OCT 30 1996

20

ENGINEERING DATA TRANSMITTAL

Page 1 of 1

1. EDT

619215

2. To: (Receiving Organization) Distribution	3. From: (Originating Organization) Criticality and Shielding	4. Related EDT No.: 619215
5. Proj./Prog./Dept./Div.: FFTF	6. Design Authority/ Design Agent/Cog. Engr.: J. V. Nelson / E. R. Cramer	7. Purchase Order No.: NA
8. Originator Remarks: Approval/Release		9. Equip./Component No.: NA
		10. System/Bldg./Facility:
11. Receiver Remarks: 11A. Design Baseline Document? ☐ Yes ☒ No		12. Major Assm. Dwg. No.: NA
		13. Permit/Permit Application No.: NA
		14. Required Response Date:

15. DATA TRANSMITTED					(F)	(G)	(H)	(I)
(A) Item No.	(B) Document/Drawing No.	(C) Sheet No.	(D) Rev. No.	(E) Title or Description of Data Transmitted	Approval Design- nator	Reason for Trans- mittal	Origi- nator Dispo- sition	Receiv- er Dispo- sition
1	WHC-SD-FF-ANAL-009		0	Irradiation Data for the MFA-1 and MFA-2 Tests During FFTF Cycles 10A and 10B	na	1/2		

16. KEY					
Approval Designator (F)		Reason for Transmittal (G)		Disposition (H) & (I)	
E, S, O, D or N/A (see WHC-CM-3-5, Sec.12.7)		1. Approval 2. Release 3. Information	4. Review 5. Post-Review 6. Dist. (Receipt Acknow. Required)	1. Approved 2. Approved w/comment 3. Disapproved w/comment	4. Reviewed no/comment 5. Reviewed w/comment 6. Receipt acknowledged

17. SIGNATURE/DISTRIBUTION (See Approval Designator for required signatures)									
(G) Reason	(H) Disp.	(J) Name	(K) Signature	(L) Date	(M) MSIN	(G) Reason	(H) Disp.	(J) Name	(K) Signature
		Design Authority				4	4	Tech. Review	R. F. Richard
		Design Agent							
1	1	Cog.Eng. J. V. Nelson	<i>J. V. Nelson</i>	10-14-96	H0-35	1	1	D.A. Gantt	<i>D.A. Gantt</i>
1	1	Cog.Eng. E. R. Cramer	<i>E. R. Cramer</i>	10/14/96	H0-34			Applied Technology	<i>(Signature)</i>
1	1	Cog. Mgr. J. Greenborg	<i>J. Greenborg</i>	10/14/96	H0-35				
		QA							
		Safety							
		Env.							

18. Signature of EDT Originator <i>J. V. Nelson</i> Date: 10-14-96	19. Authorized Representative Date for Receiving Organization <i>R. F. Richard</i> Date: 10/14/96	20. Design Authority Cognizant Manager <i>J. Greenborg</i> Date: 10/14/96	21. DOE APPROVAL (if required) Ctrl. No. ☐ Approved ☐ Approved w/comments ☐ Disapproved w/comments
--	---	---	---

Irradiation Data for the MFA-1 and MFA-2 Tests During FFTF Cycles 10A and 10B

J. V. Nelson and E. R. Cramer

Westinghouse Hanford Company, Richland, WA 99352

U.S. Department of Energy Contract DE-AC06-87RL10930

EDT/ECN: 619215 UC: 532
 Org Code: ~~403~~ 8M730 Charge Code: B193D
 B&R Code: ~~1819030301~~ Total Pages: 143
 EX7050000

Key Words: FFTF, MONJU, Liquid Metal Reactor, fuel test, LMR, MFA

Abstract: This report provides key information on the irradiation environment of the MONJU fuel tests MFA-1 and MFA-2 in the Fast Flux Tests Facility (FFTF) during operating cycles 10A and 10B. This information includes the fission powers, neutron fluxes, sodium temperatures and sodium flow rates in MFA-1, MFA-2 and adjacent assemblies. It also includes MFA-1 and MFA-2 compositions as a function of exposure during cycles 10A and 10B. The work was performed at the request of Power Reactor and Nuclear Fuels Corporation (PNC) of Japan.

TRADEMARK DISCLAIMER. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise, does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof or its contractors or subcontractors.

Printed in the United States of America. To obtain copies of this document, contact: WHC/BCS Document Control Services, P.O. Box 1970, Mailstop H6-08, Richland WA 99352, Phone (509) 372-2420; Fax (509) 376-4989.

James V. Bishop 10-30-76
 Release Approval Date

Release Stamp

Approved for Public Release

IRRADIATION DATA FOR THE MFA-1 AND MFA 2 TESTS DURING FFTF CYCLES 10A AND 10B

This report provides data relevant to the irradiation of the MONJU fuel experiments MFA-1 and MFA-2 in the Fast Flux Test Facility (FFTF) during operating cycles 10A-1, 10A-2, 10A-3, 10A-4 and 10B. The operating history of these cycles is summarized in Table 1. The data are supplied in both tabular and electronic forms, as available.

Data provided for MFA-1 and MFA-2 include:

- assembly fission powers, total neutron fluxes, outlet temperatures and coolant flow rates,
- spatial distributions of total flux, fission power and fast flux (flux greater than 0.1 MeV at the duct walls),
- subchannel sodium temperatures, and
- burnup dependant material compositions.

Also included are powers, outlet temperatures, and flow rates for the assemblies adjacent to MFA-1 and MFA-2. In general, these data are provided for the beginning and end of each of the listed operating cycles.

MFA-1 was irradiated in FFTF core lattice position 1506 during cycles 10A and 10B, while MFA-2 was irradiated in position 2507, as shown in Figure 1. This figure shows the FFTF core loading for cycle 10A-1. Loading changes made in core locations adjacent to MFA-1 and MFA-2 between cycles 10A-1 and 10B are identified in Table 2.

Enclosed are 18 different tables for each cycle. Some of these tables were generated for beginning-of-cycle (BOC) conditions, some were generated for end-of-cycle (EOC) conditions, and many were generated for both BOC and EOC conditions. The reasons for this are explained later in sections describing the different tables. Most tables are also provided in electronic form on disk. However, others were available only in hard copy form from previous computer runs. These runs could not be repeated to obtain disk files because the computer programs needed have not been installed on any computer system that is currently available.

Table 3 summarizes the information contained in each of the 18 data tables, indicates whether this information is provided for BOC, EOC or both, and identifies the tables that are also on the enclosed disk. The enclosed data (both printed tables and electronic files) are identified using the following notation: *TCCC.N*, where *T* is either the letter B (for beginning of cycle) or E (for end of cycle), *CCC* is a cycle name (i.e., 10A-1, 10A-2, ..., 10B), and *N* is a table number (1 - 17) listed in Table 3. For example, Table B10A-4.1 lists the fission power generated in MFA-1, MFA-2 and neighboring assemblies at the beginning of cycle 10A-4 (BOC 10A-4).

The following paragraphs explain the contents of each of the 18 types of tables.

Assembly Fission Power

The fission power generated in MFA-1 and each of its six adjacent assemblies, and in MFA-2 and each of its six adjacent assemblies are listed in Tables B10A-1.1, E10A-1.1, B10A-2.1, E10A-2.1, etc. In these tables, the total fission power is given for each assembly. Also, a breakdown of the power by axial material region (fuel, axial blankets and UO₂ insulator pellets) is included. Fuel assemblies that do not have axial blankets have insulator pellets between the fuel and the axial reflector regions.

Fission powers were computed using the three-dimensional diffusion theory and burnup program 3DB with nuclear cross section data in 12 energy groups. The computed flux and power data were adjusted by applying row-dependant bias factor that ranged in value from 0.98 to 1.02. For row 5 where MFA-1 and MFA-2 are located, the bias factor applied was 0.984. The bias factors were determined by comparing the results of measurements made as part of the FFTF reactor characterization program, diffusion theory calculations and Monte Carlo (MCNP) calculations.

Assembly Averaged Total Flux

Assembly averaged total flux data for MFA-1 and MFA-2 at the beginning and end of each cycle are given in Tables B10A-1.2, E10A-1.2, B10A-2.2, E10A-2.2, etc. In computing the data in these tables, only the fuel region of each assembly was included in the averaging process. The flux data averaged were obtained from the same 3DB calculations used to produce the fission power data. Again, the bias factor of 0.984 was applied to the 3DB results.

Axial Distribution of Total Flux, Fast Flux and Power

The axial distributions of total flux, fast flux (flux greater than 0.1 MeV) and fission power are given for MFA-1 at the beginning and end of each cycle in Tables B10A-1.3, E10A-1.3, B10A-2.3, E10A-2.3, etc. Likewise, the axial distributions of total flux, fast flux and fission power are given for MFA-2 in Tables B10A-1.4, E10A-1.4, B10A-2.4, E10A-2.4, etc.

The axial locations relative to the core midplane in units of centimeters (cm) at hot, full-power conditions are given in the first column of each table. Negative values indicate locations below the midplane, and positive values indicate locations above the midplane. The flux and power data in the tables are normalized so that the axial average of each distribution over the active core region is 1.0. The active core region extended from -46.14 cm to 46.14 cm in the 3DB models of hot, full-power conditions in FFTF.

Fission Power Distribution by Pin

The distribution of fission power by pin is given for MFA-1 at the beginning and end of each cycle in Tables B10A-1.5, E10A-1.5, B10A-2.5, E10A-2.5, etc. Likewise, the distribution of fission power by pin is given for MFA-2 in Tables B10A-1.6, E10A-1.6, B10A-2.6, E10A-2.6, etc. The direction north (N) is indicated in these tables.

The data in each table were based on a power distribution computed by 3DB. These distributions had six data points per assembly at each axial elevation. Pin power data were generated by first axially averaging the 3DB computed

powers, and then doing a least-squares quadratic fit to the available data. Finally, the pin powers obtained were normalized so that the linear power averaged over the fuel region of an assembly is 1.0.

Using the given assembly powers, the axial power distributions and the pin power distributions, the linear power in any MFA-1 or MFA-2 pin at any axial elevation can be easily determined.

Total Flux Distribution by Pin

The distribution of total flux by pin in MFA-1 is given for the beginning and end of each cycle in Tables B10A-1.7, E10A-1.7, B10A-2.7, E10A-2.7, etc. Likewise, the distribution of total flux by pin in MFA-2 is given in Tables B10A-1.8, E10A-1.8, B10A-2.8, E10A-2.8, etc. These data were generated using the same method described above that was used to obtain the pin powers. Again, the flux data were normalized so that the average total flux in the fuel region of MFA-1 or MFA-2 is 1.0.

Duct Wall Flux Greater than 0.1 MeV

The fluxes greater than 0.1 MeV at each of the six faces of the MFA-1 and MFA-2 ducts are given in Tables B10A-1.9, E10A-1.9, B10A-2.9, E10A-2.9, etc. The data given represent axial averages. To obtain the duct wall flux at a particular axial elevation, multiply by an axial factor from Tables B10A-1.3, B10A-1.4, E10A-1.3, E10A-1.4, etc.

Each of the six duct walls in each assembly is identified in the tables by the direction it faces - east (E), southeast (SE), southwest (SW), west (W), northwest (NW), or northeast (NE). Figure 1 shows the orientation of MFA-1 in lattice position 1506 and MFA-2 in lattice position 2507. For example, the east (E) duct wall of MFA-1 is adjacent to the assembly in lattice position 1505, and the east duct wall of MFA-2 is adjacent to the assembly in lattice position 2508.

The data in these tables were based on group flux distributions computed by 3DB. The duct wall fluxes were generated by axially averaging the 3DB fluxes, integrating over energy to obtain the flux greater than 0.1 MeV at each space point, doing a linear interpolation between the two flux values on each side of a duct wall face, and finally applying the 0.984 adjustment factor described earlier.

Sodium Outlet Temperatures and Assembly Flow Rates

Sodium outlet temperatures and flow rates for MFA-1, MFA-2 and the assemblies adjacent to them are given in Tables B10A-1.10, E10A-1.10, B10A-2.10, etc. Computed and measured temperatures are included in these tables as available from FFTF core reload design reports and cycle reports. Both measured and computed temperatures are given for BOC 10A-1, 10A-2, 10A-4 and 10B, and for EOC 10A-4 and 10B. Computed temperatures only are given for EOC 10A-1 and 10A-2. Measured temperatures only are given for BOC 10A-3 and 10A-4. No temperature or flow data are given for EOC 10A-3. Because of the short length of cycle 10A-3 (5.8 EFPD), the EOC 10A-3 data will be nearly the same as the BOC 10A-3 data.

All assembly flow rate data were calculated for full power conditions. For cycle 10A-1, assembly flows were based on a calculated pressure drop of 113.3 psi at the total reactor flow rate of 16.74×10^6 lb/hr. For cycles 10A-2, 10A-3 and 10A-4, assembly flows were based on a calculated pressure drop of 110.6 psi. For cycle 10B, assembly flows were based on a calculated pressure drop of 111.5 psi.

Sodium Subchannel Temperatures

Calculated sodium subchannel temperatures at three axial locations are available from previous analyses for the following times: BOC 10A-1, BOC 10A-2, EOC 10A-2, BOC 10B and EOC 10B. No data are available for cycles 10A-3 and 10A-4. However, sodium subchannel temperatures given for EOC 10A-2 should be very close to the temperatures during cycles 10A-3 and 10A-4 because of the short length of these cycles and the very minor loading differences.

Subchannel temperatures at the top of core elevation are given for MFA-1 in Tables B10A-1.11, B10A-2.11, E10A-2.11, B10B.11 and E10B.11, and for MFA-2 in Tables B10A-1.12, B10A-2.12, etc. Subchannel temperatures at the top of the upper axial blanket are given for MFA-1 in Tables B10A-1.13, B10A-2.13, etc, and for MFA-2 in Tables B10A-1.14, B10A-2.14, etc. Subchannel temperatures at top of the fuel pin bundle are given for MFA-1 in Tables B10A-1.15, B10A-2.15, etc, and for MFA-2 in Tables B10A-1.16, B10A-2.16, etc.

All temperatures are in degrees Fahrenheit. The row of numbers just outside the asterisks on each map are calculated duct wall temperatures, and the outside row of temperatures on each map are the temperatures of the sodium between assemblies. The direction north is indicated on each map.

The temperature calculations were performed using the SUPERENERGY code. The power of each pin, the assembly flow distribution and the reactor inlet temperature of 680°F were input to the code. SUPERENERGY calculates subchannel temperatures by using energy balances and correlations for subchannel mixing. SUPERENERGY has not been installed on any computer system that is currently available. For this reason, the calculations could not be repeated to obtain electronic copies of the temperature data, and data for cycles 10A-3 and 10A-4.

Fuel pin cladding temperatures are not available, but can be computed from the data provided.

Material Compositions

Burnup-dependant material compositions for MFA-1 at the end of each cycle are given in Tables E10A-1.17, E10A-2.17, etc, while the compositions for MFA-2 are given in Tables E10A-1.18, E18A2.18, etc. Each table lists homogenized material compositions for 11 axial regions in MFA-1 or MFA-2. These 11 regions are identified in Table 4. The axial extent of each region, as modeled in 3DB, is listed in the material composition tables. The units are centimeters (cm) relative to the core midplane at hot, full power conditions. The compositions are in units of atoms/b-cm at hot, full power conditions. Both the fresh (beginning-of-life) and end-of-cycle compositions are included in each table. Compositions of MFA-1 and MFA-2 at BOC 10A-1 were the fresh values listed. Compositions at the beginning of any other cycle were

essentially those listed for the end of the previous cycle. The only differences are due to decay of ^{241}Pu to ^{241}Am .

The burnup-dependant compositions for the axial blankets (axial regions 3 and 10) and the fuel (axial regions 4 through 9) were computed using the three-dimensional diffusion theory and burnup code, 3DB. The fuel was subdivided into six axial regions to properly account for the effect that the axial flux distribution has on the fuel depletion rate.

The constituents of the materials listed in the composition tables are individual isotopes with two exceptions. The first exception is that the constituent labelled "FP" represents an average pseudo fission product pair. An atom density for FP specifies the concentration of fission product pairs, not individual fission product nuclides. The microscopic cross section data used for fission products in the 3DB calculations were generated assuming all fissions were from ^{239}Pu .

The second exception is that the constituent labelled "SS-316" represents type 316 stainless steel. An atom density given for SS-316 indicates the total number of atoms in stainless steel per unit volume. SS-316 was used in the calculational models for the ducts, cladding and wire wrap in both MFA-1 and MFA-2, even though these components in MFA-2 were fabricated from an advanced austenitic stainless steel. The composition used in generating nuclear cross section sets for SS-316 was based on the 1977 RDT & ASTM standard, and is listed in Table 5.

Contents of the Enclosed Disk

The enclosed 3.5 inch floppy disk is DOS formatted with 1.44 MB capacity. All information on the disk is contained in standard text (ASCII) files. There are five directories on the disk, one for each cycle. The directory names are 10A-1, 10A-2, 10A-3, 10A-4 and 10-B. As described earlier, the files on the disk are named the same as the data tables. For example, assembly fission powers for EOC 10A-4 are listed in Table E10A-4.1 and on disk file E10A-4.1, which is located in directory 10A-4. Table 3 indicates which of the data tables for each cycle are included on the disk. Also, a table of contents of the disk is given in Table 6.

Table 1. Summary of FFTF Cycles 10A and 10B Power Operation

Cycle	Startup Date	Shutdown Date	Cycle Length (EFPD ^a)
10A-1	11/18/87	1/26/88	66.3
10A-2	2/ 1/88	2/23/88	20.3
10A-3	2/25/88	3/ 4/88	5.8
10A-4	3/ 7/88	5/ 7/88	59.4
10B	6/11/88	10/17/88	126.7

^a EFPD = equivalent full power days. Full power was 291 MW thermal.

Figure 1. FFTF Cycle 10A-1 Core Loading

Table 2. Loading Changes Made to Core Locations adjacent to MFA-1 and MFA-2

Cycle	Core Position	Assembly Removed (Serial No. & Type)	Assembly Inserted (serial No. & Type)
10A-2	2608	2156 ACO-16 ^c	4114 3.1DFA ^a
10A-4	2609	2065 PO-1 ^d	4140 3.1DFA
10B	1405	16391 4.2DFA ^b	2168 MFF-2 ^e
	1505	8259 4.1DFA ^b	8265 4.1DFA
	2405	2146 ACO-6 ^c	16396 3.2DFA ^a
	2506	8210 3.1DFA	8268 4.1DFA
	2609	4140 3.1DFA	4152 4.1DFA

^a 3.1DFA and 3.2DFA are standard FFTF series I drivers

^b 4.1DFA and 4.2DFA are standard FFTF series II drivers

^c ACO-6 and ACO-16 are Core Demonstration Experiment (CDE) fuel assemblies

^d PO-1 is an advanced oxide fuel test

^e MFF-2 is a metal fuel experiment

Table 3. Summary Data Included for each Cycle

Table No.	Description	Created for BOC or EOC?	Included on disk?
1	Fission Power Generated in MFA-1, MFA-2 and Neighboring Assemblies	BOC & EOC	yes
2	Assembly Averaged Total Flux for MFA-1 and MFA-2	BOC & EOC	yes
3	Axial Distribution of Total Flux, Fast Flux and Power in MFA-1	BOC & EOC	yes
4	Axial Distribution of Total Flux, Fast Flux and Power in MFA-2	BOC & EOC	yes
5	Fission Power Distribution by Pin in MFA-1	BOC & EOC	yes
6	Fission Power Distribution by Pin in MFA-2	BOC & EOC	yes
7	Total Flux Distribution by Pin in MFA-1	BOC & EOC	yes
8	Total Flux Distribution by Pin in MFA-2	BOC & EOC	yes
9	MFA-1 and MFA-2 Duct Wall Flux Greater than 0.1 MeV	BOC & EOC	yes
10	Sodium Outlet Temperatures and Flow Rates for MFA-1, MFA-2 and Neighboring Assemblies	BOC & EOC ^a	yes
11	MFA-1 Sodium Subchannel Temperatures at Top of Core Elevation	BOC & EOC ^b	no
12	MFA-2 Sodium Subchannel Temperatures at Top of Core Elevation	BOC & EOC ^b	no
13	MFA-1 Sodium Subchannel Temperatures at Elevation of Upper Axial Blanket	BOC & EOC ^b	no
14	MFA-2 Sodium Subchannel Temperatures at Elevation of Upper Axial Blanket	BOC & EOC ^b	no
15	MFA-1 Sodium Subchannel Temperatures at Top of Fuel Pin Bundle	BOC & EOC ^b	no
16	MFA-2 Sodium Subchannel Temperatures at Top of Fuel Pin Bundle	BOC & EOC ^b	no
17	Composition of MFA-1	EOC	yes
18	Composition of MFA-2	EOC	yes

^a No table of sodium outlet temperatures and flow rates for EOC 10A-3 is included because of the short cycle length (5.8 EFPD). Temperatures and flow rates at EOC 10A-3 are essentially the same as given for BOC 10A-3.

^b Sodium subchannel temperatures are available for only BOC 10A-1, 10A-2 and 10B, and EOC 10A-2 and 10B.

Table 4. Description of Axial Regions in Material Composition Tables

Axial Level	Axial Range Relative to Core Midplane (cm) ^a	Description
1	-100.28 ^b to -75.28	Lower axial shield
2	-75.28 to -62.78	Pin attachment region
3	-62.78 to -46.14	Lower axial blanket
4 - 9	-46.14 to 46.14 (divided into 6 regions, each 15.38 cm high)	Fuel region
10	46.14 to 62.78 ^c	Upper axial blanket
11	62.78 to 116.00 ^b	Gas plenum

^a Dimensions are representative of hot, full power conditions. Negative numbers indicate locations below the core midplane. Positive numbers indicate locations above the core midplane.

^b The axial range in the 30B models was 100.28 cm below the core midplane to 116.00 cm above the midplane.

^c The upper axial blankets of MFA-1 and MFA-2 are actually 7.62 cm (3 in.) long. However, they were modeled as being 16.64 cm long (at hot, full power conditions) to match existing axial boundaries in the 30B model.

Table 5. Composition of Type 316 Stainless Steel (SS-316)

Constituent	Weight Percent	Constituent	Weight Percent
Fe	62.19	Mn	2.00
Cr	18.00	Si	0.75
Ni	14.00	C	0.06
Mo	3.00		

Table 6. Disk Table of Contents (Sheet 1 of 2)

File Name					File Name				
Base	Ext.	Size (bytes)	Creation Date	Time	Base	Ext.	Size (bytes)	Creation Date	Time
Directory of 10A-1					22 files, 40,092 bytes total				
B10A-1	1	984	10-02-96	3:19p	E10A-1	1	984	09-27-96	11:14a
B10A-1	10	738	10-02-96	3:21p	E10A-1	10	583	10-02-96	3:22p
B10A-1	2	205	09-27-96	11:12a	E10A-1	17	6,101	09-27-96	11:14a
B10A-1	3	2,757	09-27-96	11:13a	E10A-1	18	6,101	09-27-96	11:14a
B10A-1	4	2,748	09-27-96	11:13a	E10A-1	2	205	09-27-96	11:14a
B10A-1	5	1,561	09-27-96	11:13a	E10A-1	3	2,759	09-27-96	11:14a
B10A-1	6	1,561	09-27-96	11:13a	E10A-1	4	2,748	09-27-96	11:14a
B10A-1	7	1,558	09-27-96	11:13a	E10A-1	5	1,561	09-27-96	11:14a
B10A-1	8	1,560	09-27-96	11:13a	E10A-1	6	1,561	09-27-96	11:14a
B10A-1	9	349	09-27-96	11:13a	E10A-1	7	1,558	09-27-96	11:14a
					E10A-1	8	1,558	09-27-96	11:14a
					E10A-1	9	352	09-27-96	11:15a
Directory of 10A-2					22 files, 40,087 bytes total				
B10A-2	1	984	09-27-96	11:27a	E10A-2	1	984	09-27-96	11:28a
B10A-2	10	738	10-02-96	3:32p	E10A-2	10	582	09-27-96	11:28a
B10A-2	2	205	09-27-96	11:27a	E10A-2	17	6,101	09-27-96	11:28a
B10A-2	3	2,758	09-27-96	11:27a	E10A-2	18	6,101	09-27-96	11:28a
B10A-2	4	2,748	09-27-96	11:27a	E10A-2	2	205	09-27-96	11:28a
B10A-2	5	1,563	09-27-96	11:27a	E10A-2	3	2,752	09-27-96	11:28a
B10A-2	6	1,561	09-27-96	11:27a	E10A-2	4	2,749	09-27-96	11:28a
B10A-2	7	1,558	09-27-96	11:27a	E10A-2	5	1,561	09-27-96	11:28a
B10A-2	8	1,558	09-27-96	11:27a	E10A-2	6	1,561	09-27-96	11:28a
B10A-2	9	349	09-27-96	11:27a	E10A-2	7	1,558	09-27-96	11:28a
					E10A-2	8	1,558	09-27-96	11:28a
					E10A-2	9	353	09-27-96	11:28a
Directory of 10A-3					21 files, 39,333 bytes total				
B10A-3	1	984	09-27-96	11:29a	E10A-3	1	984	09-27-96	11:29a
B10A-3	10	565	09-29-96	3:43p	E10A-3	17	6,101	09-27-96	11:29a
B10A-3	2	205	09-27-96	11:29a	E10A-3	18	6,101	09-27-96	11:29a
B10A-3	3	2,758	09-27-96	11:29a	E10A-3	2	205	09-27-96	11:29a
B10A-3	4	2,748	09-27-96	11:29a	E10A-3	3	2,752	09-27-96	11:29a
B10A-3	5	1,561	09-27-96	11:29a	E10A-3	4	2,749	09-27-96	11:29a
B10A-3	6	1,561	09-27-96	11:29a	E10A-3	5	1,561	09-27-96	11:29a
B10A-3	7	1,558	09-27-96	11:29a	E10A-3	6	1,561	09-27-96	11:29a
B10A-3	8	1,558	09-27-96	11:29a	E10A-3	7	1,558	09-27-96	11:29a
B10A-3	9	352	09-27-96	11:29a	E10A-3	8	1,558	09-27-96	11:29a
					E10A-3	9	353	09-27-96	11:29a

Table 6. Disk Table of Contents (Sheet 2 of 2)

File Name		Size	Creation		File Name		Size	Creation	
Base	Ext.	(bytes)	Date	Time	Base	Ext.	(bytes)	Date	Time
Directory of 10A-4					22 files, 40,069 bytes total				
B10A-4	1	984	09-27-96	11:30a	E10A-4	1	984	09-27-96	11:30a
B10A-4	10	564	10-02-96	3:34p	E10A-4	10	737	09-27-96	11:30a
B10A-4	2	205	09-27-96	11:30a	E10A-4	17	6,101	09-27-96	11:30a
B10A-4	3	2,758	09-27-96	11:30a	E10A-4	18	6,101	09-27-96	11:30a
B10A-4	4	2,748	09-27-96	11:30a	E10A-4	2	205	09-27-96	11:30a
B10A-4	5	1,561	09-27-96	11:30a	E10A-4	3	2,752	09-27-96	11:30a
B10A-4	6	1,561	09-27-96	11:30a	E10A-4	4	2,749	09-27-96	11:30a
B10A-4	7	1,558	09-27-96	11:30a	E10A-4	5	1,561	09-27-96	11:31a
B10A-4	8	1,558	09-27-96	11:30a	E10A-4	6	1,561	09-27-96	11:31a
B10A-4	9	352	09-27-96	11:30a	E10A-4	7	1,558	09-27-96	11:31a
					E10A-4	8	1,558	09-27-96	11:31a
					E10A-4	9	353	09-27-96	11:31a
Directory of 10B					22 files, 40,159 bytes total				
B10B	1	980	09-27-96	11:31a	E10B	1	980	09-27-96	11:31a
B10B	10	733	09-27-96	11:31a	E10B	10	734	10-02-96	3:35p
B10B	2	203	09-27-96	11:31a	E10B	17	6,097	09-27-96	11:31a
B10B	3	2,754	09-27-96	11:31a	E10B	18	6,097	09-27-96	11:31a
B10B	4	2,744	09-27-96	11:31a	E10B	2	203	09-27-96	11:31a
B10B	5	1,557	09-27-96	11:31a	E10B	3	2,748	09-27-96	11:32a
B10B	6	1,557	09-27-96	11:31a	E10B	4	2,745	09-27-96	11:32a
B10B	7	1,554	09-27-96	11:31a	E10B	5	1,557	09-27-96	11:32a
B10B	8	1,554	09-27-96	11:31a	E10B	6	1,557	09-27-96	11:32a
B10B	9	348	09-27-96	11:31a	E10B	7	1,554	09-27-96	11:32a
					E10B	8	1,554	09-27-96	11:32a
					E10B	9	349	09-27-96	11:32a

Table B10A-1.1. Fission Power Generated in MFA-1, MFA-2 and Neighboring Assemblies at BOC 10A-1

CORE	* * * * *	POWER IN MEGAWATTS		* * * * *
POS.	BELOW CORE	IN CORE	ABOVE CORE	TOTAL PWR
1506	2.246E-02	4.196E+00	1.709E-02	4.235E+00
1404	7.618E-02	4.933E+00	4.233E-02	5.052E+00
1405	8.659E-03	4.127E+00	6.616E-03	4.143E+00
1505	1.088E-02	3.800E+00	6.491E-03	3.818E+00
1507	9.496E-03	3.586E+00	7.131E-03	3.602E+00
1606	5.669E-03	3.720E+00	4.286E-03	3.730E+00
1607	8.989E-03	3.110E+00	6.475E-03	3.126E+00
2507	2.106E-02	3.963E+00	1.649E-02	4.001E+00
2405	5.745E-02	4.173E+00	3.298E-02	4.264E+00
2506	9.759E-03	3.659E+00	6.848E-03	3.676E+00
2508	9.327E-03	4.376E+00	6.847E-03	4.392E+00
2607	6.612E-03	3.376E+00	4.948E-03	3.387E+00
2608	1.328E-02	3.186E+00	1.062E-02	3.210E+00
2609	8.462E-02	2.998E+00	4.569E-02	3.128E+00

Table B10A-1.2. Assembly Averaged Total Flux for MFA-1 and MFA-2 at BOC 10A-1

Assembly	Core Pos.	Total Flux (n/cm ² -sec)
MFA-1	1506	3.006E+15
MFA-2	2507	2.836E+15

Table B10A-1.3. Axial Distribution of Total Flux, Fast Flux and Power in MFA-1 at BOC 10A-1

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.6526E-02	1.3341E-02	0.0000E+00
-92.78	5.7045E-02	2.5782E-02	0.0000E+00
-87.78	9.1548E-02	4.1301E-02	0.0000E+00
-82.78	1.3267E-01	6.1694E-02	0.0000E+00
-77.78	1.8310E-01	8.9179E-02	0.0000E+00
-72.15	2.4031E-01	1.2480E-01	0.0000E+00
-65.90	2.9764E-01	1.6976E-01	0.0000E+00
-60.35	3.5878E-01	2.3041E-01	1.6617E-02
-55.49	4.4025E-01	3.1379E-01	2.4379E-02
-50.62	5.3615E-01	4.2430E-01	3.7703E-02
-47.17	6.1441E-01	5.3037E-01	5.4264E-02
-43.58	6.9713E-01	6.5148E-01	7.3365E-01
-38.45	8.1621E-01	7.9755E-01	8.2583E-01
-33.32	9.2677E-01	9.2234E-01	9.2756E-01
-28.20	1.0236E+00	1.0268E+00	1.0207E+00
-23.07	1.1043E+00	1.1116E+00	1.0995E+00
-17.94	1.1673E+00	1.1768E+00	1.1613E+00
-12.82	1.2115E+00	1.2220E+00	1.2047E+00
-7.69	1.2365E+00	1.2476E+00	1.2293E+00
-2.56	1.2421E+00	1.2534E+00	1.2347E+00
2.56	1.2284E+00	1.2397E+00	1.2209E+00
7.69	1.1955E+00	1.2068E+00	1.1882E+00
12.82	1.1445E+00	1.1555E+00	1.1376E+00
17.94	1.0769E+00	1.0873E+00	1.0706E+00
23.07	9.9430E-01	1.0030E+00	9.8896E-01
28.20	8.9899E-01	9.0449E-01	8.9515E-01
33.32	7.9329E-01	7.9301E-01	7.9209E-01
38.45	6.7981E-01	6.6873E-01	6.8447E-01
43.58	5.6299E-01	5.3189E-01	5.8471E-01
47.17	4.8378E-01	4.2522E-01	4.3606E-02
50.62	4.0918E-01	3.3194E-01	2.9525E-02
55.49	3.1815E-01	2.3509E-01	1.8093E-02
60.35	2.3997E-01	1.6184E-01	1.1296E-02
64.98	1.9222E-01	1.2052E-01	0.0000E+00
69.39	1.6460E-01	9.8965E-02	0.0000E+00
76.46	1.2535E-01	7.0195E-02	0.0000E+00
86.80	8.1928E-02	4.2306E-02	0.0000E+00
98.14	4.7337E-02	2.3110E-02	0.0000E+00
110.00	2.0307E-02	1.0362E-02	0.0000E+00

Table B10A-1.4. Axial Distribution of Total Flux, Fast Flux and Power in MFA-2 at BOC 10A-1

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.5594E-02	1.2927E-02	0.0000E+00
-92.78	5.5013E-02	2.4935E-02	0.0000E+00
-87.78	8.8199E-02	3.9859E-02	0.0000E+00
-82.78	1.2771E-01	5.9417E-02	0.0000E+00
-77.78	1.7617E-01	8.5771E-02	0.0000E+00
-72.15	2.3120E-01	1.2002E-01	0.0000E+00
-65.90	2.8707E-01	1.6387E-01	0.0000E+00
-60.35	3.4727E-01	2.2388E-01	1.6431E-02
-55.49	4.2863E-01	3.0663E-01	2.4217E-02
-50.62	5.2581E-01	4.1680E-01	3.7476E-02
-47.17	6.0568E-01	5.2258E-01	5.3907E-02
-43.58	6.8985E-01	6.4366E-01	7.2306E-01
-38.45	8.0993E-01	7.9061E-01	8.1912E-01
-33.32	9.2109E-01	9.1643E-01	9.2189E-01
-28.20	1.0184E+00	1.0219E+00	1.0154E+00
-23.07	1.0999E+00	1.1079E+00	1.0949E+00
-17.94	1.1639E+00	1.1743E+00	1.1578E+00
-12.82	1.2092E+00	1.2207E+00	1.2025E+00
-7.69	1.2352E+00	1.2471E+00	1.2281E+00
-2.56	1.2415E+00	1.2537E+00	1.2342E+00
2.56	1.2283E+00	1.2406E+00	1.2210E+00
7.69	1.1963E+00	1.2084E+00	1.1892E+00
12.82	1.1466E+00	1.1583E+00	1.1400E+00
17.94	1.0806E+00	1.0913E+00	1.0748E+00
23.07	9.9947E-01	1.0081E+00	9.9473E-01
28.20	9.0506E-01	9.1006E-01	9.0196E-01
33.32	7.9976E-01	7.9844E-01	7.9937E-01
38.45	6.8613E-01	6.7337E-01	6.9155E-01
43.58	5.6869E-01	5.3526E-01	5.9037E-01
47.17	4.8861E-01	4.2753E-01	4.4266E-02
50.62	4.1312E-01	3.3359E-01	3.0062E-02
55.49	3.2164E-01	2.3629E-01	1.8544E-02
60.35	2.4413E-01	1.6316E-01	1.1680E-02
64.98	1.9720E-01	1.2185E-01	0.0000E+00
69.39	1.6933E-01	1.0004E-01	0.0000E+00
76.46	1.2922E-01	7.0908E-02	0.0000E+00
86.80	8.4577E-02	4.2724E-02	0.0000E+00
98.14	4.8841E-02	2.3310E-02	0.0000E+00
110.00	2.0742E-02	1.0361E-02	0.0000E+00

Table B10A-1.5. Fission Power Distribution by Pin in MFA-1 at BOC 10A-1

0.906	0.911	0.916	0.921	0.925	0.928	0.931	0.934
0.917	0.922	0.927	0.932	0.936	0.940	0.943	0.946
0.926	0.932	0.937	0.942	0.947	0.951	0.955	0.958
0.936	0.941	0.947	0.952	0.957	0.961	0.965	0.969
0.944	0.950	0.956	0.962	0.967	0.971	0.976	0.980
0.952	0.959	0.965	0.970	0.976	0.981	0.985	0.989
0.959	0.966	0.972	0.978	0.984	0.989	0.994	0.998
0.966	0.973	0.980	0.986	0.991	0.997	1.002	1.007
0.979	0.986	0.992	0.998	1.004	1.009	1.014	1.019
0.992	0.998	1.004	1.010	1.015	1.021	1.025	1.030
1.003	1.010	1.015	1.021	1.026	1.031	1.036	1.041
1.014	1.020	1.026	1.031	1.037	1.042	1.046	1.051
1.025	1.030	1.036	1.041	1.046	1.051	1.056	1.061
1.034	1.039	1.045	1.050	1.055	1.060	1.065	1.070
1.043	1.048	1.053	1.058	1.063	1.069	1.074	1.079

N
↘

Table B10A-1.9. MFA-1 and MFA-2 Duct Wall Flux
Greater Than 0.1 MeV at BOC 10A-1

SIDE	FLUX > 0.1 MEV (n/cm ² -sec)	
	MFA-1	MFA-1
E	1.9719E+15	1.9751E+15
SE	1.7724E+15	2.0325E+15
SW	1.7082E+15	1.8566E+15
W	1.8752E+15	1.6328E+15
NW	2.0845E+15	1.5643E+15
NE	2.1367E+15	1.7117E+15

Table B10A-1.10. Assembly Outlet Temperatures and
Flow Rates at BOC 10A-1

CORE POS.	OUTLET TEMP. (DEG F)		FLOW RATE (LB/H)
	MEASURED	CALCULATED	
1506	1054	1085	116330
1404	927	925	228160
1405	901	901	210640
1505	893	881	210640
1507	884	872	210640
1606	915	916	172740
1607	882	883	172740
2507	1049	1058	116330
2405	929	918	194730
2506	891	879	200300
2508	920	906	210640
2607	914	899	165660
2608	1078	1056	89760
2609	892	883	175430

Table B10A-1.12. MFA-2 Sodium Subchannel Temperatures
at Top of Core Elevation for BOC 10A-1

TEMPERATURE MAP FOR BUNDLE 52		ASSEMBLY NC. 2507		MFA-2	
AXIAL HEIGHT		43.5-50 IN		892	
892	893	901	908	915	922
899	906	913	920	927	934
906	913	920	927	934	941
913	920	927	934	941	948
920	927	934	941	948	955
927	934	941	948	955	962
934	941	948	955	962	969
941	948	955	962	969	976
948	955	962	969	976	983
955	962	969	976	983	990
962	969	976	983	990	997
969	976	983	990	997	1004
976	983	990	997	1004	1011
983	990	997	1004	1011	1018
990	997	1004	1011	1018	1025
997	1004	1011	1018	1025	1032
1004	1011	1018	1025	1032	1039
1011	1018	1025	1032	1039	1046
1018	1025	1032	1039	1046	1053
1025	1032	1039	1046	1053	1060
1032	1039	1046	1053	1060	1067
1039	1046	1053	1060	1067	1074
1046	1053	1060	1067	1074	1081
1053	1060	1067	1074	1081	1088
1060	1067	1074	1081	1088	1095
1067	1074	1081	1088	1095	1102
1074	1081	1088	1095	1102	1109
1081	1088	1095	1102	1109	1116
1088	1095	1102	1109	1116	1123
1095	1102	1109	1116	1123	1130
1102	1109	1116	1123	1130	1137
1109	1116	1123	1130	1137	1144
1116	1123	1130	1137	1144	1151
1123	1130	1137	1144	1151	1158
1130	1137	1144	1151	1158	1165
1137	1144	1151	1158	1165	1172
1144	1151	1158	1165	1172	1179
1151	1158	1165	1172	1179	1186
1158	1165	1172	1179	1186	1193
1165	1172	1179	1186	1193	1200
1172	1179	1186	1193	1200	1207
1179	1186	1193	1200	1207	1214
1186	1193	1200	1207	1214	1221
1193	1200	1207	1214	1221	1228
1200	1207	1214	1221	1228	1235
1207	1214	1221	1228	1235	1242
1214	1221	1228	1235	1242	1249
1221	1228	1235	1242	1249	1256
1228	1235	1242	1249	1256	1263
1235	1242	1249	1256	1263	1270
1242	1249	1256	1263	1270	1277
1249	1256	1263	1270	1277	1284
1256	1263	1270	1277	1284	1291
1263	1270	1277	1284	1291	1298
1270	1277	1284	1291	1298	1305
1277	1284	1291	1298	1305	1312
1284	1291	1298	1305	1312	1319
1291	1298	1305	1312	1319	1326
1298	1305	1312	1319	1326	1333
1305	1312	1319	1326	1333	1340
1312	1319	1326	1333	1340	1347
1319	1326	1333	1340	1347	1354
1326	1333	1340	1347	1354	1361
1333	1340	1347	1354	1361	1368
1340	1347	1354	1361	1368	1375
1347	1354	1361	1368	1375	1382
1354	1361	1368	1375	1382	1389
1361	1368	1375	1382	1389	1396
1368	1375	1382	1389	1396	1403
1375	1382	1389	1396	1403	1410
1382	1389	1396	1403	1410	1417
1389	1396	1403	1410	1417	1424
1396	1403	1410	1417	1424	1431
1403	1410	1417	1424	1431	1438
1410	1417	1424	1431	1438	1445
1417	1424	1431	1438	1445	1452
1424	1431	1438	1445	1452	1459
1431	1438	1445	1452	1459	1466
1438	1445	1452	1459	1466	1473
1445	1452	1459	1466	1473	1480
1452	1459	1466	1473	1480	1487
1459	1466	1473	1480	1487	1494
1466	1473	1480	1487	1494	1501
1473	1480	1487	1494	1501	1508
1480	1487	1494	1501	1508	1515
1487	1494	1501	1508	1515	1522
1494	1501	1508	1515	1522	1529
1501	1508	1515	1522	1529	1536
1508	1515	1522	1529	1536	1543
1515	1522	1529	1536	1543	1550
1522	1529	1536	1543	1550	1557
1529	1536	1543	1550	1557	1564
1536	1543	1550	1557	1564	1571
1543	1550	1557	1564	1571	1578
1550	1557	1564	1571	1578	1585
1557	1564	1571	1578	1585	1592
1564	1571	1578	1585	1592	1599
1571	1578	1585	1592	1599	1606
1578	1585	1592	1599	1606	1613
1585	1592	1599	1606	1613	1620
1592	1599	1606	1613	1620	1627
1599	1606	1613	1620	1627	1634
1606	1613	1620	1627	1634	1641
1613	1620	1627	1634	1641	1648
1620	1627	1634	1641	1648	1655
1627	1634	1641	1648	1655	1662
1634	1641	1648	1655	1662	1669
1641	1648	1655	1662	1669	1676
1648	1655	1662	1669	1676	1683
1655	1662	1669	1676	1683	1690
1662	1669	1676	1683	1690	1697
1669	1676	1683	1690	1697	1704
1676	1683	1690	1697	1704	1711
1683	1690	1697	1704	1711	1718
1690	1697	1704	1711	1718	1725
1697	1704	1711	1718	1725	1732
1704	1711	1718	1725	1732	1739
1711	1718	1725	1732	1739	1746
1718	1725	1732	1739	1746	1753
1725	1732	1739	1746	1753	1760
1732	1739	1746	1753	1760	1767
1739	1746	1753	1760	1767	1774
1746	1753	1760	1767	1774	1781
1753	1760	1767	1774	1781	1788
1760	1767	1774	1781	1788	1795
1767	1774	1781	1788	1795	1802
1774	1781	1788	1795	1802	1809
1781	1788	1795	1802	1809	1816
1788	1795	1802	1809	1816	1823
1795	1802	1809	1816	1823	1830
1802	1809	1816	1823	1830	1837
1809	1816	1823	1830	1837	1844
1816	1823	1830	1837	1844	1851
1823	1830	1837	1844	1851	1858
1830	1837	1844	1851	1858	1865
1837	1844	1851	1858	1865	1872
1844	1851	1858	1865	1872	1879
1851	1858	1865	1872	1879	1886
1858	1865	1872	1879	1886	1893
1865	1872	1879	1886	1893	1900
1872	1879	1886	1893	1900	1907
1879	1886	1893	1900	1907	1914
1886	1893	1900	1907	1914	1921
1893	1900	1907	1914	1921	1928
1900	1907	1914	1921	1928	1935
1907	1914	1921	1928	1935	1942
1914	1921	1928	1935	1942	1949
1921	1928	1935	1942	1949	1956
1928	1935	1942	1949	1956	1963
1935	1942	1949	1956	1963	1970
1942	1949	1956	1963	1970	1977
1949	1956	1963	1970	1977	1984
1956	1963	1970	1977	1984	1991
1963	1970	1977	1984	1991	1998
1970	1977	1984	1991	1998	2005
1977	1984	1991	1998	2005	2012
1984	1991	1998	2005	2012	2019
1991	1998	2005	2012	2019	2026
1998	2005	2012	2019	2026	2033
2005	2012	2019	2026	2033	2040
2012	2019	2026	2033	2040	2047
2019	2026	2033	2040	2047	2054
2026	2033	2040	2047	2054	2061
2033	2040	2047	2054	2061	2068
2040	2047	2054	2061	2068	2075
2047	2054	2061	2068	2075	2082
2054	2061	2068	2075	2082	2089
2061	2068	2075	2082	2089	2096
2068	2075	2082	2089	2096	2103
2075	2082	2089	2096	2103	2110
2082	2089	2096	2103	2110	2117
2089	2096	2103	2110	2117	2124
2096	2103	2110	2117	2124	2131
2103	2110	2117	2124	2131	2138
2110	2117	2124	2131	2138	2145
2117	2124	2131	2138	2145	2152
2124	2131	2138	2145	2152	2159
2131	2138	2145	2152	2159	2166
2138	2145	2152	2159	2166	2173
2145	2152	2159	2166	2173	2180
2152	2159	2166	2173	2180	2187
2159	2166	2173	2180	2187	2194
2166	2173	2180	2187	2194	2201
2173	2180	2187	2194	2201	2208
2180	2187	2194	2201	2208	2215
2187	2194	2201	2208	2215	2222
2194	2201	2208	2215	2222	2229
2201	2208	2215	2222	2229	2236
2208	2215	2222	2229	2236	2243
2215	2222	2229	2236	2243	2250
2222	2229	2236	2243	2250	2257
2229	2236	2243	2250	2257	2264
2236	2243	2250	2257	2264	2271
2243	2250	2257	2264	2271	2278
2250	2257	2264	2271	2278	2285
2257	2264	2271	2278	2285	2292
2264	2271	2278	2285	2292	2299
2271	2278	2285	2292	2299	2306
2278	2285	2292	2299	2306	2313
2285	2292	2299	2306	2313	2320
2292	2299	2306	2313	2320	2327
2299	2306	2313	2320	2327	2334
2					

Table B10A-1.13. MFA-1 Sodium Subchannel Temperatures
at Elevation of Upper Axial Blanket for BOC 10A-1

TEMPERATURE MAP FOR BUNDLE 43 ASSEMBLY NO. 1506 MFA-1													
AXIAL HEIGHT 50.508 IN 50A													
931	914	917	918	918	918	918	918	918	918	918	918	918	918
942	948	952	954	954	954	954	952	952	952	952	952	952	941
978	985	989	989	987	986	985	987	986	985	987	986	985	987
1020	1034	1046	1041	1046	1037	1024	1024	1024	1024	1024	1024	1024	1024
1051	1087	1098	1100	1101	1106	1092	1061	1061	1061	1061	1061	1061	1061
931	936	982	1034	1087	1137	1113	1114	1111	1097	1049	1039	987	911
1064	1107	1137	1147	1153	1159	1159	1159	1159	1159	1159	1159	1159	1159
932	959	986	1040	1099	1123	1131	1133	1135	1135	1131	1109	1055	914
1066	1117	1132	1137	1140	1141	1142	1140	1135	1081	1081	1081	1081	1081
933	961	989	1043	1103	1129	1138	1141	1143	1144	1145	1146	1146	1146
1068	1117	1132	1142	1147	1148	1148	1147	1147	1147	1147	1147	1147	1147
933	963	992	1045	1105	1132	1141	1145	1147	1151	1151	1151	1151	1151
1069	1118	1133	1143	1148	1150	1152	1154	1155	1153	1137	1087	1087	1087
934	964	993	1046	1106	1134	1144	1148	1150	1152	1153	1151	1125	1062
1071	1119	1134	1144	1149	1151	1153	1155	1156	1156	1156	1156	1156	1156
934	964	994	1047	1107	1135	1145	1149	1151	1153	1153	1153	1153	1153
1072	1120	1135	1145	1150	1152	1154	1155	1155	1155	1155	1155	1155	1155
935	965	995	1048	1108	1136	1146	1150	1152	1154	1154	1154	1154	1154
1073	1121	1136	1146	1151	1153	1155	1156	1156	1156	1156	1156	1156	1156
936	966	996	1049	1109	1137	1147	1151	1153	1153	1153	1153	1153	1153
1074	1122	1137	1147	1152	1154	1156	1157	1157	1157	1157	1157	1157	1157
937	967	997	1050	1110	1138	1148	1152	1154	1154	1154	1154	1154	1154
1075	1123	1138	1148	1153	1155	1157	1158	1158	1158	1158	1158	1158	1158
938	968	998	1051	1111	1139	1149	1153	1155	1155	1155	1155	1155	1155
1076	1124	1139	1149	1154	1156	1158	1159	1159	1159	1159	1159	1159	1159
939	969	999	1052	1112	1140	1150	1154	1156	1156	1156	1156	1156	1156
1077	1125	1140	1150	1155	1157	1159	1160	1160	1160	1160	1160	1160	1160
940	970	1000	1053	1113	1141	1151	1155	1157	1157	1157	1157	1157	1157
1078	1126	1141	1151	1156	1158	1160	1161	1161	1161	1161	1161	1161	1161
941	971	1001	1054	1114	1142	1152	1156	1158	1158	1158	1158	1158	1158
1079	1127	1142	1152	1157	1159	1161	1162	1162	1162	1162	1162	1162	1162
942	972	1002	1055	1115	1143	1153	1157	1159	1159	1159	1159	1159	1159
1080	1128	1143	1153	1158	1160	1162	1163	1163	1163	1163	1163	1163	1163
943	973	1003	1056	1116	1144	1154	1158	1160	1160	1160	1160	1160	1160
1081	1129	1144	1154	1159	1161	1163	1164	1164	1164	1164	1164	1164	1164
944	974	1004	1057	1117	1145	1155	1159	1161	1161	1161	1161	1161	1161
1082	1130	1145	1155	1160	1162	1164	1165	1165	1165	1165	1165	1165	1165
945	975	1005	1058	1118	1146	1156	1160	1162	1162	1162	1162	1162	1162
1083	1131	1146	1156	1161	1163	1165	1166	1166	1166	1166	1166	1166	1166
946	976	1006	1059	1119	1147	1157	1161	1163	1163	1163	1163	1163	1163
1084	1132	1147	1157	1162	1164	1166	1167	1167	1167	1167	1167	1167	1167
947	977	1007	1060	1120	1148	1158	1162	1164	1164	1164	1164	1164	1164
1085	1133	1148	1158	1163	1165	1167	1168	1168	1168	1168	1168	1168	1168
948	978	1008	1061	1121	1149	1159	1163	1165	1165	1165	1165	1165	1165
1086	1134	1149	1159	1164	1166	1168	1169	1169	1169	1169	1169	1169	1169
949	979	1009	1062	1122	1150	1160	1164	1166	1166	1166	1166	1166	1166
1087	1135	1150	1160	1165	1167	1169	1170	1170	1170	1170	1170	1170	1170
950	980	1010	1063	1123	1151	1161	1165	1167	1167	1167	1167	1167	1167
1088	1136	1151	1161	1166	1168	1170	1171	1171	1171	1171	1171	1171	1171
951	981	1011	1064	1124	1152	1162	1166	1168	1168	1168	1168	1168	1168
1089	1137	1152	1162	1167	1169	1171	1172	1172	1172	1172	1172	1172	1172
952	982	1012	1065	1125	1153	1163	1167	1169	1169	1169	1169	1169	1169
1090	1138	1153	1163	1168	1170	1172	1173	1173	1173	1173	1173	1173	1173
953	983	1013	1066	1126	1154	1164	1168	1170	1170	1170	1170	1170	1170
1091	1139	1154	1164	1169	1171	1173	1174	1174	1174	1174	1174	1174	1174
954	984	1014	1067	1127	1155	1165	1169	1171	1171	1171	1171	1171	1171
1092	1140	1155	1165	1170	1172	1174	1175	1175	1175	1175	1175	1175	1175
955	985	1015	1068	1128	1156	1166	1170	1172	1172	1172	1172	1172	1172
1093	1141	1156	1166	1171	1173	1175	1176	1176	1176	1176	1176	1176	1176
956	986	1016	1069	1129	1157	1167	1171	1173	1173	1173	1173	1173	1173
1094	1142	1157	1167	1172	1174	1176	1177	1177	1177	1177	1177	1177	1177
957	987	1017	1070	1130	1158	1168	1172	1174	1174	1174	1174	1174	1174
1095	1143	1158	1168	1173	1175	1177	1178	1178	1178	1178	1178	1178	1178
958	988	1018	1071	1131	1159	1169	1173	1175	1175	1175	1175	1175	1175
1096	1144	1159	1169	1174	1176	1178	1179	1179	1179	1179	1179	1179	1179
959	989	1019	1072	1132	1160	1170	1174	1176	1176	1176	1176	1176	1176
1097	1145	1160	1170	1175	1177	1179	1180	1180	1180	1180	1180	1180	1180
960	990	1020	1073	1133	1161	1171	1175	1177	1177	1177	1177	1177	1177
1098	1146	1161	1171	1176	1178	1180	1181	1181	1181	1181	1181	1181	1181
961	991	1021	1074	1134	1162	1172	1176	1178	1178	1178	1178	1178	1178
1099	1147	1162	1172	1177	1179	1181	1182	1182	1182	1182	1182	1182	1182
962	992	1022	1075	1135	1163	1173	1177	1179	1179	1179	1179	1179	1179
1100	1148	1163	1173	1178	1180	1182	1183	1183	1183	1183	1183	1183	1183
963	993	1023	1076	1136	1164	1174	1178	1180	1180	1180	1180	1180	1180
1101	1149	1164	1174	1179	1181	1183	1184	1184	1184	1184	1184	1184	1184
964	994	1024	1077	1137	1165	1175	1179	1181	1181	1181	1181	1181	1181
1102	1150	1165	1175	1180	1182	1184	1185	1185	1185	1185	1185	1185	1185
965	995	1025	1078	1138	1166	1176	1180	1182	1182	1182	1182	1182	1182
1103	1151	1166	1176	1181	1183	1185	1186	1186	1186	1186	1186	1186	1186
966	996	1026	1079	1139	1167	1177	1181	1183	1183	1183	1183	1183	1183
1104	1152	1167	1177	1182	1184	1186	1187	1187	1187	1187	1187	1187	1187
967	997	1027	1080	1140	1168	1178	1182	1184	1184	1184	1184	1184	1184
1105	1153	1168	1178	1183	1185	1187	1188	1188	1188	1188	1188	1188	1188
968	998	1028	1081	1141	1169	1179	1183	1185	1185	1185	1185	1185	1185
1106	1154	1169	1179	1184	1186	1188	1189	1189	1189	1189	1189	1189	1189
969	999	1029	1082	1142	1170	1180	1184	1186	1186	1186	1186	1186	1186
1107	1155	1170	1180	1185	1187	1189	1190	1190	1190	1190	1190	1190	1190
970	1000	1030	1083	1143	1171	1181	1185	1187	1187	1187	1187	1187	1187
1108	1156	1171	1181	1186	1188	1190	1191	1191	1191	1191	1191	1191	1191
971	1001	1031	1084	1144	1172	1182	1186	1188	1188	1188	1188	1188	1188
1109	1157	1172	1182	1187									

Table B10A-1.15. MFA-1 Sodium Subchannel Temperatures
at Top of Fuel Pin Bundle for BOC 10A-1

TEMPERATURE MAP FOR BUNDLE A3	ASSEMBLY NO. 1506	MFA-1
AXIAL HEIGHT 92-000 IN	925 928 941 942 944 945 946	919
947	949 974 977 979 980 981 981	969
948	1007 1012 1015 1017 1017 1016 1016 1016	
949	1023 1033 1038 1040 1039 1036 1036 1031	
950	1007 1022 1028 1047 1051 1052 1045 1044	1034 1024 • 977 929
951	1036 1057 1069 1076 1072 1064 1064 1069	
952	1008 1030 1057 1074 1064 1087 1066 1079 1064 1046 1028	• 981 533
953	1045 1074 1093 1103 1106 1108 1099 1084 1060	
954	1011 1035 1069 1093 1107 1113 1114 1111 1101 1041 1053 1031	• 964 936
955	1015 1039 1075 1103 1121 1129 1132 1137 1127 1114 1090 1057 1032	• 964 939
956	1052 1088 1124 1130 1137 1140 1143 1137 1126 1105 1059	
957	1051 1086 1117 1134 1143 1147 1159 1159 1144 1131 1105 1069	
958	1016 1037 1075 1108 1130 1142 1148 1151 1152 1150 1142 1124 1093 1055 1031	• 987 932
959	1063 1081 1114 1125 1126 1151 1154 1155 1155 1148 1131 1101 1063	
960	1014 1028 1064 1101 1128 1143 1150 1154 1157 1157 1154 1143 1120 1085 1049 1051	• 968 943
961	1024 1054 1102 1130 1145 1153 1157 1160 1160 1157 1146 1122 1087 1052 1036	• 982 925
962	1043 1083 1117 1139 1151 1157 1160 1161 1160 1153 1146 1105 1068	
963	1011 1016 1075 1115 1139 1152 1158 1162 1163 1161 1153 1133 1101 1063 1041	• 955 949
964	1023 1095 1127 1146 1156 1161 1163 1163 1156 1143 1116 1072	
965	1024 1087 1129 1144 1155 1164 1165 1163 1156 1138 1108 1083 1041	• 987 950
966	1059 1101 1131 1149 1158 1162 1163 1159 1146 1120 1082	
967	1017 1047 1091 1124 1144 1154 1158 1153 1153 1137 1109 1069 1040	• 956 922
968	1063 1103 1131 1146 1153 1156 1153 1142 1119 1062	
969	1020 1049 1090 1118 1125 1143 1145 1142 1130 1104 1067 1038	• 945 927
970	1063 1098 1120 1132 1137 1137 1130 1111 1074	
971	1021 1048 1080 1101 1113 1118 1118 1111 1058 1062 1035	• 944 925
972	1056 1081 1056 1104 1107 1104 1082 1070	
973	1020 1039 1058 1069 1076 1080 1079 1071 1062 1033	• 943 952
974	1039 1050 1068 1065 1063 1051	
975	1016 1018 1022 1027 1031 1035 1037 1037 1033	
976	977 • 987 930 933 936 999 1000 999	929
977	955 987 959 961 962 962 961	945

BEST AVAILABLE COPY

Table B10A-1.16. MFA-2 Sodium Subchannel Temperatures
at Top of Fuel Pin Bundle for BOC 10A-1

TEMPERATURE MAP FOR BUNDLE #2		ASSEMBLY NO. 2507		MFA-2	
AXIAL HEIGHT		22.000 IN			
928	915	913	914	915	916
962	951	966	967	968	969
975	958	982	983	984	985
945	931	948	949	950	951
975	966	976	977	978	979
982	963	983	984	985	986
983	964	984	985	986	987
984	965	985	986	987	988
985	966	986	987	988	989
986	967	987	988	989	990
987	968	988	989	990	991
988	969	989	990	991	992
989	970	990	991	992	993
990	971	991	992	993	994
991	972	992	993	994	995
992	973	993	994	995	996
993	974	994	995	996	997
994	975	995	996	997	998
995	976	996	997	998	999
996	977	997	998	999	1000
997	978	998	999	1000	1001
998	979	999	1000	1001	1002
999	980	1000	1001	1002	1003
1000	981	1001	1002	1003	1004
1001	982	1002	1003	1004	1005
1002	983	1003	1004	1005	1006
1003	984	1004	1005	1006	1007
1004	985	1005	1006	1007	1008
1005	986	1006	1007	1008	1009
1006	987	1007	1008	1009	1010
1007	988	1008	1009	1010	1011
1008	989	1009	1010	1011	1012
1009	990	1010	1011	1012	1013
1010	991	1011	1012	1013	1014
1011	992	1012	1013	1014	1015
1012	993	1013	1014	1015	1016
1013	994	1014	1015	1016	1017
1014	995	1015	1016	1017	1018
1015	996	1016	1017	1018	1019
1016	997	1017	1018	1019	1020
1017	998	1018	1019	1020	1021
1018	999	1019	1020	1021	1022
1019	1000	1020	1021	1022	1023
1020	1001	1021	1022	1023	1024
1021	1002	1022	1023	1024	1025
1022	1003	1023	1024	1025	1026
1023	1004	1024	1025	1026	1027
1024	1005	1025	1026	1027	1028
1025	1006	1026	1027	1028	1029
1026	1007	1027	1028	1029	1030
1027	1008	1028	1029	1030	1031
1028	1009	1029	1030	1031	1032
1029	1010	1030	1031	1032	1033
1030	1011	1031	1032	1033	1034
1031	1012	1032	1033	1034	1035
1032	1013	1033	1034	1035	1036
1033	1014	1034	1035	1036	1037
1034	1015	1035	1036	1037	1038
1035	1016	1036	1037	1038	1039
1036	1017	1037	1038	1039	1040
1037	1018	1038	1039	1040	1041
1038	1019	1039	1040	1041	1042
1039	1020	1040	1041	1042	1043
1040	1021	1041	1042	1043	1044
1041	1022	1042	1043	1044	1045
1042	1023	1043	1044	1045	1046
1043	1024	1044	1045	1046	1047
1044	1025	1045	1046	1047	1048
1045	1026	1046	1047	1048	1049
1046	1027	1047	1048	1049	1050
1047	1028	1048	1049	1050	1051
1048	1029	1049	1050	1051	1052
1049	1030	1050	1051	1052	1053
1050	1031	1051	1052	1053	1054
1051	1032	1052	1053	1054	1055
1052	1033	1053	1054	1055	1056
1053	1034	1054	1055	1056	1057
1054	1035	1055	1056	1057	1058
1055	1036	1056	1057	1058	1059
1056	1037	1057	1058	1059	1060
1057	1038	1058	1059	1060	1061
1058	1039	1059	1060	1061	1062
1059	1040	1060	1061	1062	1063
1060	1041	1061	1062	1063	1064
1061	1042	1062	1063	1064	1065
1062	1043	1063	1064	1065	1066
1063	1044	1064	1065	1066	1067
1064	1045	1065	1066	1067	1068
1065	1046	1066	1067	1068	1069
1066	1047	1067	1068	1069	1070
1067	1048	1068	1069	1070	1071
1068	1049	1069	1070	1071	1072
1069	1050	1070	1071	1072	1073
1070	1051	1071	1072	1073	1074
1071	1052	1072	1073	1074	1075
1072	1053	1073	1074	1075	1076
1073	1054	1074	1075	1076	1077
1074	1055	1075	1076	1077	1078
1075	1056	1076	1077	1078	1079
1076	1057	1077	1078	1079	1080
1077	1058	1078	1079	1080	1081
1078	1059	1079	1080	1081	1082
1079	1060	1080	1081	1082	1083
1080	1061	1081	1082	1083	1084
1081	1062	1082	1083	1084	1085
1082	1063	1083	1084	1085	1086
1083	1064	1084	1085	1086	1087
1084	1065	1085	1086	1087	1088
1085	1066	1086	1087	1088	1089
1086	1067	1087	1088	1089	1090
1087	1068	1088	1089	1090	1091
1088	1069	1089	1090	1091	1092
1089	1070	1090	1091	1092	1093
1090	1071	1091	1092	1093	1094
1091	1072	1092	1093	1094	1095
1092	1073	1093	1094	1095	1096
1093	1074	1094	1095	1096	1097
1094	1075	1095	1096	1097	1098
1095	1076	1096	1097	1098	1099
1096	1077	1097	1098	1099	1100
1097	1078	1098	1099	1100	1101
1098	1079	1099	1100	1101	1102
1099	1080	1100	1101	1102	1103
1100	1081	1101	1102	1103	1104
1101	1082	1102	1103	1104	1105
1102	1083	1103	1104	1105	1106
1103	1084	1104	1105	1106	1107
1104	1085	1105	1106	1107	1108
1105	1086	1106	1107	1108	1109
1106	1087	1107	1108	1109	1110
1107	1088	1108	1109	1110	1111
1108	1089	1109	1110	1111	1112
1109	1090	1110	1111	1112	1113
1110	1091	1111	1112	1113	1114
1111	1092	1112	1113	1114	1115
1112	1093	1113	1114	1115	1116
1113	1094	1114	1115	1116	1117
1114	1095	1115	1116	1117	1118
1115	1096	1116	1117	1118	1119
1116	1097	1117	1118	1119	1120
1117	1098	1118	1119	1120	1121
1118	1099	1119	1120	1121	1122
1119	1100	1120	1121	1122	1123
1120	1101	1121	1122	1123	1124
1121	1102	1122	1123	1124	1125
1122	1103	1123	1124	1125	1126
1123	1104	1124	1125	1126	1127
1124	1105	1125	1126	1127	1128
1125	1106	1126	1127	1128	1129
1126	1107	1127	1128	1129	1130
1127	1108	1128	1129	1130	1131
1128	1109	1129	1130	1131	1132
1129	1110	1130	1131	1132	1133
1130	1111	1131	1132	1133	1134
1131	1112	1132	1133	1134	1135
1132	1113	1133	1134	1135	1136
1133	1114	1134	1135	1136	1137
1134	1115	1135	1136	1137	1138
1135	1116	1136	1137	1138	1139
1136	1117	1137	1138	1139	1140
1137	1118	1138	1139	1140	1141
1138	1119	1139	1140	1141	1142
1139	1120	1140	1141	1142	1143
1140	1121	1141	1142	1143	1144
1141	1122	1142	1143	1144	1145
1142	1123	1143	1144	1145	1146
1143	1124	1144	1145	1146	1147
1144	1125	1145	1146	1147	1148
1145	1126	1146	1147	1148	1149
1146	1127	1147	1148	1149	1150
1147	1128	1148	1149	1150	1151
1148	1129	1149	1150	1151	1152
1149	1130	1150	1151	1152	1153
1150	1131	1151	1152	1153	1154
1151	1132	1152	1153	1154	1155
1152	1133	1153	1154	1155	1156
1153	1134	1154	1155	1156	1157
1154	1135	1155	1156	1157	1158
1155	1136	1156	1157	1158	1159
1156	1137	1157	1158	1159	1160
1157	1138	1158	1159	1160	1161
1158	1139	1159	1160	1161	1162
1159	1140	1160	1161	1162	1163
1160	1141	1161	1162	1163	1164
1161	1142	1162	1163	1164	1165
1162	1143	1163	1164	1165	1166
1163	1144	1164	1165	1166	1167
1164	1145	1165	1166	1167	1168
1165	1146	1166	1167	1168	1169
1166	1147	1167	1168	1169	1170
1167	1148	1168	1169	1170	1171
1168	1149	1169	1170	1171	1172
1169	1150	1170	1171	1172	1173
1170	1151	1171	1172	1173	1174
1171	1152	1172	1173	1174	1175
1172	1153	1173	1174	1175	1176
1173	1154	1174	1175	1176	1177
1174	1155	1175	1176	1177	1178
1175	1156	1176	1177	1178	1179
1176	1157	1177	1178	1179	1180
1177	1158	1178	1179	1180	1181
1178	1159	1179	1180	1181	1182
1179	1160	1180	1181	1182	1183
1180					

Table E10A-1.1. Fission Power Generated in MFA-1, MFA-2 and Neighboring Assemblies at EOC 10A-1

CORE POS.	* * * * *	POWER IN MEGAWATTS		* * * * *
	BELOW CORE	IN CORE	ABOVE CORE	TOTAL PWR
1506	2.758E-02	4.106E+00	2.092E-02	4.154E+00
1404	8.078E-02	4.846E+00	4.798E-02	4.975E+00
1405	9.261E-03	4.037E+00	7.469E-03	4.054E+00
1505	1.121E-02	3.795E+00	7.296E-03	3.814E+00
1507	9.750E-03	3.510E+00	7.821E-03	3.528E+00
1606	6.117E-03	3.692E+00	4.921E-03	3.703E+00
1607	9.165E-03	3.063E+00	7.099E-03	3.079E+00
2507	2.522E-02	3.880E+00	1.995E-02	3.925E+00
2405	6.120E-02	4.089E+00	3.771E-02	4.188E+00
2506	1.013E-02	3.614E+00	7.616E-03	3.631E+00
2508	9.791E-03	4.299E+00	7.682E-03	4.317E+00
2607	6.923E-03	3.335E+00	5.509E-03	3.348E+00
2608	1.574E-02	3.135E+00	1.288E-02	3.163E+00
2609	8.413E-02	2.972E+00	4.964E-02	3.106E+00

Table E10A-1.2. Assembly Averaged Total Flux for MFA-1 and MFA-2 at EOC 10A-1

Assembly	Core Pos.	Total Flux (n/cm ² -sec)
MFA-1	1506	3.013E+15
MFA-2	2507	2.840E+15

Table E10A-1.3. Axial Distribution of Total Flux, Fast Flux and Power in MFA-1 at EOC 10A-1

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.5837E-02	1.3075E-02	0.0000E+00
-92.78	5.5558E-02	2.5263E-02	0.0000E+00
-87.78	8.9146E-02	4.0461E-02	0.0000E+00
-82.78	1.2917E-01	6.0424E-02	0.0000E+00
-77.78	1.7822E-01	8.7325E-02	0.0000E+00
-72.15	2.3384E-01	1.2218E-01	0.0000E+00
-65.90	2.8951E-01	1.6617E-01	0.0000E+00
-60.35	3.4874E-01	2.2560E-01	2.3875E-02
-55.49	4.2772E-01	3.0667E-01	3.2031E-02
-50.62	5.2060E-01	4.1369E-01	4.5485E-02
-47.17	5.9628E-01	5.1612E-01	6.1785E-02
-43.58	6.7629E-01	6.3292E-01	7.1450E-01
-38.45	7.9201E-01	7.7461E-01	8.0485E-01
-33.32	9.0008E-01	8.9622E-01	9.0491E-01
-28.20	9.9561E-01	9.9876E-01	9.9138E-01
-23.07	1.0766E+00	1.0835E+00	1.0704E+00
-17.94	1.1414E+00	1.1503E+00	1.1339E+00
-12.82	1.1891E+00	1.1987E+00	1.1773E+00
-7.69	1.2194E+00	1.2295E+00	1.2070E+00
-2.56	1.2319E+00	1.2423E+00	1.2193E+00
2.56	1.2264E+00	1.2370E+00	1.2148E+00
7.69	1.2026E+00	1.2134E+00	1.1913E+00
12.82	1.1608E+00	1.1717E+00	1.1501E+00
17.94	1.1015E+00	1.1121E+00	1.0966E+00
23.07	1.0249E+00	1.0341E+00	1.0209E+00
28.20	9.3261E-01	9.3866E-01	9.2994E-01
33.32	8.2702E-01	8.2732E-01	8.3248E-01
38.45	7.1124E-01	7.0030E-01	7.2195E-01
43.58	5.9066E-01	5.5866E-01	6.1844E-01
47.17	5.0845E-01	4.4762E-01	5.1239E-02
50.62	4.3082E-01	3.5033E-01	3.6074E-02
55.49	3.3565E-01	2.4883E-01	2.3419E-02
60.35	2.5367E-01	1.7175E-01	1.5577E-02
64.98	2.0357E-01	1.2806E-01	0.0000E+00
69.39	1.7450E-01	1.0524E-01	0.0000E+00
76.46	1.3306E-01	7.4740E-02	0.0000E+00
86.80	8.7042E-02	4.5095E-02	0.0000E+00
98.14	5.0290E-02	2.4643E-02	0.0000E+00
110.00	2.1534E-02	1.1037E-02	0.0000E+00

Table E10A-1.4. Axial Distribution of Total Flux, Fast Flux and Power in MFA-2 at EOC 10A-1

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.5014E-02	1.2714E-02	0.0000E+00
-92.78	5.3755E-02	2.4520E-02	0.0000E+00
-87.78	8.6170E-02	3.9187E-02	0.0000E+00
-82.78	1.2475E-01	5.8402E-02	0.0000E+00
-77.78	1.7203E-01	8.4284E-02	0.0000E+00
-72.15	2.2570E-01	1.1791E-01	0.0000E+00
-65.90	2.8013E-01	1.6097E-01	0.0000E+00
-60.35	3.3871E-01	2.1998E-01	2.2643E-02
-55.49	4.1782E-01	3.0072E-01	3.0807E-02
-50.62	5.1230E-01	4.0778E-01	4.4321E-02
-47.17	5.8983E-01	5.1029E-01	6.0658E-02
-43.58	6.7155E-01	6.2756E-01	7.0665E-01
-38.45	7.8864E-01	7.7056E-01	8.0111E-01
-33.32	8.9759E-01	8.9354E-01	9.0244E-01
-28.20	9.9383E-01	9.9728E-01	9.8976E-01
-23.07	1.0756E+00	1.0832E+00	1.0694E+00
-17.94	1.1414E+00	1.1511E+00	1.1340E+00
-12.82	1.1900E+00	1.2005E+00	1.1786E+00
-7.69	1.2208E+00	1.2317E+00	1.2088E+00
-2.56	1.2332E+00	1.2444E+00	1.2210E+00
2.56	1.2271E+00	1.2386E+00	1.2158E+00
7.69	1.2027E+00	1.2143E+00	1.1916E+00
12.82	1.1604E+00	1.1718E+00	1.1500E+00
17.94	1.1010E+00	1.1119E+00	1.0962E+00
23.07	1.0249E+00	1.0339E+00	1.0211E+00
28.20	9.3348E-01	9.3904E-01	9.3126E-01
33.32	8.2917E-01	8.2842E-01	8.3497E-01
38.45	7.1444E-01	7.0185E-01	7.2553E-01
43.58	5.9443E-01	5.6016E-01	6.2175E-01
47.17	5.1195E-01	4.4868E-01	5.1566E-02
50.62	4.3397E-01	3.5131E-01	3.6332E-02
55.49	3.3891E-01	2.4986E-01	2.3653E-02
60.35	2.5801E-01	1.7319E-01	1.5841E-02
64.98	2.0899E-01	1.2963E-01	0.0000E+00
69.39	1.7972E-01	1.0657E-01	0.0000E+00
76.46	1.3742E-01	7.5673E-02	0.0000E+00
86.80	9.0081E-02	4.5673E-02	0.0000E+00
98.14	5.2051E-02	2.4941E-02	0.0000E+00
110.00	2.2096E-02	1.1084E-02	0.0000E+00

Table E10A-1.5. Fission Power Distribution by Pin in MFA-1 at EOC 10A-1

	0.907	0.912	0.916	0.920	0.923	0.926	0.929	0.932	
	0.918	0.922	0.927	0.931	0.935	0.938	0.941	0.944	0.946
	0.928	0.933	0.938	0.942	0.946	0.950	0.953	0.956	0.959
	0.938	0.943	0.948	0.952	0.957	0.961	0.964	0.967	0.970
	0.947	0.952	0.957	0.962	0.967	0.971	0.975	0.978	0.981
	0.956	0.961	0.967	0.972	0.976	0.981	0.985	0.988	0.992
	0.964	0.969	0.975	0.980	0.985	0.990	0.994	0.998	1.001
0.971	0.977	0.983	0.988	0.993	0.998	1.002	1.006	1.010	1.014
	0.984	0.990	0.995	1.000	1.005	1.010	1.014	1.018	1.022
	0.996	1.002	1.007	1.012	1.017	1.021	1.025	1.029	1.033
	1.008	1.013	1.018	1.023	1.027	1.032	1.036	1.040	1.044
	1.019	1.024	1.028	1.033	1.037	1.042	1.046	1.050	1.054
	1.028	1.033	1.038	1.042	1.047	1.051	1.056	1.060	1.064
	1.038	1.042	1.047	1.051	1.056	1.060	1.065	1.069	1.074
	1.046	1.050	1.055	1.059	1.064	1.069	1.073	1.078	

Table E10A-1.9. MFA-1 and MFA-2 Duct Wall Flux
Greater Than 0.1 MeV at EOC 10A-1

SIDE	FLUX > 0.1 MEV (n/cm ² -sec)	
	MFA-1	MFA-2
E	1.9763E+15	1.9693E+15
SE	1.7725E+15	2.0264E+15
SW	1.7004E+15	1.8524E+15
W	1.8632E+15	1.6275E+15
NW	2.0730E+15	1.5572E+15
NE	2.1323E+15	1.7056E+15

Table E10A-1.10. Assembly Outlet Temperatures and
Flow Rates at EOC 10A-1

CORE POS.	CALCULATED	
	OUTLET TEMP. (DEG F)	FLOW RATE (LB/H)
1506	1077	116330
1404	922	228160
1405	894	210640
1505	884	210640
1507	868	210640
1606	918	172740
1607	880	172740
2507	1038	116330
2405	907	194730
2506	872	200300
2508	895	210640
2607	890	165660
2608	1038	89760
2609	875	175430

Table E10A-1.17. Composition of MFA-1 at EOC 10A-1

Axial Level	Axial Range (cm)		Constituent	Atom Density (a/b-cm)	
	Lower	Upper		Fresh	End of Cycle
1	-100.28	-75.28	Na-23	5.3150E-03	5.3150E-03
			SS-316	6.4090E-02	6.4090E-02
2	-75.28	-62.78	Na-23	1.3177E-02	1.3177E-02
			SS-316	3.4175E-02	3.4175E-02
3	-62.78	-46.14	U-235	1.4143E-05	1.3640E-05
			U-238	7.0573E-03	7.0320E-03
			Pu-239	0.0000E+00	2.3413E-05
			Pu-240	0.0000E+00	1.1763E-07
			FP	0.0000E+00	2.0932E-06
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
4	-46.14	-30.76	U-235	1.0840E-05	1.0487E-05
			U-238	4.4499E-03	4.4303E-03
			Pu-239	1.7520E-03	1.7120E-03
			Pu-240	2.2340E-04	2.3125E-04
			Pu-241	1.9280E-05	1.9796E-05
			Pu-242	4.7430E-06	4.7827E-06
			Am-241	7.6680E-07	9.1173E-07
			FP	0.0000E+00	5.1188E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
5	-30.76	-15.38	U-235	1.0840E-05	1.0398E-05
			U-238	4.4499E-03	4.4249E-03
			Pu-239	1.7520E-03	1.7005E-03
			Pu-240	2.2340E-04	2.3212E-04
			Pu-241	1.9280E-05	1.9833E-05
			Pu-242	4.7430E-06	4.7827E-06
			Am-241	7.6680E-07	9.0669E-07
			FP	0.0000E+00	6.7347E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
6	-15.38	0.00	U-235	1.0840E-05	1.0348E-05
			U-238	4.4499E-03	4.4220E-03
			Pu-239	1.7520E-03	1.6946E-03
			Pu-240	2.2340E-04	2.3301E-04
			Pu-241	1.9280E-05	1.9909E-05
			Pu-242	4.7430E-06	4.7868E-06
			Am-241	7.6680E-07	9.0397E-07
			FP	0.0000E+00	7.5186E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02

7	0.00	15.38	U-235	1.0840E-05	1.0364E-05
			U-238	4.4499E-03	4.4230E-03
			Pu-239	1.7520E-03	1.6964E-03
			Pu-240	2.2340E-04	2.3268E-04
			Pu-241	1.9280E-05	1.9880E-05
			Pu-242	4.7430E-06	4.7852E-06
			Am-241	7.6680E-07	9.0486E-07
			FP	0.0000E+00	7.2720E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
8	15.38	30.76	U-235	1.0840E-05	1.0442E-05
			U-238	4.4499E-03	4.4274E-03
			Pu-239	1.7520E-03	1.7056E-03
			Pu-240	2.2340E-04	2.3120E-04
			Pu-241	1.9280E-05	1.9753E-05
			Pu-242	4.7430E-06	4.7780E-06
			Am-241	7.6680E-07	9.0909E-07
			FP	0.0000E+00	6.0716E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
9	30.76	46.14	U-235	1.0840E-05	1.0549E-05
			U-238	4.4499E-03	4.4338E-03
			Pu-239	1.7520E-03	1.7189E-03
			Pu-240	2.2340E-04	2.2970E-04
			Pu-241	1.9280E-05	1.9650E-05
			Pu-242	4.7430E-06	4.7738E-06
			Am-241	7.6680E-07	9.1509E-07
			FP	0.0000E+00	4.2496E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
10	46.14	62.78	U-235	1.4143E-05	1.3807E-05
			U-238	7.0573E-03	7.0399E-03
			Pu-239	0.0000E+00	1.6111E-05
			Pu-240	0.0000E+00	5.1836E-08
			FP	0.0000E+00	1.5227E-06
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
11	62.78	116.00	Na-23	8.2400E-03	8.2400E-03
			SS-316	2.5562E-02	2.5562E-02

Table E10A-1.18. Composition of MFA-2 at EOC 10A-1

Axial Level	Axial Range (cm)		Constituent	Atom Density (a/b-cm)	
	Lower	Upper		Fresh	End of Cycle
1	-100.28	-75.28	Na-23	5.3150E-03	5.3150E-03
			SS-316	6.4090E-02	6.4090E-02
2	-75.28	-62.78	Na-23	1.3177E-02	1.3177E-02
			SS-316	3.4175E-02	3.4175E-02
3	-62.78	-46.14	U-235	1.4143E-05	1.3696E-05
			U-238	7.0573E-03	7.0344E-03
			Pu-239	0.0000E+00	2.1249E-05
			Pu-240	0.0000E+00	9.3514E-08
			FP	0.0000E+00	1.9325E-06
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
4	-46.14	-30.76	U-235	1.0160E-05	9.8470E-06
			U-238	4.4270E-03	4.4086E-03
			Pu-239	1.7483E-03	1.7108E-03
			Pu-240	2.2290E-04	2.3041E-04
			Pu-241	1.9040E-05	1.9532E-05
			Pu-242	4.7330E-06	4.7699E-06
			Am-241	7.5700E-07	9.0125E-07
			FP	0.0000E+00	4.7929E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
5	-30.76	-15.38	U-235	1.0160E-05	9.7661E-06
			U-238	4.4270E-03	4.4033E-03
			Pu-239	1.7483E-03	1.6997E-03
			Pu-240	2.2290E-04	2.3132E-04
			Pu-241	1.9040E-05	1.9581E-05
			Pu-242	4.7330E-06	4.7704E-06
			Am-241	7.5700E-07	8.9642E-07
			FP	0.0000E+00	6.3395E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
6	-15.38	0.00	U-235	1.0160E-05	9.7206E-06
			U-238	4.4270E-03	4.4005E-03
			Pu-239	1.7483E-03	1.6940E-03
			Pu-240	2.2290E-04	2.3220E-04
			Pu-241	1.9040E-05	1.9659E-05
			Pu-242	4.7330E-06	4.7745E-06
			Am-241	7.5700E-07	8.9380E-07
			FP	0.0000E+00	7.0989E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02

7	0.00	15.38	U-235	1.0160E-05	9.7343E-06
			U-238	4.4270E-03	4.4014E-03
			Pu-239	1.7483E-03	1.6956E-03
			Pu-240	2.2290E-04	2.3190E-04
			Pu-241	1.9040E-05	1.9632E-05
			Pu-242	4.7330E-06	4.7730E-06
			Am-241	7.5700E-07	8.9458E-07
			FP	0.0000E+00	6.8798E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
8	15.38	30.76	U-235	1.0160E-05	9.8018E-06
			U-238	4.4270E-03	4.4055E-03
			Pu-239	1.7483E-03	1.7041E-03
			Pu-240	2.2290E-04	2.3053E-04
			Pu-241	1.9040E-05	1.9513E-05
			Pu-242	4.7330E-06	4.7666E-06
			Am-241	7.5700E-07	8.9845E-07
			FP	0.0000E+00	5.7703E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
9	30.76	46.14	U-235	1.0160E-05	9.8972E-06
			U-238	4.4270E-03	4.4115E-03
			Pu-239	1.7483E-03	1.7167E-03
			Pu-240	2.2290E-04	2.2909E-04
			Pu-241	1.9040E-05	1.9409E-05
			Pu-242	4.7330E-06	4.7626E-06
			Am-241	7.5700E-07	9.0406E-07
			FP	0.0000E+00	4.0541E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
10	46.14	62.78	U-235	1.4143E-05	1.3827E-05
			U-238	7.0573E-03	7.0406E-03
			Pu-239	0.0000E+00	1.5406E-05
			Pu-240	0.0000E+00	4.6476E-08
			FP	0.0000E+00	1.4617E-06
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
11	62.78	116.00	Na-23	8.2400E-03	8.2400E-03
			SS-316	2.5562E-02	2.5562E-02

Table B10A-2.1. Fission Power Generated in MFA-1, MFA-2 and Neighboring Assemblies at BOC 10A-2

CORE POS.	* * * * *	POWER IN MEGAWATTS		* * * * *
	BELOW CORE	IN CORE	ABOVE CORE	TOTAL PWR
1506	2.734E-02	3.888E+00	1.919E-02	3.935E+00
1404	8.085E-02	4.652E+00	4.446E-02	4.778E+00
1405	9.264E-03	3.890E+00	6.952E-03	3.906E+00
1505	1.106E-02	3.550E+00	6.539E-03	3.567E+00
1507	9.617E-03	3.291E+00	7.200E-03	3.308E+00
1606	6.006E-03	3.453E+00	4.422E-03	3.464E+00
1607	8.993E-03	2.851E+00	6.503E-03	2.867E+00
2507	2.827E-02	4.180E+00	2.107E-02	4.229E+00
2405	7.001E-02	4.460E+00	4.071E-02	4.571E+00
2506	1.122E-02	3.876E+00	7.938E-03	3.895E+00
2508	1.083E-02	4.596E+00	7.977E-03	4.615E+00
2607	7.671E-03	3.560E+00	5.748E-03	3.574E+00
2608	4.839E-03	3.421E+00	4.041E-03	3.430E+00
2609	9.386E-02	3.167E+00	5.186E-02	3.313E+00

Table B10A-2.2. Assembly Averaged Total Flux for MFA-1 and MFA-2 at BOC 10A-2

Assembly	Core Pos.	Total Flux (n/cm ² -sec)
MFA-1	1506	2.855E+15
MFA-2	2507	3.063E+15

Table B10A-2.3. Axial Distribution of Total Flux, Fast Flux and Power in MFA-1 at BOC 10A-2

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.7490E-02	1.3904E-02	0.0000E+00
-92.78	5.9094E-02	2.6852E-02	0.0000E+00
-87.78	9.4762E-02	4.2972E-02	0.0000E+00
-82.78	1.3719E-01	6.4106E-02	0.0000E+00
-77.78	1.8909E-01	9.2523E-02	0.0000E+00
-72.15	2.4780E-01	1.2927E-01	0.0000E+00
-65.90	3.0612E-01	1.7541E-01	0.0000E+00
-60.35	3.6758E-01	2.3738E-01	2.5138E-02
-55.49	4.4930E-01	3.2169E-01	3.3599E-02
-50.62	5.4496E-01	4.3254E-01	4.7534E-02
-47.17	6.2244E-01	5.3821E-01	6.4395E-02
-43.58	7.0413E-01	6.5858E-01	7.4425E-01
-38.45	8.2126E-01	8.0299E-01	8.3479E-01
-33.32	9.2956E-01	9.2555E-01	9.3464E-01
-28.20	1.0240E+00	1.0273E+00	1.0197E+00
-23.07	1.1025E+00	1.1098E+00	1.0962E+00
-17.94	1.1636E+00	1.1729E+00	1.1560E+00
-12.82	1.2063E+00	1.2163E+00	1.1944E+00
-7.69	1.2306E+00	1.2409E+00	1.2181E+00
-2.56	1.2360E+00	1.2466E+00	1.2233E+00
2.56	1.2227E+00	1.2335E+00	1.2111E+00
7.69	1.1909E+00	1.2018E+00	1.1796E+00
12.82	1.1415E+00	1.1523E+00	1.1307E+00
17.94	1.0758E+00	1.0864E+00	1.0707E+00
23.07	9.9519E-01	1.0044E+00	9.9089E-01
28.20	9.0174E-01	9.0781E-01	8.9891E-01
33.32	7.9785E-01	7.9824E-01	8.0306E-01
38.45	6.8590E-01	6.7530E-01	6.9632E-01
43.58	5.7029E-01	5.3923E-01	5.9727E-01
47.17	4.9155E-01	4.3247E-01	4.9498E-02
50.62	4.1725E-01	3.3897E-01	3.4897E-02
55.49	3.2587E-01	2.4130E-01	2.2711E-02
60.35	2.4701E-01	1.6701E-01	1.5153E-02
64.98	1.9879E-01	1.2488E-01	0.0000E+00
69.39	1.7069E-01	1.0281E-01	0.0000E+00
76.46	1.3050E-01	7.3220E-02	0.0000E+00
86.80	8.5638E-02	4.4335E-02	0.0000E+00
98.14	4.9635E-02	2.4314E-02	0.0000E+00
110.00	2.1333E-02	1.0931E-02	0.0000E+00

Table B10A-2.4. Axial Distribution of Total Flux, Fast Flux and Power in MFA-2 at BOC 10A-2

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.5287E-02	1.2895E-02	0.0000E+00
-92.78	5.4304E-02	2.4889E-02	0.0000E+00
-87.78	8.7078E-02	3.9832E-02	0.0000E+00
-82.78	1.2618E-01	5.9474E-02	0.0000E+00
-77.78	1.7434E-01	8.6027E-02	0.0000E+00
-72.15	2.2951E-01	1.2067E-01	0.0000E+00
-65.90	2.8617E-01	1.6524E-01	0.0000E+00
-60.35	3.4757E-01	2.2611E-01	2.3606E-02
-55.49	4.2917E-01	3.0902E-01	3.2126E-02
-50.62	5.2569E-01	4.1864E-01	4.6080E-02
-47.17	6.0460E-01	5.2362E-01	6.2868E-02
-43.58	6.8800E-01	6.4360E-01	7.2608E-01
-38.45	8.0749E-01	7.8929E-01	8.2053E-01
-33.32	9.1807E-01	9.1397E-01	9.2286E-01
-28.20	1.0148E+00	1.0182E+00	1.0104E+00
-23.07	1.0957E+00	1.1033E+00	1.0893E+00
-17.94	1.1595E+00	1.1691E+00	1.1518E+00
-12.82	1.2048E+00	1.2151E+00	1.1930E+00
-7.69	1.2311E+00	1.2418E+00	1.2188E+00
-2.56	1.2382E+00	1.2491E+00	1.2257E+00
2.56	1.2263E+00	1.2374E+00	1.2147E+00
7.69	1.1958E+00	1.2070E+00	1.1846E+00
12.82	1.1478E+00	1.1588E+00	1.1373E+00
17.94	1.0836E+00	1.0941E+00	1.0786E+00
23.07	1.0040E+00	1.0128E+00	1.0000E+00
28.20	9.1079E-01	9.1632E-01	9.0834E-01
33.32	8.0627E-01	8.0591E-01	8.1171E-01
38.45	6.9279E-01	6.8129E-01	7.0360E-01
43.58	5.7507E-01	5.4293E-01	6.0278E-01
47.17	4.9475E-01	4.3465E-01	5.0486E-02
50.62	4.1915E-01	3.4011E-01	3.5631E-02
55.49	3.2700E-01	2.4186E-01	2.3215E-02
60.35	2.4813E-01	1.6747E-01	1.5505E-02
64.98	1.9982E-01	1.2503E-01	0.0000E+00
69.39	1.7116E-01	1.0252E-01	0.0000E+00
76.46	1.3009E-01	7.2401E-02	0.0000E+00
86.80	8.4762E-02	4.3366E-02	0.0000E+00
98.14	4.8762E-02	2.3512E-02	0.0000E+00
110.00	2.0658E-02	1.0394E-02	0.0000E+00

Table B10A-2.6. Fission Power Distribution by Pin in MFA-2 at BOC 10A-2

```

      1.086  1.070  1.052  1.034  1.016  0.998  0.979  0.961

    1.093  1.076  1.059  1.042  1.024  1.006  0.988  0.969  0.951

    1.098  1.082  1.066  1.049  1.031  1.014  0.996  0.978  0.959  0.941

    1.103  1.087  1.071  1.055  1.038  1.020  1.003  0.985  0.967  0.949  0.930

    1.107  1.092  1.076  1.060  1.043  1.026  1.009  0.991  0.974  0.956  0.937  0.919

    1.110  1.095  1.080  1.064  1.048  1.031  1.014  0.997  0.979  0.962  0.944  0.926  0.908

    1.113  1.098  1.083  1.068  1.052  1.036  1.019  1.002  0.985  0.967  0.949  0.931  0.914  0.896

    1.115  1.101  1.086  1.071  1.055  1.039  1.023  1.006  0.989  0.972  0.954  0.936  0.919  0.901  0.883

    1.102  1.088  1.073  1.058  1.042  1.026  1.009  0.992  0.975  0.958  0.941  0.923  0.905  0.888

    1.089  1.074  1.059  1.044  1.028  1.012  0.995  0.979  0.961  0.944  0.927  0.909  0.892

    1.076  1.061  1.045  1.030  1.014  0.997  0.981  0.964  0.947  0.930  0.912  0.895

    1.061  1.046  1.031  1.015  0.999  0.983  0.966  0.949  0.932  0.915  0.898

    1.047  1.031  1.016  1.000  0.984  0.967  0.951  0.934  0.917  0.900

    1.031  1.016  1.000  0.984  0.968  0.951  0.935  0.918  0.901

    1.016  1.000  0.984  0.968  0.952  0.935  0.919  0.902

```

N

Table B10A-2.9. MFA-1 and MFA-2 Duct Wall Flux
Greater Than 0.1 MeV at BOC 10A-2

SIDE	FLUX > 0.1 MEV (n/cm ² -sec)	
	MFA-1	MFA-2
E	1.8656E+15	2.1390E+15
SE	1.6677E+15	2.2249E+15
SW	1.6006E+15	2.0170E+15
W	1.7613E+15	1.7603E+15
NW	1.9781E+15	1.6834E+15
NE	2.0318E+15	1.8419E+15

Table B10A-2.10. Assembly Outlet Temperatures and
Flow Rates at BOC 10A-2

CORE POS.	OUTLET TEMP. (DEG F)		FLOW RATE (LB/H)
	MEASURED	CALCULATED	
1506	1034	1039	114940
1404	917	911	225440
1405	891	887	208130
1505	883	867	208130
1507	873	855	208130
1606	902	898	170680
1607	871	864	170680
2507	1063	1065	114940
2405	949	938	192410
2506	902	894	197920
2508	932	922	208130
2607	926	911	163690
2608	903	900	170680
2609	898	895	173340

BEST AVAILABLE COPY

↓ N

[illegible]

BEST AVAILABLE COPY

Table B10A-2.13. MFA-1 Sodium Subchannel Temperatures
at Elevation of Upper Axial Blanket for BOC 10A-2

TEMPERATURE MAP FOR BUNDLE 43		ASSEMBLY NO. 1506		MFA-1	
AXIAL HEIGHT		50.162 IN		821	
901 923	942	978	1008	1016	1010
902 924	943	979	1009	1017	1011
903 925	944	980	1010	1018	1012
904 926	945	981	1011	1019	1013
905 927	946	982	1012	1020	1014
906 928	947	983	1013	1021	1015
907 929	948	984	1014	1022	1016
908 930	949	985	1015	1023	1017
909 931	950	986	1016	1024	1018
910 932	951	987	1017	1025	1019
911 933	952	988	1018	1026	1020
912 934	953	989	1019	1027	1021
913 935	954	990	1020	1028	1022
914 936	955	991	1021	1029	1023
915 937	956	992	1022	1030	1024
916 938	957	993	1023	1031	1025
917 939	958	994	1024	1032	1026
918 940	959	995	1025	1033	1027
919 941	960	996	1026	1034	1028
920 942	961	997	1027	1035	1029
921 943	962	998	1028	1036	1030
922 944	963	999	1029	1037	1031
923 945	964	1000	1030	1038	1032
924 946	965	1001	1031	1039	1033
925 947	966	1002	1032	1040	1034
926 948	967	1003	1033	1041	1035
927 949	968	1004	1034	1042	1036
928 950	969	1005	1035	1043	1037
929 951	970	1006	1036	1044	1038
930 952	971	1007	1037	1045	1039
931 953	972	1008	1038	1046	1040
932 954	973	1009	1039	1047	1041
933 955	974	1010	1040	1048	1042
934 956	975	1011	1041	1049	1043
935 957	976	1012	1042	1050	1044
936 958	977	1013	1043	1051	1045
937 959	978	1014	1044	1052	1046
938 960	979	1015	1045	1053	1047
939 961	980	1016	1046	1054	1048
940 962	981	1017	1047	1055	1049
941 963	982	1018	1048	1056	1050
942 964	983	1019	1049	1057	1051
943 965	984	1020	1050	1058	1052
944 966	985	1021	1051	1059	1053
945 967	986	1022	1052	1060	1054
946 968	987	1023	1053	1061	1055
947 969	988	1024	1054	1062	1056
948 970	989	1025	1055	1063	1057
949 971	990	1026	1056	1064	1058
950 972	991	1027	1057	1065	1059
951 973	992	1028	1058	1066	1060
952 974	993	1029	1059	1067	1061
953 975	994	1030	1060	1068	1062
954 976	995	1031	1061	1069	1063
955 977	996	1032	1062	1070	1064
956 978	997	1033	1063	1071	1065
957 979	998	1034	1064	1072	1066
958 980	999	1035	1065	1073	1067
959 981	1000	1036	1066	1074	1068
960 982	1001	1037	1067	1075	1069
961 983	1002	1038	1068	1076	1070
962 984	1003	1039	1069	1077	1071
963 985	1004	1040	1070	1078	1072
964 986	1005	1041	1071	1079	1073
965 987	1006	1042	1072	1080	1074
966 988	1007	1043	1073	1081	1075
967 989	1008	1044	1074	1082	1076
968 990	1009	1045	1075	1083	1077
969 991	1010	1046	1076	1084	1078
970 992	1011	1047	1077	1085	1079
971 993	1012	1048	1078	1086	1080
972 994	1013	1049	1079	1087	1081
973 995	1014	1050	1080	1088	1082
974 996	1015	1051	1081	1089	1083
975 997	1016	1052	1082	1090	1084
976 998	1017	1053	1083	1091	1085
977 999	1018	1054	1084	1092	1086
978 1000	1019	1055	1085	1093	1087
979 1001	1020	1056	1086	1094	1088
980 1002	1021	1057	1087	1095	1089
981 1003	1022	1058	1088	1096	1090
982 1004	1023	1059	1089	1097	1091
983 1005	1024	1060	1090	1098	1092
984 1006	1025	1061	1091	1099	1093
985 1007	1026	1062	1092	1100	1094
986 1008	1027	1063	1093	1101	1095
987 1009	1028	1064	1094	1102	1096
988 1010	1029	1065	1095	1103	1097
989 1011	1030	1066	1096	1104	1098
990 1012	1031	1067	1097	1105	1099
991 1013	1032	1068	1098	1106	1100
992 1014	1033	1069	1099	1107	1101
993 1015	1034	1070	1100	1108	1102
994 1016	1035	1071	1101	1109	1103
995 1017	1036	1072	1102	1110	1104
996 1018	1037	1073	1103	1111	1105
997 1019	1038	1074	1104	1112	1106
998 1020	1039	1075	1105	1113	1107
999 1021	1040	1076	1106	1114	1108
1000 1022	1041	1077	1107	1115	1109
1001 1023	1042	1078	1108	1116	1110
1002 1024	1043	1079	1109	1117	1111
1003 1025	1044	1080	1110	1118	1112
1004 1026	1045	1081	1111	1119	1113
1005 1027	1046	1082	1112	1120	1114
1006 1028	1047	1083	1113	1121	1115
1007 1029	1048	1084	1114	1122	1116
1008 1030	1049	1085	1115	1123	1117
1009 1031	1050	1086	1116	1124	1118
1010 1032	1051	1087	1117	1125	1119
1011 1033	1052	1088	1118	1126	1120
1012 1034	1053	1089	1119	1127	1121
1013 1035	1054	1090	1120	1128	1122
1014 1036	1055	1091	1121	1129	1123
1015 1037	1056	1092	1122	1130	1124
1016 1038	1057	1093	1123	1131	1125
1017 1039	1058	1094	1124	1132	1126
1018 1040	1059	1095	1125	1133	1127
1019 1041	1060	1096	1126	1134	1128
1020 1042	1061	1097	1127	1135	1129
1021 1043	1062	1098	1128	1136	1130
1022 1044	1063	1099	1129	1137	1131
1023 1045	1064	1100	1130	1138	1132
1024 1046	1065	1101	1131	1139	1133
1025 1047	1066	1102	1132	1140	1134
1026 1048	1067	1103	1133	1141	1135
1027 1049	1068	1104	1134	1142	1136
1028 1050	1069	1105	1135	1143	1137
1029 1051	1070	1106	1136	1144	1138
1030 1052	1071	1107	1137	1145	1139
1031 1053	1072	1108	1138	1146	1140
1032 1054	1073	1109	1139	1147	1141
1033 1055	1074	1110	1140	1148	1142
1034 1056	1075	1111	1141	1149	1143
1035 1057	1076	1112	1142	1150	1144
1036 1058	1077	1113	1143	1151	1145
1037 1059	1078	1114	1144	1152	1146
1038 1060	1079	1115	1145	1153	1147
1039 1061	1080	1116	1146	1154	1148
1040 1062	1081	1117	1147	1155	1149
1041 1063	1082	1118	1148	1156	1150
1042 1064	1083	1119	1149	1157	1151
1043 1065	1084	1120	1150	1158	1152
1044 1066	1085	1121	1151	1159	1153
1045 1067	1086	1122	1152	1160	1154
1046 1068	1087	1123	1153	1161	1155
1047 1069	1088	1124	1154	1162	1156
1048 1070	1089	1125	1155	1163	1157
1049 1071	1090	1126	1156	1164	1158
1050 1072	1091	1127	1157	1165	1159
1051 1073	1092	1128	1158	1166	1160
1052 1074	1093	1129	1159	1167	1161
1053 1075	1094	1130	1160	1168	1162
1054 1076	1095	1131	1161	1169	1163
1055 1077	1096	1132	1162	1170	1164
1056 1078	1097	1133	1163	1171	1165
1057 1079	1098	1134	1164	1172	1166
1058 1080	1099	1135	1165	1173	1167
1059 1081	1100	1136	1166	1174	1168
1060 1082	1101	1137	1167	1175	1169
1061 1083	1102	1138	1168	1176	1170
1062 1084	1103	1139	1169	1177	1171
1063 1085	1104	1140	1170	1178	1172
1064 1086	1105	1141	1171	1179	1173
1065 1087	1106	1142	1172	1180	1174
1066 1088	1107	1143	1173	1181	1175
1067 1089	1108	1144	1174	1182	1176
1068 1090	1109	1145	1175	1183	1177
1069 1091	1110	1146	1176	1184	1178
1070 1092	1111	1147	1177	1185	1179
1071 1093	1112	1148	1178	1186	1180
1072 1094	1113	1149	1179	1187	1181
1073 1095	1114	1150	1180	1188	1182
1074 1096	1115	1151	1181	1189	1183
1075 1097	1116	1152	1182	1190	1184
1076 1098	1117	1153	1183	1191	1185
1077 1099	1118	1154	1184	1192	1186
1078 1100	1119	1155	1185	1193	1187
1079 1101	1120	1156	1186	1194	1188
1080 1102	1121	1157	1187	1195	1189
1081 1103	1122	1158	1188	1196	1190
1082 1104	1123	1159	1189	1197	1191
1083 1105	1124	1160	1190	1198	1192
1084 1106	1125	1161	1191	1199	1193
1085 1107	1126	1162	1192	1200	1194
1086 1108	1127	1163	1193	1201	1195
1087 1109	1128	1164	1194	1202	1196
1088 1110	1129	1165	1195	1203	1197
1089 1111	1130	1166	1196	1204	1198
1090 1112	1131				

Table B10A-2.14. MFA-2 Sodium Subchannel Temperatures
at Elevation of Upper Axial Blanket for BOC 10A-2

TEMPERATURE MAP FOR BUNDLE 52		ASSEMBLY NO. 2507		MFA-2	
AXIAL HEIGHT 50.182 IN		917	923	929	936
953		959	959	956	962
		968	993	994	990
		1037	1050	1048	1043
955		991	1037	1070	1075
		1065	1056	1044	1010
956		947	923		
		1037	1102	1112	1107
		1101	1033	1072	1061
958		997	1057	1110	1124
		1122	1116	1109	1099
		1076	1023	975	949
959		926			
		1087	1130	1136	1128
		1132	1112	1102	1083
960		1004	1065	1124	1142
		1142	1136	1129	1121
		1109	1081	1022	970
961		946	927		
		1033	1156	1163	1153
		1153	1149	1143	1135
		1158	1158	1150	1140
962		1077	1077	1077	1077
		1077	1077	1077	1077
963		946	926		
		1086	1142	1149	1142
		1149	1142	1135	1127
		1132	1119	1109	1087
964		1073	1132	1152	1166
		1166	1159	1150	1141
		1141	1132	1123	1115
		1101	1072	1012	962
965		943	924		
		1032	1144	1156	1162
		1162	1157	1149	1141
		1141	1133	1125	1118
		1109	1096	1066	1005
966		958			
		1030	1125	1135	1143
		1143	1135	1127	1119
		1112	1103	1088	1039
967		951	925		
		1087	1140	1153	1156
		1156	1152	1145	1137
		1137	1129	1122	1114
		1107	1095	1072	1022
968		939	911		
		1082	1128	1150	1164
		1164	1156	1148	1140
		1140	1132	1124	1116
		1116	1108	1082	1066
969		967	939	911	
		1073	1139	1150	1146
		1146	1139	1131	1124
		1124	1117	1109	1077
970		951	925		
		1091	1134	1143	1133
		1133	1126	1119	1111
		1101	1080	1035	
971		942	914		
		1014	1066	1120	1136
		1136	1127	1121	1113
		1103	1082	1036	
972		932	904		
		1011	1062	1112	1128
		1128	1122	1116	1108
		1097	1078	1037	1004
973		941	917		
		1080	1117	1125	1121
		1121	1115	1109	1081
		1037			
974		929	902		
		1054	1087	1105	1102
		1102	1094	1087	1065
		1065	1044	968	943
975		912			
		1066	1093	1097	1086
		1086	1081	1067	1031
976		904	876		
		1003	1034	1058	1063
		1063	1050	1037	1003
		967	941	910	
977		898			
		954	991	994	986
		986	974	953	940
978		935			
		917	916	915	912
		905	906	902	900

BEST AVAILABLE COPY

Table E10A-2.1. Fission Power Generated in MFA-1, MFA-2 and Neighboring Assemblies at EOC 10A-2

CORE	* * * * *	POWER IN MEGAWATTS			* * * * *
POS.	BELOW CORE	IN CORE	ABOVE CORE	TOTAL PWR	
1506	2.921E-02	3.887E+00	2.016E-02	3.936E+00	
1404	8.338E-02	4.651E+00	4.576E-02	4.780E+00	
1405	9.579E-03	3.889E+00	7.163E-03	3.905E+00	
1505	1.132E-02	3.553E+00	6.683E-03	3.571E+00	
1507	9.834E-03	3.292E+00	7.360E-03	3.310E+00	
1606	6.224E-03	3.458E+00	4.557E-03	3.468E+00	
1607	9.178E-03	2.857E+00	6.641E-03	2.872E+00	
2507	3.013E-02	4.163E+00	2.213E-02	4.216E+00	
2405	7.222E-02	4.441E+00	4.198E-02	4.555E+00	
2506	1.148E-02	3.867E+00	8.117E-03	3.887E+00	
2508	1.112E-02	4.576E+00	8.175E-03	4.595E+00	
2607	7.877E-03	3.554E+00	5.889E-03	3.568E+00	
2608	5.014E-03	3.415E+00	4.168E-03	3.424E+00	
2609	9.483E-02	3.165E+00	5.263E-02	3.312E+00	

Table E10A-2.2. Assembly Averaged Total Flux for MFA-1 and MFA-2 at EOC 10A-2

Assembly	Core Pos.	Total Flux (n/cm ² -sec)
MFA-1	1506	2.873E+15
MFA-2	2507	3.073E+15

Table E10A-2.3. Axial Distribution of Total Flux, Fast Flux and Power in MFA-1 at EOC 10A-2

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.7532E-02	1.3945E-02	0.0000E+00
-92.78	5.9177E-02	2.6930E-02	0.0000E+00
-87.78	9.4892E-02	4.3095E-02	0.0000E+00
-82.78	1.3736E-01	6.4284E-02	0.0000E+00
-77.78	1.8931E-01	9.2779E-02	0.0000E+00
-72.15	2.4805E-01	1.2963E-01	0.0000E+00
-65.90	3.0640E-01	1.7590E-01	0.0000E+00
-60.35	3.6787E-01	2.3809E-01	2.7586E-02
-55.49	4.4966E-01	3.2250E-01	3.6255E-02
-50.62	5.4533E-01	4.3337E-01	5.0389E-02
-47.17	6.2277E-01	5.3893E-01	6.7368E-02
-43.58	7.0446E-01	6.5920E-01	7.4536E-01
-38.45	8.2150E-01	8.0343E-01	8.3607E-01
-33.32	9.2964E-01	9.2572E-01	9.3588E-01
-28.20	1.0238E+00	1.0271E+00	1.0191E+00
-23.07	1.1021E+00	1.1093E+00	1.0954E+00
-17.94	1.1630E+00	1.1721E+00	1.1550E+00
-12.82	1.2055E+00	1.2153E+00	1.1922E+00
-7.69	1.2297E+00	1.2398E+00	1.2158E+00
-2.56	1.2352E+00	1.2455E+00	1.2210E+00
2.56	1.2220E+00	1.2326E+00	1.2093E+00
7.69	1.1905E+00	1.2012E+00	1.1780E+00
12.82	1.1414E+00	1.1521E+00	1.1295E+00
17.94	1.0760E+00	1.0866E+00	1.0712E+00
23.07	9.9568E-01	1.0049E+00	9.9175E-01
28.20	9.0251E-01	9.0872E-01	9.0001E-01
33.32	7.9883E-01	7.9945E-01	8.0582E-01
38.45	6.8696E-01	6.7663E-01	6.9894E-01
43.58	5.7129E-01	5.4042E-01	5.9957E-01
47.17	4.9244E-01	4.3359E-01	5.1272E-02
50.62	4.1801E-01	3.3996E-01	3.6490E-02
55.49	3.2652E-01	2.4210E-01	2.4061E-02
60.35	2.4752E-01	1.6762E-01	1.6271E-02
64.98	1.9921E-01	1.2532E-01	0.0000E+00
69.39	1.7106E-01	1.0316E-01	0.0000E+00
76.46	1.3080E-01	7.3480E-02	0.0000E+00
86.80	8.5843E-02	4.4494E-02	0.0000E+00
98.14	4.9755E-02	2.4403E-02	0.0000E+00
110.00	2.1386E-02	1.0973E-02	0.0000E+00

Table E10A-2.4. Axial Distribution of Total Flux, Fast Flux and Power in MFA-2 at EOC 10A-2

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.5349E-02	1.2945E-02	0.0000E+00
-92.78	5.4434E-02	2.4983E-02	0.0000E+00
-87.78	8.7272E-02	3.9980E-02	0.0000E+00
-82.78	1.2645E-01	5.9692E-02	0.0000E+00
-77.78	1.7469E-01	8.6329E-02	0.0000E+00
-72.15	2.2993E-01	1.2108E-01	0.0000E+00
-65.90	2.8665E-01	1.6581E-01	0.0000E+00
-60.35	3.4811E-01	2.2692E-01	2.5961E-02
-55.49	4.2973E-01	3.0996E-01	3.4706E-02
-50.62	5.2628E-01	4.1962E-01	4.8895E-02
-47.17	6.0515E-01	5.2453E-01	6.5833E-02
-43.58	6.8856E-01	6.4442E-01	7.2753E-01
-38.45	8.0791E-01	7.8995E-01	8.2213E-01
-33.32	9.1826E-01	9.1432E-01	9.2443E-01
-28.20	1.0147E+00	1.0181E+00	1.0099E+00
-23.07	1.0954E+00	1.1028E+00	1.0885E+00
-17.94	1.1588E+00	1.1682E+00	1.1507E+00
-12.82	1.2039E+00	1.2140E+00	1.1906E+00
-7.69	1.2301E+00	1.2405E+00	1.2163E+00
-2.56	1.2373E+00	1.2479E+00	1.2232E+00
2.56	1.2254E+00	1.2363E+00	1.2127E+00
7.69	1.1952E+00	1.2062E+00	1.1828E+00
12.82	1.1475E+00	1.1584E+00	1.1358E+00
17.94	1.0836E+00	1.0942E+00	1.0790E+00
23.07	1.0044E+00	1.0133E+00	1.0007E+00
28.20	9.1153E-01	9.1726E-01	9.0936E-01
33.32	8.0730E-01	8.0718E-01	8.1465E-01
38.45	6.9394E-01	6.8271E-01	7.0641E-01
43.58	5.7617E-01	5.4429E-01	6.0530E-01
47.17	4.9576E-01	4.3590E-01	5.2414E-02
50.62	4.2009E-01	3.4124E-01	3.7362E-02
55.49	3.2781E-01	2.4279E-01	2.4686E-02
60.35	2.4873E-01	1.6818E-01	1.6733E-02
64.98	2.0033E-01	1.2556E-01	0.0000E+00
69.39	1.7167E-01	1.0295E-01	0.0000E+00
76.46	1.3050E-01	7.2717E-02	0.0000E+00
86.80	8.5047E-02	4.3565E-02	0.0000E+00
98.14	4.8936E-02	2.3625E-02	0.0000E+00
110.00	2.0735E-02	1.0447E-02	0.0000E+00

Table E10A-2.6. Fission Power Distribution by Pin in MFA-2 at EOC 10A-2

	1.087	1.070	1.052	1.035	1.016	0.998	0.980	0.961						
	1.093	1.076	1.059	1.042	1.024	1.006	0.988	0.970	0.951					
	1.098	1.082	1.066	1.049	1.032	1.014	0.996	0.978	0.959	0.941				
	1.103	1.087	1.071	1.055	1.038	1.020	1.003	0.985	0.967	0.949	0.930			
	1.107	1.092	1.076	1.060	1.043	1.026	1.009	0.991	0.974	0.956	0.937	0.919		
	1.110	1.095	1.080	1.064	1.048	1.031	1.014	0.997	0.980	0.962	0.944	0.926	0.908	
	1.113	1.098	1.083	1.068	1.052	1.036	1.019	1.002	0.985	0.967	0.949	0.932	0.914	0.896
1.115	1.100	1.086	1.071	1.055	1.039	1.023	1.006	0.989	0.972	0.954	0.936	0.919	0.901	0.883
	1.102	1.088	1.073	1.057	1.042	1.026	1.009	0.992	0.975	0.958	0.941	0.923	0.905	0.888
	1.089	1.074	1.059	1.044	1.028	1.012	0.995	0.978	0.961	0.944	0.927	0.909	0.892	
	1.075	1.061	1.045	1.030	1.014	0.997	0.981	0.964	0.947	0.930	0.912	0.895		
	1.061	1.046	1.031	1.015	0.999	0.983	0.966	0.949	0.932	0.915	0.898			
	1.046	1.031	1.016	1.000	0.984	0.967	0.950	0.934	0.917	0.900				
	1.031	1.016	1.000	0.984	0.968	0.951	0.935	0.918	0.901					
	1.015	1.000	0.984	0.968	0.952	0.935	0.919	0.902						

Table E10A-2.9. MFA-1 and MFA-2 Duct Wall Flux
Greater Than 0.1 MeV at EOC 10A-2

SIDE	FLUX > 0.1 MEV (n/cm ² -sec)	
	MFA-1	MFA-2
E	1.8766E+15	2.1439E+15
SE	1.6775E+15	2.2302E+15
SW	1.6097E+15	2.0223E+15
W	1.7710E+15	1.7649E+15
NW	1.9890E+15	1.6878E+15
NE	2.0436E+15	1.8463E+15

Table E10A-2.10. Assembly Outlet Temperatures and
Flow Rates at EOC 10A-2

CORE POS.	CALCULATED OUTLET TEMP.	FLOW RATE
	(DEG F)	(LB/H)
1506	1032	116330
1404	907	228160
1405	881	210640
1505	869	210640
1507	851	210640
1606	898	172740
1607	860	172740
2507	1052	172740
2405	929	194730
2506	888	200300
2508	914	210640
2607	904	165660
2608	893	89760
2609	890	175430

Table 10A-2.11. MFA-1 Sodium Subchannel Temperatures
at Top of Core Elevation for EOC 10A-2

TEMPERATURE MAP FOR BUNDLE 43		ASSEMBLY NO. 1506		MFA-1															
AXIAL HEIGHT 43.905 IN																			
		867	873	876	877	879	878	877	876		855								
	896		902	905	906	904	905	904	902		893								
		924	930	933	933	932	911	910	928	929									
			870	991	994	994	993	990	979										
888	807	925	977	1009	1015	1016	1016	1015	1009	983	937	902	866						
			1009	1038	1045	1046	1046	1046	1043	1014									
891	910	929	991	1039	1053	1055	1056	1056	1054	1042	1000	944	907	876					
			1018	1054	1064	1066	1067	1067	1066	1058	1025								
892	913	937	997	1048	1065	1069	1070	1071	1071	1068	1054	1006	947	911	874				
			1022	1059	1070	1073	1074	1075	1076	1075	1066	1031							
894	915	936	1000	1052	1069	1074	1075	1076	1076	1078	1075	1060	1010	949	913	876			
			1024	1062	1074	1077	1079	1081	1082	1081	1072	1035							
894	917	935	1002	1054	1072	1077	1079	1080	1082	1083	1084	1081	1065	1014	950	914	878		
			1026	1065	1077	1080	1082	1083	1084	1086	1087	1087	1077	1039					
894	917	941	1002	1056	1075	1080	1082	1084	1085	1087	1088	1089	1087	1069	1015	950	915	879	
			1021	1065	1079	1083	1085	1086	1088	1089	1091	1093	1092	1080	1036				
891	915	925	990	1052	1076	1083	1085	1087	1088	1090	1092	1094	1095	1090	1068	1005	949	915	880
870	901	932														950	907	864	
875	925	934	895	1053	1072	1076	1088	1090	1091	1093	1095	1097	1098	1093	1077	1089	958	921	882
			1023	1069	1084	1098	1090	1092	1093	1095	1097	1099	1098	1085	1042				
878	905	936	1005	1063	1084	1090	1093	1094	1096	1098	1100	1101	1098	1081	1027	963	925	886	
			1033	1075	1089	1093	1095	1097	1098	1100	1102	1101	1091	1052					
881	912	942	1011	1069	1089	1095	1099	1099	1101	1103	1104	1102	1084	1030	964	927	880		
			1038	1080	1094	1098	1100	1102	1103	1105	1104	1094	1055						
884	915	947	1016	1073	1094	1100	1102	1104	1106	1107	1104	1087	1032	965	927	880			
			1042	1095	1098	1102	1104	1106	1107	1107	1107	1097	1057						
885	918	950	1020	1077	1097	1102	1104	1106	1107	1105	1088	1032	963	927	880				
			1046	1087	1099	1102	1104	1106	1105	1096	1057								
886	920	953	1021	1075	1090	1095	1097	1098	1097	1083	1030	961	926	880					
			1043	1076	1094	1087	1085	1089	1083	1051									
888	919	952	1009	1065	1084	1087	1086	1089	1085	1017	957	923	889						
			1009	1025	1030	1033	1034	1033	1019										
			946	947	954	979	963	965	966	964	956								
			912	921	925	929	931	933	934	932									
877			893	896	898	899	900	900	899										

BEST AVAILABLE COPY

[illegible]

Table E10A-2.13. MFA-1 Sodium Subchannel Temperatures
at Elevation of Upper Axial Blanket for EOC 10A-2

TEMPERATURE MAP FOR BUNDLE 43		ASSEMBLY NO. 1506		MFA-1	
AXIAL POSITION		50.182 IN		E72	
855	918	937	975	1001	1009
856	919	938	976	1002	1010
857	920	939	977	1003	1011
858	921	940	978	1004	1012
859	922	941	979	1005	1013
860	923	942	980	1006	1014
861	924	943	981	1007	1015
862	925	944	982	1008	1016
863	926	945	983	1009	1017
864	927	946	984	1010	1018
865	928	947	985	1011	1019
866	929	948	986	1012	1020
867	930	949	987	1013	1021
868	931	950	988	1014	1022
869	932	951	989	1015	1023
870	933	952	990	1016	1024
871	934	953	991	1017	1025
872	935	954	992	1018	1026
873	936	955	993	1019	1027
874	937	956	994	1020	1028
875	938	957	995	1021	1029
876	939	958	996	1022	1030
877	940	959	997	1023	1031
878	941	960	998	1024	1032
879	942	961	999	1025	1033
880	943	962	1000	1026	1034
881	944	963	1001	1027	1035
882	945	964	1002	1028	1036
883	946	965	1003	1029	1037
884	947	966	1004	1030	1038
885	948	967	1005	1031	1039
886	949	968	1006	1032	1040
887	950	969	1007	1033	1041
888	951	970	1008	1034	1042
889	952	971	1009	1035	1043
890	953	972	1010	1036	1044
891	954	973	1011	1037	1045
892	955	974	1012	1038	1046
893	956	975	1013	1039	1047
894	957	976	1014	1040	1048
895	958	977	1015	1041	1049
896	959	978	1016	1042	1050
897	960	979	1017	1043	1051
898	961	980	1018	1044	1052
899	962	981	1019	1045	1053
900	963	982	1020	1046	1054
901	964	983	1021	1047	1055
902	965	984	1022	1048	1056
903	966	985	1023	1049	1057
904	967	986	1024	1050	1058
905	968	987	1025	1051	1059
906	969	988	1026	1052	1060
907	970	989	1027	1053	1061
908	971	990	1028	1054	1062
909	972	991	1029	1055	1063
910	973	992	1030	1056	1064
911	974	993	1031	1057	1065
912	975	994	1032	1058	1066
913	976	995	1033	1059	1067
914	977	996	1034	1060	1068
915	978	997	1035	1061	1069
916	979	998	1036	1062	1070
917	980	999	1037	1063	1071
918	981	1000	1038	1064	1072
919	982	1001	1039	1065	1073
920	983	1002	1040	1066	1074
921	984	1003	1041	1067	1075
922	985	1004	1042	1068	1076
923	986	1005	1043	1069	1077
924	987	1006	1044	1070	1078
925	988	1007	1045	1071	1079
926	989	1008	1046	1072	1080
927	990	1009	1047	1073	1081
928	991	1010	1048	1074	1082
929	992	1011	1049	1075	1083
930	993	1012	1050	1076	1084
931	994	1013	1051	1077	1085
932	995	1014	1052	1078	1086
933	996	1015	1053	1079	1087
934	997	1016	1054	1080	1088
935	998	1017	1055	1081	1089
936	999	1018	1056	1082	1090
937	1000	1019	1057	1083	1091
938	1001	1020	1058	1084	1092
939	1002	1021	1059	1085	1093
940	1003	1022	1060	1086	1094
941	1004	1023	1061	1087	1095
942	1005	1024	1062	1088	1096
943	1006	1025	1063	1089	1097
944	1007	1026	1064	1090	1098
945	1008	1027	1065	1091	1099
946	1009	1028	1066	1092	1100
947	1010	1029	1067	1093	1101
948	1011	1030	1068	1094	1102
949	1012	1031	1069	1095	1103
950	1013	1032	1070	1096	1104
951	1014	1033	1071	1097	1105
952	1015	1034	1072	1098	1106
953	1016	1035	1073	1099	1107
954	1017	1036	1074	1100	1108
955	1018	1037	1075	1101	1109
956	1019	1038	1076	1102	1110
957	1020	1039	1077	1103	1111
958	1021	1040	1078	1104	1112
959	1022	1041	1079	1105	1113
960	1023	1042	1080	1106	1114
961	1024	1043	1081	1107	1115
962	1025	1044	1082	1108	1116
963	1026	1045	1083	1109	1117
964	1027	1046	1084	1110	1118
965	1028	1047	1085	1111	1119
966	1029	1048	1086	1112	1120
967	1030	1049	1087	1113	1121
968	1031	1050	1088	1114	1122
969	1032	1051	1089	1115	1123
970	1033	1052	1090	1116	1124
971	1034	1053	1091	1117	1125
972	1035	1054	1092	1118	1126
973	1036	1055	1093	1119	1127
974	1037	1056	1094	1120	1128
975	1038	1057	1095	1121	1129
976	1039	1058	1096	1122	1130
977	1040	1059	1097	1123	1131
978	1041	1060	1098	1124	1132
979	1042	1061	1099	1125	1133
980	1043	1062	1100	1126	1134
981	1044	1063	1101	1127	1135
982	1045	1064	1102	1128	1136
983	1046	1065	1103	1129	1137
984	1047	1066	1104	1130	1138
985	1048	1067	1105	1131	1139
986	1049	1068	1106	1132	1140
987	1050	1069	1107	1133	1141
988	1051	1070	1108	1134	1142
989	1052	1071	1109	1135	1143
990	1053	1072	1110	1136	1144
991	1054	1073	1111	1137	1145
992	1055	1074	1112	1138	1146
993	1056	1075	1113	1139	1147
994	1057	1076	1114	1140	1148
995	1058	1077	1115	1141	1149
996	1059	1078	1116	1142	1150
997	1060	1079	1117	1143	1151
998	1061	1080	1118	1144	1152
999	1062	1081	1119	1145	1153
1000	1063	1082	1120	1146	1154

BEST AVAILABLE COPY

Table E10A-2.14. MFA-2 Sodium Blanket Channel Temperatures at Elevation of Upper Axial Blanket for EOC 10A-2

TEMPERATURE MAP FOR BUACLE 52 ASSEMBLY NO. 2507 MFA-2															
AXIAL HEIGHT 50.182 IN															
	909		915	916	914	911	908	905	901					896	
	944		949	950	947	943	939	934	930					926	
			977	983	982	979	974	969	963	958	956				
				1025	1037	1036	1031	1025	1016	999					
	927	954		980	1025	1057	1061	1057	1052	1045	1032	999	962		939 915
				1061	1093	1097	1093	1087	1079	1069	1029				
	930	959		987	1044	1095	1109	1107	1101	1095	1095	1063	1011	962	940 918
				1073	1115	1123	1120	1114	1107	1099	1079	1033			
	933	963		993	1052	1104	1127	1126	1120	1113	1104	1074	1067	1010	959 918
				1079	1122	1132	1129	1123	1116	1108	1098	1077	1030		
	935	967		998	1056	1114	1133	1133	1127	1119	1112	1104	1092	1064	1006 956 937 917
				1082	1126	1134	1133	1124	1119	1112	1104	1094	1073	1025	
	936	970		1003	1054	1117	1146	1136	1120	1122	1115	1106	1094	1087	1054 1001 952 934 915
				1083	1122	1134	1136	1123	1121	1114	1106	1099	1089	1067	1019
	937	971		1005	1058	1118	1138	1139	1132	1124	1117	1109	1102	1094	1081 1052 994 948 931 913
				1076	1126	1141	1138	1131	1123	1116	1108	1101	1093	1082	1059 1008
	938	970		1003	1043	1110	1138	1140	1134	1127	1119	1111	1104	1097	1094 1074 1040 980 945 928 910
	939	958		997											944 920 893
	926	962		997	1041	1104	1136	1139	1133	1126	1118	1110	1103	1096	1087 1073 1040 982 952 926 899
				1073	1124	1138	1136	1129	1121	1113	1106	1099	1091	1081	1058 1010
	927	964		1000	1054	1114	1134	1134	1128	1120	1112	1105	1099	1090	1077 1050 996 957 930 903
				1079	1123	1133	1130	1123	1116	1108	1101	1094	1084	1063	1019
	926	965		1002	1054	1110	1128	1128	1122	1114	1107	1100	1092	1080	1053 1001 958 932 906
				1077	1118	1127	1124	1117	1110	1103	1096	1086	1066	1022	
	928	966		1003	1053	1105	1122	1121	1116	1109	1102	1094	1082	1056	1003 959 934 908
				1073	1111	1120	1117	1111	1104	1097	1088	1068	1024		
	923	963		1001	1049	1097	1113	1112	1107	1100	1093	1082	1077	1064	959 934 909
				1066	1102	1109	1106	1103	1093	1085	1067	1024			
	920	959		998	1041	1093	1094	1092	1087	1081	1072	1051	1002	958	934 910
				1053	1079	1084	1079	1074	1067	1054	1019				
	915	954		992	1022	1045	1049	1046	1042	1037	1024	992	957		934 911
				1017	1027	1027	1024	1020	1013	996					
				983	980	979	979	978	976	973	966	959			
	943			946	945	944	942	940	936	931					927
	901			910	909	904	905	902	899	895					893

BEST AVAILABLE COPY

N

Table E10A-2.15. MFA-1 Sodium Subchannel Temperatures
at Top of Fuel Pin Bundle for EOC 10A-2

TEMPERATURE MAP FOR BUNDLE 43		ASSEMBLY NO. 1506		MFA-1	
AXIAL HEIGHT 92.000 IN					
901		904	907	909	910 911 912 913 889
	933	936	939	940 941 942 942	931
		963	967	969 970 971 971 970 971 972	
		977	985	989 990 989 987 981	
925 944	967	975	989	997 1000 1000 998 993 985 977	937 896
		928	1006	1016 1020 1028 1017 1010 998	
925 945	964	983	1005	1020 1028 1030 1029 1023 1012 996 981	941 900
		996	1021	1036 1044 1047 1046 1040 1028 1008	
925 946	967	988	1016	1037 1048 1053 1054 1051 1042 1025 1002 984	944 903
		1001	1029	1049 1060 1064 1065 1063 1055 1038 1014	
925 948	969	991	1022	1046 1060 1067 1070 1069 1065 1053 1033 1005 985	946 906
		1003	1034	1056 1069 1075 1077 1077 1073 1063 1044 1016	
925 948	971	992	1025	1051 1067 1075 1079 1080 1079 1073 1060 1036 1006 985	947 908
		1002	1034	1059 1073 1088 1084 1080 1068 1046 1016	
924 948	972	990	1023	1051 1070 1090 1084 1086 1087 1085 1078 1062 1036 1005 985	948 909
		996	1029	1057 1074 1093 1088 1090 1091 1089 1083 1068 1043 1012	
921 946	971	982	1014	1046 1069 1081 1087 1090 1092 1092 1089 1079 1059 1030 1000 985	948 910
904 936	967				987 942 896
912 948	967	982	1014	1046 1071 1084 1090 1093 1095 1095 1092 1082 1062 1032 1003 992	954 918
		996	1031	1061 1079 1088 1093 1095 1096 1095 1089 1073 1047 1016	
913 941	969	991	1027	1059 1079 1090 1095 1097 1093 1076 1089 1072 1045 1012 995	957 917
			1005	1042 1069 1085 1093 1097 1099 1098 1093 1081 1057 1025	
914 943	972	997	1035	1064 1083 1091 1097 1098 1098 1092 1076 1050 1017 995	958 919
		1011	1047	1073 1088 1095 1098 1098 1094 1083 1061 1029	
915 945	975	1001	1038	1067 1083 1092 1095 1095 1090 1076 1052 1019 995	958 920
		1015	1049	1072 1085 1091 1093 1096 1081 1061 1030	
916 947	978	1003	1038	1062 1076 1082 1084 1081 1070 1049 1017 993	957 921
		1015	1045	1064 1074 1078 1077 1071 1054 1027	
916 948	979	1002	1030	1048 1057 1061 1061 1058 1039 1013 991	956 921
		1009	1031	1043 1050 1052 1050 1040 1020	
916 947	979	994	1018	1021 1026 1029 1028 1021 1006 989	954 921
		994	1004	1011 1015 1017 1015 1007	
		975	977	981 985 989 992 994 993 987	
944		953	955	958 961 963 964 964	954
912		927	929	931 932 933 934 933	918

BEST AVAILABLE COPY

N

Table E10A-2.16. MFA-2 Sodium Subchannel Temperatures
at Top of Fuel Pin Bundle for EOC 10A-2

TEMPERATURE MAP FOR BUNDLE 52	ASSEMBLY NO. 2507	WFA-2
AXIAL HEIGHT	92,000 IN	931
950 974	937 1016 1031 1016 1035 1030 1022 1011	946 983 957 966 964 960 957 955 949
952 977	1012 1053 1061 1060 1052 1052 1031 1019	974 937 997 994 990 986 983 980 979
954 981	1055 1022 1022 1019 1015 1006 996	1015 1022 1022 1019 1015 1006 996
956 984	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
958 987	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
960 990	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
962 993	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
964 996	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
966 999	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
968 1002	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
970 1005	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
972 1008	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
974 1011	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
976 1014	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
978 1017	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
980 1020	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
982 1023	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
984 1026	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
986 1029	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
988 1032	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
990 1035	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
992 1038	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
994 1041	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
996 1044	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
998 1047	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
1000 1050	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
1002 1053	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
1004 1056	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
1006 1059	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
1008 1062	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
1010 1065	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
1012 1068	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
1014 1071	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
1016 1074	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
1018 1077	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
1020 1080	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
1022 1083	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
1024 1086	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
1026 1089	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
1028 1092	1055 1022 1022 1019 1015 1006 996	1055 1022 1022 1019 1015 1006 996
1030 10		

BEST AVAILABLE COPY

Table E10A-2.17. Composition of MFA-1 at EOC 10A-2

Axial Level	Axial Range (cm)		Constituent	Atom Density (a/b-cm)	
	Lower	Upper		Fresh	End of Cycle
1	-100.28	-75.28	Na-23	5.3150E-03	5.3150E-03
			SS-316	6.4090E-02	6.4090E-02
2	-75.28	-62.78	Na-23	1.3177E-02	1.3177E-02
			SS-316	3.4175E-02	3.4175E-02
3	-62.78	-46.14	U-235	1.4143E-05	1.3496E-05
			U-238	7.0573E-03	7.0246E-03
			Pu-239	0.0000E+00	3.0158E-05
			Pu-240	0.0000E+00	1.9609E-07
			FP	0.0000E+00	2.7995E-06
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
4	-46.14	-30.76	U-235	1.0840E-05	1.0386E-05
			U-238	4.4499E-03	4.4246E-03
			Pu-239	1.7520E-03	1.7006E-03
			Pu-240	2.2340E-04	2.3350E-04
			Pu-241	1.9280E-05	1.9937E-05
			Pu-242	4.7430E-06	4.7949E-06
			Am-241	7.6680E-07	9.7032E-07
			FP	0.0000E+00	6.5884E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
5	-30.76	-15.38	U-235	1.0840E-05	1.0273E-05
			U-238	4.4499E-03	4.4177E-03
			Pu-239	1.7520E-03	1.6860E-03
			Pu-240	2.2340E-04	2.3458E-04
			Pu-241	1.9280E-05	1.9985E-05
			Pu-242	4.7430E-06	4.7950E-06
			Am-241	7.6680E-07	9.6380E-07
			FP	0.0000E+00	8.6461E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
6	-15.38	0.00	U-235	1.0840E-05	1.0210E-05
			U-238	4.4499E-03	4.4140E-03
			Pu-239	1.7520E-03	1.6785E-03
			Pu-240	2.2340E-04	2.3571E-04
			Pu-241	1.9280E-05	2.0084E-05
			Pu-242	4.7430E-06	4.8005E-06
			Am-241	7.6680E-07	9.6042E-07
			FP	0.0000E+00	9.6417E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02

7	0.00	15.38	U-235	1.0840E-05	1.0230E-05
			U-238	4.4499E-03	4.4152E-03
			Pu-239	1.7520E-03	1.6808E-03
			Pu-240	2.2340E-04	2.3529E-04
			Pu-241	1.9280E-05	2.0046E-05
			Pu-242	4.7430E-06	4.7983E-06
			Am-241	7.6680E-07	9.6151E-07
			FP	0.0000E+00	9.3286E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
8	15.38	30.76	U-235	1.0840E-05	1.0329E-05
			U-238	4.4499E-03	4.4209E-03
			Pu-239	1.7520E-03	1.6925E-03
			Pu-240	2.2340E-04	2.3341E-04
			Pu-241	1.9280E-05	1.9881E-05
			Pu-242	4.7430E-06	4.7888E-06
			Am-241	7.6680E-07	9.6677E-07
			FP	0.0000E+00	7.8016E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
9	30.76	46.14	U-235	1.0840E-05	1.0465E-05
			U-238	4.4499E-03	4.4291E-03
			Pu-239	1.7520E-03	1.7094E-03
			Pu-240	2.2340E-04	2.3152E-04
			Pu-241	1.9280E-05	1.9747E-05
			Pu-242	4.7430E-06	4.7832E-06
			Am-241	7.6680E-07	9.7442E-07
			FP	0.0000E+00	5.4760E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
10	46.14	62.78	U-235	1.4143E-05	1.3709E-05
			U-238	7.0573E-03	7.0347E-03
			Pu-239	0.0000E+00	2.0819E-05
			Pu-240	0.0000E+00	8.6890E-08
			FP	0.0000E+00	2.0138E-06
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
11	62.78	116.00	Na-23	8.2400E-03	8.2400E-03
			SS-316	2.5562E-02	2.5562E-02

Table E10A-2.18. Composition of MFA-2 at EOC 10A-2

Axial Level	Axial Range (cm)		Constituent	Atom Density (a/b-cm)	
	Lower	Upper		Fresh	End of Cycle
1	-100.28	-75.28	Na-23	5.3150E-03	5.3150E-03
			SS-316	6.4090E-02	6.4090E-02
2	-75.28	-62.78	Na-23	1.3177E-02	1.3177E-02
			SS-316	3.4175E-02	3.4175E-02
3	-62.78	-46.14	U-235	1.4143E-05	1.3549E-05
			U-238	7.0573E-03	7.0268E-03
			Pu-239	0.0000E+00	2.8137E-05
			Pu-240	0.0000E+00	1.6635E-07
			FP	0.0000E+00	2.6628E-06
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
4	-46.14	-30.76	U-235	1.0160E-05	9.7467E-06
			U-238	4.4270E-03	4.4026E-03
			Pu-239	1.7483E-03	1.6987E-03
			Pu-240	2.2290E-04	2.3279E-04
			Pu-241	1.9040E-05	1.9688E-05
			Pu-242	4.7330E-06	4.7824E-06
			Am-241	7.5700E-07	9.5864E-07
			FP	0.0000E+00	6.3447E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
5	-30.76	-15.38	U-235	1.0160E-05	9.6407E-06
			U-238	4.4270E-03	4.3956E-03
			Pu-239	1.7483E-03	1.6842E-03
			Pu-240	2.2290E-04	2.3396E-04
			Pu-241	1.9040E-05	1.9753E-05
			Pu-242	4.7330E-06	4.7831E-06
			Am-241	7.5700E-07	9.5219E-07
			FP	0.0000E+00	8.3808E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
6	-15.38	0.00	U-235	1.0160E-05	9.5810E-06
			U-238	4.4270E-03	4.3919E-03
			Pu-239	1.7483E-03	1.6767E-03
			Pu-240	2.2290E-04	2.3511E-04
			Pu-241	1.9040E-05	1.9858E-05
			Pu-242	4.7330E-06	4.7887E-06
			Am-241	7.5700E-07	9.4879E-07
			FP	0.0000E+00	9.3816E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02

7	0.00	15.38	U-235	1.0160E-05	9.5986E-06
			U-238	4.4270E-03	4.3930E-03
			Pu-239	1.7483E-03	1.6788E-03
			Pu-240	2.2290E-04	2.3473E-04
			Pu-241	1.9040E-05	1.9822E-05
			Pu-242	4.7330E-06	4.7867E-06
			Am-241	7.5700E-07	9.4976E-07
			FP	0.0000E+00	9.0994E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
8	15.38	30.76	U-235	1.0160E-05	9.6866E-06
			U-238	4.4270E-03	4.3984E-03
			Pu-239	1.7483E-03	1.6898E-03
			Pu-240	2.2290E-04	2.3295E-04
			Pu-241	1.9040E-05	1.9663E-05
			Pu-242	4.7330E-06	4.7780E-06
			Am-241	7.5700E-07	9.5474E-07
			FP	0.0000E+00	7.6462E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
9	30.76	46.14	U-235	1.0160E-05	9.8117E-06
			U-238	4.4270E-03	4.4064E-03
			Pu-239	1.7483E-03	1.7064E-03
			Pu-240	2.2290E-04	2.3109E-04
			Pu-241	1.9040E-05	1.9525E-05
			Pu-242	4.7330E-06	4.7726E-06
			Am-241	7.5700E-07	9.6214E-07
			FP	0.0000E+00	5.3857E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
10	46.14	62.78	U-235	1.4143E-05	1.3721E-05
			U-238	7.0573E-03	7.0350E-03
			Pu-239	0.0000E+00	2.0506E-05
			Pu-240	0.0000E+00	8.3485E-08
			FP	0.0000E+00	2.0017E-06
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
11	62.78	116.00	Na-23	8.2400E-03	8.2400E-03
			SS-316	2.5562E-02	2.5562E-02

Table B10A-3.1. Fission Power Generated in MFA-1, MFA-2 and Neighboring Assemblies at BOC 10A-3

CORE POS.	* * * * *	POWER IN MEGAWATTS	* * * * *	
	BELOW CORE	IN CORE	ABOVE CORE	TOTAL PWR
1506	2.923E-02	3.888E+00	2.016E-02	3.937E+00
1404	8.347E-02	4.655E+00	4.578E-02	4.785E+00
1405	9.573E-03	3.886E+00	7.157E-03	3.903E+00
1505	1.134E-02	3.560E+00	6.692E-03	3.578E+00
1507	9.828E-03	3.290E+00	7.354E-03	3.307E+00
1606	6.233E-03	3.462E+00	4.559E-03	3.473E+00
1607	9.179E-03	2.857E+00	6.639E-03	2.872E+00
2507	3.000E-02	4.145E+00	2.203E-02	4.197E+00
2405	7.196E-02	4.423E+00	4.182E-02	4.537E+00
2506	1.144E-02	3.850E+00	8.082E-03	3.870E+00
2508	1.108E-02	4.557E+00	8.140E-03	4.576E+00
2607	7.842E-03	3.538E+00	5.861E-03	3.551E+00
2608	4.991E-03	3.398E+00	4.147E-03	3.408E+00
2609	9.444E-02	3.150E+00	5.240E-02	3.297E+00

Table B10A-3.2. Assembly Averaged Total Flux for MFA-1 and MFA-2 at BOC 10A-3

Assembly	Core Pos.	Total Flux (n/cm ² -sec)
MFA-1	1506	2.874E+15
MFA-2	2507	3.059E+15

Table B10A-3.3. Axial Distribution of Total Flux, Fast Flux and Power in MFA-1 at BOC 10A-3

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.7544E-02	1.3954E-02	0.0000E+00
-92.78	5.9206E-02	2.6947E-02	0.0000E+00
-87.78	9.4932E-02	4.3121E-02	0.0000E+00
-82.78	1.3742E-01	6.4325E-02	0.0000E+00
-77.78	1.8939E-01	9.2832E-02	0.0000E+00
-72.15	2.4815E-01	1.2970E-01	0.0000E+00
-65.90	3.0652E-01	1.7598E-01	0.0000E+00
-60.35	3.6801E-01	2.3819E-01	2.7593E-02
-55.49	4.4981E-01	3.2261E-01	3.6261E-02
-50.62	5.4546E-01	4.3347E-01	5.0392E-02
-47.17	6.2291E-01	5.3906E-01	6.7363E-02
-43.58	7.0456E-01	6.5929E-01	7.4547E-01
-38.45	8.2159E-01	8.0352E-01	8.3617E-01
-33.32	9.2971E-01	9.2582E-01	9.3597E-01
-28.20	1.0239E+00	1.0272E+00	1.0192E+00
-23.07	1.1022E+00	1.1093E+00	1.0954E+00
-17.94	1.1631E+00	1.1722E+00	1.1551E+00
-12.82	1.2057E+00	1.2154E+00	1.1923E+00
-7.69	1.2298E+00	1.2399E+00	1.2159E+00
-2.56	1.2353E+00	1.2456E+00	1.2211E+00
2.56	1.2221E+00	1.2327E+00	1.2094E+00
7.69	1.1905E+00	1.2012E+00	1.1780E+00
12.82	1.1413E+00	1.1520E+00	1.1294E+00
17.94	1.0759E+00	1.0865E+00	1.0712E+00
23.07	9.9554E-01	1.0048E+00	9.9164E-01
28.20	9.0235E-01	9.0856E-01	8.9985E-01
33.32	7.9865E-01	7.9927E-01	8.0564E-01
38.45	6.8679E-01	6.7644E-01	6.9875E-01
43.58	5.7114E-01	5.4028E-01	5.9942E-01
47.17	4.9233E-01	4.3346E-01	5.1245E-02
50.62	4.1793E-01	3.3987E-01	3.6473E-02
55.49	3.2644E-01	2.4205E-01	2.4051E-02
60.35	2.4746E-01	1.6758E-01	1.6265E-02
64.98	1.9916E-01	1.2529E-01	0.0000E+00
69.39	1.7102E-01	1.0314E-01	0.0000E+00
76.46	1.3076E-01	7.3464E-02	0.0000E+00
86.80	8.5815E-02	4.4486E-02	0.0000E+00
98.14	4.9740E-02	2.4398E-02	0.0000E+00
110.00	2.1379E-02	1.0970E-02	0.0000E+00

Table B10A-3.4. Axial Distribution of Total Flux, Fast Flux and Power in MFA-2 at BOC 10A-3

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.5372E-02	1.2956E-02	0.0000E+00
-92.78	5.4484E-02	2.5004E-02	0.0000E+00
-87.78	8.7356E-02	4.0013E-02	0.0000E+00
-82.78	1.2656E-01	5.9739E-02	0.0000E+00
-77.78	1.7484E-01	8.6392E-02	0.0000E+00
-72.15	2.3013E-01	1.2117E-01	0.0000E+00
-65.90	2.8687E-01	1.6591E-01	0.0000E+00
-60.35	3.4830E-01	2.2703E-01	2.5974E-02
-55.49	4.2994E-01	3.1008E-01	3.4715E-02
-50.62	5.2644E-01	4.1975E-01	4.8897E-02
-47.17	6.0532E-01	5.2466E-01	6.5829E-02
-43.58	6.8870E-01	6.4452E-01	7.2770E-01
-38.45	8.0800E-01	7.9004E-01	8.2223E-01
-33.32	9.1834E-01	9.1440E-01	9.2450E-01
-28.20	1.0147E+00	1.0181E+00	1.0100E+00
-23.07	1.0954E+00	1.1029E+00	1.0885E+00
-17.94	1.1588E+00	1.1683E+00	1.1507E+00
-12.82	1.2039E+00	1.2139E+00	1.1905E+00
-7.69	1.2301E+00	1.2405E+00	1.2163E+00
-2.56	1.2372E+00	1.2478E+00	1.2232E+00
2.56	1.2254E+00	1.2363E+00	1.2126E+00
7.69	1.1951E+00	1.2061E+00	1.1827E+00
12.82	1.1475E+00	1.1584E+00	1.1357E+00
17.94	1.0836E+00	1.0941E+00	1.0789E+00
23.07	1.0043E+00	1.0133E+00	1.0007E+00
28.20	9.1152E-01	9.1720E-01	9.0934E-01
33.32	8.0726E-01	8.0719E-01	8.1464E-01
38.45	6.9394E-01	6.8268E-01	7.0643E-01
43.58	5.7621E-01	5.4432E-01	6.0535E-01
47.17	4.9585E-01	4.3595E-01	5.2402E-02
50.62	4.2020E-01	3.4131E-01	3.7358E-02
55.49	3.2791E-01	2.4286E-01	2.4688E-02
60.35	2.4890E-01	1.6825E-01	1.6738E-02
64.98	2.0052E-01	1.2563E-01	0.0000E+00
69.39	1.7179E-01	1.0303E-01	0.0000E+00
76.46	1.3062E-01	7.2781E-02	0.0000E+00
86.80	8.5140E-02	4.3610E-02	0.0000E+00
98.14	4.8997E-02	2.3654E-02	0.0000E+00
110.00	2.0763E-02	1.0461E-02	0.0000E+00

Table B10A-3.6. Fission Power Distribution by Pin in MFA-2 at BOC 10A-3

	1.087	1.070	1.052	1.035	1.017	0.998	0.980	0.961	
	1.093	1.076	1.060	1.042	1.024	1.006	0.988	0.970	0.951
	1.098	1.082	1.066	1.049	1.032	1.014	0.996	0.978	0.959
	1.103	1.087	1.071	1.055	1.038	1.021	1.003	0.985	0.967
	1.107	1.092	1.076	1.060	1.043	1.026	1.009	0.991	0.974
	1.110	1.095	1.080	1.064	1.048	1.031	1.014	0.997	0.979
	1.113	1.098	1.083	1.068	1.052	1.036	1.019	1.002	0.985
	1.115	1.101	1.086	1.071	1.055	1.039	1.023	1.006	0.989
	1.102	1.088	1.073	1.058	1.042	1.026	1.009	0.992	0.975
	1.089	1.074	1.059	1.044	1.028	1.012	0.995	0.978	0.961
	1.075	1.061	1.045	1.030	1.014	0.997	0.981	0.964	0.947
	1.061	1.046	1.031	1.015	0.999	0.982	0.966	0.949	0.932
	1.047	1.031	1.016	1.000	0.984	0.967	0.950	0.934	0.917
	1.031	1.016	1.000	0.984	0.968	0.951	0.935	0.918	0.901
	1.015	1.000	0.984	0.968	0.952	0.935	0.919	0.902	

Table B10A-3.7. Total Flux Distribution by Pin in MFA-1 at BOC 10A-3

[illegible]

N

Table B10A-3.9. MFA-1 and MFA-2 Duct Wall Flux
Greater Than 0.1 MeV at BOC 10A-3

SIDE	FLUX > 0.1 MEV (n/cm ² -sec)	
	MFA-1	MFA-2
E	1.8787E+15	2.1340E+15
SE	1.6787E+15	2.2202E+15
SW	1.6099E+15	2.0130E+15
W	1.7705E+15	1.7564E+15
NW	1.9888E+15	1.6795E+15
NE	2.0449E+15	1.8375E+15

Table B10A-3.10. Assembly Outlet Temperatures and
Flow Rates at BOC 10A-3

CORE POS.	MEASURED OUTLET TEMP.	FLOW RATE
	(DEG F)	(LB/H)
1506	1033	114940
1404	916	225440
1405	890	208130
1505	884	208130
1507	873	208130
1606	902	170680
1607	871	170680
2507	1058	114940
2405	945	192410
2506	900	197920
2508	927	208130
2607	922	163690
2608	899	170680
2609	897	173340

Table E10A-3.1. Fission Power Generated in MFA-1, MFA-2 and Neighboring Assemblies at EOC 10A-3

CORE POS.	***** BELOW CORE	POWER IN MEGAWATTS IN CORE	***** ABOVE CORE	***** TOTAL PWR
1506	2.977E-02	3.888E+00	2.044E-02	3.938E+00
1404	8.421E-02	4.655E+00	4.616E-02	4.786E+00
1405	9.664E-03	3.886E+00	7.218E-03	3.903E+00
1505	1.142E-02	3.562E+00	6.734E-03	3.580E+00
1507	9.891E-03	3.291E+00	7.400E-03	3.308E+00
1606	6.296E-03	3.464E+00	4.599E-03	3.475E+00
1607	9.233E-03	2.858E+00	6.680E-03	2.874E+00
2507	3.052E-02	4.139E+00	2.233E-02	4.192E+00
2405	7.258E-02	4.417E+00	4.218E-02	4.532E+00
2506	1.151E-02	3.847E+00	8.132E-03	3.867E+00
2508	1.116E-02	4.550E+00	8.195E-03	4.570E+00
2607	7.899E-03	3.535E+00	5.901E-03	3.549E+00
2608	5.039E-03	3.396E+00	4.183E-03	3.405E+00
2609	9.470E-02	3.149E+00	5.261E-02	3.296E+00

Table E10A-3.2. Assembly Averaged Total Flux for MFA-1 and MFA-2 at EOC 10A-3

Assembly	Core Pos.	Total Flux (n/cm ² -sec)
MFA-1	1506	2.879E+15
MFA-2	2507	3.061E+15

Table E10A-3.3. Axial Distribution of Total Flux, Fast Flux and Power in MFA-1 at EOC 10A-3

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.7554E-02	1.3965E-02	0.0000E+00
-92.78	5.9223E-02	2.6967E-02	0.0000E+00
-87.78	9.4960E-02	4.3154E-02	0.0000E+00
-82.78	1.3746E-01	6.4373E-02	0.0000E+00
-77.78	1.8944E-01	9.2904E-02	0.0000E+00
-72.15	2.4821E-01	1.2979E-01	0.0000E+00
-65.90	3.0659E-01	1.7611E-01	0.0000E+00
-60.35	3.6807E-01	2.3838E-01	2.8295E-02
-55.49	4.4987E-01	3.2284E-01	3.7025E-02
-50.62	5.4555E-01	4.3370E-01	5.1212E-02
-47.17	6.2299E-01	5.3924E-01	6.8217E-02
-43.58	7.0466E-01	6.5942E-01	7.4576E-01
-38.45	8.2166E-01	8.0362E-01	8.3650E-01
-33.32	9.2971E-01	9.2586E-01	9.3630E-01
-28.20	1.0238E+00	1.0272E+00	1.0191E+00
-23.07	1.1020E+00	1.1092E+00	1.0952E+00
-17.94	1.1629E+00	1.1720E+00	1.1548E+00
-12.82	1.2054E+00	1.2152E+00	1.1917E+00
-7.69	1.2296E+00	1.2396E+00	1.2152E+00
-2.56	1.2350E+00	1.2453E+00	1.2205E+00
2.56	1.2219E+00	1.2324E+00	1.2089E+00
7.69	1.1904E+00	1.2010E+00	1.1776E+00
12.82	1.1413E+00	1.1520E+00	1.1291E+00
17.94	1.0760E+00	1.0865E+00	1.0713E+00
23.07	9.9570E-01	1.0050E+00	9.9189E-01
28.20	9.0255E-01	9.0879E-01	9.0015E-01
33.32	7.9890E-01	7.9959E-01	8.0644E-01
38.45	6.8706E-01	6.7681E-01	6.9948E-01
43.58	5.7142E-01	5.4062E-01	6.0006E-01
47.17	4.9255E-01	4.3377E-01	5.1757E-02
50.62	4.1813E-01	3.4015E-01	3.6930E-02
55.49	3.2662E-01	2.4227E-01	2.4440E-02
60.35	2.4760E-01	1.6775E-01	1.6587E-02
64.98	1.9928E-01	1.2542E-01	0.0000E+00
69.39	1.7112E-01	1.0325E-01	0.0000E+00
76.46	1.3084E-01	7.3539E-02	0.0000E+00
86.80	8.5871E-02	4.4530E-02	0.0000E+00
98.14	4.9771E-02	2.4422E-02	0.0000E+00
110.00	2.1393E-02	1.0982E-02	0.0000E+00

Table E10A-3.4. Axial Distribution of Total Flux, Fast Flux and Power in MFA-2 at EOC 10A-3

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.5391E-02	1.2971E-02	0.0000E+00
-92.78	5.4521E-02	2.5032E-02	0.0000E+00
-87.78	8.7413E-02	4.0057E-02	0.0000E+00
-82.78	1.2664E-01	5.9801E-02	0.0000E+00
-77.78	1.7495E-01	8.6484E-02	0.0000E+00
-72.15	2.3025E-01	1.2129E-01	0.0000E+00
-65.90	2.8700E-01	1.6607E-01	0.0000E+00
-60.35	3.4847E-01	2.2725E-01	2.6648E-02
-55.49	4.3011E-01	3.1034E-01	3.5453E-02
-50.62	5.2660E-01	4.2001E-01	4.9700E-02
-47.17	6.0547E-01	5.2486E-01	6.6673E-02
-43.58	6.8881E-01	6.4471E-01	7.2809E-01
-38.45	8.0812E-01	7.9020E-01	8.2266E-01
-33.32	9.1836E-01	9.1444E-01	9.2492E-01
-28.20	1.0147E+00	1.0181E+00	1.0098E+00
-23.07	1.0952E+00	1.1027E+00	1.0883E+00
-17.94	1.1586E+00	1.1680E+00	1.1504E+00
-12.82	1.2036E+00	1.2136E+00	1.1899E+00
-7.69	1.2298E+00	1.2401E+00	1.2155E+00
-2.56	1.2369E+00	1.2475E+00	1.2224E+00
2.56	1.2251E+00	1.2360E+00	1.2120E+00
7.69	1.1950E+00	1.2059E+00	1.1822E+00
12.82	1.1474E+00	1.1583E+00	1.1353E+00
17.94	1.0837E+00	1.0941E+00	1.0791E+00
23.07	1.0045E+00	1.0134E+00	1.0009E+00
28.20	9.1174E-01	9.1749E-01	9.0966E-01
33.32	8.0757E-01	8.0759E-01	8.1550E-01
38.45	6.9431E-01	6.8315E-01	7.0727E-01
43.58	5.7654E-01	5.4471E-01	6.0609E-01
47.17	4.9616E-01	4.3632E-01	5.2957E-02
50.62	4.2047E-01	3.4164E-01	3.7859E-02
55.49	3.2816E-01	2.4313E-01	2.5112E-02
60.35	2.4910E-01	1.6846E-01	1.7092E-02
64.98	2.0068E-01	1.2579E-01	0.0000E+00
69.39	1.7195E-01	1.0315E-01	0.0000E+00
76.46	1.3075E-01	7.2875E-02	0.0000E+00
86.80	8.5228E-02	4.3670E-02	0.0000E+00
98.14	4.9050E-02	2.3688E-02	0.0000E+00
110.00	2.0786E-02	1.0476E-02	0.0000E+00

Table E10A-3.5. Fission Power Distribution by Pin in MFA-1 at EOC 10A-3

0.902	0.906	0.910	0.914	0.918	0.921	0.924	0.926												
0.913	0.918	0.922	0.926	0.930	0.934	0.937	0.939	0.942											
0.923	0.928	0.933	0.938	0.942	0.946	0.949	0.952	0.955	0.957										
0.933	0.939	0.944	0.949	0.953	0.958	0.961	0.965	0.968	0.970	0.973									
0.942	0.948	0.954	0.959	0.964	0.969	0.973	0.976	0.980	0.983	0.985	0.988								
0.951	0.957	0.963	0.969	0.974	0.979	0.983	0.987	0.991	0.994	0.997	1.000	1.002							
0.959	0.966	0.972	0.978	0.983	0.988	0.993	0.997	1.001	1.005	1.008	1.011	1.014	1.017						
0.967	0.973	0.980	0.986	0.991	0.997	1.002	1.006	1.011	1.015	1.019	1.022	1.025	1.028	1.031					
0.980	0.987	0.993	0.999	1.005	1.010	1.015	1.019	1.024	1.028	1.032	1.035	1.039	1.042						
0.994	1.000	1.006	1.012	1.017	1.022	1.027	1.032	1.036	1.041	1.045	1.048	1.052							
1.006	1.012	1.018	1.024	1.029	1.034	1.039	1.044	1.048	1.053	1.057	1.061								
1.018	1.024	1.029	1.035	1.040	1.045	1.050	1.055	1.060	1.064	1.069									
1.029	1.034	1.040	1.045	1.051	1.056	1.061	1.066	1.071	1.076										
1.039	1.045	1.050	1.055	1.061	1.066	1.071	1.077	1.082											
1.049	1.054	1.059	1.065	1.070	1.076	1.081	1.087												

N
↘

Table E10A-3.7. Total Flux Distribution by Pin in MFA-1 at EOC 10A-3

					0.891	0.896	0.901	0.905	0.909	0.912	0.915	0.917							
					0.904	0.909	0.914	0.919	0.923	0.927	0.930	0.933	0.935						
					0.915	0.921	0.927	0.932	0.936	0.940	0.944	0.947	0.950	0.952					
					0.927	0.933	0.939	0.944	0.949	0.953	0.957	0.961	0.964	0.966	0.968				
					0.937	0.944	0.950	0.955	0.961	0.965	0.970	0.973	0.977	0.980	0.982	0.984			
					0.947	0.954	0.960	0.966	0.972	0.977	0.981	0.985	0.989	0.992	0.995	0.998	1.000		
					0.956	0.963	0.970	0.976	0.982	0.987	0.992	0.997	1.001	1.004	1.008	1.010	1.013	1.015	
0.	964	0.972	0.979	0.985	0.991	0.997	1.002	1.007	1.011	1.015	1.019	1.022	1.025	1.027	1.029				
					0.980	0.987	0.994	1.000	1.006	1.011	1.017	1.021	1.026	1.029	1.033	1.036	1.039	1.041	
					0.994	1.001	1.008	1.014	1.020	1.025	1.030	1.035	1.039	1.043	1.047	1.050	1.053		
					1.008	1.015	1.022	1.028	1.033	1.038	1.043	1.048	1.052	1.056	1.060	1.063			
					1.022	1.028	1.035	1.040	1.046	1.051	1.056	1.060	1.065	1.069	1.072				
					1.035	1.041	1.047	1.053	1.058	1.063	1.068	1.072	1.077	1.081					
					1.047	1.053	1.059	1.064	1.070	1.075	1.079	1.084	1.088						
					1.058	1.064	1.070	1.075	1.081	1.086	1.091	1.095							

Table E10A-3.9. MFA-1 and MFA-2 Duct Wall Flux
Greater Than 0.1 MeV at EOC 10A-3

SIDE	FLUX > 0.1 MEV (n/cm ² -sec)	
	MFA-1	MFA-2
E	1.8821E+15	2.1351E+15
SE	1.6818E+15	2.2215E+15
SW	1.6127E+15	2.0142E+15
W	1.7735E+15	1.7575E+15
NW	1.9921E+15	1.6805E+15
NE	2.0485E+15	1.8385E+15

Table E10A-3.17. Composition of MFA-1 at EOC 10A-3

Axial Level	Axial Range (cm)		Constituent	Atom Density (a/b-cm)	
	Lower	Upper		Fresh	End of Cycle
1	-100.28	-75.28	Na-23	5.3150E-03	5.3150E-03
			SS-316	6.4090E-02	6.4090E-02
2	-75.28	-62.78	Na-23	1.3177E-02	1.3177E-02
			SS-316	3.4175E-02	3.4175E-02
3	-62.78	-46.14	U-235	1.4143E-05	1.3455E-05
			U-238	7.0573E-03	7.0225E-03
			Pu-239	0.0000E+00	3.2081E-05
			Pu-240	0.0000E+00	2.2219E-07
			FP	0.0000E+00	3.0103E-06
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
4	-46.14	-30.76	U-235	1.0840E-05	1.0357E-05
			U-238	4.4499E-03	4.4230E-03
			Pu-239	1.7520E-03	1.6973E-03
			Pu-240	2.2340E-04	2.3414E-04
			Pu-241	1.9280E-05	1.9977E-05
			Pu-242	4.7430E-06	4.7984E-06
			Am-241	7.6680E-07	9.8823E-07
			FP	0.0000E+00	7.0090E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
5	-30.76	-15.38	U-235	1.0840E-05	1.0237E-05
			U-238	4.4499E-03	4.4156E-03
			Pu-239	1.7520E-03	1.6819E-03
			Pu-240	2.2340E-04	2.3528E-04
			Pu-241	1.9280E-05	2.0028E-05
			Pu-242	4.7430E-06	4.7986E-06
			Am-241	7.6680E-07	9.8128E-07
			FP	0.0000E+00	9.1922E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
6	-15.38	0.00	U-235	1.0840E-05	1.0171E-05
			U-238	4.4499E-03	4.4117E-03
			Pu-239	1.7520E-03	1.6739E-03
			Pu-240	2.2340E-04	2.3648E-04
			Pu-241	1.9280E-05	2.0134E-05
			Pu-242	4.7430E-06	4.8045E-06
			Am-241	7.6680E-07	9.7771E-07
			FP	0.0000E+00	1.0248E-04
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02

7	0.00	15.38	U-235	1.0840E-05	1.0192E-05
			U-238	4.4499E-03	4.4130E-03
			Pu-239	1.7520E-03	1.6764E-03
			Pu-240	2.2340E-04	2.3603E-04
			Pu-241	1.9280E-05	2.0094E-05
			Pu-242	4.7430E-06	4.8021E-06
			Am-241	7.6680E-07	9.7885E-07
			FP	0.0000E+00	9.9159E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
8	15.38	30.76	U-235	1.0840E-05	1.0297E-05
			U-238	4.4499E-03	4.4190E-03
			Pu-239	1.7520E-03	1.6888E-03
			Pu-240	2.2340E-04	2.3404E-04
			Pu-241	1.9280E-05	1.9917E-05
			Pu-242	4.7430E-06	4.7919E-06
			Am-241	7.6680E-07	9.8439E-07
			FP	0.0000E+00	8.2964E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
9	30.76	46.14	U-235	1.0840E-05	1.0441E-05
			U-238	4.4499E-03	4.4277E-03
			Pu-239	1.7520E-03	1.7067E-03
			Pu-240	2.2340E-04	2.3204E-04
			Pu-241	1.9280E-05	1.9774E-05
			Pu-242	4.7430E-06	4.7859E-06
			Am-241	7.6680E-07	9.9251E-07
			FP	0.0000E+00	5.8275E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
10	46.14	62.78	U-235	1.4143E-05	1.3681E-05
			U-238	7.0573E-03	7.0332E-03
			Pu-239	0.0000E+00	2.2166E-05
			Pu-240	0.0000E+00	9.8597E-08
			FP	0.0000E+00	2.1588E-06
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
11	62.78	116.00	Na-23	8.2400E-03	8.2400E-03
			SS-316	2.5562E-02	2.5562E-02

Table E10A-3.18. Composition of MFA-2 at EOC 10A-3

Axial Level	Axial Range (cm)		Constituent	Atom Density (a/b-cm)	
	Lower	Upper		Fresh	End of Cycle
1	-100.28	-75.28	Na-23	5.3150E-03	5.3150E-03
			SS-316	6.4090E-02	6.4090E-02
2	-75.28	-62.78	Na-23	1.3177E-02	1.3177E-02
			SS-316	3.4175E-02	3.4175E-02
3	-62.78	-46.14	U-235	1.4143E-05	1.3508E-05
			U-238	7.0573E-03	7.0246E-03
			Pu-239	0.0000E+00	3.0088E-05
			Pu-240	0.0000E+00	1.9078E-07
			FP	0.0000E+00	2.8791E-06
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
4	-46.14	-30.76	U-235	1.0160E-05	9.7183E-06
			U-238	4.4270E-03	4.4009E-03
			Pu-239	1.7483E-03	1.6953E-03
			Pu-240	2.2290E-04	2.3346E-04
			Pu-241	1.9040E-05	1.9732E-05
			Pu-242	4.7330E-06	4.7860E-06
			Am-241	7.5700E-07	9.7621E-07
			FP	0.0000E+00	6.7853E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
5	-30.76	-15.38	U-235	1.0160E-05	9.6053E-06
			U-238	4.4270E-03	4.3934E-03
			Pu-239	1.7483E-03	1.6798E-03
			Pu-240	2.2290E-04	2.3471E-04
			Pu-241	1.9040E-05	1.9802E-05
			Pu-242	4.7330E-06	4.7868E-06
			Am-241	7.5700E-07	9.6930E-07
			FP	0.0000E+00	8.9592E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
6	-15.38	0.00	U-235	1.0160E-05	9.5416E-06
			U-238	4.4270E-03	4.3894E-03
			Pu-239	1.7483E-03	1.6718E-03
			Pu-240	2.2290E-04	2.3593E-04
			Pu-241	1.9040E-05	1.9914E-05
			Pu-242	4.7330E-06	4.7929E-06
			Am-241	7.5700E-07	9.6570E-07
			FP	0.0000E+00	1.0028E-04
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02

7	0.00	15.38	U-235	1.0160E-05	9.5603E-06
			U-238	4.4270E-03	4.3906E-03
			Pu-239	1.7483E-03	1.6740E-03
			Pu-240	2.2290E-04	2.3553E-04
			Pu-241	1.9040E-05	1.9876E-05
			Pu-242	4.7330E-06	4.7907E-06
			Am-241	7.5700E-07	9.6671E-07
			FP	0.0000E+00	9.7279E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
8	15.38	30.76	U-235	1.0160E-05	9.6540E-06
			U-238	4.4270E-03	4.3964E-03
			Pu-239	1.7483E-03	1.6858E-03
			Pu-240	2.2290E-04	2.3363E-04
			Pu-241	1.9040E-05	1.9705E-05
			Pu-242	4.7330E-06	4.7813E-06
			Am-241	7.5700E-07	9.7198E-07
			FP	0.0000E+00	8.1783E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
9	30.76	46.14	U-235	1.0160E-05	9.7874E-06
			U-238	4.4270E-03	4.4049E-03
			Pu-239	1.7483E-03	1.7035E-03
			Pu-240	2.2290E-04	2.3166E-04
			Pu-241	1.9040E-05	1.9557E-05
			Pu-242	4.7330E-06	4.7755E-06
			Am-241	7.5700E-07	9.7988E-07
			FP	0.0000E+00	5.7644E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
10	46.14	62.78	U-235	1.4143E-05	1.3691E-05
			U-238	7.0573E-03	7.0334E-03
			Pu-239	0.0000E+00	2.1955E-05
			Pu-240	0.0000E+00	9.5959E-08
			FP	0.0000E+00	2.1603E-06
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
11	62.78	116.00	Na-23	8.2400E-03	8.2400E-03
			SS-316	2.5562E-02	2.5562E-02

Table B10A-4.1. Fission Power Generated in MFA-1, MFA-2 and Neighboring Assemblies at BOC 10A-4

CORE	* * * * *	POWER IN MEGAWATTS		* * * * *
POS.	BELOW CORE	IN CORE	ABOVE CORE	TOTAL PWR
1506	2.959E-02	3.863E+00	2.031E-02	3.913E+00
1404	8.374E-02	4.628E+00	4.589E-02	4.757E+00
1405	9.610E-03	3.864E+00	7.175E-03	3.881E+00
1505	1.135E-02	3.538E+00	6.690E-03	3.556E+00
1507	9.833E-03	3.270E+00	7.354E-03	3.288E+00
1606	6.255E-03	3.440E+00	4.567E-03	3.451E+00
1607	9.175E-03	2.840E+00	6.636E-03	2.855E+00
2507	3.109E-02	4.207E+00	2.281E-02	4.261E+00
2405	7.328E-02	4.449E+00	4.264E-02	4.565E+00
2506	1.160E-02	3.878E+00	8.209E-03	3.897E+00
2508	1.141E-02	4.612E+00	8.388E-03	4.631E+00
2607	8.010E-03	3.585E+00	5.996E-03	3.599E+00
2608	5.213E-03	3.489E+00	4.338E-03	3.499E+00
2609	1.095E-02	3.634E+00	7.128E-03	3.652E+00

Table B10A-4.2. Assembly Averaged Total Flux for MFA-1 and MFA-2 at BOC 10A-4

Assembly	Core Pos.	Total Flux (n/cm ² -sec)
MFA-1	1506	2.861E+15
MFA-2	2507	3.107E+15

Table B10A-4.3. Axial Distribution of Total Flux, Fast Flux and Power in MFA-1 at BOC 10A-4

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.7595E-02	1.3987E-02	0.0000E+00
-92.78	5.9310E-02	2.7007E-02	0.0000E+00
-87.78	9.5095E-02	4.3215E-02	0.0000E+00
-82.78	1.3765E-01	6.4455E-02	0.0000E+00
-77.78	1.8968E-01	9.3017E-02	0.0000E+00
-72.15	2.4851E-01	1.2993E-01	0.0000E+00
-65.90	3.0691E-01	1.7628E-01	0.0000E+00
-60.35	3.6841E-01	2.3856E-01	2.8315E-02
-55.49	4.5020E-01	3.2302E-01	3.7039E-02
-50.62	5.4584E-01	4.3389E-01	5.1220E-02
-47.17	6.2322E-01	5.3942E-01	6.8216E-02
-43.58	7.0484E-01	6.5960E-01	7.4599E-01
-38.45	8.2181E-01	8.0374E-01	8.3666E-01
-33.32	9.2983E-01	9.2595E-01	9.3643E-01
-28.20	1.0239E+00	1.0272E+00	1.0192E+00
-23.07	1.1021E+00	1.1093E+00	1.0953E+00
-17.94	1.1629E+00	1.1720E+00	1.1548E+00
-12.82	1.2054E+00	1.2151E+00	1.1917E+00
-7.69	1.2295E+00	1.2396E+00	1.2152E+00
-2.56	1.2350E+00	1.2452E+00	1.2204E+00
2.56	1.2218E+00	1.2323E+00	1.2088E+00
7.69	1.1903E+00	1.2009E+00	1.1776E+00
12.82	1.1412E+00	1.1519E+00	1.1290E+00
17.94	1.0759E+00	1.0865E+00	1.0712E+00
23.07	9.9562E-01	1.0049E+00	9.9181E-01
28.20	9.0249E-01	9.0877E-01	9.0007E-01
33.32	7.9887E-01	7.9953E-01	8.0638E-01
38.45	6.8706E-01	6.7678E-01	6.9947E-01
43.58	5.7143E-01	5.4065E-01	6.0009E-01
47.17	4.9264E-01	4.3380E-01	5.1742E-02
50.62	4.1825E-01	3.4020E-01	3.6926E-02
55.49	3.2674E-01	2.4234E-01	2.4441E-02
60.35	2.4774E-01	1.6782E-01	1.6592E-02
64.98	1.9943E-01	1.2549E-01	0.0000E+00
69.39	1.7128E-01	1.0332E-01	0.0000E+00
76.46	1.3099E-01	7.3607E-02	0.0000E+00
86.80	8.5984E-02	4.4584E-02	0.0000E+00
98.14	4.9848E-02	2.4457E-02	0.0000E+00
110.00	2.1429E-02	1.0999E-02	0.0000E+00

Table B10A-4.4. Axial Distribution of Total Flux, Fast Flux and Power in MFA-2 at BOC 10A-4

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.5060E-02	1.2741E-02	0.0000E+00
-92.78	5.3832E-02	2.4595E-02	0.0000E+00
-87.78	8.6354E-02	3.9368E-02	0.0000E+00
-82.78	1.2523E-01	5.8792E-02	0.0000E+00
-77.78	1.7333E-01	8.5065E-02	0.0000E+00
-72.15	2.2887E-01	1.1941E-01	0.0000E+00
-65.90	2.8629E-01	1.6365E-01	0.0000E+00
-60.35	3.4853E-01	2.2408E-01	2.6713E-02
-55.49	4.3044E-01	3.0680E-01	3.5515E-02
-50.62	5.2667E-01	4.1681E-01	4.9790E-02
-47.17	6.0506E-01	5.2251E-01	6.6856E-02
-43.58	6.8785E-01	6.4307E-01	7.3100E-01
-38.45	8.0698E-01	7.8882E-01	8.2217E-01
-33.32	9.1736E-01	9.1336E-01	9.2367E-01
-28.20	1.0139E+00	1.0174E+00	1.0086E+00
-23.07	1.0948E+00	1.1024E+00	1.0873E+00
-17.94	1.1585E+00	1.1681E+00	1.1497E+00
-12.82	1.2038E+00	1.2140E+00	1.1895E+00
-7.69	1.2303E+00	1.2408E+00	1.2154E+00
-2.56	1.2375E+00	1.2483E+00	1.2225E+00
2.56	1.2258E+00	1.2369E+00	1.2121E+00
7.69	1.1956E+00	1.2068E+00	1.1822E+00
12.82	1.1479E+00	1.1589E+00	1.1353E+00
17.94	1.0840E+00	1.0946E+00	1.0788E+00
23.07	1.0047E+00	1.0137E+00	1.0006E+00
28.20	9.1185E-01	9.1753E-01	9.0926E-01
33.32	8.0764E-01	8.0748E-01	8.1520E-01
38.45	6.9441E-01	6.8304E-01	7.0766E-01
43.58	5.7696E-01	5.4466E-01	6.0898E-01
47.17	4.9702E-01	4.3591E-01	5.3237E-02
50.62	4.2160E-01	3.4074E-01	3.8040E-02
55.49	3.2928E-01	2.4201E-01	2.5221E-02
60.35	2.4974E-01	1.6744E-01	1.7153E-02
64.98	2.0073E-01	1.2495E-01	0.0000E+00
69.39	1.7166E-01	1.0240E-01	0.0000E+00
76.46	1.3019E-01	7.2258E-02	0.0000E+00
86.80	8.4695E-02	4.3239E-02	0.0000E+00
98.14	4.8685E-02	2.3423E-02	0.0000E+00
110.00	2.0618E-02	1.0349E-02	0.0000E+00

Table B10A-4.6. Fission Power Distribution by Pin in MFA-2 at BOC 10A-4

	1.081	1.065	1.048	1.031	1.013	0.995	0.977	0.958						
	1.088	1.072	1.055	1.038	1.021	1.003	0.985	0.967	0.949					
	1.093	1.078	1.062	1.045	1.028	1.011	0.993	0.976	0.958	0.939				
	1.098	1.083	1.067	1.051	1.035	1.018	1.001	0.983	0.965	0.947	0.929			
	1.102	1.088	1.072	1.057	1.041	1.024	1.007	0.990	0.972	0.955	0.937	0.919		
	1.106	1.091	1.077	1.061	1.045	1.029	1.013	0.996	0.979	0.961	0.944	0.926	0.908	
	1.109	1.095	1.080	1.065	1.050	1.034	1.018	1.001	0.984	0.967	0.950	0.932	0.914	0.897
1.111	1.097	1.083	1.068	1.053	1.038	1.022	1.006	0.989	0.972	0.955	0.938	0.920	0.903	0.885
	1.099	1.085	1.071	1.056	1.041	1.025	1.009	0.993	0.976	0.959	0.942	0.925	0.908	0.890
	1.087	1.073	1.058	1.043	1.028	1.012	0.996	0.980	0.963	0.946	0.929	0.912	0.895	
	1.074	1.060	1.045	1.030	1.015	0.999	0.983	0.967	0.950	0.933	0.916	0.899		
	1.061	1.047	1.032	1.017	1.001	0.986	0.969	0.953	0.936	0.919	0.902			
	1.048	1.033	1.018	1.003	0.987	0.971	0.955	0.939	0.922	0.905				
	1.034	1.019	1.004	0.989	0.973	0.957	0.941	0.925	0.908					
	1.019	1.005	0.990	0.974	0.959	0.943	0.926	0.910						

Table B10A-4.8. Total Flux Distribution by Pin in MFA-2 at BOC 10A-4

	1.087	1.069	1.052	1.033	1.015	0.996	0.977	0.957						
	1.093	1.076	1.059	1.041	1.023	1.005	0.986	0.967	0.947					
	1.099	1.083	1.066	1.049	1.031	1.013	0.994	0.975	0.956	0.937				
	1.104	1.089	1.072	1.055	1.038	1.020	1.002	0.983	0.964	0.945	0.926			
	1.109	1.093	1.077	1.061	1.044	1.026	1.009	0.990	0.972	0.953	0.934	0.914		
	1.113	1.097	1.082	1.066	1.049	1.032	1.014	0.997	0.978	0.960	0.941	0.922	0.902	
	1.116	1.101	1.085	1.070	1.053	1.037	1.020	1.002	0.984	0.966	0.947	0.928	0.909	0.889
1.118	1.104	1.088	1.073	1.057	1.041	1.024	1.007	0.989	0.971	0.953	0.934	0.915	0.896	0.876
	1.106	1.091	1.076	1.060	1.044	1.027	1.010	0.993	0.976	0.957	0.939	0.920	0.901	0.882
	1.092	1.077	1.062	1.046	1.030	1.014	0.997	0.979	0.961	0.943	0.925	0.906	0.887	
	1.079	1.064	1.048	1.032	1.016	0.999	0.982	0.965	0.947	0.928	0.910	0.891		
	1.064	1.049	1.034	1.018	1.001	0.984	0.967	0.949	0.931	0.913	0.894			
	1.050	1.034	1.019	1.002	0.986	0.969	0.951	0.934	0.916	0.897				
	1.034	1.019	1.003	0.987	0.970	0.953	0.935	0.917	0.899					
	1.018	1.003	0.987	0.970	0.953	0.936	0.919	0.901						

Table B10A-4.9. MFA-1 and MFA-2 Duct Wall Flux
Greater Than 0.1 MeV at BOC 10A-4

SIDE	FLUX > 0.1 MEV (n/cm ² -sec)	
	MFA-1	MFA-2
E	1.8694E+15	2.1715E+15
SE	1.6702E+15	2.2491E+15
SW	1.6019E+15	2.0399E+15
W	1.7619E+15	1.7879E+15
NW	1.9794E+15	1.7228E+15
NE	2.0353E+15	1.8899E+15

Table B10A-4.10. Assembly Outlet Temperatures and
Flow Rates at BOC 10A-4

CORE POS.	MEASURED	
	OUTLET TEMP. (DEG F)	FLOW RATE (LB/H)
1506	1029	114940
1404	914	225440
1405	889	208130
1505	882	208130
1507	872	208130
1606	900	170680
1607	869	170680
2507	1063	114940
2405	946	192410
2506	901	197920
2508	931	208130
2607	926	163690
2608	905	170680
2609	914	170680

Table E10A-4.1. Fission Power Generated in MFA-1, MFA-2 and Neighboring Assemblies at EOC 10A-4

CORE	* * * * *	POWER IN MEGAWATTS		* * * * *
POS.	BELOW CORE	IN CORE	ABOVE CORE	TOTAL PWR
1506	3.241E-02	3.799E+00	2.518E-02	3.857E+00
1404	8.461E-02	4.559E+00	5.420E-02	4.698E+00
1405	9.766E-03	3.786E+00	8.299E-03	3.804E+00
1505	1.127E-02	3.577E+00	8.230E-03	3.597E+00
1507	9.733E-03	3.213E+00	8.314E-03	3.231E+00
1606	6.404E-03	3.447E+00	5.535E-03	3.459E+00
1607	9.048E-03	2.810E+00	7.536E-03	2.827E+00
2507	3.402E-02	4.044E+00	2.767E-02	4.106E+00
2405	7.395E-02	4.282E+00	4.958E-02	4.406E+00
2506	1.148E-02	3.770E+00	9.332E-03	3.791E+00
2508	1.138E-02	4.459E+00	9.609E-03	4.480E+00
2607	7.988E-03	3.483E+00	6.782E-03	3.498E+00
2608	5.315E-03	3.370E+00	4.923E-03	3.381E+00
2609	1.072E-02	3.522E+00	8.034E-03	3.541E+00

Table E10A-4.2. Assembly Averaged Total Flux for MFA-1 and MFA-2 at EOC 10A-4

Assembly	Core Pos.	Total Flux (n/cm ² -sec)
MFA-1	1506	2.869E+15
MFA-2	2507	3.051E+15

Table E10A-4.3. Axial Distribution of Total Flux, Fast Flux and Power in MFA-1 at EOC 10A-4

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.6179E-02	1.3345E-02	0.0000E+00
-92.78	5.6273E-02	2.5769E-02	0.0000E+00
-87.78	9.0229E-02	4.1233E-02	0.0000E+00
-82.78	1.3062E-01	6.1502E-02	0.0000E+00
-77.78	1.8001E-01	8.8751E-02	0.0000E+00
-72.15	2.3585E-01	1.2398E-01	0.0000E+00
-65.90	2.9127E-01	1.6822E-01	0.0000E+00
-60.35	3.4958E-01	2.2778E-01	3.3357E-02
-55.49	4.2719E-01	3.0808E-01	4.2119E-02
-50.62	5.1790E-01	4.1317E-01	5.5966E-02
-47.17	5.9130E-01	5.1298E-01	7.2236E-02
-43.58	6.6870E-01	6.2663E-01	7.1007E-01
-38.45	7.8058E-01	7.6406E-01	7.9754E-01
-33.32	8.8508E-01	8.8184E-01	8.9462E-01
-28.20	9.7757E-01	9.8093E-01	9.7199E-01
-23.07	1.0565E+00	1.0633E+00	1.0489E+00
-17.94	1.1205E+00	1.1290E+00	1.1115E+00
-12.82	1.1685E+00	1.1775E+00	1.1510E+00
-7.69	1.2006E+00	1.2099E+00	1.1823E+00
-2.56	1.2164E+00	1.2261E+00	1.1978E+00
2.56	1.2157E+00	1.2257E+00	1.1989E+00
7.69	1.1980E+00	1.2085E+00	1.1815E+00
12.82	1.1635E+00	1.1743E+00	1.1476E+00
17.94	1.1122E+00	1.1232E+00	1.1077E+00
23.07	1.0437E+00	1.0536E+00	1.0401E+00
28.20	9.5881E-01	9.6573E-01	9.5681E-01
33.32	8.5936E-01	8.6032E-01	8.7280E-01
38.45	7.4714E-01	7.3606E-01	7.6554E-01
43.58	6.2724E-01	5.9339E-01	6.6331E-01
47.17	5.4366E-01	4.7864E-01	6.2155E-02
50.62	4.6413E-01	3.7764E-01	4.5746E-02
55.49	3.6477E-01	2.7079E-01	3.1534E-02
60.35	2.7810E-01	1.8863E-01	2.2269E-02
64.98	2.2492E-01	1.4162E-01	0.0000E+00
69.39	1.9361E-01	1.1684E-01	0.0000E+00
76.46	1.4850E-01	8.3473E-02	0.0000E+00
86.80	9.7675E-02	5.0667E-02	0.0000E+00
98.14	5.6647E-02	2.7816E-02	0.0000E+00
110.00	2.4303E-02	1.2495E-02	0.0000E+00

Table E10A-4.4. Axial Distribution of Total Flux, Fast Flux and Power in MFA-2 at EOC 10A-4

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.4099E-02	1.2324E-02	0.0000E+00
-92.78	5.1768E-02	2.3786E-02	0.0000E+00
-87.78	8.3038E-02	3.8064E-02	0.0000E+00
-82.78	1.2041E-01	5.6826E-02	0.0000E+00
-77.78	1.6662E-01	8.2190E-02	0.0000E+00
-72.15	2.1997E-01	1.1533E-01	0.0000E+00
-65.90	2.7501E-01	1.5801E-01	0.0000E+00
-60.35	3.3448E-01	2.1636E-01	3.2407E-02
-55.49	4.1279E-01	2.9572E-01	4.1384E-02
-50.62	5.0478E-01	4.0091E-01	5.5481E-02
-47.17	5.7957E-01	5.0173E-01	7.1958E-02
-43.58	6.5863E-01	6.1665E-01	7.0285E-01
-38.45	7.7316E-01	7.5659E-01	7.9120E-01
-33.32	8.8034E-01	8.7714E-01	8.9029E-01
-28.20	9.7536E-01	9.7901E-01	9.6944E-01
-23.07	1.0568E+00	1.0642E+00	1.0486E+00
-17.94	1.1232E+00	1.1322E+00	1.1136E+00
-12.82	1.1732E+00	1.1828E+00	1.1549E+00
-7.69	1.2067E+00	1.2164E+00	1.1876E+00
-2.56	1.2228E+00	1.2329E+00	1.2033E+00
2.56	1.2215E+00	1.2320E+00	1.2037E+00
7.69	1.2027E+00	1.2136E+00	1.1852E+00
12.82	1.1667E+00	1.1777E+00	1.1499E+00
17.94	1.1137E+00	1.1246E+00	1.1085E+00
23.07	1.0436E+00	1.0531E+00	1.0395E+00
28.20	9.5740E-01	9.6365E-01	9.5492E-01
33.32	8.5680E-01	8.5695E-01	8.7025E-01
38.45	7.4381E-01	7.3177E-01	7.6302E-01
43.58	6.2360E-01	5.8861E-01	6.6320E-01
47.17	5.4045E-01	4.7374E-01	6.3544E-02
50.62	4.6149E-01	3.7284E-01	4.7019E-02
55.49	3.6344E-01	2.6709E-01	3.2682E-02
60.35	2.7806E-01	1.8643E-01	2.3303E-02
64.98	2.2528E-01	1.4009E-01	0.0000E+00
69.39	1.9351E-01	1.1529E-01	0.0000E+00
76.46	1.4766E-01	8.1858E-02	0.0000E+00
86.80	9.6566E-02	4.9259E-02	0.0000E+00
98.14	5.5677E-02	2.6783E-02	0.0000E+00
110.00	2.3593E-02	1.1851E-02	0.0000E+00

Table E10A-4.5. Fission Power Distribution by Pin in MFA-1 at EOC 10A-4

0.903	0.907	0.911	0.914	0.916	0.919	0.921	0.923							
0.915	0.919	0.923	0.926	0.929	0.932	0.935	0.937	0.938						
0.926	0.930	0.935	0.938	0.942	0.945	0.947	0.950	0.952	0.954					
0.937	0.941	0.946	0.950	0.953	0.957	0.960	0.963	0.965	0.967	0.969				
0.947	0.952	0.956	0.961	0.965	0.968	0.972	0.975	0.977	0.980	0.982	0.984			
0.957	0.962	0.966	0.971	0.975	0.979	0.983	0.986	0.989	0.992	0.994	0.996	0.998		
0.966	0.971	0.976	0.980	0.985	0.989	0.993	0.996	1.000	1.003	1.005	1.008	1.010	1.012	
0.974	0.979	0.985	0.989	0.994	0.998	1.002	1.006	1.010	1.013	1.016	1.019	1.022	1.024	1.026
0.987	0.993	0.998	1.002	1.007	1.011	1.015	1.019	1.022	1.026	1.029	1.032	1.035	1.037	
1.000	1.005	1.010	1.014	1.019	1.023	1.027	1.031	1.034	1.038	1.041	1.045	1.048		
1.012	1.017	1.022	1.026	1.030	1.034	1.038	1.042	1.046	1.050	1.053	1.057			
1.023	1.028	1.032	1.037	1.041	1.045	1.049	1.053	1.057	1.061	1.065				
1.034	1.038	1.043	1.047	1.051	1.055	1.060	1.064	1.068	1.072					
1.044	1.048	1.052	1.056	1.061	1.065	1.070	1.074	1.079						
1.053	1.057	1.061	1.065	1.070	1.075	1.079	1.084							

Table E10A-4.6. Fission Power Distribution by Pin in MFA-2 at EOC 10A-4

	1.083	1.066	1.049	1.032	1.014	0.996	0.978	0.960											
	1.089	1.073	1.056	1.039	1.022	1.004	0.986	0.968	0.950										
	1.094	1.078	1.062	1.046	1.029	1.012	0.994	0.976	0.958	0.940									
	1.099	1.084	1.068	1.052	1.035	1.018	1.001	0.983	0.966	0.948	0.930								
	1.103	1.088	1.073	1.057	1.041	1.024	1.007	0.990	0.972	0.955	0.937	0.919							
	1.106	1.092	1.077	1.061	1.046	1.029	1.013	0.996	0.978	0.961	0.943	0.926	0.908						
	1.109	1.095	1.080	1.065	1.050	1.034	1.017	1.001	0.984	0.967	0.949	0.932	0.914	0.897					
1.112	1.098	1.083	1.068	1.053	1.038	1.022	1.005	0.988	0.971	0.954	0.937	0.919	0.902	0.885					
1.100	1.086	1.071	1.056	1.041	1.025	1.009	0.992	0.976	0.959	0.942	0.924	0.907	0.889						
1.088	1.073	1.059	1.043	1.028	1.012	0.996	0.979	0.963	0.946	0.928	0.911	0.894							
1.075	1.060	1.045	1.030	1.015	0.999	0.982	0.966	0.949	0.932	0.915	0.898								
1.062	1.047	1.032	1.017	1.001	0.985	0.969	0.952	0.935	0.918	0.901									
1.048	1.033	1.018	1.003	0.987	0.971	0.955	0.938	0.921	0.904										
1.034	1.019	1.004	0.988	0.973	0.957	0.940	0.924	0.907											
1.020	1.005	0.990	0.974	0.958	0.942	0.926	0.909												

Table E10A-4.9. MFA-1 and MFA-2 Duct Wall Flux
Greater Than 0.1 MeV at EOC 10A-4

SIDE	FLUX > 0.1 MEV (n/cm ² -sec)	
	MFA-1	MFA-2
E	1.8777E+15	2.1200E+15
SE	1.6743E+15	2.1949E+15
SW	1.5952E+15	1.9935E+15
W	1.7491E+15	1.7451E+15
NW	1.9651E+15	1.6780E+15
NE	2.0293E+15	1.8430E+15

Table E10A-4.10. Assembly Outlet Temperatures and
Flow Rates at EOC 10A-4

CORE POS.	OUTLET TEMP. (DEG F)		FLOW RATE (LB/H)
	MEASURED	CALCULATED	
1506	1027	1032	114940
1404	911	908	225440
1405	885	883	208130
1505	884	870	208130
1507	866	852	208130
1606	899	898	170680
1607	868	862	170680
2507	1050	1053	114940
2405	938	930	192410
2506	895	887	197920
2508	920	915	208130
2607	918	906	163690
2608	899	894	170680
2609	909	892	170680

Table E10A-4.17. Composition of MFA-1 at EOC 10A-4

Axial Level	Axial Range (cm)		Constituent	Atom Density (a/b-cm)	
	Lower	Upper		Fresh	End of Cycle
1	-100.28	-75.28	Na-23 SS-316	5.3150E-03 6.4090E-02	5.3150E-03 6.4090E-02
2	-75.28	-62.78	Na-23 SS-316	1.3177E-02 3.4175E-02	1.3177E-02 3.4175E-02
3	-62.78	-46.14	U-235 U-238 Pu-239 Pu-240 FP O-16 Na-23 SS-316	1.4143E-05 7.0573E-03 0.0000E+00 0.0000E+00 0.0000E+00 1.4143E-02 9.7416E-03 1.9073E-02	1.3056E-05 7.0015E-03 5.0743E-05 5.6431E-07 5.2535E-06 1.4143E-02 9.7416E-03 1.9073E-02
4	-46.14	-30.76	U-235 U-238 Pu-239 Pu-240 Pu-241 Pu-242 Am-241 FP O-16 Na-23 SS-316	1.0840E-05 4.4499E-03 1.7520E-03 2.2340E-04 1.9280E-05 4.7430E-06 7.6680E-07 0.0000E+00 1.2670E-02 9.8100E-03 1.8990E-02	1.0076E-05 4.4069E-03 1.6657E-03 2.4037E-04 2.0419E-05 4.8344E-06 1.1275E-06 1.1114E-04 1.2670E-02 9.8100E-03 1.8990E-02
5	-30.76	-15.38	U-235 U-238 Pu-239 Pu-240 Pu-241 Pu-242 Am-241 FP O-16 Na-23 SS-316	1.0840E-05 4.4499E-03 1.7520E-03 2.2340E-04 1.9280E-05 4.7430E-06 7.6680E-07 0.0000E+00 1.2670E-02 9.8100E-03 1.8990E-02	9.8896E-06 4.3951E-03 1.6416E-03 2.4211E-04 2.0512E-05 4.8357E-06 1.1158E-06 1.4547E-04 1.2670E-02 9.8100E-03 1.8990E-02
6	-15.38	0.00	U-235 U-238 Pu-239 Pu-240 Pu-241 Pu-242 Am-241 FP O-16 Na-23 SS-316	1.0840E-05 4.4499E-03 1.7520E-03 2.2340E-04 1.9280E-05 4.7430E-06 7.6680E-07 0.0000E+00 1.2670E-02 9.8100E-03 1.8990E-02	9.7832E-06 4.3886E-03 1.6288E-03 2.4402E-04 2.0697E-05 4.8466E-06 1.1100E-06 1.6258E-04 1.2670E-02 9.8100E-03 1.8990E-02

7	0.00	15.38	U-235	1.0840E-05	9.8089E-06
			U-238	4.4499E-03	4.3902E-03
			Pu-239	1.7520E-03	1.6319E-03
			Pu-240	2.2340E-04	2.4347E-04
			Pu-241	1.9280E-05	2.0644E-05
			Pu-242	4.7430E-06	4.8432E-06
			Am-241	7.6680E-07	1.1112E-06
			FP	0.0000E+00	1.5852E-04
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
8	15.38	30.76	U-235	1.0840E-05	9.9651E-06
			U-238	4.4499E-03	4.3995E-03
			Pu-239	1.7520E-03	1.6502E-03
			Pu-240	2.2340E-04	2.4053E-04
			Pu-241	1.9280E-05	2.0361E-05
			Pu-242	4.7430E-06	4.8262E-06
			Am-241	7.6680E-07	1.1193E-06
			FP	0.0000E+00	1.3413E-04
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
9	30.76	46.14	U-235	1.0840E-05	1.0190E-05
			U-238	4.4499E-03	4.4134E-03
			Pu-239	1.7520E-03	1.6783E-03
			Pu-240	2.2340E-04	2.3749E-04
			Pu-241	1.9280E-05	2.0125E-05
			Pu-242	4.7430E-06	4.8156E-06
			Am-241	7.6680E-07	1.1324E-06
			FP	0.0000E+00	9.5157E-05
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
10	46.14	62.78	U-235	1.4143E-05	1.3385E-05
			U-238	7.0573E-03	7.0174E-03
			Pu-239	0.0000E+00	3.6387E-05
			Pu-240	0.0000E+00	2.6913E-07
			FP	0.0000E+00	3.7929E-06
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
11	62.78	116.00	Na-23	8.2400E-03	8.2400E-03
			SS-316	2.5562E-02	2.5562E-02

Table E10A-4.18. Composition of MFA-2 at EOC 10A-4

Axial Level	Axial Range (cm)		Constituent	Atom Density (a/b-cm)	
	Lower	Upper		Fresh	End of Cycle
1	-100.28	-75.28	Na-23	5.3150E-03	5.3150E-03
			SS-316	6.4090E-02	6.4090E-02
2	-75.28	-62.78	Na-23	1.3177E-02	1.3177E-02
			SS-316	3.4175E-02	3.4175E-02
3	-62.78	-46.14	U-235	1.4143E-05	1.3078E-05
			U-238	7.0573E-03	7.0024E-03
			Pu-239	0.0000E+00	4.9911E-05
			Pu-240	0.0000E+00	5.4997E-07
			FP	0.0000E+00	5.2479E-06
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
4	-46.14	-30.76	U-235	1.0160E-05	9.4363E-06
			U-238	4.4270E-03	4.3837E-03
			Pu-239	1.7483E-03	1.6614E-03
			Pu-240	2.2290E-04	2.4016E-04
			Pu-241	1.9040E-05	2.0234E-05
			Pu-242	4.7330E-06	4.8239E-06
			Am-241	7.5700E-07	1.1123E-06
			FP	0.0000E+00	1.1174E-04
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
5	-30.76	-15.38	U-235	1.0160E-05	9.2542E-06
			U-238	4.4270E-03	4.3713E-03
			Pu-239	1.7483E-03	1.6363E-03
			Pu-240	2.2290E-04	2.4205E-04
			Pu-241	1.9040E-05	2.0349E-05
			Pu-242	4.7330E-06	4.8256E-06
			Am-241	7.5700E-07	1.1004E-06
			FP	0.0000E+00	1.4732E-04
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
6	-15.38	0.00	U-235	1.0160E-05	9.1478E-06
			U-238	4.4270E-03	4.3644E-03
			Pu-239	1.7483E-03	1.6229E-03
			Pu-240	2.2290E-04	2.4407E-04
			Pu-241	1.9040E-05	2.0551E-05
			Pu-242	4.7330E-06	4.8372E-06
			Am-241	7.5700E-07	1.0942E-06
			FP	0.0000E+00	1.6542E-04
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02

7	0.00	15.38	U-235	1.0160E-05	9.1713E-06
			U-238	4.4270E-03	4.3660E-03
			Pu-239	1.7483E-03	1.6257E-03
			Pu-240	2.2290E-04	2.4356E-04
			Pu-241	1.9040E-05	2.0499E-05
			Pu-242	4.7330E-06	4.8340E-06
			Am-241	7.5700E-07	1.0953E-06
			FP	0.0000E+00	1.6162E-04
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
8	15.38	30.76	U-235	1.0160E-05	9.3168E-06
			U-238	4.4270E-03	4.3753E-03
			Pu-239	1.7483E-03	1.6440E-03
			Pu-240	2.2290E-04	2.4066E-04
			Pu-241	1.9040E-05	2.0214E-05
			Pu-242	4.7330E-06	4.8175E-06
			Am-241	7.5700E-07	1.1034E-06
			FP	0.0000E+00	1.3721E-04
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
9	30.76	46.14	U-235	1.0160E-05	9.5310E-06
			U-238	4.4270E-03	4.3893E-03
			Pu-239	1.7483E-03	1.6725E-03
			Pu-240	2.2290E-04	2.3765E-04
			Pu-241	1.9040E-05	1.9974E-05
			Pu-242	4.7330E-06	4.8077E-06
			Am-241	7.5700E-07	1.1166E-06
			FP	0.0000E+00	9.7751E-05
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
10	46.14	62.78	U-235	1.4143E-05	1.3355E-05
			U-238	7.0573E-03	7.0158E-03
			Pu-239	0.0000E+00	3.7793E-05
			Pu-240	0.0000E+00	2.9713E-07
			FP	0.0000E+00	3.9889E-06
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
11	62.78	116.00	Na-23	8.2400E-03	8.2400E-03
			SS-316	2.5562E-02	2.5562E-02

Table B10B.1. Fission Power Generated in MFA-1, MFA-2 and Neighboring Assemblies at BOC 10B

CORE	* * * * *	POWER IN MEGAWATTS		* * * * *
POS.	BELOW CORE	IN CORE	ABOVE CORE	TOTAL PWR
1506	3.473E-02	3.674E+00	2.243E-02	3.731E+00
1404	8.999E-02	4.349E+00	4.727E-02	4.486E+00
1405	0.000E+00	6.471E+00	0.000E+00	6.471E+00
1505	6.642E-03	4.040E+00	4.411E-03	4.051E+00
1507	1.025E-02	3.107E+00	7.320E-03	3.124E+00
1606	6.841E-03	3.304E+00	4.704E-03	3.316E+00
1607	9.531E-03	2.732E+00	6.635E-03	2.748E+00
2507	3.646E-02	4.003E+00	2.503E-02	4.065E+00
2405	1.008E-02	4.134E+00	7.467E-03	4.151E+00
2506	6.915E-03	4.386E+00	5.308E-03	4.398E+00
2508	1.223E-02	4.393E+00	8.597E-03	4.414E+00
2607	8.402E-03	3.401E+00	6.054E-03	3.415E+00
2608	5.672E-03	3.352E+00	4.515E-03	3.362E+00
2609	6.230E-03	4.224E+00	4.945E-03	4.235E+00

Table B10B.2. Assembly Averaged Total Flux for MFA-1 and MFA-2 at BOC 10B

Assembly	Core Pos.	Total Flux (n/cm ² -sec)
MFA-1	1506	2.791E+15
MFA-2	2507	3.016E+15

Table B10B.3. Axial Distribution of Total Flux, Fast Flux and Power in MFA-1 at BOC 10B

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.8660E-02	1.4202E-02	0.0000E+00
-92.78	6.1544E-02	2.7429E-02	0.0000E+00
-87.78	9.8613E-02	4.3911E-02	0.0000E+00
-82.78	1.4263E-01	6.5541E-02	0.0000E+00
-77.78	1.9637E-01	9.4660E-02	0.0000E+00
-72.15	2.5706E-01	1.3238E-01	0.0000E+00
-65.90	3.1736E-01	1.8002E-01	0.0000E+00
-60.35	3.8094E-01	2.4458E-01	3.6638E-02
-55.49	4.6530E-01	3.3192E-01	4.6500E-02
-50.62	5.6352E-01	4.4652E-01	6.2213E-02
-47.17	6.4245E-01	5.5513E-01	8.0727E-02
-43.58	7.2536E-01	6.7808E-01	7.6944E-01
-38.45	8.4374E-01	8.2492E-01	8.6192E-01
-33.32	9.5221E-01	9.4819E-01	9.6281E-01
-28.20	1.0454E+00	1.0490E+00	1.0401E+00
-23.07	1.1212E+00	1.1289E+00	1.1140E+00
-17.94	1.1782E+00	1.1879E+00	1.1697E+00
-12.82	1.2154E+00	1.2259E+00	1.1982E+00
-7.69	1.2331E+00	1.2439E+00	1.2153E+00
-2.56	1.2317E+00	1.2427E+00	1.2136E+00
2.56	1.2121E+00	1.2232E+00	1.1960E+00
7.69	1.1757E+00	1.1869E+00	1.1600E+00
12.82	1.1239E+00	1.1350E+00	1.1090E+00
17.94	1.0580E+00	1.0687E+00	1.0540E+00
23.07	9.7848E-01	9.8763E-01	9.7527E-01
28.20	8.8675E-01	8.9271E-01	8.8479E-01
33.32	7.8459E-01	7.8479E-01	7.9642E-01
38.45	6.7410E-01	6.6317E-01	6.8965E-01
43.58	5.6003E-01	5.2841E-01	5.8982E-01
47.17	4.8402E-01	4.2513E-01	5.7224E-02
50.62	4.1383E-01	3.3603E-01	4.2069E-02
55.49	3.2800E-01	2.4309E-01	2.9073E-02
60.35	2.5277E-01	1.7129E-01	2.0592E-02
64.98	2.0457E-01	1.2864E-01	0.0000E+00
69.39	1.7565E-01	1.0560E-01	0.0000E+00
76.46	1.3414E-01	7.4736E-02	0.0000E+00
86.80	8.8291E-02	4.5086E-02	0.0000E+00
98.14	5.1709E-02	2.4785E-02	0.0000E+00
110.00	2.2429E-02	1.1198E-02	0.0000E+00

Table B10B.4. Axial Distribution of Total Flux, Fast Flux and Power in MFA-2 at BOC 10B

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.5586E-02	1.2970E-02	0.0000E+00
-92.78	5.4933E-02	2.5033E-02	0.0000E+00
-87.78	8.8076E-02	4.0058E-02	0.0000E+00
-82.78	1.2768E-01	5.9806E-02	0.0000E+00
-77.78	1.7671E-01	8.6514E-02	0.0000E+00
-72.15	2.3360E-01	1.2149E-01	0.0000E+00
-65.90	2.9288E-01	1.6681E-01	0.0000E+00
-60.35	3.5697E-01	2.2888E-01	3.5079E-02
-55.49	4.4044E-01	3.1310E-01	4.4821E-02
-50.62	5.3782E-01	4.2488E-01	6.0040E-02
-47.17	6.1702E-01	5.3230E-01	7.7936E-02
-43.58	7.0086E-01	6.5493E-01	7.5091E-01
-38.45	8.2168E-01	8.0305E-01	8.4138E-01
-33.32	9.3305E-01	9.2889E-01	9.4359E-01
-28.20	1.0295E+00	1.0331E+00	1.0232E+00
-23.07	1.1091E+00	1.1170E+00	1.1004E+00
-17.94	1.1702E+00	1.1803E+00	1.1603E+00
-12.82	1.2119E+00	1.2229E+00	1.1930E+00
-7.69	1.2340E+00	1.2453E+00	1.2145E+00
-2.56	1.2367E+00	1.2482E+00	1.2170E+00
2.56	1.2205E+00	1.2322E+00	1.2027E+00
7.69	1.1867E+00	1.1982E+00	1.1694E+00
12.82	1.1365E+00	1.1476E+00	1.1200E+00
17.94	1.0711E+00	1.0815E+00	1.0659E+00
23.07	9.9147E-01	9.9994E-01	9.8731E-01
28.20	8.9903E-01	9.0411E-01	8.9641E-01
33.32	7.9575E-01	7.9495E-01	8.0787E-01
38.45	6.8386E-01	6.7202E-01	7.0127E-01
43.58	5.6799E-01	5.3567E-01	6.0483E-01
47.17	4.8951E-01	4.2874E-01	5.8736E-02
50.62	4.1562E-01	3.3536E-01	4.3165E-02
55.49	3.2514E-01	2.3852E-01	2.9747E-02
60.35	2.4675E-01	1.6520E-01	2.0985E-02
64.98	1.9826E-01	1.2316E-01	0.0000E+00
69.39	1.6952E-01	1.0089E-01	0.0000E+00
76.46	1.2865E-01	7.1169E-02	0.0000E+00
86.80	8.4008E-02	4.2658E-02	0.0000E+00
98.14	4.8631E-02	2.3205E-02	0.0000E+00
110.00	2.0726E-02	1.0302E-02	0.0000E+00

Table B10B.6. Fission Power Distribution by Pin in MFA-2 at BOC 10B

	1.078	1.062	1.045	1.027	1.009	0.991	0.973	0.955	
	1.085	1.069	1.052	1.035	1.018	1.000	0.982	0.964	0.946
	1.091	1.075	1.059	1.043	1.026	1.008	0.991	0.973	0.955
	1.096	1.081	1.065	1.049	1.033	1.016	0.999	0.981	0.963
	1.100	1.085	1.070	1.055	1.039	1.022	1.005	0.988	0.971
	1.104	1.090	1.075	1.060	1.044	1.028	1.011	0.995	0.978
	1.107	1.093	1.079	1.064	1.049	1.033	1.017	1.000	0.984
1.110	1.096	1.082	1.067	1.053	1.037	1.021	1.005	0.989	0.972
	1.099	1.085	1.071	1.056	1.041	1.025	1.010	0.994	0.977
	1.087	1.073	1.059	1.044	1.029	1.013	0.997	0.981	0.965
	1.075	1.061	1.047	1.032	1.016	1.001	0.985	0.969	0.952
	1.063	1.049	1.034	1.019	1.004	0.988	0.972	0.955	0.939
	1.050	1.036	1.021	1.006	0.990	0.975	0.958	0.942	0.925
	1.037	1.023	1.008	0.993	0.977	0.961	0.945	0.928	0.912
	1.024	1.009	0.994	0.979	0.963	0.947	0.931	0.914	

W
J

Table B10B.9. MFA-1 and MFA-2 Duct Wall Flux
Greater Than 0.1 MeV at BOC 10B

SIDE	FLUX > 0.1 MEV (n/cm ² -sec)	
	MFA-1	MFA-2
E	1.8738E+15	2.1211E+15
SE	1.6634E+15	2.1766E+15
SW	1.5985E+15	1.9890E+15
W	1.7757E+15	1.7425E+15
NW	2.0314E+15	1.6907E+15
NE	2.0435E+15	1.8708E+15

Table B10B.10. Assembly Outlet Temperatures and
Flow Rates at BOC 10B

CORE POS.	OUTLET TEMP. (DEG F)		FLOW RATE (LB/H)
	MEASURED	CALCULATED	
1506	1022	1023	115440
1404	906	899	228160
1405	1042	1037	188170
1505	898	890	209040
1507	864	847	209040
1606	893	890	171430
1607	867	856	171430
2507	1043	1051	115440
2405	897	894	209060
2506	913	905	209040
2508	917	912	209040
2607	910	901	164410
2608	894	896	171430
2609	950	959	164410

Table B10B.13. MFA-1 Sodium Subchannel Temperatures
at Elevation of Upper Axial Blanket for BOC 10B

TEMPERATURE MAP FOR BUNDLE 43		ASSEMBLY NO. 1506		MFA-1	
AXIAL HEIGHT 50.456 IN		072		064	
892	893	894	895	896	897
898	899	900	901	902	903
904	905	906	907	908	909
914	915	916	917	918	919
924	925	926	927	928	929
934	935	936	937	938	939
944	945	946	947	948	949
954	955	956	957	958	959
964	965	966	967	968	969
974	975	976	977	978	979
984	985	986	987	988	989
994	995	996	997	998	999
1004	1005	1006	1007	1008	1009
1014	1015	1016	1017	1018	1019
1024	1025	1026	1027	1028	1029
1034	1035	1036	1037	1038	1039
1044	1045	1046	1047	1048	1049
1054	1055	1056	1057	1058	1059
1064	1065	1066	1067	1068	1069
1074	1075	1076	1077	1078	1079
1084	1085	1086	1087	1088	1089
1094	1095	1096	1097	1098	1099
1104	1105	1106	1107	1108	1109
1114	1115	1116	1117	1118	1119
1124	1125	1126	1127	1128	1129
1134	1135	1136	1137	1138	1139
1144	1145	1146	1147	1148	1149
1154	1155	1156	1157	1158	1159
1164	1165	1166	1167	1168	1169
1174	1175	1176	1177	1178	1179
1184	1185	1186	1187	1188	1189
1194	1195	1196	1197	1198	1199
1204	1205	1206	1207	1208	1209
1214	1215	1216	1217	1218	1219
1224	1225	1226	1227	1228	1229
1234	1235	1236	1237	1238	1239
1244	1245	1246	1247	1248	1249
1254	1255	1256	1257	1258	1259
1264	1265	1266	1267	1268	1269
1274	1275	1276	1277	1278	1279
1284	1285	1286	1287	1288	1289
1294	1295	1296	1297	1298	1299
1304	1305	1306	1307	1308	1309
1314	1315	1316	1317	1318	1319
1324	1325	1326	1327	1328	1329
1334	1335	1336	1337	1338	1339
1344	1345	1346	1347	1348	1349
1354	1355	1356	1357	1358	1359
1364	1365	1366	1367	1368	1369
1374	1375	1376	1377	1378	1379
1384	1385	1386	1387	1388	1389
1394	1395	1396	1397	1398	1399
1404	1405	1406	1407	1408	1409
1414	1415	1416	1417	1418	1419
1424	1425	1426	1427	1428	1429
1434	1435	1436	1437	1438	1439
1444	1445	1446	1447	1448	1449
1454	1455	1456	1457	1458	1459
1464	1465	1466	1467	1468	1469
1474	1475	1476	1477	1478	1479
1484	1485	1486	1487	1488	1489
1494	1495	1496	1497	1498	1499
1504	1505	1506	1507	1508	1509
1514	1515	1516	1517	1518	1519
1524	1525	1526	1527	1528	1529
1534	1535	1536	1537	1538	1539
1544	1545	1546	1547	1548	1549
1554	1555	1556	1557	1558	1559
1564	1565	1566	1567	1568	1569
1574	1575	1576	1577	1578	1579
1584	1585	1586	1587	1588	1589
1594	1595	1596	1597	1598	1599
1604	1605	1606	1607	1608	1609
1614	1615	1616	1617	1618	1619
1624	1625	1626	1627	1628	1629
1634	1635	1636	1637	1638	1639
1644	1645	1646	1647	1648	1649
1654	1655	1656	1657	1658	1659
1664	1665	1666	1667	1668	1669
1674	1675	1676	1677	1678	1679
1684	1685	1686	1687	1688	1689
1694	1695	1696	1697	1698	1699
1704	1705	1706	1707	1708	1709
1714	1715	1716	1717	1718	1719
1724	1725	1726	1727	1728	1729
1734	1735	1736	1737	1738	1739
1744	1745	1746	1747	1748	1749
1754	1755	1756	1757	1758	1759
1764	1765	1766	1767	1768	1769
1774	1775	1776	1777	1778	1779
1784	1785	1786	1787	1788	1789
1794	1795	1796	1797	1798	1799
1804	1805	1806	1807	1808	1809
1814	1815	1816	1817	1818	1819
1824	1825	1826	1827	1828	1829
1834	1835	1836	1837	1838	1839
1844	1845	1846	1847	1848	1849
1854	1855	1856	1857	1858	1859
1864	1865	1866	1867	1868	1869
1874	1875	1876	1877	1878	1879
1884	1885	1886	1887	1888	1889
1894	1895	1896	1897	1898	1899
1904	1905	1906	1907	1908	1909
1914	1915	1916	1917	1918	1919
1924	1925	1926	1927	1928	1929
1934	1935	1936	1937	1938	1939
1944	1945	1946	1947	1948	1949
1954	1955	1956	1957	1958	1959
1964	1965	1966	1967	1968	1969
1974	1975	1976	1977	1978	1979
1984	1985	1986	1987	1988	1989
1994	1995	1996	1997	1998	1999
2004	2005	2006	2007	2008	2009
2014	2015	2016	2017	2018	2019
2024	2025	2026	2027	2028	2029
2034	2035	2036	2037	2038	2039
2044	2045	2046	2047	2048	2049
2054	2055	2056	2057	2058	2059
2064	2065	2066	2067	2068	2069
2074	2075	2076	2077	2078	2079
2084	2085	2086	2087	2088	2089
2094	2095	2096	2097	2098	2099
2104	2105	2106	2107	2108	2109
2114	2115	2116	2117	2118	2119
2124	2125	2126	2127	2128	2129
2134	2135	2136	2137	2138	2139
2144	2145	2146	2147	2148	2149
2154	2155	2156	2157	2158	2159
2164	2165	2166	2167	2168	2169
2174	2175	2176	2177	2178	2179
2184	2185	2186	2187	2188	2189
2194	2195	2196	2197	2198	2199
2204	2205	2206	2207	2208	2209
2214	2215	2216	2217	2218	2219
2224	2225	2226	2227	2228	2229
2234	2235	2236	2237	2238	2239
2244	2245	2246	2247	2248	2249
2254	2255	2256	2257	2258	2259
2264	2265	2266	2267	2268	2269
2274	2275	2276	2277	2278	2279
2284	2285	2286	2287	2288	2289
2294	2295	2296	2297	2298	2299
2304	2305	2306	2307	2308	2309
2314	2315	2316	2317	2318	2319
2324	2325	2326	2327	2328	2329
2334	2335	2336	2337	2338	2339
2344	2345	2346	2347	2348	2349
2354	2355	2356	2357	2358	2359
2364	2365	2366	2367	2368	2369
2374	2375	2376	2377	2378	2379
2384	2385	2386	2387	2388	2389
2394	2395	2396	2397	2398	2399
2404	2405	2406	2407	2408	2409
2414	2415	2416	2417	2418	2419
2424	2425	2426	2427	2428	2429
2434	2435	2436	2437	2438	2439
2444	2445	2446	2447	2448	2449
2454	2455	2456	2457	2458	2459
2464	2465	2466	2467	2468	2469
2474	2475	2476	2477	2478	2479
2484	2485	2486	2487	2488	2489
2494	2495	2496	2497	2498	2499
2504	2505	2506	2507	2508	2509
2514	2515	2516	2517	2518	2519
2524	2525	2526	2527	2528	2529
2534	2535	2536	2537	2538	2539
2544	2545	2546	2547	2548	2549
2554	2555	2556	2557	2558	2559
2564	2565	2566	2567	2568	2569
2574	2575	2576	2577	2578	2579
2584	2585	2586	2587	2588	2589
2594	2595	2596	2597	2598	2599
2604	2605	2606	2607	2608	2609
2614	2615	2616	2617	2618	2619
2624	2625	2626	2627	2628	2629
2634	2635	2636	2637	2638	2639
2644	2645	2646	2647	2648	2649
2654	2655	2656	2657	2658	2659
2664	2665	2666	2667	2668	2669
2674	2675	2676	2677	2678	2679
2684	2685	2686	2687	2688	2689
2694	2695	2696	2697	2698	2699
2704	2705	2706	2707	2708	2709
2714	2715	2716	2717	2718	2719
2724	2725	2726	2727	2728	2729
2734	2735	2736	2737	2738	2739
2744	2745	2746	2747	2748	2749
2754	2755	2756	2757	2758	2759
2764	2765	2766	2767	2768	2769
2774	2775	2776	2777	2778	2779
2784	2785	2786	2787	2788	2789
2794	2795	2796	2797	2798	2799
2804	2805	2806	2807	2808	2809
2814	2815	2816	2817	2818	2819
2824	2825	2826	2827	2828	2829
2834	2835	2836	2837	2838	2839
2844	2845	2846	2847	2848	2849
2854	2855	2856	2857	2858	2859
2864	2865	2866	2867	2868	2869
2874	2875	2876	2877	2878	2879
2884	2885	2886	2887	2888	2889
2894	2895	2896	2897	2898	2899

Table B10B.14. MFA-2 Sodium Subchannel Temperatures
at Elevation of Upper Axial Blanket for BOC 10B

[illegible]

BEST AVAILABLE COPY

Table B10B.15. MFA-1 Sodium Subchannel Temperatures at Top of Fuel Pin Bundle for BOC 10B

[illegible]

Table B10B.16. MFA-2 Sodium Subchannel Temperatures
at Top of Fuel Pin Bundle for BOC 10B

TEMPERATURE MAP FOR BUNDLE 52		ASSEMBLY NO. 2507		MFA-2	
AXIAL HEIGHT		92.000 IN			
959	942	943	944	945	946
951	970	970	969	967	964
951	993	997	994	990	986
951	1013	1029	1024	1023	1021
951	1043	1059	1054	1053	1051
951	1079	1095	1090	1089	1087
951	1109	1125	1120	1119	1117
951	1139	1155	1150	1149	1147
951	1169	1185	1180	1179	1177
951	1199	1215	1210	1209	1207
951	1229	1245	1240	1239	1237
951	1259	1275	1270	1269	1267
951	1289	1305	1300	1299	1297
951	1319	1335	1330	1329	1327
951	1349	1365	1360	1359	1357
951	1379	1395	1390	1389	1387
951	1409	1425	1420	1419	1417
951	1439	1455	1450	1449	1447
951	1469	1485	1480	1479	1477
951	1499	1515	1510	1509	1507
951	1529	1545	1540	1539	1537
951	1559	1575	1570	1569	1567
951	1589	1605	1600	1599	1597
951	1619	1635	1630	1629	1627
951	1649	1665	1660	1659	1657
951	1679	1695	1690	1689	1687
951	1709	1725	1720	1719	1717
951	1739	1755	1750	1749	1747
951	1769	1785	1780	1779	1777
951	1799	1815	1810	1809	1807
951	1829	1845	1840	1839	1837
951	1859	1875	1870	1869	1867
951	1889	1905	1900	1899	1897
951	1919	1935	1930	1929	1927
951	1949	1965	1960	1959	1957
951	1979	1995	1990	1989	1987
951	2009	2025	2020	2019	2017
951	2039	2055	2050	2049	2047
951	2069	2085	2080	2079	2077
951	2099	2115	2110	2109	2107
951	2129	2145	2140	2139	2137
951	2159	2175	2170	2169	2167
951	2189	2205	2200	2199	2197
951	2219	2235	2230	2229	2227
951	2249	2265	2260	2259	2257
951	2279	2295	2290	2289	2287
951	2309	2325	2320	2319	2317
951	2339	2355	2350	2349	2347
951	2369	2385	2380	2379	2377
951	2399	2415	2410	2409	2407
951	2429	2445	2440	2439	2437
951	2459	2475	2470	2469	2467
951	2489	2505	2500	2499	2497
951	2519	2535	2530	2529	2527
951	2549	2565	2560	2559	2557
951	2579	2595	2590	2589	2587
951	2609	2625	2620	2619	2617
951	2639	2655	2650	2649	2647
951	2669	2685	2680	2679	2677
951	2699	2715	2710	2709	2707
951	2729	2745	2740	2739	2737
951	2759	2775	2770	2769	2767
951	2789	2805	2800	2799	2797
951	2819	2835	2830	2829	2827
951	2849	2865	2860	2859	2857
951	2879	2895	2890	2889	2887
951	2909	2925	2920	2919	2917
951	2939	2955	2950	2949	2947
951	2969	2985	2980	2979	2977
951	2999	3015	3010	3009	3007
951	3029	3045	3040	3039	3037
951	3059	3075	3070	3069	3067
951	3089	3105	3100	3099	3097
951	3119	3135	3130	3129	3127
951	3149	3165	3160	3159	3157
951	3179	3195	3190	3189	3187
951	3209	3225	3220	3219	3217
951	3239	3255	3250	3249	3247
951	3269	3285	3280	3279	3277
951	3299	3315	3310	3309	3307
951	3329	3345	3340	3339	3337
951	3359	3375	3370	3369	3367
951	3389	3405	3400	3399	3397
951	3419	3435	3430	3429	3427
951	3449	3465	3460	3459	3457
951	3479	3495	3490	3489	3487
951	3509	3525	3520	3519	3517
951	3539	3555	3550	3549	3547
951	3569	3585	3580	3579	3577
951	3599	3615	3610	3609	3607
951	3629	3645	3640	3639	3637
951	3659	3675	3670	3669	3667
951	3689	3705	3700	3699	3697
951	3719	3735	3730	3729	3727
951	3749	3765	3760	3759	3757
951	3779	3795	3790	3789	3787
951	3809	3825	3820	3819	3817
951	3839	3855	3850	3849	3847
951	3869	3885	3880	3879	3877
951	3899	3915	3910	3909	3907
951	3929	3945	3940	3939	3937
951	3959	3975	3970	3969	3967
951	3989	4005	4000	3999	3997
951	4019	4035	4030	4029	4027
951	4049	4065	4060	4059	4057
951	4079	4095	4090	4089	4087
951	4109	4115	4110	4109	4107
951	4119	4115	4110	4109	4107

BEST AVAILABLE COPY

Table E10B.1. Fission Power Generated in MFA-1, MFA-2 and Neighboring Assemblies at EOC 10B

CORE	*****	POWER IN MEGAWATTS		*****
POS.	BELOW CORE	IN CORE	ABOVE CORE	TOTAL PWR
1506	4.147E-02	3.600E+00	3.064E-02	3.672E+00
1404	9.507E-02	4.277E+00	6.009E-02	4.432E+00
1405	0.000E+00	6.248E+00	0.000E+00	6.248E+00
1505	7.608E-03	4.130E+00	6.111E-03	4.143E+00
1507	1.043E-02	3.040E+00	8.763E-03	3.060E+00
1606	7.433E-03	3.351E+00	6.214E-03	3.365E+00
1607	9.673E-03	2.711E+00	8.021E-03	2.729E+00
2507	4.353E-02	3.746E+00	3.353E-02	3.823E+00
2405	1.103E-02	3.904E+00	9.356E-03	3.925E+00
2506	7.814E-03	4.175E+00	6.790E-03	4.190E+00
2508	1.258E-02	4.150E+00	1.046E-02	4.173E+00
2607	8.646E-03	3.251E+00	7.244E-03	3.267E+00
2608	6.043E-03	3.165E+00	5.465E-03	3.176E+00
2609	6.872E-03	3.982E+00	6.211E-03	3.995E+00

Table E10B.2. Assembly Averaged Total Flux for MFA-1 and MFA-2 at EOC 10B

Assembly	Core Pos.	Total Flux (n/cm ² -sec)
MFA-1	1506	2.848E+15
MFA-2	2507	2.948E+15

Table E10B.3. Axial Distribution of Total Flux, Fast Flux and Power in MFA-1 at EOC 10B

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.6556E-02	1.3311E-02	0.0000E+00
-92.78	5.7032E-02	2.5707E-02	0.0000E+00
-87.78	9.1393E-02	4.1152E-02	0.0000E+00
-82.78	1.3221E-01	6.1421E-02	0.0000E+00
-77.78	1.8205E-01	8.8716E-02	0.0000E+00
-72.15	2.3834E-01	1.2408E-01	0.0000E+00
-65.90	2.9425E-01	1.6878E-01	0.0000E+00
-60.35	3.5314E-01	2.2955E-01	4.8073E-02
-55.49	4.3135E-01	3.1083E-01	5.8282E-02
-50.62	5.2237E-01	4.1682E-01	7.3766E-02
-47.17	5.9540E-01	5.1685E-01	9.1281E-02
-43.58	6.7219E-01	6.3005E-01	7.1728E-01
-38.45	7.8345E-01	7.6728E-01	8.0557E-01
-33.32	8.8740E-01	8.8458E-01	9.0324E-01
-28.20	9.7932E-01	9.8288E-01	9.7144E-01
-23.07	1.0577E+00	1.0647E+00	1.0477E+00
-17.94	1.1211E+00	1.1297E+00	1.1097E+00
-12.82	1.1687E+00	1.1777E+00	1.1434E+00
-7.69	1.2005E+00	1.2098E+00	1.1741E+00
-2.56	1.2160E+00	1.2257E+00	1.1892E+00
2.56	1.2150E+00	1.2251E+00	1.1920E+00
7.69	1.1973E+00	1.2078E+00	1.1747E+00
12.82	1.1627E+00	1.1735E+00	1.1409E+00
17.94	1.1114E+00	1.1225E+00	1.1093E+00
23.07	1.0427E+00	1.0526E+00	1.0414E+00
28.20	9.5759E-01	9.6441E-01	9.5755E-01
33.32	8.5765E-01	8.5853E-01	8.8248E-01
38.45	7.4477E-01	7.3329E-01	7.7260E-01
43.58	6.2448E-01	5.8979E-01	6.6739E-01
47.17	5.4275E-01	4.7724E-01	7.4707E-02
50.62	4.6655E-01	3.7967E-01	5.7303E-02
55.49	3.7180E-01	2.7652E-01	4.1724E-02
60.35	2.8787E-01	1.9594E-01	3.0995E-02
64.98	2.3396E-01	1.4764E-01	0.0000E+00
69.39	2.0126E-01	1.2142E-01	0.0000E+00
76.46	1.5393E-01	8.6116E-02	0.0000E+00
86.80	1.0102E-01	5.1935E-02	0.0000E+00
98.14	5.8524E-02	2.8396E-02	0.0000E+00
110.00	2.5111E-02	1.2728E-02	0.0000E+00

Table E10B.4. Axial Distribution of Total Flux, Fast Flux and Power in MFA-2 at EOC 10B

z (cm)	Total Flux	Flux > 0.1 MeV	Power
-97.78	2.4343E-02	1.2478E-02	0.0000E+00
-92.78	5.2264E-02	2.4073E-02	0.0000E+00
-87.78	8.3781E-02	3.8498E-02	0.0000E+00
-82.78	1.2141E-01	5.7431E-02	0.0000E+00
-77.78	1.6797E-01	8.3004E-02	0.0000E+00
-72.15	2.2192E-01	1.1645E-01	0.0000E+00
-65.90	2.7786E-01	1.5972E-01	0.0000E+00
-60.35	3.3789E-01	2.1907E-01	4.8702E-02
-55.49	4.1625E-01	2.9863E-01	5.9101E-02
-50.62	5.0746E-01	4.0350E-01	7.4249E-02
-47.17	5.8144E-01	5.0374E-01	9.1260E-02
-43.58	6.5967E-01	6.1810E-01	7.1220E-01
-38.45	7.7387E-01	7.5769E-01	7.9880E-01
-33.32	8.8079E-01	8.7784E-01	8.9793E-01
-28.20	9.7550E-01	9.7917E-01	9.6699E-01
-23.07	1.0566E+00	1.0639E+00	1.0456E+00
-17.94	1.1226E+00	1.1316E+00	1.1101E+00
-12.82	1.1723E+00	1.1817E+00	1.1448E+00
-7.69	1.2055E+00	1.2151E+00	1.1770E+00
-2.56	1.2216E+00	1.2316E+00	1.1926E+00
2.56	1.2204E+00	1.2307E+00	1.1948E+00
7.69	1.2018E+00	1.2125E+00	1.1766E+00
12.82	1.1661E+00	1.1769E+00	1.1419E+00
17.94	1.1136E+00	1.1243E+00	1.1097E+00
23.07	1.0439E+00	1.0532E+00	1.0409E+00
28.20	9.5798E-01	9.6416E-01	9.5666E-01
33.32	8.5773E-01	8.5803E-01	8.8274E-01
38.45	7.4497E-01	7.3319E-01	7.7482E-01
43.58	6.2503E-01	5.9026E-01	6.7578E-01
47.17	5.4250E-01	4.7582E-01	7.7442E-02
50.62	4.6424E-01	3.7539E-01	5.9987E-02
55.49	3.6663E-01	2.6980E-01	4.4168E-02
60.35	2.8101E-01	1.8885E-01	3.3072E-02
64.98	2.2784E-01	1.4187E-01	0.0000E+00
69.39	1.9574E-01	1.1675E-01	0.0000E+00
76.46	1.4946E-01	8.2926E-02	0.0000E+00
86.80	9.7887E-02	4.9962E-02	0.0000E+00
98.14	5.6532E-02	2.7207E-02	0.0000E+00
110.00	2.3989E-02	1.2054E-02	0.0000E+00

Table E10B.8. Total Flux Distribution by Pin in MFA-2 at EOC 10B

[illegible]

Table E10B.9. MFA-1 and MFA-2 Duct Wall Flux
Greater Than 0.1 MeV at EOC 10B

SIDE	FLUX > 0.1 MEV (n/cm ² -sec)	
	MFA-1	MFA-2
E	1.9156E+15	2.0498E+15
SE	1.6949E+15	2.1040E+15
SW	1.6100E+15	1.9269E+15
W	1.7782E+15	1.6837E+15
NW	2.0340E+15	1.6263E+15
NE	2.0627E+15	1.8024E+15

Table E10B.10. Assembly Outlet Temperatures and
Flow Rates at EOC 10B

CORE POS.	OUTLET TEMP. (DEG F)		FLOW RATE (LB/H)
	MEASURED	CALCULATED	
1506	1016	1019	115440
1404	903	897	228160
1405	1022	1023	188170
1505	902	893	209040
1507	861	842	209040
1606	894	892	171430
1607	866	855	171430
2507	1024	1027	115440
2405	889	881	209060
2506	904	892	209040
2508	909	899	209040
2607	901	889	164410
2608	886	883	171430
2609	937	943	164410

Table E10B.11. MFA-1 Sodium Subchannel Temperatures at Top of Core Elevation for EOC 10B

[illegible]

Table E10B.12. MFA-2 Sodium Subchannel Temperatures at Top of Core Elevation for EOC 10B

[illegible]

Table E108.13. MFA-1 Sodium Subchannel Temperatures at Elevation of Upper Axial Blanket for EOC 108

TEMPERATURE MAP FOR BUNDLE 43		ASSEMBLY NO. 1506		MFA-1															
AXIAL HEIGHT 50.496 IN																			
871		875	878	879	882	886	879	878	858										
899		903	906	907	907	906	905	904	895										
		926	931	934	934	933	932	930	929	931									
		963	976	978	978	976	973	963											
891	509	927	962	990	997	997	997	995	988	966	938	903	867						
		950	1019	1026	1027	1027	1026	1010	995										
894	912	930	975	1019	1034	1037	1038	1037	1034	1020	982	944	908	871					
		999	1036	1040	1050	1051	1050	1040	1037	1004									
895	915	924	981	1029	1048	1054	1055	1055	1054	1050	1032	988	947	911	874				
		1003	1042	1056	1059	1060	1060	1060	1056	1045	1009								
897	917	926	964	1034	1054	1060	1061	1062	1062	1062	1057	1038	992	950	914	877			
		1004	1045	1059	1061	1064	1065	1064	1064	1063	1064	1064	1063						
897	919	941	987	1036	1057	1064	1065	1066	1067	1067	1067	1062	1042	995	951	916	879		
		1007	1048	1062	1067	1068	1068	1069	1070	1071	1068	1064	1045						
897	920	942	986	1038	1060	1067	1069	1070	1070	1071	1072	1072	1066	1045	995	953	917	881	
		1002	1047	1065	1074	1075	1075	1075	1075	1075	1075	1075	1075	1071	1055	1012			
895	918	941	974	1032	1060	1069	1072	1073	1074	1075	1076	1076	1076	1068	1042	988	955	920	883
882	909	936														960	938	915	
892	915	937	974	1033	1062	1072	1074	1075	1076	1077	1078	1079	1080	1080	1077	1060	1018		
		1003	1050	1069	1074	1076	1077	1078	1079	1080	1080	1080	1080	1080	1077	1060	1018		
895	918	941	988	1045	1069	1074	1076	1077	1078	1079	1080	1080	1080	1080	1077	1060	1018		
		1014	1058	1074	1079	1080	1081	1082	1083	1084	1084	1081	1067	1028					
		1019	1062	1078	1083	1085	1086	1086	1086	1086	1083	1070	1031						
890	926	950	1000	1054	1077	1084	1086	1087	1088	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087
		1023	1066	1082	1086	1087	1088	1088	1088	1085	1072	1033							
900	928	951	1003	1057	1074	1085	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087	1087
		1026	1067	1080	1084	1085	1085	1085	1082	1070	1032								
903	929	956	1004	1053	1069	1074	1075	1075	1075	1071	1085	1010	866	868	870				
		1021	1053	1062	1065	1065	1064	1056	1025										
901	928	955	1002	1051	1064	1065	1064	1064	1064	1064	1064	1064	1064	1064	1064	1064	1064	1064	1064
		991	1006	1011	1017	1014	1011	998											
		950	951	955	959	962	965	965	963	950									
920		923	927	930	932	933	934	933											
889		895	897	899	900	901	902	902											

BEST AVAILABLE COPY

N

Table E10B.14. MFA-2 Sodium Subchannel Temperatures
at Elevation of Upper Axial Blanket for EOC 10B

TEMPERATURE MAP FOR BUNDLE 52		ASSEMBLY NO. 2507		MFA-2	
AXIAL HEIGHT		50.476 IN			
925	926	927	928	929	930
931	932	933	934	935	936
937	938	939	940	941	942
943	944	945	946	947	948
949	950	951	952	953	954
955	956	957	958	959	960
961	962	963	964	965	966
967	968	969	970	971	972
973	974	975	976	977	978
979	980	981	982	983	984
985	986	987	988	989	990
991	992	993	994	995	996
997	998	999	1000	1001	1002
1003	1004	1005	1006	1007	1008
1009	1010	1011	1012	1013	1014
1015	1016	1017	1018	1019	1020
1021	1022	1023	1024	1025	1026
1027	1028	1029	1030	1031	1032
1033	1034	1035	1036	1037	1038
1039	1040	1041	1042	1043	1044
1045	1046	1047	1048	1049	1050
1051	1052	1053	1054	1055	1056
1057	1058	1059	1060	1061	1062
1063	1064	1065	1066	1067	1068
1069	1070	1071	1072	1073	1074
1075	1076	1077	1078	1079	1080
1081	1082	1083	1084	1085	1086
1087	1088	1089	1090	1091	1092
1093	1094	1095	1096	1097	1098
1099	1100	1101	1102	1103	1104
1105	1106	1107	1108	1109	1110
1111	1112	1113	1114	1115	1116
1117	1118	1119	1120	1121	1122
1123	1124	1125	1126	1127	1128
1129	1130	1131	1132	1133	1134
1135	1136	1137	1138	1139	1140
1141	1142	1143	1144	1145	1146
1147	1148	1149	1150	1151	1152
1153	1154	1155	1156	1157	1158
1159	1160	1161	1162	1163	1164
1165	1166	1167	1168	1169	1170
1171	1172	1173	1174	1175	1176
1177	1178	1179	1180	1181	1182
1183	1184	1185	1186	1187	1188
1189	1190	1191	1192	1193	1194
1195	1196	1197	1198	1199	1200
1201	1202	1203	1204	1205	1206
1207	1208	1209	1210	1211	1212
1213	1214	1215	1216	1217	1218
1219	1220	1221	1222	1223	1224
1225	1226	1227	1228	1229	1230
1231	1232	1233	1234	1235	1236
1237	1238	1239	1240	1241	1242
1243	1244	1245	1246	1247	1248
1249	1250	1251	1252	1253	1254
1255	1256	1257	1258	1259	1260
1261	1262	1263	1264	1265	1266
1267	1268	1269	1270	1271	1272
1273	1274	1275	1276	1277	1278
1279	1280	1281	1282	1283	1284
1285	1286	1287	1288	1289	1290
1291	1292	1293	1294	1295	1296
1297	1298	1299	1300	1301	1302
1303	1304	1305	1306	1307	1308
1309	1310	1311	1312	1313	1314
1315	1316	1317	1318	1319	1320
1321	1322	1323	1324	1325	1326
1327	1328	1329	1330	1331	1332
1333	1334	1335	1336	1337	1338
1339	1340	1341	1342	1343	1344
1345	1346	1347	1348	1349	1350
1351	1352	1353	1354	1355	1356
1357	1358	1359	1360	1361	1362
1363	1364	1365	1366	1367	1368
1369	1370	1371	1372	1373	1374
1375	1376	1377	1378	1379	1380
1381	1382	1383	1384	1385	1386
1387	1388	1389	1390	1391	1392
1393	1394	1395	1396	1397	1398
1399	1400	1401	1402	1403	1404
1405	1406	1407	1408	1409	1410
1411	1412	1413	1414	1415	1416
1417	1418	1419	1420	1421	1422
1423	1424	1425	1426	1427	1428
1429	1430	1431	1432	1433	1434
1435	1436	1437	1438	1439	1440
1441	1442	1443	1444	1445	1446
1447	1448	1449	1450	1451	1452
1453	1454	1455	1456	1457	1458
1459	1460	1461	1462	1463	1464
1465	1466	1467	1468	1469	1470
1471	1472	1473	1474	1475	1476
1477	1478	1479	1480	1481	1482
1483	1484	1485	1486	1487	1488
1489	1490	1491	1492	1493	1494
1495	1496	1497	1498	1499	1500
1501	1502	1503	1504	1505	1506
1507	1508	1509	1510	1511	1512
1513	1514	1515	1516	1517	1518
1519	1520	1521	1522	1523	1524
1525	1526	1527	1528	1529	1530
1531	1532	1533	1534	1535	1536
1537	1538	1539	1540	1541	1542
1543	1544	1545	1546	1547	1548
1549	1550	1551	1552	1553	1554
1555	1556	1557	1558	1559	1560
1561	1562	1563	1564	1565	1566
1567	1568	1569	1570	1571	1572
1573	1574	1575	1576	1577	1578
1579	1580	1581	1582	1583	1584
1585	1586	1587	1588	1589	1590
1591	1592	1593	1594	1595	1596
1597	1598	1599	1600	1601	1602
1603	1604	1605	1606	1607	1608
1609	1610	1611	1612	1613	1614
1615	1616	1617	1618	1619	1620
1621	1622	1623	1624	1625	1626
1627	1628	1629	1630	1631	1632
1633	1634	1635	1636	1637	1638
1639	1640	1641	1642	1643	1644
1645	1646	1647	1648	1649	1650
1651	1652	1653	1654	1655	1656
1657	1658	1659	1660	1661	1662
1663	1664	1665	1666	1667	1668
1669	1670	1671	1672	1673	1674
1675	1676	1677	1678	1679	1680
1681	1682	1683	1684	1685	1686
1687	1688	1689	1690	1691	1692
1693	1694	1695	1696	1697	1698
1699	1700	1701	1702	1703	1704
1705	1706	1707	1708	1709	1710
1711	1712	1713	1714	1715	1716
1717	1718	1719	1720	1721	1722
1723	1724	1725	1726	1727	1728
1729	1730	1731	1732	1733	1734
1735	1736	1737	1738	1739	1740
1741	1742	1743	1744	1745	1746
1747	1748	1749	1750	1751	1752
1753	1754	1755	1756	1757	1758
1759	1760	1761	1762	1763	1764
1765	1766	1767	1768	1769	1770
1771	1772	1773	1774	1775	1776
1777	1778	1779	1780	1781	1782
1783	1784	1785	1786	1787	1788
1789	1790	1791	1792	1793	1794
1795	1796	1797	1798	1799	1800
1801	1802	1803	1804	1805	1806
1807	1808	1809	1810	1811	1812
1813	1814	1815	1816	1817	1818
1819	1820	1821	1822	1823	1824
1825	1826	1827	1828	1829	1830
1831	1832	1833	1834	1835	1836
1837	1838	1839	1840	1841	1842
1843	1844	1845	1846	1847	1848
1849	1850	1851	1852	1853	1854
1855	1856	1857	1858	1859	1860
1861	1862	1863	1864	1865	1866
1867	1868	1869	1870	1871	1872
1873	1874	1875	1876	1877	1878
1879	1880	1881	1882	1883	1884
1885	1886	1887	1888	1889	1890
1891	1892	1893	1894	1895	1896
1897	1898	1899	1900	1901	1902
1903	1904	1905	1906	1907	1908
1909	1910	1911	1912	1913	1914
1915	1916	1917	1918	1919	1920
1921	1922	1923	1924	1925	1926
1927	1928	1929	1930	1931	1932
1933	1934	1935	1936	1937	1938
1939	1940	1941	1942	1943	1944
1945	1946	1947	1948	1949	1950
1951	1952	1953	1954	1955	1956
1957	1958	1959	1960	1961	1962
1963	1964	1965	1966	1967	1968
1969	1970	1971	1972	1973	1974
1975	1976	1977	1978	1979	1980
1981	1982	1983	1984	1985	1986
1987	1988	1989	1990	1991	1992
1993	1994	1995	1996	1997	1998
1999	2000	2001	2002	2003	2004
2005	2006	2007	2008	2009	2010
2011	2012	2013	2014	2015	2016
2017	2018	2019	2020	2021	2022
2023	2024	2025	2026	2027	2028
2029	2030	2031	2032	2033	2034
2035	2036	2037	2038	2039	2040
2041	2042	2043	2044	2045	2046
2047	2048	2049	2050	2051	2052
2053	2054	2055	2056	2057	2058
2059	2060	2061	2062	2063	2064
2065	2066	2067	2068	2069	2070
2071	2072	2073	2074	2075	2076
2077	2078	2079	2080	2081	2082
2083	2084	2085	2086	2087	2088
2089	2090	2091	2092	2093	2094
2095	2096	2097	2098	2099	2100
2101	2102	2103	2104	2105	2106
2107	2108	2109	2110	2111	2112
2113	2114	2115	2116	2117	2118
2119	2120	2121	2122	2123	2124
2125	2126	2127	2128	2129	2130
2131	2132	2133	2134	2135	2136
2137	2				

Table E10B.16. MFA-2 Sodium Subchannel Temperatures
at Top of Fuel Pin Bundle for EOC 10B

Table E10B.17. Composition of MFA-1 at EOC 10B

Axial Level	Axial Range (cm)		Constituent	Atom Density (a/b-cm)	
	Lower	Upper		Fresh	End of Cycle
1	-100.28	-75.28	Na-23	5.3150E-03	5.3150E-03
			SS-316	6.4090E-02	6.4090E-02
2	-75.28	-62.78	Na-23	1.3177E-02	1.3177E-02
			SS-316	3.4175E-02	3.4175E-02
3	-62.78	-46.14	U-235	1.4143E-05	1.2238E-05
			U-238	7.0573E-03	6.9566E-03
			Pu-239	0.0000E+00	8.8941E-05
			Pu-240	0.0000E+00	1.7886E-06
			FP	0.0000E+00	1.1291E-05
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
4	-46.14	-30.76	U-235	1.0840E-05	9.5078E-06
			U-238	4.4499E-03	4.3731E-03
			Pu-239	1.7520E-03	1.6001E-03
			Pu-240	2.2340E-04	2.5209E-04
			Pu-241	1.9280E-05	2.1258E-05
			Pu-242	4.7430E-06	4.9086E-06
			Am-241	7.6680E-07	1.4957E-06
			FP	0.0000E+00	1.9784E-04
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
5	-30.76	-15.38	U-235	1.0840E-05	9.2007E-06
			U-238	4.4499E-03	4.3525E-03
			Pu-239	1.7520E-03	1.5596E-03
			Pu-240	2.2340E-04	2.5435E-04
			Pu-241	1.9280E-05	2.1405E-05
			Pu-242	4.7430E-06	4.9098E-06
			Am-241	7.6680E-07	1.4732E-06
			FP	0.0000E+00	2.5693E-04
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
6	-15.38	0.00	U-235	1.0840E-05	9.0293E-06
			U-238	4.4499E-03	4.3414E-03
			Pu-239	1.7520E-03	1.5388E-03
			Pu-240	2.2340E-04	2.5720E-04
			Pu-241	1.9280E-05	2.1727E-05
			Pu-242	4.7430E-06	4.9304E-06
			Am-241	7.6680E-07	1.4646E-06
			FP	0.0000E+00	2.8557E-04
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02

7	0.00	15.38	U-235	1.0840E-05	9.0781E-06
			U-238	4.4499E-03	4.3446E-03
			Pu-239	1.7520E-03	1.5446E-03
			Pu-240	2.2340E-04	2.5624E-04
			Pu-241	1.9280E-05	2.1618E-05
			Pu-242	4.7430E-06	4.9231E-06
			Am-241	7.6680E-07	1.4670E-06
			FP	0.0000E+00	2.7762E-04
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
8	15.38	30.76	U-235	1.0840E-05	9.3414E-06
			U-238	4.4499E-03	4.3613E-03
			Pu-239	1.7520E-03	1.5758E-03
			Pu-240	2.2340E-04	2.5158E-04
			Pu-241	1.9280E-05	2.1101E-05
			Pu-242	4.7430E-06	4.8900E-06
			Am-241	7.6680E-07	1.4800E-06
			FP	0.0000E+00	2.3484E-04
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
9	30.76	46.14	U-235	1.0840E-05	9.7206E-06
			U-238	4.4499E-03	4.3858E-03
			Pu-239	1.7520E-03	1.6238E-03
			Pu-240	2.2340E-04	2.4697E-04
			Pu-241	1.9280E-05	2.0681E-05
			Pu-242	4.7430E-06	4.8705E-06
			Am-241	7.6680E-07	1.5038E-06
			FP	0.0000E+00	1.6702E-04
			O-16	1.2670E-02	1.2670E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
10	46.14	62.78	U-235	1.4143E-05	1.2827E-05
			U-238	7.0573E-03	6.9864E-03
			Pu-239	0.0000E+00	6.3300E-05
			Pu-240	0.0000E+00	8.2206E-07
			FP	0.0000E+00	7.6817E-06
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
11	62.78	116.00	Na-23	8.2400E-03	8.2400E-03
			SS-316	2.5562E-02	2.5562E-02

Table E10B.18. Composition of MFA-2 at EOC 10B

Axial Level	Axial Range (cm)		Constituent	Atom Density (a/b-cm)	
	Lower	Upper		Fresh	End of Cycle
1	-100.28	-75.28	Na-23 SS-316	5.3150E-03 6.4090E-02	5.3150E-03 6.4090E-02
2	-75.28	-62.78	Na-23 SS-316	1.3177E-02 3.4175E-02	1.3177E-02 3.4175E-02
3	-62.78	-46.14	U-235 U-238 Pu-239 Pu-240 FP O-16 Na-23 SS-316	1.4143E-05 7.0573E-03 0.0000E+00 0.0000E+00 0.0000E+00 1.4143E-02 9.7416E-03 1.9073E-02	1.2168E-05 6.9539E-03 9.1185E-05 1.9680E-06 1.1653E-05 1.4143E-02 9.7416E-03 1.9073E-02
4	-46.14	-30.76	U-235 U-238 Pu-239 Pu-240 Pu-241 Pu-242 Am-241 FP O-16 Na-23 SS-316	1.0160E-05 4.4270E-03 1.7483E-03 2.2290E-04 1.9040E-05 4.7330E-06 7.5700E-07 0.0000E+00 1.2760E-02 9.8100E-03 1.8990E-02	8.8595E-06 4.3471E-03 1.5916E-03 2.5360E-04 2.1302E-05 4.9107E-06 1.4735E-06 2.0350E-04 1.2760E-02 9.8100E-03 1.8990E-02
5	-30.76	-15.38	U-235 U-238 Pu-239 Pu-240 Pu-241 Pu-242 Am-241 FP O-16 Na-23 SS-316	1.0160E-05 4.4270E-03 1.7483E-03 2.2290E-04 1.9040E-05 4.7330E-06 7.5700E-07 0.0000E+00 1.2760E-02 9.8100E-03 1.8990E-02	8.5513E-06 4.3247E-03 1.5486E-03 2.5621E-04 2.1487E-05 4.9136E-06 1.4501E-06 2.6625E-04 1.2760E-02 9.8100E-03 1.8990E-02
6	-15.38	0.00	U-235 U-238 Pu-239 Pu-240 Pu-241 Pu-242 Am-241 FP O-16 Na-23 SS-316	1.0160E-05 4.4270E-03 1.7483E-03 2.2290E-04 1.9040E-05 4.7330E-06 7.5700E-07 0.0000E+00 1.2760E-02 9.8100E-03 1.8990E-02	8.3739E-06 4.3124E-03 1.5261E-03 2.5941E-04 2.1865E-05 4.9377E-06 1.4404E-06 2.9760E-04 1.2760E-02 9.8100E-03 1.8990E-02

7	0.00	15.38	U-235	1.0160E-05	8.4177E-06
			U-238	4.4270E-03	4.3155E-03
			Pu-239	1.7483E-03	1.5314E-03
			Pu-240	2.2290E-04	2.5850E-04
			Pu-241	1.9040E-05	2.1756E-05
			Pu-242	4.7330E-06	4.9304E-06
			Am-241	7.5700E-07	1.4426E-06
			FP	0.0000E+00	2.9017E-04
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
8	15.38	30.76	U-235	1.0160E-05	8.6688E-06
			U-238	4.4270E-03	4.3327E-03
			Pu-239	1.7483E-03	1.5631E-03
			Pu-240	2.2290E-04	2.5373E-04
			Pu-241	1.9040E-05	2.1205E-05
			Pu-242	4.7330E-06	4.8955E-06
			Am-241	7.5700E-07	1.4559E-06
			FP	0.0000E+00	2.4655E-04
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
9	30.76	46.14	U-235	1.0160E-05	9.0368E-06
			U-238	4.4270E-03	4.3583E-03
			Pu-239	1.7483E-03	1.6125E-03
			Pu-240	2.2290E-04	2.4899E-04
			Pu-241	1.9040E-05	2.0764E-05
			Pu-242	4.7330E-06	4.8756E-06
			Am-241	7.5700E-07	1.4806E-06
			FP	0.0000E+00	1.7654E-04
			O-16	1.2760E-02	1.2760E-02
			Na-23	9.8100E-03	9.8100E-03
			SS-316	1.8990E-02	1.8990E-02
10	46.14	62.78	U-235	1.4143E-05	1.2691E-05
			U-238	7.0573E-03	6.9803E-03
			Pu-239	0.0000E+00	6.8652E-05
			Pu-240	0.0000E+00	1.0361E-06
			FP	0.0000E+00	8.3704E-06
			O-16	1.4143E-02	1.4143E-02
			Na-23	9.7416E-03	9.7416E-03
			SS-316	1.9073E-02	1.9073E-02
11	62.78	116.00	Na-23	8.2400E-03	8.2400E-03
			SS-316	2.5562E-02	2.5562E-02

CHECKLIST FOR INDEPENDENT TECHNICAL REVIEW

DOCUMENT REVIEWED

NUMBER: ~~SM739 JVN 26 010~~ ~~SM739 JVN 26 010~~ WHC-SD-FF-ANAL-009

TITLE: IRRADIATION DATA FOR THE MFA-1 AND MFA 2 TESTS DURING FFTF CYCLES 10A AND 10B

Rev 0

Reviewer(s): R. F. Richard

I. Method(s) of Review

- (✓) Input data checked for accuracy
- (N/A) Independent calculation performed
- (N/A) Hand calculation
- (N/A) Alternate computer code: _____
- (N/A) Comparison to experiment or previous results
- (N/A) Alternate method (define) _____

II. Checklist (either check or enter NA if not applied)

- (✓) Task completely defined
- (✓) Activity consistent with task specification
- (N/A) Necessary assumptions explicitly stated and supported
- (✓) Resources properly identified and referenced
- (✓) Resource documentation appropriate for this application
- (✓) Input data explicitly stated
- (✓) Input data verified to be consistent with original source
- (N/A) Geometric model adequate representation of actual geometry
- (N/A) Material properties appropriate and reasonable
- (N/A) Mathematical derivations checked including dimensional consistency
- (N/A) Hand calculations checked for errors
- (✓) Assumptions explicitly stated and justified
- (N/A) Computer software appropriate for task and used within range of validity
- (N/A) Use of resource outside range of established validity is justified
- (N/A) Software runstreams correct and consistent with results
- (N/A) Software output consistent with input
- (N/A) Results consistent with applicable previous experimental or analytical findings
- (N/A) Results and conclusions address all points and are consistent with task requirements and/or established limits or criteria
- (N/A) Conclusions consistent with analytical results and established limits
- (N/A) Uncertainty assessment appropriate and reasonable
- () Other (define) _____

III. Comments: Data reported is consistent with original data

IV. REVIEWER: R.F. Richard

DATE: 10-4-96

DISTRIBUTION SHEET

To Distribution	From Criticality and Shielding	Page 1 of 1			
		Date October 14, 1996			
Project Title/Work Order Irradiation Data for the MFA-1 and MFA-2 Tests During FFTF CYCLES 10A and 10B		EDT No. 619215			
		ECN No.			
Name	MSIN	Text With All Attach.	Text Only	Attach./ Appendix Only	EDT/ECN Only

Central Files (1 + Original)	A3-88	X			
K. D. Dobbin	H0-35	X			
J. Greenborg	H0-35	X			
J. R. Joiner	E6-28	X			
D. S. Leach	A3-34	X			
J. V. Nelson	H0-35	X			
R. J. Puigh	H0-31	X			
R. F. Richard	H0-35	X			