98.8	92.6	91.0	86.3	79.9	76.7	72.3	64.9	56.5	48.3	36.9	29.0
3605	43.5	73.3	93.5	104.1	108.5	107.2	101.3	98.4	93.4	86.7	82.0	78.3
	73.7	69.3	67.7	64.5	60.2	57.9	54.7	49.3	43.2	36.8	27.9	22.0
1213	68.4	111.9	139.3	153.0	159.7	161.1	159.1	158.6	151.3	139.6	130.9	125.7
	117.0	109.2	106.3	101.9	94.6	90.7	86.4	77.6	68.4	58.4	44.5	34.4
2013	84.5	133.8	161.3	173.2	175.4	169.1	160.5	156.6	151.7	141.5	136.1	132.5
	125.3	118.2	116.2	112.0	106.3	102.8	98.2	89.1	80.0	68.2	51.6	40.4
2813	71.2	111.3	134.6	145.3	148.3	143.5	137.0	138.6	139.2	138.0	136.3	134.6
	128.3	121.5	120.4	115.8	108.5	104.9	100.1	90.5	80.5	69.3	53.9	42.6
3613	73.9	116.4	141.3	154.7	161.7	162.8	161.1	159.9	153.4	141.8	135.1	129.5
	121.3	114.9	113.2	109.4	102.3	99.7	95.9	86.7	76.8	65.4	49.5	39.6
4413	101.7	131.2	145.0	152.4	148.5	139.5	135.7	128.4	118.1	109.2	104.5	98.7
	92.1	90.1	86.3	80.1	75.7	72.3	65.9	57.8	49.8	37.4	25.8	21.9
0421	63.0	103.8	129.9	144.4	146.7	141.1	133.7	128.0	120.3	110.8	106.4	101.3
	94.1	88.3	85.4	80.7	74.6	71.8	67.4	60.1	53.1	45.6	35.8	26.9
1221	91.6	139.2	164.6	175.2	175.8	170.5	161.9	158.8	152.3	141.3	136.2	131.8
	124.0	117.9	116.8	112.6	106.5	104.4	100.3	91.7	81.9	70.9	56.0	43.9
2021	66.3	100.6	119.3	128.1	129.7	125.8	120.8	119.3	114.6	108.0	105.8	103.8
	99.9	97.1	98.6	99.0	99.8	103.7	103.3	95.8	88.2	77.1	59.9	46.7
2821	53.7	89.1	110.3	119.8	123.5	121.4	115.6	115.0	112.4	107.7	105.2	105.9
	103.1	99.3	99.9	99.0	95.8	94.6	93.9	88.3	80.8	74.0	60.8	49.3
3621	97.5	122.4	134.7	142.4	141.8	137.6	137.6	132.1	125.5	120.5	118.4	112.6
	107.0	106.9	106.3	105.1	107.2	108.5	102.1	92.1	81.8	64.4	44.5	37.8
4421	121.9	164.4	183.6	189.2	181.6	169.5	162.5	155.7	144.2	135.5	131.4	125.7
	116.7	113.6	109.3	102.3	96.6	92.1	84.1	73.4	63.9	50.6	35.2	28.5
0429	74.4	115.8	139.1	151.4	151.2	143.2	134.5	129.5	122.4	114.9	111.4	106.7
	98.7	93.0	90.7	84.9	78.9	76.0	70.8	62.5	55.5	46.8	35.3	27.1
1229	79.4	118.3	140.6	152.7	155.1	150.0	145.5	147.0	147.0	144.4	142.7	139.4
	132.5	126.4	124.0	118.1	111.1	107.9	102.2	92.2	82.8	71.2	55.2	43.3
2029	67.5	98.2	114.0	123.0	125.2	121.5	117.7	117.1	113.6	107.6	106.9	105.8
	102.0	100.9	101.2	99.2	96.3	96.8	93.6	87.1	81.1	72.1	56.9	45.0
2829	78.2	105.6	117.4	122.8	122.1	116.6	113.1	110.1	106.6	105.4	110.8	113.4
	111.3	111.5	112.2	108.5	105.3	104.2	99.3	89.9	81.9	68.5	49.1	36.6
3629	89.1	115.3	128.2	135.5	134.8	129.7	127.3	125.6	120.6	115.1	114.8	111.4
	105.1	104.2	103.3	98.9	95.8	94.3	89.3	81.8	75.7	64.2	47.1	37.6
4429	101.0	138.7	157.4	165.9	163.6	154.5	149.9	149.4	148.4	143.8	142.3	135.1
	125.5	123.1	118.7	110.6	104.0	98.9	90.8	78.9	69.3	56.1	39.0	30.3
0437	50.5	82.0	101.4	112.4	116.9	113.8	106.5	102.9	95.8	89.0	84.4	80.9
	75.5	70.9	68.6	64.7	60.1	57.9	54.4	49.2	43.4	37.4	28.9	22.5
1237	88.4	129.0	151.8	164.6	169.4	168.7	165.1	162.7	153.7	142.5	136.8	131.1
	122.3	116.1	113.9	109.2	103.4	101.0	95.6	86.2	77.2	65.2	50.5	39.8
2037	67.6	104.6	125.3	136.0	139.7	138.1	133.0	132.6	127.6	119.7	114.9	112.2
	107.1	101.7	101.2	100.8	99.7	104.1	103.8	96.4	87.5	76.3	60.4	48.6
2837	72.5	106.1	123.3	132.2	134.3	130.7	125.5	123.8	120.9	114.5	113.0	110.1
	104.8	101.1	101.0	98.4	94.8	94.2	90.8	83.0	76.6	68.6	54.5	44.3
3637	85.1	108.5	121.5	132.7	138.1	140.2	141.8	139.0	130.7	123.2	119.8	113.0
	107.3	106.0	105.0	102.4	104.5	103.8	97.2	87.5	76.9	60.9	42.2	35.3
4437	126.9	170.6	188.5	193.7	187.0	173.1	162.1	153.2	140.8	129.6	125.2	116.9
	108.3	104.3	100.8	93.9	88.1	84.3	77.1	67.3	58.4	46.5	32.1	25.4
1245	83.0	122.5	143.4	154.9	155.0	148.3	140.7	134.9	125.9	114.8	109.7	104.3
	96.1	91.1	88.2	83.3	77.1	74.2	68.7	60.5	52.9	43.5	31.3	22.5
2045	91.0	142.7	171.6	184.8	183.8	174.0	162.0	156.9	148.1	137.8	132.0	127.6
	120.1	112.9	110.5	104.9	97.8	93.6	87.5	78.3	68.9	58.2	44.2	36.1
2845	76.2	119.9	145.3	159.2	160.0	153.1	144.0	142.2	140.9	138.5	136.7	132.2
	124.0	117.6	114.9	109.5	101.4	98.2	91.1	80.7	71.4	59.8	44.6	32.9
3645	95.1	149.3	178.3	189.2	187.2	176.1	163.1	156.2	145.3	131.7	125.6	120.6
	112.1	105.4	103.2	98.0	90.3	87.1	81.6	73.0	63.6	53.7	41.0	32.4
4445	40.4	60.4	72.5	78.3	81.6	82.5	81.3	80.8	77.7	72.9	70.8	68.1
	63.9	60.8	59.8	56.9	53.5	51.9	48.7	43.8	38.9	33.0	24.9	18.1

DATA SET 46 - NOVEMBER 8, 1978

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 10199 MWD/T
CORE THERMAL POWER, 2097 MWT
DOME PRESSURE,P, 975 PSIA
CORE FLOW, 62.4 MLB/HR
INLET SUBCOOLING AT P, 25.4 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47												
43							24					
39				32						32		
35					14		2		14			
31												
27			24		2		24		2		24	
23												
19					14		2		14			
15				32						32		
11							24					
7												
3												
	2	6	10	14	18	22	26	30	34	38	42	46 50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	56.7	103.2	134.1	147.5	149.1	139.3	125.3	118.4	111.0	101.3	95.8	93.6
	89.7	84.7	83.8	80.8	75.1	71.6	68.0	61.3	53.3	45.9	35.9	27.8
2805	67.0	116.4	147.9	161.6	161.1	149.6	134.8	125.7	116.8	107.2	103.0	101.5
	97.2	93.2	92.6	89.4	83.5	79.8	75.1	67.1	58.2	49.6	37.4	28.9
3605	50.8	85.6	107.3	116.4	117.7	112.1	103.5	98.6	92.1	84.9	80.4	78.4
	74.2	70.6	69.1	66.2	62.0	59.6	56.3	50.6	44.3	37.7	28.8	22.6
1213	77.3	125.2	150.9	159.9	159.5	149.8	139.9	141.0	142.7	137.9	133.7	130.0
	123.0	114.3	112.5	107.8	100.0	96.2	91.2	82.2	72.4	61.7	47.6	36.2
2013	94.6	149.5	176.1	182.8	179.2	167.9	152.4	148.0	141.2	133.6	129.7	129.9
	125.2	120.4	120.1	117.3	111.1	107.7	103.2	93.3	82.2	70.5	54.2	41.7
2813	77.9	122.3	146.2	154.4	152.6	144.8	134.2	129.3	124.3	117.7	117.7	123.0
	124.4	124.4	125.9	123.5	115.9	111.9	106.3	95.3	84.4	72.6	56.0	44.4
3613	85.8	133.5	157.6	164.9	161.8	152.1	142.8	144.7	143.3	139.2	136.1	132.6
	125.7	120.0	118.3	114.6	108.0	105.0	100.3	89.1	78.9	66.9	49.9	38.8
4413	92.0	133.1	150.7	158.4	152.8	140.5	131.9	127.1	119.6	110.8	108.0	103.8
	96.3	92.5	90.6	85.2	79.3	76.5	71.1	62.8	54.7	44.3	31.1	23.3
0421	73.0	119.3	145.3	156.4	155.0	145.7	132.0	125.0	116.1	106.2	101.9	99.6
	94.3	89.5	87.6	83.2	77.1	73.7	69.1	62.0	54.4	45.7	35.9	27.5
1221	104.0	153.8	178.1	184.6	179.3	167.4	153.8	148.8	141.7	133.7	130.1	128.5
	124.0	119.7	120.1	117.0	111.0	108.2	103.6	93.7	84.0	72.3	57.0	44.2
2021	69.3	104.6	122.1	128.3	128.6	123.0	117.8	115.7	110.7	105.6	104.9	104.2
	101.6	100.4	103.0	103.9	105.1	108.5	107.0	98.8	89.5	78.2	61.0	46.7
2821	55.2	92.4	113.7	122.8	124.8	121.2	114.9	112.3	109.1	105.2	103.1	104.9
	104.3	102.5	105.1	103.7	101.1	100.0	98.1	91.0	82.1	72.7	59.0	47.5
3621	86.6	121.0	137.0	143.5	142.6	135.7	130.5	128.2	122.6	117.1	117.2	115.6
	110.6	109.2	110.8	109.8	110.2	113.3	109.2	98.2	88.3	74.0	53.6	39.5
4421	108.4	167.4	193.9	202.2	195.4	177.4	160.3	152.7	142.0	131.1	127.8	125.1
	119.3	115.1	114.3	109.6	101.8	98.0	91.4	81.1	70.4	58.5	42.7	33.2
0429	83.8	129.5	153.3	162.7	159.3	144.4	131.5	124.5	116.1	106.2	103.8	101.4
	96.7	93.6	92.7	87.9	81.5	78.9	73.5	65.0	57.5	48.9	37.3	28.4
1229	88.3	130.8	151.7	159.3	157.9	148.5	139.2	133.3	126.6	120.7	122.1	127.1
	128.0	128.0	128.8	124.0	117.0	113.5	107.2	95.7	85.6	72.7	55.9	43.2
2029	69.1	100.3	116.3	124.3	124.6	120.7	115.2	113.2	108.9	104.7	104.7	104.9
	103.3	102.7	104.5	103.5	100.7	100.6	97.0	89.3	80.3	69.9	54.9	42.2
2829	59.9	93.9	112.6	120.5	122.0	117.5	111.5	109.0	104.2	100.1	101.5	106.1
	110.4	112.4	116.4	115.7	111.3	109.2	105.8	96.8	86.7	74.6	57.0	45.3
3629	75.1	110.9	129.4	137.1	138.3	132.5	124.6	121.4	116.5	110.2	108.4	109.2
	107.0	105.2	107.4	105.1	100.9	99.0	95.0	86.3	77.9	67.5	52.7	39.0
4429	88.0	137.8	165.2	176.3	173.1	160.3	146.7	138.9	129.3	121.7	121.5	124.5
	125.9	124.0	124.6	119.8	111.6	106.9	99.5	88.1	77.1	64.6	47.3	36.2
0437	57.0	92.3	112.9	122.3	123.4	115.1	106.8	101.0	94.0	87.2	82.8	79.8
	75.2	71.4	69.7	66.4	61.5	59.2	55.7	49.9	44.4	38.2	29.8	22.9
1237	101.0	143.4	163.4	169.4	163.1	153.6	147.9	148.0	145.0	138.8	136.6	131.8
	124.8	120.2	118.0	112.6	106.3	103.9	97.8	87.4	78.2	65.5	49.9	38.3
2037	73.8	112.7	132.5	140.1	140.1	133.8	127.1	124.8	119.2	113.1	111.7	110.2
	106.6	103.1	104.7	105.0	104.2	107.6	106.7	98.7	88.4	77.4	60.0	46.4
2837	77.7	112.3	128.6	135.7	134.1	128.6	121.6	118.3	113.1	107.6	106.5	105.8
	103.5	102.3	103.8	102.3	98.1	96.5	93.3	84.6	76.3	65.9	51.2	39.7
3637	75.8	107.2	121.7	129.1	128.0	124.9	123.4	128.6	128.0	123.3	121.8	119.3
	112.5	109.4	109.7	109.1	107.9	109.4	105.5	95.3	85.1	71.4	51.7	38.1
4437	114.5	175.4	201.0	206.4	196.3	178.4	160.2	152.5	143.0	131.0	125.7	120.8
	112.8	107.1	104.9	99.7	92.3	88.3	82.1	73.3	64.1	53.1	38.7	28.1
1245	92.9	135.6	154.3	160.8	155.4	144.5	134.9	129.6	121.6	112.7	108.8	104.3
	97.3	92.7	90.2	84.9	79.0	76.1	70.5	61.7	54.3	44.6	32.3	23.1
2045	105.2	163.8	190.6	198.3	191.5	174.5	156.8	149.0	140.0	129.4	124.7	122.9
	117.3	113.1	112.0	107.5	100.3	96.3	90.1	80.1	69.8	59.1	44.8	33.8
2845	87.1	136.5	161.9	173.2	168.9	156.0	141.8	133.9	124.7	115.8	114.6	117.5
	118.7	117.9	119.4	115.0	107.1	102.7	96.6	85.4	75.0	63.1	47.7	36.9
3645	110.9	170.9	197.4	200.6	191.8	174.9	158.2	149.9	138.9	127.9	122.5	120.1
	112.4	106.7	104.9	99.6	92.5	89.0	83.0	73.7	64.1	53.8	40.3	29.1
4445	44.4	66.9	78.5	82.7	84.2	82.8	79.0	77.7	75.3	72.0	70.5	68.3
	64.9	61.8	60.2	58.1	54.4	52.5	49.5	45.1	40.0	34.3	25.9	19.7

DATA SET 47 - NOVEMBER 19, 1978

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 10418 MWD/T
CORE THERMAL POWER, 2283 MWT
DOME PRESSURE,P, 983 PSIA
CORE FLOW, 69.5 MLB/HR
INLET SUBCOOLING AT P, 23.7 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47												
43						24						
39				32						32		
35					14		4		14			
31												
27			24		4		26		4		24	
23												
19					14		4		14			
15				32						32		
11						24						
7												
3												
	2	6	10	14	18	22	26	30	34	38	42	46 50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	50.6	93.4	123.7	138.6	143.5	137.7	127.5	121.3	113.6	105.2	99.0	96.3
	92.3	87.1	85.9	82.9	77.4	74.1	70.5	63.5	55.2	47.7	37.6	29.1
2805	60.7	106.8	138.5	153.0	155.9	148.2	134.5	127.7	120.4	109.9	105.1	104.2
	99.4	95.2	94.6	91.3	85.7	82.3	77.5	69.4	60.4	51.7	39.4	30.6
3605	45.7	77.3	98.5	109.0	113.0	109.4	103.2	99.5	94.3	87.6	83.4	80.9
	76.6	72.1	71.3	68.6	64.2	62.2	58.8	52.9	46.3	39.4	30.1	22.7
1213	67.8	111.5	137.5	148.8	152.3	148.2	142.4	145.5	146.9	141.4	137.3	133.9
	125.8	118.9	115.8	112.1	104.2	99.8	95.3	85.4	75.3	64.9	50.2	38.3
2013	84.5	134.9	162.7	174.3	174.0	166.5	156.9	153.0	147.2	139.0	135.6	134.6
	129.5	124.7	124.2	121.6	115.1	112.1	107.7	97.6	86.4	74.1	57.0	43.4
2813	69.2	109.7	133.4	143.8	146.4	140.1	132.1	130.0	125.2	119.2	120.1	124.9
	126.2	126.0	126.9	123.6	116.5	113.2	107.8	98.0	87.2	75.3	57.9	45.0
3613	74.8	118.0	142.1	153.4	155.4	150.4	143.7	147.2	147.4	142.1	139.1	135.5
	128.9	123.2	122.2	117.9	111.5	109.3	103.1	93.1	82.0	69.8	53.0	40.4
4413	80.4	118.0	137.0	147.2	144.8	137.3	130.4	127.4	122.1	113.1	110.3	105.9
	98.8	94.8	92.3	87.1	82.0	79.5	73.6	64.7	56.7	46.3	32.8	23.2
0421	65.8	109.7	136.9	150.2	152.5	144.3	133.9	128.3	120.3	110.3	105.3	101.9
	96.9	91.1	89.9	85.8	80.1	77.0	71.8	64.3	56.8	48.7	38.2	28.8
1221	91.2	137.8	161.5	172.8	172.2	164.6	156.0	153.1	144.8	137.0	133.5	131.5
	127.1	123.0	123.0	119.6	113.7	111.6	106.6	97.3	88.0	75.9	60.0	47.4
2021	61.8	94.1	111.2	120.3	123.3	120.7	117.5	116.7	113.6	108.5	106.5	106.2
	103.9	101.8	104.7	105.3	106.2	110.6	110.1	101.5	93.5	81.9	63.8	49.2
2821	49.4	83.0	103.4	113.3	118.5	117.0	114.2	113.9	112.2	107.5	106.6	107.3
	106.0	102.9	104.8	104.3	101.3	101.2	100.1	93.6	86.2	79.3	65.4	51.2
3621	77.0	107.6	123.9	133.2	133.9	132.6	129.0	128.5	124.9	118.5	118.4	116.6
	111.9	110.5	111.8	111.4	111.8	115.2	111.9	102.5	91.8	77.0	55.1	40.4
4421	98.4	153.5	182.7	194.3	190.2	178.0	164.8	157.2	148.1	136.3	131.2	129.1
	123.2	118.3	117.5	113.0	105.8	101.5	95.1	84.5	74.3	61.8	45.4	34.4
0429	77.2	120.0	144.0	156.2	154.9	144.3	133.2	127.6	118.8	109.2	106.1	103.9
	98.8	95.5	94.9	90.6	84.2	80.9	75.6	66.9	59.5	50.1	37.9	29.1
1229	77.9	117.2	139.3	149.6	151.9	146.1	138.9	135.8	130.0	123.7	125.7	130.0
	130.9	129.7	129.9	125.6	119.1	116.5	110.5	99.6	89.4	76.4	59.3	45.4
2029	61.5	90.3	106.2	115.8	118.9	117.3	115.5	114.8	111.9	107.4	107.6	107.7
	104.9	103.9	105.6	104.7	101.3	101.8	99.4	92.5	85.4	76.6	61.0	47.2
2829	53.7	85.0	103.1	112.0	115.7	113.2	109.7	109.9	107.8	105.0	107.7	113.1
	114.1	113.8	116.1	114.4	110.1	109.1	107.1	99.3	90.4	80.1	62.2	47.5
3629	66.5	99.7	117.5	126.6	129.4	127.9	123.3	121.2	118.1	111.9	111.4	111.1
	108.7	106.6	108.1	106.6	102.0	101.7	98.9	91.0	84.0	75.7	59.1	43.7
4429	79.6	125.9	153.0	166.9	167.9	157.7	146.1	139.4	131.9	123.4	124.3	126.4
	127.1	126.5	126.1	121.6	113.3	108.6	102.3	90.8	79.4	66.9	49.5	35.9
0437	51.2	83.4	104.3	114.9	117.8	113.7	106.9	102.7	96.6	89.4	86.1	82.7
	78.5	74.5	72.7	69.2	64.5	62.0	58.5	52.6	46.5	39.9	31.1	23.7
1237	88.0	127.3	148.1	157.0	157.6	152.3	149.2	151.7	149.6	142.9	141.1	136.8
	128.5	122.9	122.0	117.0	110.3	108.6	102.3	92.3	81.8	69.1	53.0	40.6
2037	64.4	100.2	119.9	131.3	135.0	132.1	128.7	128.0	123.8	117.0	116.2	115.0
	110.2	106.5	108.1	108.2	107.5	111.2	110.7	103.3	93.3	82.1	64.2	48.8
2837	69.4	101.1	118.2	127.5	129.9	127.0	121.8	119.2	115.6	109.9	109.6	108.8
	105.7	104.4	105.3	103.6	99.6	99.7	96.1	88.1	81.0	71.9	57.5	42.8
3637	66.0	94.3	110.6	119.3	122.3	121.0	122.3	128.1	129.7	125.2	124.8	120.9
	114.6	112.4	112.8	110.4	109.5	112.9	108.6	98.0	87.5	73.3	53.9	39.3
4437	100.7	156.4	183.9	193.6	186.5	174.2	161.4	155.5	146.0	134.0	129.3	124.2
	116.3	109.4	107.7	102.5	94.9	91.4	85.8	75.9	66.6	55.5	41.2	29.3
1245	82.0	121.4	142.2	152.8	151.8	143.0	135.2	131.9	124.8	115.6	112.1	108.0
	100.4	95.9	93.8	88.6	82.3	79.1	73.8	64.8	56.9	47.2	34.1	24.2
2045	95.2	150.1	180.7	191.9	189.2	176.1	162.2	154.5	145.6	134.3	129.8	127.5
	122.1	116.5	115.4	110.9	103.6	100.1	94.1	83.6	73.0	61.2	46.2	34.0
2845	79.7	126.6	152.2	164.6	162.9	154.8	143.2	137.1	128.8	118.6	118.5	121.4
	121.4	121.4	121.6	117.3	109.5	105.8	98.9	87.7	77.0	64.7	48.7	35.4
3645	98.2	153.7	181.6	192.3	187.1	174.9	161.8	154.9	146.1	134.8	129.6	124.7
	117.5	111.5	109.8	104.6	97.5	94.4	87.9	77.8	68.0	56.8	42.7	30.7
4445	38.5	58.1	69.3	75.3	78.8	79.1	78.0	77.7	75.9	72.7	71.6	69.6
	66.4	63.7	62.7	60.4	56.5	54.7	51.7	47.1	41.7	35.2	26.8	19.3

DATA SET 48 - DECEMBER 12, 1978

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 10800 MWD/T
CORE THERMAL POWER, 2414 MWT
DOME PRESSURE,P, 989 PSIA
CORE FLOW, 77.4 MLB/HR
INLET SUBCOOLING AT P, 22.2 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51						
47						
43		36	16	16	36	
39						
35		24	10	10	24	
31						
27	32	12	18	18	12	32
23						
19		24	10	10	24	
15						
11		36	16	16	36	
7						
3						

2 6 10 14 18 22 26 30 34 38 42 46 50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

NO TIP DATA AVAILABLE

DATA SET 49 - DECEMBER 23, 1978

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 11013 MWD/T
CORE THERMAL POWER, 2419 MWT
DOME PRESSURE,P, 993 PSIA
CORE FLOW, 77.4 MLB/HR
INLET SUBCOOLING AT P, 22.1 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51													
47													
43				36		16		16		36			
39													
35				24		12		12		24			
31													
27			34	10		18		18		10		34	
25													
19				24		12		12		24			
15													
11				36		16		16		36			
7													
3													
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	34.5	65.6	89.5	103.1	111.7	112.7	108.7	107.3	103.3	96.2	90.6	89.2
	85.4	82.4	84.1	84.2	82.5	82.2	81.2	74.8	66.3	58.5	46.7	36.8
2805	45.0	80.8	106.5	120.6	127.2	125.3	118.9	114.9	109.2	100.8	95.6	93.9
	90.8	88.3	90.5	92.3	90.2	91.1	89.6	82.1	73.3	63.8	49.4	38.1
3605	28.3	49.0	64.9	75.8	83.7	87.3	88.8	90.0	87.8	83.2	81.0	78.2
	74.8	72.8	73.2	72.7	69.9	69.6	66.8	61.4	54.4	46.7	35.8	27.2
1213	49.6	84.1	106.8	121.5	131.2	137.3	140.5	144.4	141.8	134.7	131.4	130.8
	125.9	121.6	122.4	119.3	113.2	111.0	106.6	96.4	85.4	73.3	56.4	43.0
2013	47.1	77.5	98.0	110.9	118.6	121.4	120.2	121.1	118.3	112.4	109.6	109.6
	108.4	107.7	113.2	119.5	124.1	129.3	128.8	120.7	108.6	94.2	73.4	56.2
2813	46.6	73.9	92.3	103.0	109.5	110.2	108.3	108.3	105.4	100.9	99.0	99.2
	98.8	100.4	108.4	117.9	125.0	133.1	134.2	125.5	114.1	99.1	77.2	59.6
3613	49.4	79.5	99.8	113.5	123.6	132.1	139.1	143.0	141.2	134.2	131.0	130.9
	126.9	125.1	127.8	127.3	123.5	123.8	119.9	108.9	97.2	83.4	64.1	49.1
4413	49.4	85.0	108.6	121.4	127.7	127.6	124.5	124.3	119.7	113.7	109.7	107.8
	103.7	99.4	99.5	96.0	90.3	87.7	83.7	75.8	66.3	57.2	43.2	32.6
0421	54.3	91.1	114.2	127.7	131.9	131.0	127.2	126.9	122.3	114.5	110.5	107.2
	101.2	95.5	93.1	88.7	82.5	79.8	74.9	66.4	58.6	49.4	37.3	26.6
1221	65.8	101.1	121.7	131.9	135.9	133.6	129.6	128.4	125.7	120.8	122.5	127.0
	127.7	129.6	131.4	128.9	123.3	122.4	118.5	109.0	97.7	83.8	64.9	48.5
2021	49.2	75.9	91.6	101.2	106.5	107.6	106.0	107.1	105.3	101.7	102.8	104.6
	105.0	107.5	113.7	117.4	120.1	128.7	132.5	126.1	117.1	102.2	79.1	58.9
2821	38.5	64.3	80.0	88.5	94.8	96.8	96.8	98.6	97.5	95.2	95.2	97.6
	99.1	100.8	108.5	114.3	119.7	130.0	138.1	134.8	125.3	112.3	90.1	69.3
3621	45.0	74.3	92.4	104.0	110.4	112.7	112.5	113.5	111.8	110.0	112.5	119.2
	124.4	128.1	134.0	135.1	132.4	134.1	132.9	124.8	114.3	100.7	79.2	61.1
4421	58.7	108.5	144.2	160.7	165.4	161.3	152.3	149.4	145.0	137.7	132.3	131.0
	127.9	122.7	122.5	119.9	113.9	109.3	104.9	97.0	84.9	74.5	58.8	47.4
0429	49.5	77.8	96.1	109.1	115.7	120.4	127.1	132.9	130.5	123.1	119.7	114.8
	107.4	102.3	99.5	94.1	88.2	85.1	79.4	69.9	61.7	51.2	37.8	27.2
1229	62.3	95.5	115.8	128.4	133.1	131.9	129.9	129.8	126.6	121.6	121.1	120.7
	117.8	115.6	117.3	115.4	112.0	113.7	114.1	108.6	100.6	86.9	66.7	49.1
2029	49.2	72.8	86.8	96.2	100.7	101.8	101.9	102.4	100.8	98.3	100.5	102.6
	103.7	109.2	120.5	129.4	133.7	140.0	139.2	130.2	119.9	102.6	77.8	57.7
2829	31.5	56.8	76.0	85.9	92.6	95.1	94.9	95.3	95.7	93.3	91.9	94.1
	96.5	100.0	110.8	124.0	131.3	136.9	141.3	137.7	127.1	116.7	95.9	78.8
3629	38.7	68.6	88.6	99.7	107.6	109.9	108.7	110.1	109.6	107.2	106.0	107.8
	109.7	110.0	114.9	117.2	117.9	120.3	124.2	123.1	115.9	105.8	86.8	70.0
4429	47.5	87.9	120.8	138.8	147.8	149.3	148.9	153.1	154.0	148.8	142.4	140.8
	135.1	128.1	126.5	123.0	116.2	112.6	109.1	101.5	89.9	79.7	64.1	50.7
0437	43.7	71.1	89.2	99.2	104.6	101.8	97.6	97.6	93.5	88.0	85.5	83.7
	78.7	75.4	74.4	70.5	66.7	64.6	60.4	54.0	47.5	40.3	30.3	22.3
1237	72.1	106.0	124.8	134.7	137.8	136.4	132.2	131.0	127.8	122.0	124.9	128.1
	129.1	130.2	131.1	128.3	122.0	119.5	112.4	100.8	89.3	74.4	56.0	41.5
2037	46.6	73.7	90.0	100.6	107.4	109.9	110.0	110.9	109.6	104.2	104.2	105.6
	105.1	105.1	110.5	114.2	115.5	124.3	129.1	123.7	114.7	101.2	79.0	59.0
2837	49.0	72.3	85.8	94.9	100.1	101.2	100.9	102.1	100.4	96.4	96.8	97.1
	96.6	98.6	104.8	109.9	114.7	125.8	132.3	128.2	118.8	104.4	80.8	61.9
3637	46.0	75.5	96.3	107.8	116.9	118.0	116.5	118.5	117.1	113.4	113.9	119.0
	123.4	126.0	131.3	131.2	127.2	127.4	125.7	117.1	105.3	93.6	73.3	57.9
4437	61.1	113.8	149.1	164.8	169.1	163.2	151.6	147.1	140.6	133.4	126.7	125.7
	121.3	115.6	115.3	113.2	106.0	101.5	97.3	88.8	78.1	67.7	53.9	42.6
1245	43.8	67.0	83.1	96.2	108.2	118.6	126.1	129.9	125.3	118.3	114.9	110.4
	104.3	101.7	100.6	96.2	91.1	89.6	84.0	74.0	65.0	54.2	39.2	27.7
2045	52.7	86.4	108.5	121.8	127.8	128.5	125.3	123.8	118.8	111.2	107.9	105.4
	101.7	100.6	104.8	109.9	112.8	116.0	113.3	102.8	91.9	78.1	58.9	43.4
2845	54.6	89.6	111.4	124.5	130.0	126.2	121.2	118.4	111.8	103.5	101.0	98.7
	96.1	97.1	103.5	109.7	114.6	119.5	118.3	108.1	97.5	83.5	63.7	48.4
3645	51.6	85.2	107.6	123.1	133.6	140.6	142.3	143.8	138.6	130.0	126.0	122.0
	116.6	112.7	114.0	112.3	107.2	106.6	102.2	92.1	81.2	69.2	52.9	42.1
4445	26.5	40.9	49.8	56.2	61.4	65.6	69.0	72.1	72.4	71.1	70.5	69.8
	68.0	65.9	65.8	63.9	61.0	59.9	56.8	52.0	46.3	39.8	30.4	23.2

DATA SET 50 - FEBRUARY 9, 1979

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 11746 MWD/T
CORE THERMAL POWER, 2413 MWT
DOME PRESSURE,P, 987 PSIA
CORE FLOW, 77.5 MLB/HR
INLET SUBCOOLING AT P, 21.9 BTU/LB

CONTROL CONFIGURATION

LEGEND: 48,FULL OUT;0,FULL IN

51						
47			34	34		
43						
39		42	12	12	42	
35						
31	34	12	18	18	12	34
27						
23	34	12	18	18	12	34
19						
15		42	12	12	42	
11						
7			34	34		
3						

2 6 10 14 18 22 26 30 34 38 42 46 50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	26.5	50.0	68.6	81.6	93.5	102.6	112.8	126.9	133.3	129.6	124.2	121.3
	114.0	106.1	102.7	98.8	91.8	87.3	83.8	75.9	67.0	58.8	47.2	37.6
2805	28.8	52.4	71.4	85.2	97.9	110.2	124.4	141.4	148.6	145.1	140.6	135.7
	126.6	117.2	114.0	108.4	100.3	96.3	92.2	83.1	73.1	62.9	48.8	37.2
3605	32.6	56.1	74.1	85.6	93.0	97.0	98.7	101.9	100.8	96.5	93.1	91.0
	86.5	81.4	80.4	77.2	72.7	70.1	67.3	61.4	54.1	46.8	36.9	29.2
1213	62.3	106.2	137.2	159.2	168.3	167.2	160.4	157.2	152.8	143.2	138.2	135.0
	128.8	121.6	120.2	116.4	109.5	106.4	103.1	93.2	83.5	72.4	56.4	43.3
2013	53.8	89.3	113.5	129.1	139.1	142.1	141.4	144.7	142.7	136.5	131.7	129.6
	124.4	117.8	117.9	116.1	113.1	116.5	119.0	113.9	104.8	92.2	72.3	57.1
2813	48.7	78.6	99.5	112.7	122.1	127.2	130.6	135.5	134.8	129.8	128.0	126.0
	120.4	115.3	115.8	115.6	114.1	119.4	122.7	117.4	107.4	94.9	74.0	57.1
3613	65.7	108.2	139.7	161.8	170.9	168.3	161.4	160.2	154.7	145.3	140.2	137.4
	130.5	125.1	124.5	122.0	116.3	115.4	112.2	103.5	92.9	80.3	62.1	47.9
4413	54.7	93.7	120.9	134.7	141.1	139.3	133.9	132.2	127.1	120.1	115.9	113.1
	107.7	100.6	99.7	95.8	89.7	86.8	83.2	76.2	66.9	58.1	45.2	34.4
0421	34.2	57.5	74.8	87.4	98.6	108.0	121.0	134.8	137.4	133.2	130.0	125.3
	117.7	109.5	105.6	99.6	91.2	88.1	82.8	73.5	64.5	54.8	41.5	29.5
1221	61.3	95.3	116.1	129.8	137.5	140.3	140.4	142.0	140.2	134.2	130.7	127.5
	121.0	116.2	117.3	115.6	113.1	117.4	120.2	113.7	102.8	88.6	68.1	50.1
2021	52.0	80.8	97.8	108.7	114.6	116.1	116.0	117.4	115.0	110.5	109.2	109.3
	107.8	111.1	121.3	128.9	131.5	136.2	135.8	127.4	117.0	101.4	77.8	57.9
2821	38.9	65.2	81.9	91.2	98.3	101.4	102.9	105.1	104.9	102.1	101.9	103.8
	104.4	108.2	120.5	131.7	137.3	142.9	144.1	137.0	125.3	112.6	90.8	70.1
3621	47.7	79.2	99.3	112.1	121.9	124.6	125.2	126.6	125.2	119.5	117.2	116.0
	113.5	110.9	115.0	116.7	117.2	123.8	129.6	125.1	116.6	103.0	80.8	61.2
4421	44.2	80.8	110.8	126.3	136.3	142.4	146.4	156.8	160.6	157.3	151.3	148.0
	141.5	131.2	129.6	124.9	117.9	113.8	110.2	102.7	91.1	79.9	63.6	49.6
0429	35.9	57.9	73.6	87.2	99.7	113.1	129.4	144.4	147.8	141.8	139.2	133.8
	124.3	116.3	113.7	106.2	98.6	94.9	89.2	79.0	69.4	57.8	42.3	30.4
1229	55.3	84.3	102.3	115.5	124.4	129.7	133.4	138.2	137.7	132.0	131.1	128.0
	122.3	117.8	119.1	117.9	116.6	122.7	125.0	118.4	108.5	93.4	71.2	51.8
2029	48.8	71.9	85.2	95.0	101.0	104.1	105.9	108.4	107.5	105.2	106.0	107.2
	108.7	114.1	126.7	136.3	139.5	144.9	144.4	134.7	123.6	107.0	82.0	59.6
2829	29.7	53.0	69.8	78.4	85.4	89.1	91.0	94.0	94.3	93.0	92.2	95.1
	96.9	101.6	114.5	129.1	137.9	144.0	145.9	140.7	129.0	118.2	97.7	79.6
3629	36.7	64.6	83.1	94.1	103.8	107.8	109.7	112.4	113.7	110.5	107.9	108.9
	107.7	105.8	110.3	114.1	117.1	122.8	130.4	130.2	121.9	111.0	91.8	72.6
4429	37.7	70.2	98.2	114.8	128.5	137.3	146.4	160.8	168.5	164.9	159.2	155.7
	148.9	139.1	135.5	131.8	125.1	120.2	117.3	109.9	97.6	86.1	69.5	55.2
0437	37.2	61.4	77.5	87.6	95.3	98.4	99.8	102.8	103.2	99.6	96.5	93.0
	87.7	83.7	81.0	76.9	72.0	69.3	64.9	58.4	51.6	44.3	34.1	25.1
1237	78.8	118.2	144.5	161.7	165.9	164.9	159.7	159.3	153.8	144.6	140.8	137.7
	130.7	126.3	125.3	121.3	114.8	113.7	109.5	98.8	88.1	74.1	55.6	41.2
2037	52.3	83.0	102.3	114.3	122.5	124.1	123.6	125.1	122.3	117.0	115.7	114.6
	111.3	109.2	112.7	115.2	116.3	122.8	127.3	122.1	112.7	99.9	79.8	61.1
2837	51.6	75.4	89.1	98.9	105.6	108.5	109.5	111.3	110.1	106.0	106.4	105.6
	103.9	104.4	109.7	113.1	116.6	125.9	130.4	125.5	116.0	101.1	78.1	56.8
3637	54.3	91.0	120.5	141.4	154.2	153.5	148.7	147.4	143.4	136.0	131.8	131.4
	126.1	120.8	121.3	120.7	117.7	117.3	117.2	110.9	101.3	90.6	71.5	56.0
4437	58.8	110.9	146.5	162.1	170.2	168.3	162.4	160.6	158.7	149.9	141.4	138.1
	131.2	121.9	119.2	115.8	108.5	103.2	99.9	92.0	80.9	70.4	56.3	44.2
1245	74.2	111.9	133.1	145.7	149.1	143.7	138.3	135.4	129.2	120.4	117.4	113.9
	105.9	102.0	100.6	95.7	89.6	86.9	81.7	72.4	63.5	53.0	38.7	27.4
2045	59.6	96.3	119.6	133.7	141.7	146.9	152.9	162.2	162.9	154.0	149.9	145.5
	136.3	128.3	125.8	121.1	114.1	112.5	107.7	98.1	86.7	74.0	57.3	45.0
2845	51.2	83.9	106.9	122.4	133.9	143.3	154.5	167.3	169.9	161.9	158.2	152.5
	141.6	132.9	130.6	126.4	119.5	116.4	113.3	102.7	91.8	78.7	60.5	46.7
3645	79.4	127.5	154.7	168.4	170.4	166.5	160.5	159.0	152.8	142.9	139.0	134.7
	127.0	119.9	118.5	114.2	106.4	103.7	98.7	89.1	78.5	67.0	51.1	38.6
4445	34.6	52.8	63.6	70.4	74.7	76.1	76.7	77.3	76.3	73.8	72.6	71.3
	68.5	66.1	65.2	63.2	59.9	58.3	55.8	51.2	45.9	39.8	31.0	23.5

DATA SET 51 - MARCH 2, 1979

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 12182 MWD/T
CORE THERMAL POWER, 2397 MWT
DOME PRESSURE,P, 987 PSIA
CORE FLOW, 78.0 MLB/HR
INLET SUBCOOLING AT P, 21.8 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47					34		34					
43												
39				42	14		14		42			
35												
31		34		14	20		20		14		34	
27												
23		34		14	20		20		14		34	
19												
15				42	14		14		42			
11												
7					34		34					
3												
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	22.3	42.3	58.0	69.6	81.0	91.2	104.0	120.0	127.6	127.8	125.1	123.7
	117.3	109.4	107.0	103.0	96.5	92.3	88.6	80.4	70.6	61.3	48.6	38.2
2805	24.1	44.0	60.2	72.5	85.7	98.7	114.2	133.3	142.5	140.6	139.0	136.2
	128.2	120.0	119.3	113.7	105.7	101.7	97.5	88.7	77.5	67.2	52.4	43.7
3605	28.5	49.1	64.3	74.5	82.4	87.2	90.1	95.3	96.3	94.8	92.8	91.3
	88.1	83.7	82.8	80.5	75.8	73.9	70.3	64.0	56.5	48.5	37.6	28.7
1213	51.3	86.6	113.9	133.7	145.0	146.7	145.7	146.5	145.6	139.4	136.5	135.8
	130.6	125.1	125.1	122.7	116.2	113.3	109.3	100.3	89.0	76.8	60.0	45.7
2013	44.8	74.3	94.7	108.8	119.4	126.2	129.7	135.0	134.9	132.2	132.1	131.4
	126.7	122.4	125.3	126.0	125.7	130.5	130.8	121.4	109.5	95.7	73.9	56.4
2813	40.6	65.8	83.4	95.5	105.7	113.0	119.7	127.4	130.5	128.1	128.4	127.3
	124.3	121.3	124.6	126.7	127.8	133.3	133.9	123.9	112.6	97.9	76.2	58.4
3613	54.2	89.5	115.6	135.2	147.0	149.6	147.1	149.3	148.2	141.8	140.0	138.3
	132.8	129.0	130.1	128.0	123.4	122.6	119.3	109.9	98.2	85.2	65.4	50.6
4413	45.8	78.6	100.7	113.6	120.5	123.8	122.5	124.6	122.3	118.4	115.7	114.3
	109.8	104.5	104.6	101.2	95.2	92.6	88.9	80.7	70.9	61.2	47.4	35.0
421	34.6	53.0	66.0	77.2	87.0	99.9	116.4	129.4	132.6	130.0	130.2	126.3
	117.9	112.6	110.1	103.9	97.4	93.4	86.5	76.1	66.9	55.1	39.9	29.0
1221	57.2	82.5	97.9	109.8	118.3	123.3	128.4	131.9	132.5	128.6	128.8	126.7
	121.7	121.5	123.8	125.0	127.3	132.2	128.8	117.3	104.8	87.5	64.0	49.2
2021	52.1	75.1	88.2	98.2	105.7	109.7	113.5	116.8	116.9	116.7	119.3	122.1
	125.9	136.5	147.7	150.9	150.2	151.5	146.4	135.4	122.7	103.6	77.7	58.7
2821	32.5	54.6	68.6	77.2	84.8	89.7	93.2	98.8	101.7	102.0	104.7	109.0
	114.3	123.6	138.3	147.0	148.4	150.0	148.8	139.0	125.5	112.2	89.9	69.7
3621	38.8	64.8	81.7	93.9	103.3	108.2	112.1	117.8	119.3	116.6	117.4	119.4
	118.3	117.5	121.7	127.1	129.6	135.8	139.0	132.6	121.2	105.7	84.1	71.8
4421	36.9	67.5	91.4	105.5	117.5	125.2	133.0	147.0	155.0	153.4	150.2	150.0
	143.8	136.4	135.7	133.7	127.5	123.6	120.0	111.5	97.6	85.7	67.2	53.0
429	36.1	53.5	66.1	77.9	89.4	104.6	123.0	136.4	139.9	137.3	137.3	132.8
	124.3	121.0	117.7	109.9	103.9	100.8	92.0	81.1	71.4	57.2	40.4	30.3
1229	52.5	74.2	87.5	100.0	109.1	116.0	123.6	129.6	131.2	129.7	131.1	130.0
	124.9	125.2	128.5	129.9	133.9	138.1	133.6	122.5	109.3	90.5	66.0	50.6
2029	45.9	63.0	73.5	81.8	88.4	93.4	98.3	102.6	104.3	106.0	111.1	115.8
	121.9	134.1	144.3	147.5	147.3	148.6	141.6	129.9	113.0	98.2	70.9	54.6
2829	25.1	44.2	58.7	66.1	72.7	77.7	81.8	87.0	90.4	92.4	95.0	101.5
	108.3	117.5	134.3	145.9	148.2	147.6	148.0	140.6	127.9	115.7	96.1	77.4
3629	30.5	53.6	69.4	78.4	87.4	93.9	98.1	104.4	108.0	108.2	108.2	111.3
	112.0	113.5	119.6	125.4	130.4	136.7	142.4	137.3	125.9	113.1	92.4	77.8
4429	32.0	59.1	81.9	96.7	109.6	120.3	132.5	149.2	158.8	160.3	157.3	157.4
	151.6	144.8	142.5	140.3	134.8	130.7	128.0	119.0	104.4	91.9	74.0	58.3
437	37.0	55.3	67.0	76.4	82.9	87.4	92.1	96.4	96.7	95.1	95.7	92.5
	87.8	85.8	83.3	78.3	73.8	72.0	67.0	59.8	52.7	43.6	31.7	23.5
1237	72.2	102.4	123.4	138.9	146.8	147.8	149.4	149.6	146.7	142.2	142.1	138.9
	132.9	131.8	131.7	127.3	123.2	122.0	114.2	102.1	90.6	73.7	52.5	41.4
2037	43.6	69.0	85.4	96.9	105.8	110.7	113.0	117.9	119.5	117.7	117.4	117.8
	116.8	116.8	124.0	127.7	129.8	136.3	137.1	128.6	117.4	102.7	81.5	61.6
2837	42.8	62.9	74.5	83.1	90.7	96.2	101.0	106.0	107.0	106.5	108.7	109.9
	110.3	113.7	119.6	125.3	130.8	140.0	140.1	129.9	118.8	103.3	79.6	57.8
3637	44.6	75.1	100.6	118.2	130.7	135.0	134.9	138.5	137.2	132.5	130.7	132.9
	128.6	125.5	127.1	128.4	125.5	125.0	125.2	117.3	106.3	94.4	74.2	57.8
4437	48.5	90.2	120.2	137.6	146.3	149.4	146.7	150.4	150.0	144.1	141.2	139.4
	133.5	126.1	124.7	121.8	114.9	110.3	107.3	98.1	86.4	75.2	59.7	46.3
1245	62.2	93.4	112.2	124.4	130.9	129.7	128.3	129.1	125.7	119.0	119.2	116.1
	109.9	106.2	104.9	99.9	94.6	93.0	87.1	77.3	68.1	56.5	41.3	29.1
2045	50.4	81.3	101.7	115.2	125.3	133.9	144.4	155.8	158.7	154.0	152.5	148.7
	140.8	134.7	134.3	130.2	122.9	120.5	115.3	103.4	92.0	77.3	58.4	42.9
2845	43.9	71.1	89.8	104.0	117.7	129.2	144.9	159.8	164.7	159.9	158.2	154.0
	145.4	138.5	138.1	133.9	127.1	125.4	120.1	108.4	95.9	81.4	61.7	44.6
3645	66.2	106.4	130.7	144.7	151.1	150.8	149.1	152.0	148.6	141.3	139.6	137.6
	131.6	126.0	125.2	119.7	113.7	111.3	106.1	95.2	83.7	71.0	54.2	39.6
4445	28.8	43.5	52.7	58.7	63.6	66.5	68.9	71.4	72.0	71.6	71.9	71.7
	70.4	68.3	67.9	66.4	62.8	61.7	58.9	53.9	48.2	41.5	31.9	22.8

DATA SET 52 - MARCH 9, 1979

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 12328 MWD/T
CORE THERMAL POWER, 2407 MWT
DOME PRESSURE,P, 989 PSIA
CORE FLOW, 77.0 MLB/HR
INLET SUBCOOLING AT P, 22.2 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51						
47			34	34		
43						
39		42	16	16	42	
35						
31	34	16	20	20	16	34
27						
23	34	16	20	20	16	34
19						
15		42	16	16	42	
11						
7			34	34		
3						

2 6 10 14 18 22 26 30 34 38 42 46 50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	21.0	39.7	54.8	65.8	77.0	86.6	99.1	116.2	125.0	125.9	124.3	124.0
	118.4	111.1	109.4	105.8	99.6	94.9	90.8	82.6	72.1	62.8	49.8	39.0
2805	23.2	42.0	57.4	69.5	82.8	96.3	112.6	131.1	141.0	141.3	140.1	137.0
	130.9	123.1	121.8	118.0	109.3	106.0	101.2	90.2	79.3	67.7	51.8	40.1
3605	27.1	46.8	61.0	70.4	77.9	83.8	87.3	92.3	95.2	93.9	93.4	92.6
	88.9	85.8	85.2	82.2	78.1	75.9	72.1	65.5	58.0	49.7	37.5	28.6
1213	47.0	80.2	106.6	125.1	137.7	141.6	141.1	143.5	142.4	138.6	136.4	137.1
	133.2	127.8	128.6	126.9	120.1	117.3	112.7	103.6	91.8	79.5	62.0	47.7
2013	41.4	69.2	89.2	101.8	112.5	120.3	125.4	132.4	134.2	131.9	131.4	132.1
	129.0	127.0	131.1	135.0	136.3	137.9	136.2	125.4	112.6	97.0	74.9	58.4
2813	38.2	61.7	78.1	90.0	100.7	109.0	115.4	124.5	128.3	127.4	127.6	129.1
	127.4	126.5	132.6	138.7	139.7	141.8	138.6	126.7	113.4	98.9	76.0	59.4
3613	51.5	85.0	109.8	128.6	140.2	143.6	143.4	146.6	144.8	140.9	139.0	139.2
	136.1	132.7	134.6	134.2	129.1	127.8	122.5	112.2	100.1	85.4	65.2	50.6
4413	43.0	73.9	95.0	108.0	116.4	120.2	120.8	123.5	123.9	118.2	116.9	116.7
	112.5	107.9	107.9	105.9	99.4	96.8	92.6	84.1	73.9	63.6	48.6	36.5
421	32.6	50.3	62.5	73.3	84.3	95.8	111.4	125.0	131.6	130.4	131.4	127.4
	120.0	116.7	113.0	108.2	101.3	97.0	89.8	78.8	68.6	56.8	41.2	29.9
1221	53.7	76.9	92.2	103.6	112.2	118.9	125.3	129.4	131.2	129.6	131.1	129.9
	125.3	128.1	134.0	137.3	138.9	139.4	134.1	121.4	108.4	88.8	64.2	50.1
2021	46.9	67.1	78.9	87.6	95.0	99.5	104.6	108.8	108.4	109.5	112.6	116.6
	121.1	132.4	143.6	147.1	146.4	146.7	139.8	128.2	115.4	96.6	71.1	55.4
2821	30.7	51.7	64.9	73.3	80.9	86.7	91.6	96.5	99.5	101.7	106.0	111.8
	117.6	127.4	143.9	153.5	153.9	155.0	152.1	141.2	127.4	113.0	90.4	70.8
3621	36.8	61.2	77.0	87.8	97.5	104.6	110.1	116.3	117.9	116.9	118.6	120.6
	120.6	122.8	131.0	137.4	142.3	146.9	146.3	137.4	124.2	108.1	85.5	72.5
4421	34.9	64.0	86.6	100.1	111.2	121.0	130.1	144.1	152.1	153.3	149.6	150.9
	148.1	140.8	141.6	140.0	134.1	130.3	126.1	116.5	102.4	89.1	69.6	54.7
429	34.0	50.2	61.7	73.5	86.1	100.7	118.6	133.1	136.3	137.3	138.7	134.7
	126.9	124.1	121.5	114.6	108.2	103.7	95.5	83.8	73.5	59.6	42.5	31.5
1229	49.0	69.6	82.3	93.3	103.6	112.0	119.3	126.3	128.5	128.6	131.8	131.7
	129.4	131.6	138.4	142.9	145.4	146.7	139.8	125.3	111.5	91.6	66.8	51.6
2029	43.2	59.3	68.8	77.0	83.4	89.4	95.4	100.6	103.2	105.0	111.6	117.7
	125.4	138.9	149.4	152.6	152.3	152.6	145.2	131.8	118.7	99.1	71.2	55.1
2829	23.1	41.1	55.0	62.2	68.5	74.0	78.3	83.7	88.6	91.2	94.7	102.0
	109.8	119.0	136.5	148.9	151.2	149.7	150.0	142.7	129.9	121.1	100.1	79.0
3629	29.2	51.1	65.2	74.6	83.4	90.1	95.1	102.0	106.2	106.1	109.1	113.0
	116.0	118.1	127.7	137.2	143.3	148.9	149.0	140.6	127.8	113.1	92.3	74.4
4429	30.2	55.4	77.1	90.7	104.2	116.5	128.8	146.7	157.6	159.0	157.6	157.8
	153.7	147.0	145.3	143.5	141.5	138.4	133.7	123.6	109.0	95.2	76.2	60.1
437	34.6	51.6	62.5	71.9	78.5	83.9	88.9	94.4	96.3	95.8	96.0	94.6
	90.9	88.3	86.2	82.5	78.5	75.6	69.8	61.8	54.5	44.9	32.2	24.4
1237	68.3	96.4	116.5	132.4	139.4	141.5	145.7	147.3	144.5	141.3	143.2	141.9
	135.7	136.9	137.5	133.2	129.1	126.0	118.2	105.0	92.8	74.6	53.5	42.5
2037	41.2	65.4	81.0	92.0	100.6	106.4	110.2	116.0	118.1	116.5	118.6	120.3
	119.9	122.8	131.2	138.8	140.8	144.7	141.7	131.3	118.0	103.5	81.3	61.1
2837	40.4	59.2	70.3	79.0	86.7	92.1	97.6	103.2	105.0	105.1	108.3	111.4
	113.6	118.8	129.0	137.5	142.1	146.8	143.5	131.1	119.4	102.8	78.3	56.7
3637	42.2	71.4	95.1	113.0	124.6	130.2	134.3	136.9	137.0	133.6	134.0	134.9
	131.7	130.1	134.0	135.8	133.3	132.7	130.9	121.0	108.9	95.9	74.8	58.2
4437	45.4	84.8	113.3	130.5	140.4	142.7	144.9	149.0	149.9	144.2	140.2	139.1
	134.8	128.4	125.0	122.0	118.4	114.8	111.5	103.0	89.8	78.1	61.8	48.4
1245	58.0	87.1	105.3	118.6	124.1	125.3	124.9	126.6	124.6	119.8	119.3	117.1
	111.7	108.7	107.6	104.0	98.1	95.7	89.8	79.3	70.0	58.2	42.8	30.5
2045	47.3	76.3	95.3	109.8	120.6	129.8	140.4	152.4	156.6	154.0	153.1	150.9
	143.6	139.0	139.8	135.4	128.0	125.1	119.1	106.8	93.2	79.3	59.6	43.8
2845	41.0	66.9	84.5	98.4	112.1	124.5	139.8	156.2	162.7	159.5	159.0	156.1
	148.1	143.7	143.7	140.0	132.3	130.4	124.8	111.5	99.1	83.8	63.7	46.6
3645	62.1	99.6	122.5	136.4	144.0	145.1	144.1	148.6	146.8	140.6	139.9	138.4
	132.8	127.9	127.3	123.9	116.9	114.2	108.5	97.6	85.2	72.2	54.5	39.9
4445	26.9	40.9	49.4	55.3	59.9	63.4	66.1	69.2	70.6	70.5	71.9	72.4
	71.0	69.2	69.2	67.7	64.4	63.4	61.0	55.5	49.9	43.0	33.1	24.3

DATA SET 53 - MARCH 16, 1979

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 12452 MWD/T
CORE THERMAL POWER, 2345 MWT
DOME PRESSURE,P, 987 PSIA
CORE FLOW, 78.6 MLB/HR
INLET SUBCOOLING AT P, 21.4 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47					34		34					
43												
39					12		12					
35												
31	34		12						12		34	
27						34						
23	34		12						12		34	
19												
15					12		12					
11												
7					34		34					
3												
	2	6	10	14	18	22	26	30	34	38	42	46 50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	18.8	36.7	51.4	60.9	70.2	73.5	89.0	102.9	112.0	112.9	111.4	111.0
	105.2	97.8	95.5	92.3	86.4	82.0	79.4	72.4	62.9	55.9	45.6	35.9
2805	19.9	37.6	52.5	63.2	73.8	85.4	98.4	114.6	125.4	126.3	124.3	122.9
	116.8	108.5	105.2	100.3	94.3	90.0	86.5	78.4	68.6	59.9	47.4	37.8
3605	24.1	43.1	57.2	65.7	72.0	75.8	78.7	82.8	83.9	83.2	81.9	81.0
	77.9	74.5	73.2	70.6	66.9	64.7	62.4	56.9	50.5	43.7	34.6	27.1
1213	54.4	92.9	116.2	125.8	128.9	128.3	125.1	124.8	122.8	119.7	116.6	116.3
	113.1	107.6	106.8	105.3	100.9	96.6	93.8	87.2	78.1	68.4	55.0	43.9
2013	43.5	73.1	92.0	102.0	109.5	112.5	114.3	118.8	119.5	117.5	116.2	115.6
	111.3	106.1	105.6	104.2	101.1	102.5	105.2	101.2	92.7	82.6	66.2	52.6
2813	37.0	61.8	78.6	88.5	97.1	102.3	107.1	113.6	116.2	114.9	113.6	113.0
	109.1	104.3	104.1	102.5	100.1	102.5	105.8	102.2	93.8	84.2	68.1	53.5
3613	60.7	98.5	119.8	128.8	132.7	131.3	127.5	128.7	127.9	122.2	119.7	119.5
	114.9	110.0	109.2	107.8	103.3	101.9	99.8	92.3	83.6	73.2	57.9	45.4
4413	44.9	75.7	94.4	103.5	107.8	106.9	104.8	106.2	104.9	101.1	99.3	98.5
	95.9	91.4	90.8	87.5	82.8	80.5	77.0	69.9	61.8	53.6	41.0	30.9
421	31.0	47.8	58.7	67.9	76.4	86.2	99.6	112.0	116.1	115.9	116.1	112.5
	106.1	102.2	98.6	92.3	85.9	82.8	77.0	67.5	59.7	49.1	35.4	25.6
1221	58.8	82.8	95.6	103.7	107.6	110.5	113.6	118.4	118.4	114.3	114.0	112.7
	107.5	105.0	104.6	102.5	102.1	105.8	105.2	98.1	89.5	74.6	54.5	41.6
2021	77.9	108.4	121.1	127.6	127.8	126.3	123.8	124.3	122.2	117.3	116.2	114.3
	108.8	106.4	106.3	103.8	100.4	101.1	98.8	92.3	84.6	72.5	54.1	41.6
2821	49.7	86.5	108.7	117.4	122.8	123.4	121.6	122.4	123.0	120.8	117.7	117.2
	114.7	109.3	108.3	107.1	103.7	101.9	102.0	98.2	90.0	82.4	69.4	57.7
3621	49.0	79.1	95.0	103.6	108.3	109.6	110.0	112.7	112.1	109.3	107.6	106.6
	103.2	99.3	100.1	99.1	97.7	101.8	105.5	101.7	94.6	84.0	66.5	50.7
4421	34.8	62.9	84.3	94.9	103.9	109.3	115.1	126.9	133.8	134.2	132.5	131.5
	126.3	119.0	116.3	114.3	108.8	105.5	102.1	95.3	83.8	73.9	58.8	46.2
429	31.8	47.3	58.2	67.9	78.5	90.3	105.1	117.9	122.1	121.9	122.7	118.1
	110.8	107.0	103.8	97.6	91.3	88.6	81.9	71.9	63.1	50.9	36.2	26.5
1229	51.6	72.4	83.6	92.5	99.2	104.9	111.3	115.8	116.5	114.6	115.3	113.0
	108.1	107.0	105.9	103.7	104.7	108.7	108.8	101.1	91.9	76.8	56.5	42.4
2029	78.6	105.9	118.1	124.4	126.1	125.0	124.7	126.6	124.2	119.6	119.1	116.7
	111.6	109.3	109.2	106.0	102.9	102.6	99.7	92.7	85.2	72.2	53.3	40.7
2829	42.0	74.8	97.5	106.8	112.1	113.8	115.2	120.8	124.7	123.8	120.2	119.6
	115.7	109.9	108.4	108.7	103.2	99.8	98.5	94.7	87.4	80.3	67.3	54.9
3629	38.7	66.4	83.4	92.5	99.4	101.4	102.4	105.2	105.9	103.8	102.6	103.0
	100.7	97.0	96.8	96.6	95.6	98.4	103.8	102.6	96.6	87.8	72.5	58.1
4429	29.6	54.3	74.4	86.2	96.6	105.8	115.3	129.6	137.6	138.5	137.9	138.0
	133.2	125.1	123.0	120.8	114.0	110.1	108.0	100.5	89.4	79.5	63.4	50.4
437	33.0	49.3	59.2	66.2	72.2	75.6	79.4	83.4	84.2	83.1	83.5	82.2
	78.9	76.4	74.3	70.2	66.2	63.6	59.7	53.1	47.2	39.2	28.5	21.2
1237	84.0	111.4	123.0	128.8	130.0	128.7	130.0	130.3	128.0	124.0	123.0	119.2
	114.6	112.9	111.2	107.2	102.8	101.7	96.3	86.9	77.1	62.9	45.2	35.3
2037	52.9	81.7	97.1	105.0	109.3	109.4	109.5	110.5	110.3	107.8	107.8	105.8
	102.0	97.7	98.9	98.6	97.2	101.2	104.1	100.1	92.8	82.6	65.7	50.6
2837	54.0	77.2	89.9	97.5	100.8	102.6	103.1	105.8	105.8	102.0	101.7	99.8
	95.7	93.9	94.5	94.3	94.5	100.9	104.2	99.4	92.3	80.9	62.2	45.5
3637	57.8	92.8	113.6	122.0	125.2	123.2	120.9	122.6	121.3	117.7	114.7	113.6
	110.2	106.0	105.8	104.9	101.3	100.2	99.7	94.4	86.1	76.8	60.4	46.7
4437	47.0	86.2	111.3	123.1	129.2	129.7	128.1	130.7	130.2	126.8	122.8	123.4
	117.7	109.5	109.1	105.9	99.3	95.9	92.5	85.3	75.1	65.4	52.0	40.8
1245	59.8	88.1	102.9	111.4	114.1	113.3	111.6	112.5	109.1	104.7	103.7	100.8
	96.4	93.5	92.2	88.4	83.1	80.8	76.1	67.6	59.7	49.8	36.0	25.5
2045	47.3	75.2	92.5	102.9	111.0	118.2	126.4	136.8	140.4	135.9	134.8	131.7
	124.3	118.6	117.0	112.8	106.1	103.7	99.0	89.6	79.6	67.5	50.8	37.6
2845	40.6	65.6	81.2	93.3	103.9	113.7	126.2	140.0	145.0	140.7	139.6	136.0
	128.0	122.2	120.0	115.3	108.8	106.5	102.3	92.7	82.9	70.6	53.5	39.1
3645	63.9	99.9	118.8	127.3	131.8	131.0	129.3	130.6	129.7	123.8	122.6	120.2
	114.4	109.3	108.2	103.8	97.8	95.7	90.9	81.1	72.1	60.7	45.8	33.0
4445	27.5	41.0	48.5	52.7	55.5	57.6	58.8	60.8	61.7	62.0	62.8	63.0
	61.1	59.6	59.5	57.8	55.0	53.5	51.0	46.8	42.4	36.6	27.8	20.1

DATA SET 54 - MARCH 21, 1979

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 12545 MWD/T
CORE THERMAL POWER, 2383 MWT
DOME PRESSURE,P, 991 PSIA
CORE FLOW, 78.5 MLB/HR
INLET SUBCOOLING AT P, 21.7 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47					36		36					
43												
39					14		14					
35												
31	36		14						14		36	
27						34						
23	36		14						14		36	
19												
15					14		14					
11												
7					36		36					
3												
	2	6	10	14	18	22	26	30	34	38	42	46 50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	18.7	36.6	51.6	61.9	72.8	85.0	97.4	108.6	113.0	111.7	108.3	106.8
	102.1	95.2	94.0	91.0	85.4	81.2	79.1	72.3	63.5	55.9	45.5	36.9
2805	20.2	38.4	54.1	66.0	79.6	94.0	109.6	123.3	126.9	123.5	120.0	118.6
	112.2	105.2	103.1	99.6	93.2	89.4	86.7	79.3	69.4	60.7	48.2	39.4
3605	23.8	42.6	56.4	64.9	71.7	76.4	79.0	83.1	83.9	81.5	79.6	78.9
	76.4	73.1	72.3	70.4	67.0	64.7	62.5	57.4	50.6	44.2	34.8	27.8
1213	53.2	90.8	113.7	122.8	127.5	125.9	122.7	123.1	123.1	119.4	116.3	116.0
	112.5	107.6	107.8	106.8	101.4	99.0	96.5	89.0	79.5	69.9	56.0	44.8
2013	42.0	70.8	90.0	100.0	108.2	110.8	113.4	118.4	119.3	115.1	113.8	113.8
	109.3	106.1	106.6	106.7	105.6	109.1	110.0	103.9	94.2	83.3	66.6	52.3
2813	36.4	60.7	77.4	87.9	96.9	103.0	108.2	114.0	115.6	113.1	111.4	111.4
	108.2	103.9	105.6	107.0	107.9	111.6	112.1	106.3	95.8	85.3	68.8	55.0
3613	57.6	94.1	115.9	124.3	129.7	128.3	125.7	126.9	125.2	121.0	117.8	117.7
	114.3	110.1	110.9	110.1	106.1	104.5	102.2	95.1	85.5	75.1	59.6	49.4
4413	43.7	73.7	91.4	101.0	106.0	106.2	104.7	105.6	104.8	101.1	98.8	98.5
	96.0	90.8	90.8	89.0	83.7	81.3	78.0	71.4	62.9	54.6	42.2	31.4
421	31.2	48.2	60.1	70.5	82.6	95.9	108.5	115.2	115.6	113.3	112.2	108.5
	103.6	100.3	98.0	92.2	86.8	84.4	78.4	69.2	60.7	50.4	37.1	26.2
1221	57.1	79.6	92.9	101.4	106.5	109.6	113.1	116.3	115.3	112.2	112.1	110.5
	106.2	105.4	105.9	107.2	109.0	112.6	110.8	100.9	91.1	75.5	55.2	42.4
2021	73.8	102.9	116.0	122.9	124.4	122.3	121.8	122.7	121.4	116.4	116.7	115.1
	110.2	108.3	109.2	108.3	105.8	106.7	103.9	95.8	87.3	74.2	55.7	43.3
2821	47.7	82.3	103.1	111.8	118.6	119.6	117.8	119.7	121.4	119.0	116.0	116.6
	114.6	110.4	110.6	110.4	107.3	105.9	105.5	100.9	92.2	83.1	69.6	56.7
3621	47.1	75.6	90.9	99.2	104.0	105.9	106.9	109.7	109.2	107.0	106.0	105.9
	102.8	99.7	102.3	103.4	104.7	109.7	111.5	105.6	97.0	85.3	66.6	51.3
4421	34.3	62.3	83.9	95.9	105.8	113.8	121.8	130.9	133.7	130.5	127.9	126.6
	122.4	116.9	115.8	113.5	109.2	106.4	104.3	96.9	85.4	75.1	58.8	46.4
429	32.6	49.0	60.8	73.1	86.9	101.2	114.5	122.4	121.3	117.9	118.5	114.3
	107.5	105.1	102.6	96.9	91.8	89.5	82.8	72.8	63.8	51.8	36.8	27.2
1229	51.5	72.3	84.7	94.0	101.3	106.5	111.2	115.9	116.8	114.7	115.0	113.5
	108.8	108.5	110.5	111.6	113.8	117.9	115.0	105.3	95.0	78.9	57.7	43.9
2029	75.1	101.3	112.9	120.7	122.6	122.0	122.7	124.3	122.6	119.6	120.1	117.9
	112.6	112.0	113.2	110.5	107.7	108.1	104.8	96.5	87.6	74.3	55.2	41.9
2829	40.3	71.2	93.6	102.7	108.5	109.7	111.7	118.1	122.8	123.1	119.8	119.8
	116.2	111.9	110.9	110.2	106.8	103.1	103.1	98.4	89.8	82.2	69.2	57.2
3629	37.3	64.1	81.0	89.8	96.0	98.9	100.7	103.6	104.7	102.8	101.5	102.4
	100.3	97.8	99.4	101.5	103.3	108.4	111.9	108.0	99.2	90.2	74.3	59.9
4429	29.9	54.9	75.8	89.1	102.5	114.4	125.9	137.0	139.8	138.1	134.9	134.2
	129.6	122.9	123.1	121.7	116.9	113.2	110.9	103.8	91.6	81.0	64.7	51.0
437	32.6	48.9	59.1	67.0	72.9	76.9	80.8	83.6	84.0	83.4	83.4	80.8
	78.3	76.0	74.1	70.5	66.9	64.9	60.7	53.8	47.6	39.7	29.1	21.7
1237	81.7	108.7	120.4	126.7	127.9	126.3	127.8	128.7	125.3	121.2	122.5	120.2
	116.1	113.8	113.4	111.0	106.6	106.4	99.9	88.9	78.7	64.7	47.0	36.1
2037	51.6	79.3	94.0	101.5	106.1	107.1	107.9	110.3	110.5	107.4	106.7	105.6
	102.1	100.5	102.4	104.3	105.7	109.9	110.3	103.4	94.2	83.1	65.2	48.9
2837	51.5	74.1	85.8	93.0	98.1	99.8	101.0	104.0	103.4	100.1	100.4	99.1
	96.2	95.3	98.2	100.0	103.0	110.0	110.1	102.4	94.4	82.1	63.2	46.5
3637	56.1	89.6	109.2	116.9	120.6	120.1	117.9	120.1	118.9	115.1	112.7	113.3
	109.9	106.2	107.0	106.9	104.3	103.8	102.3	97.0	88.1	77.9	61.3	47.9
4437	46.0	84.4	109.7	121.4	128.7	130.1	128.2	130.5	130.4	125.4	121.4	120.4
	116.7	109.2	109.2	107.1	100.9	97.3	94.2	86.9	76.6	66.7	52.9	41.5
1245	58.0	86.5	101.3	109.3	112.2	111.5	110.3	109.4	107.0	103.3	102.6	101.0
	95.5	93.0	92.4	88.5	83.6	81.9	77.0	68.2	60.5	50.7	36.6	26.0
2045	46.9	74.8	92.6	105.3	115.4	124.5	133.0	140.2	140.0	134.6	132.8	129.4
	122.6	117.3	116.9	113.5	107.9	105.5	100.5	90.7	80.5	68.3	51.7	38.2
2845	40.7	65.8	82.1	95.2	108.8	122.9	135.0	143.5	143.9	137.8	135.9	132.6
	125.1	119.5	119.2	115.8	110.1	108.4	103.9	93.8	83.5	71.2	53.9	39.0
3645	62.9	99.0	117.7	127.8	131.2	130.8	130.6	132.0	129.2	123.4	121.0	119.9
	114.6	109.7	109.1	105.5	99.1	97.9	93.2	83.1	73.5	62.0	46.7	33.9
4445	26.8	40.1	47.2	51.2	54.6	56.5	57.8	60.0	60.8	61.1	62.2	62.0
	60.7	59.4	59.6	58.0	55.3	54.4	52.0	47.8	42.9	36.9	28.4	20.5

DATA SET 55 - MARCH 26, 1979

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 12648 MWD/T
CORE THERMAL POWER, 2426 MWT
DOME PRESSURE,P, 991 PSIA
CORE FLOW, 78.1 MLB/HR
INLET SUBCOOLING AT P, 22.4 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47					36		36					
43												
39					16		16					
35												
31		36		16						16		36
27						34						
23		36		16						16		36
19												
15					16		16					
11												
7					36		36					
3												
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	17.4	34.2	48.6	58.3	69.6	81.5	94.1	105.3	110.7	110.0	106.7	105.9
	101.7	96.9	94.9	92.1	87.6	82.9	80.3	74.2	65.3	57.6	47.3	41.1
2805	19.5	36.8	51.9	63.7	77.7	92.3	106.9	120.9	125.4	124.1	121.2	120.0
	113.8	106.9	106.1	101.7	95.4	92.8	89.5	80.7	70.8	61.4	48.8	39.2
3605	22.8	40.5	53.9	62.4	69.5	74.3	77.4	81.6	82.3	81.3	80.7	79.8
	77.4	74.8	73.9	71.7	68.7	66.6	64.4	59.0	51.8	44.8	35.6	28.3
1213	50.1	85.6	107.8	117.6	122.0	121.3	119.5	121.5	120.9	116.1	115.9	117.2
	113.4	109.9	110.0	109.0	104.1	101.3	98.9	91.2	81.0	71.6	57.1	45.7
2013	39.4	66.9	85.2	95.2	103.1	108.3	110.9	115.7	116.6	114.3	113.2	113.3
	111.2	107.5	110.9	113.8	114.8	116.3	115.3	106.6	95.5	83.7	66.6	53.4
2813	34.4	57.5	73.7	83.7	92.5	98.4	103.4	110.3	113.2	111.7	110.6	110.6
	108.7	106.7	110.6	114.7	115.9	117.1	116.2	108.3	97.1	86.2	69.5	56.2
3613	55.7	91.0	111.9	121.2	126.8	125.8	124.0	126.4	125.1	120.9	119.2	119.9
	116.9	113.3	114.5	114.4	110.8	108.7	105.9	98.1	87.5	76.1	60.1	47.5
4413	41.2	69.8	87.4	96.4	101.8	103.0	101.5	104.5	104.2	100.4	99.5	99.3
	96.2	92.2	92.6	89.8	85.5	83.5	80.5	73.5	64.6	55.6	43.3	33.8
421	29.7	45.9	57.5	67.5	78.8	91.9	104.8	112.8	114.7	113.1	114.4	112.1
	105.2	101.1	99.0	94.3	88.9	86.1	79.7	70.2	61.8	50.9	37.0	27.4
1221	54.1	76.0	88.1	96.7	102.6	106.9	111.6	114.7	115.3	112.3	112.9	111.6
	108.5	108.7	113.1	116.2	117.4	119.6	114.0	103.7	92.8	77.0	57.7	43.5
2021	70.2	98.3	110.8	117.2	120.3	120.5	119.9	121.9	120.3	116.9	117.3	116.9
	113.5	113.0	115.1	114.7	112.1	111.6	107.1	98.5	89.1	75.2	56.3	43.5
2821	45.3	78.3	98.0	106.6	112.1	114.8	114.3	117.3	119.0	117.8	115.9	117.8
	116.2	112.5	114.4	115.4	111.8	109.9	109.1	103.0	93.4	84.3	69.7	57.1
3621	44.3	71.9	87.3	95.5	100.9	104.2	105.2	109.0	110.1	107.9	106.9	107.8
	106.2	104.7	108.8	113.4	115.7	118.6	118.1	110.3	100.5	88.1	68.9	56.1
4421	32.5	58.9	79.9	90.9	101.6	110.4	120.1	129.6	132.1	130.3	127.1	127.8
	125.2	120.3	120.3	118.9	113.8	110.9	107.8	99.5	87.8	76.6	59.9	47.5
429	30.3	45.9	57.3	69.4	82.9	97.9	110.8	118.1	118.9	117.6	117.7	114.9
	108.2	106.6	103.8	98.9	93.3	91.3	84.0	73.8	65.0	52.5	37.6	27.4
1229	48.4	67.7	79.0	87.8	96.3	102.5	108.2	112.3	113.1	111.8	113.6	113.0
	110.3	112.2	117.2	120.5	121.4	122.3	117.7	106.5	94.7	78.8	57.3	43.6
2029	71.5	96.4	108.4	115.2	118.1	119.2	120.1	122.3	122.1	119.4	121.1	119.7
	116.4	115.6	117.2	115.8	112.5	110.8	106.7	98.1	89.0	74.8	55.3	42.6
2829	37.5	66.8	88.4	97.2	102.9	105.9	109.2	116.4	122.1	122.0	119.9	120.7
	118.5	113.9	114.1	113.6	110.4	106.4	105.5	101.3	92.1	83.7	70.0	61.8
3629	35.7	61.8	77.6	86.2	93.2	96.9	99.8	102.6	104.2	103.6	103.3	104.4
	104.1	102.9	107.0	112.0	115.1	118.5	119.0	112.0	102.0	92.2	75.1	60.1
4429	28.4	52.2	71.6	84.2	97.0	109.5	121.5	134.5	138.1	136.4	134.8	135.3
	131.6	126.1	125.4	125.9	121.5	117.0	114.4	106.4	94.1	83.1	66.1	52.9
437	31.0	46.5	56.3	63.7	69.9	74.0	77.8	82.1	83.4	82.4	82.4	81.5
	79.3	76.7	75.5	72.2	67.8	66.2	61.3	54.5	48.2	40.2	29.2	21.3
1237	76.3	101.5	113.9	120.8	123.2	124.2	125.2	126.0	124.7	121.1	122.3	120.6
	116.1	116.5	116.8	114.0	109.7	107.8	101.3	90.5	80.1	65.0	47.3	36.4
2037	48.3	74.9	88.6	97.0	102.5	105.0	105.6	109.0	108.7	105.4	105.9	106.9
	105.2	104.1	109.0	113.1	114.0	115.5	114.5	106.4	96.6	84.9	67.8	54.1
2837	49.6	71.1	82.8	90.4	95.4	98.2	100.1	103.4	104.0	101.7	102.0	101.8
	100.6	101.6	106.6	112.3	114.8	118.3	115.3	106.0	96.7	83.7	64.6	46.7
3637	53.8	86.4	105.5	113.3	117.3	117.5	116.1	118.8	118.5	115.7	114.5	114.9
	113.4	110.7	112.9	113.4	110.6	110.1	108.6	101.1	91.1	80.5	63.3	49.1
4437	43.8	80.5	105.1	117.4	124.2	126.0	125.8	128.9	129.6	124.6	121.8	121.8
	118.5	112.5	112.1	109.5	104.0	100.8	97.4	89.4	78.5	67.8	54.5	42.7
1245	54.8	81.6	95.8	104.6	108.6	108.3	107.8	109.8	107.4	103.6	103.0	100.8
	97.2	94.7	93.8	89.8	85.3	83.7	78.3	69.7	61.5	51.0	37.0	26.3
2045	44.4	70.9	87.7	100.3	111.2	120.8	129.3	136.6	137.3	132.8	130.9	129.1
	123.7	119.1	119.2	116.4	109.6	107.5	102.6	91.8	81.3	68.7	51.5	38.3
2845	38.7	62.8	78.7	92.2	106.1	120.1	133.0	142.2	143.7	138.5	137.5	134.8
	128.4	123.1	122.9	120.0	114.3	112.2	107.0	96.6	85.7	72.8	55.1	40.6
3645	59.7	94.2	113.1	123.5	128.8	128.9	128.5	130.0	128.5	124.2	122.8	121.0
	115.8	111.9	112.2	108.6	102.5	100.8	95.7	85.7	75.2	63.5	48.0	34.4
4445	25.5	38.2	45.3	49.2	52.7	55.1	57.1	59.7	60.9	60.8	62.1	62.2
	61.8	60.4	60.7	59.7	57.1	56.3	53.0	48.9	44.2	37.9	29.1	21.0

DATA SET 56 - APRIL 2, 1979

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 12792 MWD/T
CORE THERMAL POWER, 2408 MWT
DOME PRESSURE,P, 991 PSIA
CORE FLOW, 77.2 MLB/HR
INLET SUBCOOLING AT P, 22.5 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47					36		36					
43												
39					18		18					
35												
31	36		18						18		36	
27						34						
23	36		18						18		36	
19												
15					18		18					
11												
7					36		36					
3												
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	17.1	33.0	46.7	57.0	67.4	79.0	92.1	103.4	108.9	108.6	106.6	106.9
	103.8	98.4	97.0	94.4	89.0	85.1	82.3	75.0	65.7	57.4	46.5	37.4
2805	18.6	35.5	49.6	60.5	73.9	89.4	104.5	118.1	123.2	122.2	120.3	120.0
	114.8	109.0	108.1	105.2	98.2	94.6	90.6	82.5	72.3	62.4	49.4	39.5
3605	21.7	38.8	51.5	59.5	66.5	71.3	74.8	79.5	82.0	81.9	81.6	81.0
	78.9	75.4	75.6	73.9	69.8	67.8	65.4	59.5	52.2	45.6	35.9	28.5
1213	47.8	81.1	102.1	111.1	116.5	117.6	116.7	119.1	119.2	117.2	115.6	117.2
	115.5	111.5	113.1	111.5	106.0	103.8	100.4	92.9	82.4	72.2	57.8	46.7
2013	37.7	63.8	80.9	90.9	98.3	104.1	108.6	113.9	116.5	115.5	115.8	116.9
	115.3	114.1	119.8	124.7	124.0	122.1	119.0	109.6	97.8	85.4	67.5	54.2
2813	33.1	55.6	71.1	80.9	89.7	97.1	102.7	109.7	112.9	112.8	112.6	115.2
	113.9	115.1	122.2	127.2	125.0	124.0	120.8	110.6	99.3	87.4	69.6	56.7
3613	52.3	85.8	105.5	114.3	119.7	121.4	120.5	122.6	122.0	119.4	118.5	120.0
	118.4	116.4	118.0	117.8	113.4	111.3	107.8	99.0	88.2	76.3	59.8	48.2
4413	39.4	66.4	84.1	93.6	99.3	101.8	101.8	103.6	103.9	101.2	100.5	101.5
	98.4	95.0	95.8	93.8	88.2	86.1	82.5	75.2	66.0	57.0	43.8	33.7
421	27.9	43.5	54.6	64.5	75.7	88.5	101.8	110.7	112.2	111.5	112.8	111.2
	106.6	102.9	101.7	96.6	91.4	87.7	81.5	72.0	62.9	52.0	37.7	27.4
1221	51.2	72.0	83.5	92.4	98.6	103.0	107.8	112.2	113.9	111.9	113.4	113.5
	113.0	116.9	123.8	125.2	123.2	122.6	116.3	104.7	93.1	77.0	56.4	43.2
2021	66.5	92.6	105.5	113.3	115.6	116.9	118.5	120.3	120.6	118.0	120.4	120.4
	118.3	119.2	121.8	119.8	116.0	114.2	109.5	99.1	89.7	74.1	56.1	45.8
2821	43.0	74.6	94.3	103.8	109.9	112.5	113.4	116.7	119.7	119.4	118.4	121.7
	121.0	118.3	120.6	121.5	117.9	114.4	112.7	106.0	95.7	85.8	70.9	57.7
3621	43.2	69.1	84.1	92.0	97.8	100.6	103.1	107.3	109.0	108.1	108.8	111.4
	110.6	111.7	119.7	125.4	124.4	124.0	121.5	111.9	100.7	88.0	68.9	52.3
4421	31.4	57.5	77.1	87.7	98.8	109.0	117.8	128.0	131.9	131.1	129.9	131.2
	128.1	124.1	125.2	125.1	119.7	116.0	112.2	103.1	90.2	78.5	61.6	48.7
429	29.5	44.2	54.9	66.4	79.6	93.8	108.4	116.5	117.4	117.0	118.5	116.1
	110.6	108.8	107.2	102.8	97.2	93.2	85.9	75.4	65.6	53.1	37.9	28.2
1229	46.1	64.6	75.7	85.1	92.6	99.8	106.0	111.2	113.7	114.2	116.6	117.3
	116.7	122.5	129.9	131.4	129.2	128.2	120.9	107.6	96.3	79.7	58.5	44.3
2029	67.2	90.7	102.2	109.7	113.5	115.2	118.7	121.3	122.0	119.7	122.4	122.3
	120.0	120.3	122.0	119.1	115.5	114.2	108.5	98.9	89.4	74.8	55.2	42.6
2829	35.8	63.5	83.9	92.7	99.5	103.0	105.7	113.4	121.4	122.5	120.8	123.2
	121.7	117.4	117.7	117.6	113.4	109.0	107.6	102.5	92.7	84.3	70.3	60.6
3629	34.2	58.6	74.1	82.3	89.8	94.4	97.8	101.5	104.7	104.0	104.2	106.8
	107.7	109.0	116.6	124.0	125.0	124.0	121.5	113.6	102.7	91.9	75.1	60.2
4429	27.4	50.1	69.7	81.2	94.6	108.4	120.5	131.5	137.8	136.5	136.6	138.1
	135.0	131.6	132.7	131.1	126.0	122.5	118.8	110.3	96.2	84.9	67.6	52.7
437	29.5	44.2	53.5	61.1	67.1	71.5	76.3	80.7	82.6	81.9	83.5	82.9
	80.1	78.6	77.2	73.8	70.0	67.6	63.4	56.0	49.4	41.2	30.2	22.3
1237	73.1	97.4	108.4	115.7	118.6	120.5	124.4	126.4	124.8	123.0	124.6	124.2
	120.8	121.2	122.4	118.2	114.1	111.2	103.9	92.8	81.8	66.4	48.1	36.9
2037	46.1	71.3	85.1	92.6	98.8	101.1	103.1	108.7	109.6	107.1	107.9	109.5
	109.3	111.4	119.4	122.9	121.5	120.2	117.3	108.1	97.3	85.7	67.8	53.1
2837	47.0	67.8	78.4	85.5	91.3	95.2	98.3	102.6	103.1	102.2	104.7	105.6
	105.5	109.4	118.5	123.5	122.3	122.0	117.2	106.7	96.8	83.6	64.0	46.6
3637	50.7	81.7	99.9	107.3	112.8	114.4	113.2	116.3	117.8	115.3	115.5	117.4
	116.0	114.1	117.2	118.1	114.9	113.5	110.8	102.9	92.3	80.9	63.0	49.6
4437	41.7	76.8	99.1	111.2	118.2	122.9	124.7	128.1	129.0	126.6	123.4	122.6
	120.3	115.6	115.1	113.9	107.9	103.6	100.1	91.7	80.2	69.8	55.5	43.5
1245	52.0	78.0	91.6	99.9	104.8	106.3	106.3	108.3	106.4	103.4	103.9	102.8
	99.0	97.4	97.1	92.7	87.9	85.9	80.8	71.3	63.1	52.6	38.6	27.3
2045	42.7	68.0	84.2	96.6	107.8	117.7	127.7	135.5	137.1	133.3	133.7	133.1
	127.9	124.3	124.9	121.8	115.6	111.9	106.3	95.3	83.5	70.6	53.2	39.3
2845	36.9	59.6	74.4	87.6	101.3	115.4	129.3	139.4	142.0	137.4	137.8	135.8
	130.5	127.1	128.2	125.3	118.1	114.9	109.2	98.2	87.3	73.4	55.7	41.2
3645	56.8	89.7	107.9	119.0	122.8	124.0	125.9	129.2	127.6	122.9	123.1	122.6
	118.3	114.3	115.1	111.7	105.6	103.3	97.6	87.5	76.7	64.4	48.7	34.9
4445	24.3	36.2	42.9	47.2	50.7	52.9	54.9	57.9	59.9	60.6	62.4	63.0
	62.4	61.9	61.8	60.4	57.7	56.9	54.3	49.8	44.7	38.2	29.1	21.3

DATA SET 57 - APRIL 6, 1979

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 12875 MWD/T
CORE THERMAL POWER, 2393 MWT
DOME PRESSURE,P, 990 PSIA
CORE FLOW, 78.1 MLB/HR
INLET SUBCOOLING AT P, 22.1 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47					36		36					
43												
39					18		18					
35												
31	36		18						18		36	
27						34						
23	36		18						18		36	
19												
15					18		18					
11												
7					36		36					
3												
	2	6	10	14	18	22	26	30	34	38	42	46	50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	16.6	32.4	46.0	55.5	66.2	77.3	89.9	102.3	107.8	108.2	107.9	107.7
	104.9	99.6	98.3	95.8	90.7	86.9	83.8	76.4	66.9	58.4	47.8	38.8
2805	18.1	34.2	48.4	59.5	72.5	86.9	102.6	116.6	121.8	121.6	121.6	121.2
	116.0	110.1	108.9	106.3	100.3	95.7	92.1	83.8	73.5	64.2	50.7	41.6
3605	21.0	37.4	50.5	58.5	65.6	70.4	74.8	79.6	82.2	81.6	81.8	81.8
	79.9	76.8	76.6	75.5	71.9	69.5	67.0	61.5	54.2	47.0	37.1	30.3
1213	46.2	79.3	93.8	108.9	114.5	116.5	115.7	118.4	119.0	118.3	117.7	118.6
	117.3	113.9	114.6	112.8	107.9	105.3	102.3	94.7	83.9	73.4	59.2	47.6
2013	36.8	62.0	78.7	88.6	97.1	102.7	107.6	113.8	116.5	115.1	115.0	116.8
	116.0	114.8	121.3	126.1	124.0	122.9	119.9	110.7	98.7	86.2	69.1	54.9
2813	31.8	53.5	69.0	78.3	87.5	95.2	101.3	108.6	112.1	112.7	112.1	114.7
	115.9	115.9	123.1	128.1	126.4	124.6	120.6	112.1	100.2	88.1	70.1	57.2
3613	51.2	84.2	103.9	113.7	120.0	121.5	121.5	123.3	123.4	120.6	120.8	122.1
	120.1	117.5	120.1	120.1	115.2	113.2	109.8	100.5	89.6	78.7	61.6	49.3
4413	38.7	65.1	81.9	90.9	96.8	99.4	100.4	104.4	103.9	101.6	102.0	102.3
	99.2	96.1	96.9	94.5	89.9	87.1	83.1	75.6	67.2	57.7	44.1	33.1
421	27.2	42.3	53.1	62.9	73.9	86.6	99.0	109.1	113.0	111.9	113.4	111.3
	106.5	104.1	102.3	98.3	92.6	88.2	82.7	72.9	63.4	52.5	38.1	27.6
1221	49.2	69.7	81.6	90.3	97.7	103.1	107.3	111.7	112.4	111.9	115.0	114.5
	114.2	117.8	125.6	127.7	125.8	124.7	118.7	107.2	95.4	80.1	60.1	45.5
2021	64.3	89.8	101.7	109.3	113.4	115.1	117.1	120.1	119.9	118.4	120.5	120.6
	118.4	119.2	122.0	120.7	116.7	115.2	110.2	100.5	90.7	76.9	57.6	44.2
2821	41.5	71.8	91.0	99.9	105.8	109.4	110.7	115.2	117.9	117.6	117.2	120.0
	120.2	118.3	120.4	121.7	118.1	114.3	112.5	105.3	95.5	86.0	71.1	58.5
3621	40.8	66.0	80.5	88.8	95.1	99.8	102.9	106.2	107.9	107.4	108.5	111.0
	112.0	111.4	119.2	125.5	125.3	124.8	122.1	114.1	103.0	89.3	70.6	58.1
4421	30.5	55.4	74.1	85.2	96.8	106.9	116.0	127.6	131.8	129.8	128.7	131.1
	129.3	124.7	126.1	125.3	120.7	116.4	113.0	104.5	91.7	79.2	62.3	49.2
429	28.8	42.9	53.7	65.0	78.1	92.3	106.4	114.9	117.7	116.5	119.2	116.2
	111.0	110.9	109.2	103.3	97.7	94.4	87.6	77.2	66.8	54.4	38.5	28.2
1229	44.8	63.0	73.4	82.4	90.7	97.2	104.4	110.0	112.4	112.7	116.0	117.2
	117.1	122.5	129.6	132.0	129.4	128.7	121.9	109.3	97.4	80.5	59.7	44.6
2029	65.3	88.1	99.8	108.1	113.1	114.8	118.3	121.6	121.9	120.4	123.0	124.1
	120.9	121.1	123.2	120.5	116.5	115.1	109.8	100.3	90.3	75.8	56.1	43.0
2829	35.4	62.5	82.0	91.0	97.4	101.6	106.0	115.0	121.2	122.2	121.2	123.2
	121.4	118.1	118.8	118.9	114.7	110.8	108.6	102.5	93.5	85.1	70.7	58.5
3629	33.4	57.3	72.2	80.5	87.4	92.2	96.1	101.7	104.7	104.9	104.9	108.0
	109.5	110.0	117.5	125.6	127.0	126.2	123.9	115.6	104.3	93.3	76.8	61.4
4429	26.3	48.4	67.3	79.5	92.0	106.2	118.0	131.0	136.2	136.3	136.5	138.0
	135.5	131.1	133.1	133.0	127.4	123.7	120.1	111.3	98.4	86.1	68.6	55.0
437	28.5	42.6	51.8	58.9	64.9	69.8	75.2	80.0	82.6	82.2	83.5	82.9
	80.6	79.0	77.7	74.6	70.7	68.8	64.2	57.0	50.2	41.5	30.4	22.4
1237	70.0	93.7	104.8	113.2	117.3	119.3	121.0	124.1	124.7	123.2	124.3	124.2
	121.1	121.7	122.5	119.2	114.3	112.8	105.9	94.3	83.2	68.2	49.9	38.0
2037	44.5	69.0	82.5	90.6	96.8	100.2	102.4	106.3	108.2	106.4	108.4	111.3
	111.0	111.6	119.5	124.8	121.8	121.5	118.2	108.8	98.1	86.9	69.0	55.0
2837	45.4	65.8	76.6	83.9	89.4	93.5	96.7	101.7	102.8	102.3	104.5	105.7
	105.7	110.2	119.6	124.1	122.7	123.0	118.8	108.1	97.9	84.9	65.8	48.1
3637	49.2	79.3	97.7	105.7	110.9	113.9	114.4	118.1	119.6	118.0	117.1	119.5
	118.1	116.4	120.0	120.8	117.2	115.7	113.3	105.1	94.3	83.6	66.2	52.1
4437	40.3	73.8	97.3	109.3	117.2	120.8	122.6	126.5	129.6	126.6	123.6	124.9
	121.0	115.6	116.2	114.6	109.1	105.0	102.2	93.4	80.9	71.1	56.3	44.3
1245	50.4	75.8	90.3	98.0	102.8	104.6	105.6	107.9	106.7	103.0	104.6	103.8
	99.9	98.1	98.1	94.6	89.8	87.1	81.8	72.4	63.7	53.1	38.5	27.5
2045	41.0	65.9	81.3	93.2	104.1	115.9	126.6	134.3	135.9	133.1	134.5	133.1
	128.5	125.2	126.0	123.0	116.7	113.1	107.3	96.7	85.1	72.1	54.6	40.4
2845	35.9	58.4	73.3	86.7	100.6	115.5	130.1	140.3	142.3	138.6	138.8	138.2
	133.3	128.8	130.7	127.8	120.5	117.8	112.3	101.7	89.9	76.7	58.8	46.0
3645	54.7	86.8	104.7	115.8	121.5	123.5	125.0	128.1	127.8	123.7	123.4	123.8
	118.9	116.1	116.7	113.0	106.9	104.7	99.1	89.6	78.4	66.6	50.5	37.5
4445	23.4	35.3	42.1	45.9	49.1	51.6	53.7	57.1	59.0	59.9	62.1	62.8
	62.9	62.6	62.6	61.2	58.7	57.7	55.2	51.1	45.6	39.8	30.8	24.3

DATA SET 58 - APRIL 11, 1979

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 12979 MWD/T
CORE THERMAL POWER, 2346 MWT
DOME PRESSURE,P, 989 PSIA
CORE FLOW, 78.6 MLB/HR
INLET SUBCOOLING AT P, 21.6 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47					36		36					
43												
39					18		18					
35												
31	36		18						18		36	
27						34						
23	36		18						18		36	
19												
15					18		18					
11												
7					36		36					
3												
	2	6	10	14	18	22	26	30	34	38	42	46 50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	16.3	31.7	44.9	54.4	64.9	76.9	89.2	102.3	108.7	109.8	108.7	110.4
	106.5	100.8	99.7	97.5	91.8	88.2	85.6	78.0	68.8	60.3	49.3	39.8
2805	17.7	33.9	47.5	58.3	71.6	86.2	102.3	117.2	122.5	122.1	122.5	121.8
	117.3	111.6	111.8	108.9	102.3	97.8	94.0	85.7	75.0	64.4	51.0	43.4
3605	20.6	36.7	49.1	57.2	63.8	69.0	73.6	78.9	81.2	80.7	81.5	81.5
	79.7	77.7	78.0	76.0	72.5	70.2	67.9	62.5	55.0	47.7	37.4	29.6
1213	45.0	77.3	97.8	107.2	113.4	115.5	116.2	118.8	120.0	118.9	117.8	120.5
	118.7	115.8	116.4	115.7	110.4	107.7	104.3	96.6	86.2	75.7	60.5	47.8
2013	35.9	60.3	76.4	85.7	95.7	101.7	106.9	113.9	115.9	115.7	116.7	118.5
	117.5	116.6	122.9	127.7	126.2	124.7	121.9	112.5	100.7	88.2	70.5	56.2
2813	31.4	52.8	68.2	77.3	86.5	94.2	100.9	108.5	113.1	113.8	114.3	116.4
	116.9	117.1	125.5	129.7	127.9	126.6	123.6	115.0	102.1	90.0	71.4	57.9
3613	50.1	81.5	100.5	110.4	116.1	118.8	118.7	121.4	123.0	120.6	120.0	122.0
	121.3	118.3	121.3	121.3	115.9	114.6	111.3	102.4	91.1	79.4	62.5	49.9
4413	37.7	63.8	80.1	88.7	95.1	97.9	99.6	103.9	103.8	101.6	102.5	103.2
	101.0	97.7	98.4	96.2	91.5	88.9	84.8	77.5	68.2	59.3	45.3	33.8
421	26.6	41.4	51.5	61.1	73.0	85.9	98.1	108.3	112.2	112.9	115.4	113.7
	108.0	105.8	104.7	100.8	93.7	90.7	84.3	74.0	65.5	53.9	39.1	28.0
1221	47.8	67.3	78.9	87.6	94.7	99.3	105.4	110.8	112.5	111.2	113.6	114.3
	113.4	117.8	124.4	126.7	124.9	125.8	118.5	106.1	94.7	78.9	58.0	44.7
2021	61.6	86.6	98.8	106.8	110.9	112.5	115.5	119.0	119.4	117.7	120.4	121.3
	119.4	118.8	122.4	121.3	117.8	116.5	111.6	102.3	92.1	79.4	61.3	50.0
2821	40.9	70.8	89.6	99.2	106.5	109.5	112.0	117.0	120.5	120.5	119.8	122.6
	123.0	120.0	123.2	124.5	120.4	117.5	115.6	108.2	97.7	88.4	73.2	60.2
3621	40.3	65.0	79.3	87.5	94.0	98.1	101.6	106.9	109.4	109.3	111.1	112.9
	111.3	113.2	121.6	128.7	127.3	126.7	124.5	115.0	103.9	91.2	72.7	56.4
4421	30.2	54.7	73.3	84.0	94.8	106.0	117.0	128.7	133.2	131.3	130.8	131.9
	130.7	126.9	128.8	128.9	123.8	120.3	116.5	107.5	94.3	82.6	64.8	51.1
429	27.9	41.7	52.0	63.3	76.4	90.8	105.0	113.4	116.5	116.8	119.7	118.6
	113.2	110.2	109.4	103.9	98.5	95.9	89.1	77.7	68.4	54.9	39.1	28.9
1229	42.9	60.7	71.4	80.6	88.8	95.7	103.4	109.0	112.2	113.7	117.2	118.2
	117.5	123.2	131.4	134.3	131.5	131.5	123.9	111.6	99.7	82.0	60.1	46.1
2029	62.6	84.7	95.8	103.3	108.7	111.4	115.2	120.2	121.9	120.5	123.1	123.5
	120.4	120.9	122.6	119.9	116.4	115.3	110.6	100.0	90.9	76.6	56.7	44.0
2829	33.7	59.8	79.2	87.9	94.7	99.7	104.9	113.5	120.3	122.4	121.4	123.6
	122.9	118.5	119.5	119.7	115.5	111.0	110.3	104.6	95.3	86.8	72.1	63.0
3629	32.2	55.0	69.3	77.1	84.5	89.9	93.7	99.8	102.9	103.6	104.7	106.9
	108.7	109.5	117.7	125.0	126.4	125.5	123.4	116.4	105.1	94.0	77.0	62.0
4429	25.7	47.2	65.5	77.2	89.9	103.6	116.9	130.0	135.8	136.6	136.2	138.6
	137.2	132.7	135.4	134.4	129.2	125.8	122.1	113.1	100.4	87.6	69.9	54.8
437	27.9	41.9	50.7	58.0	64.1	69.0	75.2	80.2	81.9	82.6	84.3	84.0
	82.0	80.3	79.7	76.6	72.0	70.2	65.6	58.2	51.8	42.9	31.1	23.1
1237	67.8	90.7	102.1	110.7	115.9	117.2	120.4	125.3	123.9	123.8	125.3	124.9
	122.7	123.2	123.7	120.6	116.4	114.3	106.8	95.9	84.6	68.8	49.7	38.3
2037	43.1	67.1	80.4	88.9	94.9	99.2	102.4	106.8	108.1	106.9	108.8	111.4
	110.7	114.2	121.8	126.4	124.4	123.6	119.4	110.2	99.8	87.1	68.9	51.7
2837	43.6	62.7	73.2	81.0	87.2	90.5	95.3	100.1	101.9	101.2	103.4	105.0
	105.5	109.4	119.0	123.9	122.6	122.5	118.7	108.5	98.4	85.4	65.9	48.0
3637	48.1	77.3	95.0	102.9	108.8	111.6	112.6	116.5	117.7	116.5	116.8	120.0
	118.7	117.5	121.1	121.2	118.2	116.6	113.9	106.2	95.3	84.2	65.9	51.1
4437	39.4	72.5	94.4	106.6	115.9	119.5	121.3	126.6	128.7	126.7	124.7	126.3
	123.5	117.3	117.7	116.7	110.7	106.6	103.0	95.7	83.6	72.3	57.3	44.9
1245	48.8	73.0	86.7	94.9	99.9	102.1	104.7	107.1	105.5	103.7	105.0	103.6
	100.0	98.5	98.4	95.2	89.7	88.1	82.8	73.3	64.9	54.3	39.3	27.9
2045	39.0	62.9	79.1	90.8	101.9	114.1	124.2	132.9	136.2	135.0	134.1	133.0
	129.9	126.0	126.9	124.1	117.3	114.7	108.8	98.2	86.0	73.2	55.7	40.3
2845	35.1	56.6	70.8	83.1	97.0	111.7	126.9	136.8	139.1	136.4	138.0	136.4
	131.3	128.9	129.9	126.9	120.3	118.2	112.1	99.9	89.5	75.5	57.0	41.9
3645	52.8	84.1	101.8	112.5	118.7	121.4	123.2	128.1	127.0	123.7	124.8	124.6
	119.7	116.7	117.0	114.7	107.6	105.5	100.5	90.0	79.0	66.6	50.5	36.7
4445	22.9	34.4	40.8	44.8	48.2	50.9	53.1	56.6	59.1	60.6	62.8	64.1
	63.8	63.1	63.5	62.2	59.5	58.8	55.9	51.6	46.5	40.0	30.4	22.0

DATA SET 59 - APRIL 22, 1979

REACTOR CONDITIONS

CORE AVERAGE EXPOSURE, 13195 MWD/T
CORE THERMAL POWER, 2272 MWT
DOME PRESSURE,P, 986 PSIA
CORE FLOW, 77.6 MLB/HR
INLET SUBCOOLING AT P, 21.3 BTU/LB

CONTROL CONFIGURATION

LEGEND:48,FULL OUT;0,FULL IN

51												
47					36		36					
43												
39					18		18					
35												
31	36		18						18		36	
27						34						
23	36		18						18		36	
19												
15					18		18					
11												
7					36		36					
3												
	2	6	10	14	18	22	26	30	34	38	42	46 50

AXIAL TIP DISTRIBUTION, BOTTOM TO TOP OF CORE

(see next page)

2005	15.4	30.1	42.6	51.4	61.9	73.4	86.1	99.5	106.8	108.3	108.0	109.9
	107.3	102.3	101.3	99.7	94.5	90.5	87.5	80.2	70.6	62.3	50.7	40.9
2805	17.0	32.2	45.2	55.6	67.9	82.2	98.9	114.4	120.6	121.5	120.9	121.7
	118.8	113.4	112.7	110.4	104.0	100.1	96.3	87.7	78.0	67.8	53.6	43.4
3605	19.6	34.9	46.9	54.0	60.8	66.5	71.9	77.8	80.7	81.2	81.9	82.5
	80.7	78.6	78.7	77.4	74.3	72.5	69.7	63.9	56.6	49.4	38.9	30.8
1213	42.2	72.3	90.8	100.1	105.7	109.5	112.4	116.7	119.0	118.0	118.4	120.9
	119.8	116.7	119.0	116.9	112.5	109.8	107.3	99.4	88.6	77.7	62.5	49.8
2013	34.2	57.1	72.8	82.7	91.5	98.8	105.1	112.6	116.1	116.1	116.8	119.8
	119.3	119.4	126.1	131.1	129.6	128.6	125.5	116.3	103.8	92.1	73.6	58.6
2813	29.5	49.2	63.5	72.8	82.2	90.2	97.6	106.2	110.7	111.9	114.0	116.7
	117.6	118.7	127.0	131.8	129.7	128.1	126.0	116.3	104.9	92.2	73.8	60.6
3613	46.5	76.9	95.6	104.4	111.8	114.7	115.8	119.9	120.6	119.4	118.7	122.4
	122.0	120.1	123.5	123.0	118.3	116.6	113.3	104.6	93.6	81.8	64.2	51.7
4413	36.0	60.4	75.8	85.6	92.3	96.1	98.2	103.4	105.1	104.1	105.0	105.8
	103.3	100.2	101.9	100.3	94.8	93.0	89.3	81.6	71.7	61.9	47.5	35.5
421	25.6	39.6	49.5	58.7	69.6	83.0	96.6	107.0	111.9	113.1	115.2	114.1
	111.3	109.8	107.9	103.3	97.1	94.7	88.0	78.0	68.4	56.4	40.8	29.4
1221	45.3	63.9	74.7	83.4	91.3	96.2	104.3	110.4	111.8	112.5	115.8	116.4
	116.4	120.8	127.1	130.0	128.7	127.8	121.9	110.6	99.1	82.3	60.0	46.2
2021	58.5	81.7	93.6	101.4	107.1	109.4	113.5	117.8	118.3	117.4	119.7	121.6
	120.2	121.9	124.5	122.2	118.4	117.9	112.3	102.4	93.5	79.5	59.4	45.5
2821	38.2	66.6	85.1	94.4	101.5	105.9	109.5	114.7	118.5	119.6	120.3	123.5
	123.8	121.2	124.8	125.4	122.4	119.2	116.8	110.4	100.7	91.6	76.3	64.0
3621	37.9	61.1	74.1	82.1	88.8	94.2	99.0	105.6	108.4	108.4	109.7	112.3
	112.9	114.1	122.6	128.3	128.0	128.6	125.6	116.7	106.1	92.8	73.2	56.3
4421	28.4	51.2	69.1	79.2	90.3	102.3	113.5	125.3	131.5	131.9	132.0	134.3
	133.4	129.8	132.1	131.9	126.9	123.3	120.8	111.4	98.0	86.1	68.4	54.2
429	26.8	40.1	49.7	60.3	73.6	88.7	102.5	112.7	116.8	117.5	119.9	118.6
	114.7	114.1	112.2	107.8	102.9	100.2	92.9	81.4	71.5	57.9	40.5	30.5
1229	41.3	58.1	68.1	76.5	84.8	93.2	101.0	108.8	112.3	114.5	119.4	120.1
	120.3	126.3	134.5	137.1	135.5	134.6	128.2	115.1	103.3	85.5	62.5	47.5
2029	59.4	80.4	91.2	99.5	105.7	109.9	114.0	119.5	120.9	121.4	125.0	125.2
	122.8	123.7	125.3	122.5	118.7	117.8	112.4	102.8	92.3	74.4	56.6	46.8
2829	31.9	56.8	74.8	83.7	91.0	97.1	103.4	113.8	119.9	122.5	122.5	124.2
	123.2	120.0	121.4	121.6	117.3	113.2	111.7	106.6	97.4	88.9	74.7	62.9
3629	30.5	52.4	66.1	73.6	81.3	87.2	92.0	99.1	103.8	104.0	105.0	108.4
	110.6	111.8	120.0	127.3	128.8	129.6	128.1	118.8	107.7	96.8	79.5	63.8
4429	24.7	45.3	62.4	73.8	85.8	98.9	113.6	128.0	135.2	137.1	138.5	139.9
	138.4	135.5	137.5	137.7	133.6	129.8	126.4	117.5	104.2	91.3	73.1	57.8
437	26.8	40.1	48.5	55.7	62.4	67.6	73.0	78.9	81.8	82.8	84.9	85.8
	84.5	83.1	82.2	79.1	75.5	73.2	68.7	61.2	54.4	44.8	32.6	24.2
1237	64.8	87.1	98.3	107.4	112.5	115.9	121.2	125.3	125.0	125.3	127.9	127.6
	124.5	126.8	129.3	125.8	120.8	118.8	112.6	100.1	88.6	72.9	53.0	40.7
2037	41.5	63.9	76.6	85.0	90.7	95.7	100.4	107.0	108.4	108.3	110.5	113.0
	114.0	116.5	124.8	129.2	126.5	126.5	122.9	111.8	102.3	89.1	70.7	53.1
2837	41.4	59.9	70.0	77.2	83.7	89.0	93.9	100.1	102.4	102.6	105.1	106.1
	106.3	111.8	120.5	125.9	125.1	125.0	121.0	110.1	100.5	87.2	67.0	48.8
3637	45.4	72.9	89.6	98.0	104.1	108.0	109.7	114.5	118.1	117.7	117.6	119.7
	119.5	118.7	122.6	123.8	120.6	118.9	116.3	107.9	97.7	86.1	68.4	52.6
4437	37.1	68.3	89.5	101.5	109.9	116.2	119.8	125.6	128.0	126.9	126.2	127.3
	125.5	120.3	121.0	120.6	114.4	111.2	108.0	99.6	87.5	76.6	61.4	48.3
1245	45.9	68.9	82.5	92.0	97.4	99.9	102.9	106.0	105.8	104.5	106.2	105.7
	103.3	101.9	101.3	98.5	93.1	91.0	86.2	76.6	67.6	56.6	41.3	29.2
2045	37.9	61.1	75.9	87.8	98.7	110.9	122.3	132.8	136.5	134.8	136.2	137.0
	133.2	130.9	132.0	128.5	121.7	119.5	114.2	103.0	91.6	78.3	59.3	43.9
2845	33.5	54.0	67.6	80.2	94.3	108.4	124.2	135.5	139.3	137.9	139.4	137.9
	134.0	133.0	133.6	130.4	124.4	122.2	116.5	104.7	93.0	79.1	60.0	43.8
3645	50.5	79.9	98.0	109.8	117.7	121.9	123.3	127.3	128.2	124.7	126.4	126.0
	123.7	120.7	122.0	118.8	112.6	110.8	105.5	94.9	83.1	70.5	53.9	39.2
4445	21.8	32.5	38.7	42.6	46.6	49.4	52.1	55.6	58.9	60.6	63.5	64.8
	64.6	64.4	65.1	63.7	61.3	60.6	58.3	53.3	48.3	41.4	31.8	23.2

EPRI NP-2106

Below are five index cards that allow for filing according to the four cross-references in addition to the title of the report. A brief abstract describing the major subject area covered in the report is included on each card.

EPRI NP-2106
RP130-4
Final Report
February 1984

Core Design and Operating Data for Cycles 2 and 3 of Hatch 1

Contractor: General Electric Company

The collection of core design and operating data for the first three cycles of operation at the Hatch 1 BWR nuclear plant is complete. Utility engineers can use the data to test and qualify reactor core analytic methods necessary for reload licensing. 134 pp.

EPRI Project Manager: O. Ozer

Cross-References:
1. EPRI NP-2106 2. RP130-4 3. Code Development and Verification Program
4. BWRs

ELECTRIC POWER RESEARCH INSTITUTE
Post Office Box 10412, Palo Alto, CA 94303 415-855-2000

EPRI NP-2106

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